Understanding Happiness

A theory of subjective well-being

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PART 1  Well-being and distress
A theory of subjective well-being

The aim of this book is to understand what makes for happiness, to set out a theory of subjective well-being. The theory rests largely on evidence from 'quality of life' surveys, which have now been undertaken in most Western industrialised countries. In all surveys the main measures of subjective well-being are self-reports; scales on which people record their own felt levels of life satisfaction, happiness and positive affect (positive moods). The same surveys often include measures of social background, personality, social networks and satisfaction with particular domains of life (marriage satisfaction, job satisfaction, and so on). The purpose of including these measures is to try and account for differences in levels of well-being. A theory of subjective well-being, then, should essentially tell us why some people are happier and more satisfied than others.

A distinctive feature of this book is that our main interest is in well-being and positive emotions rather than stress and negative emotions. Most previous research on mental health has been concerned with illness rather than wellness. This is largely because psychologists, especially clinical psychologists, employ a medical model of humanity. A medical model sees people as either ill (suffering from one or more pathologies) or in normal health. There is less concern with promoting well-being than with curing or relieving pathologies. By contrast, our primary focus is on the sources of subjective or psychological well-being and, in the last chapter, on methods of enhancing well-being.

Nearly all previous quality of life surveys have been one-offs (cross-sectional). They have provided snapshots of the characteristics of relatively happy and unhappy people. The main contributions we have tried to make in studies conducted in Australia, especially the Victorian Quality of Life (VQOL) panel study, relate to an understanding of change. The VQOL study involved interviewing the same panel (initially 942 people) on five occasions in the 1980s—1981, 1983,1985,1987 and 1989. Our basic strategy in the panel study is to get repeated measures of well-being and of personal characteristics potentially related to it. In addition, we ask panel members to complete a life-events inventory on which they record, with the aid of a checklist, the events and experiences that have happened to them in the two years since they were last interviewed. Both potentially favourable events (for example, getting married or job promotion) and adverse events (for example, divorce or job loss) are included. The aim is to understand how people cope with change and how their levels of well-being are affected. We seek to move from the static analysis of previous studies to dynamic analysis.
Well-being research has generated several puzzles which we will try to cast some light on. One is that, with the single exception of black South Africans, all major social groups in all industrialised countries in which quality of life surveys have been undertaken report high levels of well-being. This result has embarrassed previous researchers and they have tried to explain it away. It hardly seemed possible that substantial majorities could be so satisfied with their lives. Instead of considering the possibility of taking the evidence at face value, researchers have concentrated on explaining such variance as there is in people's ratings. We shall try to account for both high average levels and variance in well-being.

A second puzzle is that a fair amount of anxiety and depression, or what is often termed psychological distress, quite clearly coexists alongside high general levels of well-being. Common sense suggests that well-being and psychological distress are direct opposites, that more of one must mean less of the other. Yet we find that a significant minority of people in quality of life surveys report both high levels of life satisfaction and high levels of distress. One explanation, which the evidence does not sustain, is that these people are lying or for some reason misreporting their true feelings. Another explanation, which we are inclined to accept, is that psychological well-being and psychological distress are not true opposites. We will review evidence indicating that they are distinct phenomena, distinct psychological states with distinct correlates and causes.

A third puzzle, which arose in the Australian panel study, was that the same people kept reporting the same life events and experiences. This was unexpected because we, along with most other researchers, were accustomed to regarding life events essentially as external (exogenous) shocks which would be likely to cause change in levels of well-being and distress. But if history just repeats itself there is no reason to expect change. A change in well-being, we eventually realised, only occurs when individuals deviate from their own characteristic pattern of events. The existence of characteristic patterns of events raised follow-up questions. It implied that individuals must have stable (or only slowly changing) personal attributes which predisposed them to experience certain events rather than others. What are these attributes? In the latter part of the book we describe linkages between people's social characteristics and personality traits and the life experiences which happen to them.

The aim of this chapter is to set out a series of propositions about well-being in order to give an overview of the theory. Each proposition will be explained in a paragraph or two with minimal supporting evidence—chapter and verse—come later. Before we embark on the propositions we will say a little more about the concepts of subjective well-being and psychological distress.

First, well-being: when we ask people in surveys how satisfied they are with their lives, the evidence is that they make relatively calm, cognitive judgements about how well their lives are going. In the English language, judgements of life satisfaction are very closely related to judgements of happiness. Somewhat distinct from the concept of life satisfaction is the concept of positive affect (positive moods). Some people report frequently experiencing joyful, elated, 'on top of the world' moods. While there is a fairly strong relationship between life satisfaction and positive affect, the two phenomena are by no means identical. In this book we are mainly interested in life satisfaction and happiness, although we shall at times refer to measures of people's characteristic moods. In referring to psychological distress we mainly have in mind the two most common neuroses, anxiety and depression. Measures of anxiety and depression, related mood states (negative affects) and the somatic and psychosomatic symptoms which accompany these states will be repeatedly invoked. For the moment the reader is asked to take on trust that life satisfaction and positive affect are somewhat distinct aspects of well-being and that psychological distress is still more conceptually and statistically distinct. The evidence is discussed in detail in chapter 3. We now list propositions about well-being and distress. We begin by describing the equilibrium state of well-being, then give propositions about causes of change.
The equilibrium state

**Proposition 1.1**
People strongly desire to experience a high level of well-being. This is a fundamental human goal.

**Proposition 1.2**
Regardless of their 'objective' social and economic conditions, the majority of people report high levels of felt well-being.

The authors of the American Constitution claimed that the pursuit of happiness was a fundamental human right. The English utilitarians, followers of Jeremy Bentham, believed that individuals generally do and governments should organise themselves to achieve the highest possible ratio of pleasure to pain. In public opinion surveys, when people are asked what they most value in life, one of the most common answers is happiness (Abrams et al., 1986; Rokeach, 1973). Furthermore, most people confess to pollsters that they think about how satisfied or happy they are with their lives at least every week if not every day (Dalkey, 1973; Freedman, 1978; Veenhoven, 1984).

The evidence also seems clear that a majority of people feel fairly satisfied with their lives. Scales of well-being typically have end-points which express extremes of satisfaction and dissatisfaction, or happiness and unhappiness, and a midpoint with a label like 'mixed feelings' or 'neutral'. Using these scales, most members of almost all sections of the community in all countries in which quality of life studies have been conducted give themselves ratings above the midpoint. Members of poor and oppressed sections of the community tend to give somewhat lower ratings than better-off or socially advantaged groups but the differences are not great (see chapter 6). The point here is that even people living in the most disadvantaged 'objective' conditions give quite favourable subjective well-being ratings. This is true, for example, of black Americans (Campbell, Converse and Rodgers, 1976; Jackson, Chatters and Neighbours, 1986), black Australians (Australian National Social Science Survey, 1984) and even people who are seriously handicapped, blind or paralysed (Brickman et al., 1978).

**Proposition 1.3**
In any stable life situation, that is, in the absence of recent major life changes, people arrive at an equilibrium state in which their present life is viewed as being almost as satisfying as the life they expect, the best life they could aspire to, the life they feel they deserve and the best previous period of their life. Their present life is regarded as considerably better than the worst previous period of their life and than the life of the average person in the country.

This proposition says that high average levels of well-being can be understood partly by realising that they are nested within a set of perceptions relating to aspirations, expectancies, sense of equity, a sense of what the life of the average person is like and so forth. Human beings construct their world to arrive at a psychologically consistent set of perceptions—an equilibrium state—which supports or bolsters a feeling of well-being.

This equilibrium state is described in detail in chapter 4. We shall see how close most people rate their present life to 'the best life you could realistically hope for' (aspiration level), 'the life you feel you deserve' (sense of equity) and 'the life you expect in about five years time' (expectation level). 'Your life five years ago', 'the life your parents led', 'the life of the average Australian' and 'the worst previous period of your life' get considerably lower ratings than one's present life.
The equilibrium state remains in place until major life changes (marriage, divorce, illness, death, job changes, and so on) alter perceptions of one's present life and increase or decrease the gap between what one has and what one expects, aspires to and feels one deserves.

The surprising relationship between well-being and psychological distress

Proposition 2.1
Despite high average levels of well-being, over 50 per cent of people show a few symptoms of psychological distress, about 15-20 per cent suffer 'non-psychotic disorder' and about 10 per cent are on or above the threshold of neurosis.

To write only about well-being would be one-sided. Despite high average levels of well-being, surveys of community mental health or psychological distress have indicated widespread prevalence of symptoms. The figures quoted in proposition 2.1 are taken from Australian surveys (Henderson et al., 1981). There is moderate international variation in levels of psychological distress but the Australian figures are certainly not unusually high (Argyle, 1987). We shall find that survey respondents themselves often perceive life as both quite satisfying and quite stressful.

The term 'psychological distress' is admittedly somewhat general and is used to cover evidence from scales which measure feelings and psychosomatic symptoms associated with depression and anxiety. It has been shown that more reliable scales, like the General Health Questionnaire, give results which agree quite closely with diagnoses made by clinical psychologists and psychiatrists (Henderson et al., 1981).

Proposition 2.2
Well-being and psychological distress are distinct dimensions, not opposite ends of the same dimension.

It would be natural to think that people who rate high on well-being would report few symptoms of psychological distress, and that people with multiple symptoms would rate low on well-being. In other words, one would suppose that well-being and psychological distress are opposite ends of the same dimension or continuum. The evidence runs against the commonsense view (Bradburn, 1969; Headey, Holmstrom and Wearing, 1984; Watson, Clark and Tellegen, 1988; Watson, 1988). Although a majority fit the commonsense picture, there are two significant minorities: those who rate high on both well-being and psychological distress and those who rate low on both.

Explanations of high average well-being scores

Proposition 3.1
A majority of people explicitly believe that their own performance in most major roles is well above average. This sense of relative superiority is a major prop of subjective well-being.

It is almost a platitude of psychology to say that people attribute more benign motives to themselves than others and rate their own performance in a wide variety of tasks more favourably than the performance of others who, to an outside observer, look to be doing at least as well (for example, Myers, 1980; Sicoly and Ross, 1977; Taylor and Brown, 1988; Weary, 1979, 1980). In our own research we have shown that these findings generalise to
all the roles (for example, spouse, friend, worker) and domains of life that contribute most to well-being. Almost all of us explicitly claim that our own performance in most major roles is above average. Far from suffering inferiority feelings, most human beings feel superior to their fellows. This sense of relative superiority is a major prop to and explanation of the high well-being scores that most people report (Headey and Wearing, 1988).

**Proposition 3.2**
People's life priorities are the same in all Western countries. The seven domains of life most strongly related to well-being are marriage and sex, friendship and leisure, material standard of living, work and health.

**Proposition 3.3**
At least five of the priority domains—marriage and sex, friendship and leisure, and health—are characterised by non-zero sum satisfactions. In these domains everyday pleasures and satisfactions can be obtained while enhancing not subtracting from other people's pleasures and satisfactions. This makes it possible for most people to attain a high level of well-being.

Life priorities seem to be the same throughout the Western world, and perhaps the world over. Whether you ask people directly about their chief priorities (Cantril, 1965; Rokeach, 1973), or whether you rely on statistical associations (Andrews and Inglehart, 1979; Veenhoven, 1984), you find that the domains of life which matter most are marriage and sex, friendships and leisure, material living standards, work and health. In case this seems too obvious, we should add that personal relationships (marriage, friends) are usually rated at least as important as material goods and work. Good health is perhaps just a precondition for satisfaction in other domains.

A striking fact about five of these domains—marriage and sex, friendships and leisure, health—is that more satisfaction for some people does not mean less for others. Benefits are not zero sum; there is not a fixed cake. On the contrary, the best way to enhance one's own pleasure and satisfaction is to contribute to the satisfaction of others. Clearly, the fact that non-zero sum domains are important to well-being makes it possible for most people to enjoy high well-being.

If, by contrast, well-being depended overwhelmingly on comparisons between one's own standard of living and other people's, or on social status or other 'goods' which are distributed competitively, then it would be nearly impossible for everyone to feel well satisfied.

**Proposition 3.4**
Most people really are in a good mood most of the time.

We mentioned earlier that measures of people's characteristic moods (affects) can be regarded as distinct from measures of life satisfaction and happiness. Statistically the two sets of measures are only moderately strongly associated (see chapter 3). If we treat the concepts as distinct, then we could offer the tentative proposition that one reason for self-reports of high levels of life satisfaction / happiness is that most people really are in a good mood most of the time. The best evidence on this matter comes from research at the University of Illinois (Diener and Sandvik, 1987). Small samples or people have been asked to record their moods on a daily basis. Typically, respondents reported positive moods just over 70 per cent of the time. Admittedly these were samples of convenience rather than samples of the general public. It remains a real possibility, however, that research based on national or even international samples will eventually show that most people feel positive most of the time.

**Explanations of the prevalence of moderate levels of psychological distress**
Many if not most people experience some chronic difficulties and daily hassles. They have troubles with their spouse, or one of their children, or money worries, or difficulty sleeping, or a disturbing health problem. At intervals, the burden of these chronic difficulties is greatly added to by a major life crisis: the death of a family member, divorce, serious illness... The twin
propositions offered as accounts of the prevalence of moderate levels of psychological distress are:

**Proposition 4.1**
Most people's lives include some chronic stressors and daily hassles.

**Proposition 4.2**
Almost no-one leads a charmed life, that is, almost no-one avoids experiencing some major adverse events. These at least temporarily increase psychological distress.

Why are some people happier than others?

**Proposition 5.1**
People who perceive small 'gaps' between their present life and the life they expect, aspire to and feel they deserve, rate high on well-being. People who perceive large gaps rate low on well-being.

Despite high average levels, there is same variance in well-being. We commented earlier that most people's equilibrium state—the state they are in most of the time—is one in which there are fairly small gaps between ratings of their present life and die life they expect, aspire to and feel they deserve. It is a straightforward extension of this proposition to say that people who are exceptionally happy report very small gaps, whereas people who rate low on well-being record larger gaps. In other words, in a proximate sense, unhappiness appears to be due to disappointment at the mismatch between one's current life and one's expectations, aspirations and sense of equity. Michalos (1980,1985) has labelled this 'multiple discrepancies theory'.

**Proposition 5.2**
Differences in well-being and psychological distress are partly accounted for by differences in personality. Extraverts report a higher level of well-being and a lower level of psychological distress than introverts. People who rate high on neuroticism report lower levels of well-being and greater psychological distress than people who rate low on neuroticism.

**Proposition 5.3**
Two facets of extraversion which are particularly strongly related to well-being are sociability and interpersonal warmth.

**Proposition 5.4**
People who are sociable and display interpersonal warmth form extensive social networks and enjoy their friendships and leisure more than others. Having extensive social networks is associated with well-being.

**Proposition 5.5**
Neuroticism is not only directly related to well-being, but also accounts for large gaps between perceptions of one's present life and one's expectations, aspirations and sense of equity.

It has always seemed likely that differences in well-being would be partly a result of stable differences in personality. Psychologists have great difficulty, however, in agreeing on the main components of personality. Some psychologists believe that there are just a few major dimensions of personality which can be used to classify people into personality types. Others prefer to measure a variety of more specific traits. The relationships between major dimensions (type measures) and trait measures have always been unclear, not to say confused.
We rely heavily on the approach of the British psychologist, Hans Eysenck (Eysenck and Eysenck, 1964, 1969), as supplemented by two Americans, Paul T. Costa and Robert R. McCrae (1985). Eysenck believes that there are just two major dimensions of personality: extraversion and neuroticism. Costa and McCrae have added a third dimension, openness to experience, and have also estimated relationships between a range of specific traits and the underlying dimensions. They refer to the traits as being 'facets' of extraversion, neuroticism and openness to experience. They have shown that people's scores on both the underlying dimensions and facets are quite stable over time. It is thus reasonable to use their personality measures to help account for differences in states of well-being.

Neuroticism is both directly related to well-being and also helps to account for the size of the gaps between people's expectations, aspirations and sense of just deserts. That is, people who are relatively neurotic rate low on well-being and also perceive large gaps, whereas people who are low on neuroticism (or emotionally stable) perceive small gaps. It is not suggested that the size of the gaps is wholly due to personality and perception. Evidence will be given later that major life events also influence gaps.

Many researchers have reported that extraverts enjoy higher levels of well-being than introverts (Argyle, 1987; Diener, 1984; Eysenck, 1990). Two facets of extraversion which seem particularly strongly implicated are personal warmth and sociability. Other facets of extraversion, notably impulsiveness, seem only weakly related to well-being.

People who are sociable and display warmth tend to make more friends and develop more extensive social networks. This leads them to enjoy their friendships and leisure more than other people. As we have already commented, friendship and leisure satisfaction make a major contribution to an overall sense of well-being.

How can well-being and psychological distress be separate dimensions?

**Proposition 6.1**
It is possible to feel both happy/satisfied and anxious but not happy and depressed.

The first research results indicating that well-being and psychological distress appeared to be distinct dimensions were published twenty years ago by Norman Bradburn (1969). However, partly because these results seemed contrary to common sense and partly because convincing explanations were lacking of how the dimensions could be separate, it has taken a long time for them to be accepted, and indeed some points of dispute remain.

In our view it is important to distinguish between less serious feelings of psychological distress associated with anxiety and more serious levels associated with depression. Most widely used measures of psychological distress and negative affect (including Bradburn's original scale) do not distinguish between anxiety and depression. However, in a recent survey in which we included well validated anxiety and depression scales (Beck et al., 1961; Spielberger, 1979), we found that while life satisfaction and anxiety were only moderately negatively correlated, there was a strong negative relationship between life satisfaction and depression. We infer that while a person may be both satisfied or happy with life and anxious, it is not possible to be both happy and depressed.

**Proposition 6.2**
Feelings can be experienced more or less frequently and more or less intensely. The frequency with which feelings of well-being are experienced is inversely related to frequency of experiencing psychological distress. However people who experience intense feelings of well-being also tend to experience intense distress. The net result is that well-being and psychological distress are generally found to be relatively distinct dimensions.
Diener and colleagues (1984, 1985) have given an account of the mechanisms underlying the finding that well-being and psychological distress (or, we would say, the less serious levels of distress associated with anxiety) are distinct dimensions. According to Diener, common sense is correct in so far as it asserts that a person who frequently experiences feelings of well-being must infrequently experience distress. But intensity of feeling is a quite separate matter. Some people tend to feel all or most emotions intensely and others weakly (Wessman and Ricks, 1966). So people who experience intense feelings of well-being also tend to experience intense feelings of distress, whereas people who feel only mild feelings of well-being also tend to experience only mild distress. When the components of frequency and intensity are combined, as they implicitly are in many standard scales, the result is that well-being and distress appear as distinct dimensions.

Proposition 6.3
Of seven major life domains, satisfaction with friendship and leisure are more closely related to well-being than to psychological distress, whereas health (dis)satisfaction is more closely related to distress. The other four domains—marriage and sex, work and material standard of living—are about equally strongly related to well-being and distress.

Life satisfaction is closely related to (or, one might almost say, composed of) satisfaction with friends and leisure, marriage and/or sex, work, standard of living and health (Headey, Holmstrom and Wearing, 1985). Of these domains friendship and leisure are more highly correlated with well-being than with psychological distress. That is, satisfying friendships and leisure time are associated with a sense of well-being but do not necessarily prevent feelings of distress. Health satisfaction, by contrast, is more related to psychological distress than well-being. Another way of expressing this is that good health is just taken for granted, whereas ill-health is a serious burden. The other major domains—marriage and sex, standard of living and work—are almost equally related to well-being and distress.

Proposition 6.4
Extraversion is more strongly related to well-being than to psychological distress, whereas neuroticism is more strongly related to distress.

Proposition 6.5
Type I people: are extraverted and non-neurotic, rate high on well-being and low on psychological distress.

Proposition 6.6
Type II people: are introverted and relatively neurotic, rate low on well-being and high on psychological distress.

Proposition 6.7
Type III people: are extraverted and neurotic, rate high on well-being and high on psychological distress.

Proposition 6.8
Type IV people: are introverted but relatively non-neurotic, rate low on well-being and low on psychological distress.

Diener (1984) has given an account of the mechanisms by which well-being and distress emerge as separate dimensions. Somewhat earlier Costa and McCrae (1980) had shown that a more underlying explanation was that extraversion is much more strongly related to well-being than to distress, whereas neuroticism is somewhat more strongly related to distress. Extrapolating from their results it is possible to conceive of four personality types. Type I people (happy), being extraverted and non-neurotic, rate high on well-being and low on distress. Type II
(unhappy) are just the reverse. The surprising types are III and IV. Type III (volatile) being extraverted and neurotic, score high on both well-being and psychological distress. Type IV (phlegmatic) score low on measures of both well-being and distress.

These four personality types are fairly easy to recognise in daily life (at least in extreme cases) and postulating their existence further helps to clarify how well-being and distress come to be separate dimensions. We should note that, since levels of extraversion and neuroticism are known to be very stable over time (Block, 1981; Costa and McCrae, 1985), individual 'membership' of the four types is also bound to be stable.

The four types will figure prominently in later analysis as we seek to account for change in levels of well-being and distress.

Stability and change: the dynamics of well-being

The previous propositions rest on static analysis; they seek to account for average levels and are also for differences in well-being and psychological distress. We now try to understand dynamics; the causes and processes of change. A preliminary step is to assess just how much change typically occurs in well-being and psychological distress. Our first two dynamic propositions are:

**Proposition 7.1**
Well-being and psychological distress are moderately stable. People who are happier at one point in time are likely to be happier at later times. Similarly, people who are relatively distressed in one period are likely to be distressed in later periods.

**Proposition 7.2**
Nevertheless, considerable change can occur in individuals' levels of well-being and psychological distress. So it is reasonable to regard well-being and psychological distress scales as state measures rather than measures of entirely stable traits.

Stability

The stable personality traits of extraversion and neuroticism are leading candidates to account for the degree of stability in well-being and psychological distress. Previously we have seen that they are correlated cross-sectionally with well-being and psychological distress. Analysis of the Australian panel data further shows that extraversion and neuroticism measured in our first survey quite satisfactorily predict panel members' scores on well-being and psychological distress in all subsequent surveys.

**Proposition 8.1**
Persistent differences in well-being and psychological distress are due to stable personality traits, especially extraversion and neuroticism. As a result of these traits each person experiences levels of well-being and psychological distress which may be regarded as his or her own normal equilibrium levels.

**Proposition 8.2**
Type I people have high equilibrium levels of well-being and low equilibrium levels of psychological distress. Type II are just the reverse. Type III have high equilibrium levels of both well-being and psychological distress, while Type IV have low equilibrium levels.
History repeats itself

So much for stability. How can we account for the degree of change in well-being and psychological distress? The obvious potential causes of change are major life events, both of a potentially favourable kind and a potentially adverse kind. Such life events are usually thought of as external shocks (in social science jargon as exogenous shocks), which might be expected to disturb previous equilibrium states of well-being and psychological distress. However, in reviewing the panel data, we ourselves got a shock.

Proposition 9.1
Over the years the same people tend to keep experiencing the same life events. Each person may be said to experience his or her own normal equilibrium pattern of life events.

Recovering slowly from this shock, we tried to find out which particular life events and experiences tend to be repeated. It transpired that friendship related experiences, work experiences and experiences to do with one's standard of living and finances are particularly recurrent. To give examples, the same people kept telling us that they had made lots of new friends; that a friendship with someone of the opposite sex became closer; that they had been promoted at work, sacked or laid off. Some family and marital experiences also appear recurrent, including serious trouble or arguments with one's children and difficulties with one's spouse or partner. Of course other family related events like divorce and the death of one's spouse were, in the nature of things, unlikely to be repeated in successive time periods.

A dynamic equilibrium model

So history repeats itself in people's lives. This suggest that events must be partly due to stable personal characteristics. Applying the principle with which the film Casablanca ends—round up the usual suspects—we thought that extraversion and neuroticism might be implicated. They were. It also proved to be the case that another personality trait, openness to feelings (Costa and McCrae, 1985), and a person's age substantially affect patterns of life events. Type I, Type II, Type III and Type IV people experience quite different patterns of events...

Proposition 10.1
Type I people: rate high on extraversion and low on neuroticism, experience many favourable and few adverse events.

Proposition 10.2
Type II people; rate low on extraversion and high on neuroticism, experience few favourable and many adverse events.

Proposition 10.3
Type III people: rate high on both extraversion and neuroticism, experience many favourable and many adverse events.

Proposition 10.4
Type IV people: rate low on both extraversion and neuroticism, experience few favourable and few adverse events.

Proposition 10.5
Other things (especially extraversion and neuroticism) being equal, younger adults and people who rate high on the openness to feelings trait experience both more favourable and more adverse events than older people and people who rate low on the openness trait.
We now integrate what we have discovered about the linkages between personality, life events, well-being and psychological distress into a dynamic equilibrium model.

**Proposition 11.1**
Personality, life events, well-being and psychological distress are in dynamic equilibrium. That is, over time they tend to remain in the same balance relative to each other. Stable personality performs a key equilibrating function, tending always to pull events, well-being and psychological distress back to their equilibrium level.

When life events influence well-being and psychological distress—and when they don't

The Australian panel data clearly show that life events can have an impact on well-being and psychological distress. But if history repeats itself in people's lives, why should this be so? Why should a person's level of well-being or psychological distress change, if he or she just repeats the pattern of events experienced in previous years? The answer appears to be that if, in a given time period, a person reproduces his or her equilibrium pattern of events exactly, then no change occurs. But if, due to the actions of others, to good fortune or misfortune, a person deviates from his or her own equilibrium pattern, then changes in well-being or psychological distress are the result. Unusually favourable events enhance well-being and unusually adverse events increase psychological distress.

**Proposition 12.1**
Recent life events can influence current levels of well-being and psychological distress over and above the influence of stable personality traits.

**Proposition 12.2**
However, provided that no change occurs in a person's equilibrium pattern of life events, well-being and psychological distress remain unchanged. Personal characteristics, events, well-being and psychological distress remain in dynamic equilibrium.

**Proposition 12.3**
Deviations from a person's equilibrium levels of well-being and psychological distress occur when he or she deviates from his or her equilibrium pattern of events. Unusually favourable events enhance well-being and unusually adverse events increase psychological distress.

It has sometimes been suggested that people can only briefly become more happy or more distressed, because in the face of favourable events they soon raise their expectations and in the face of adverse events they lower expectations (Brickman and Campbell, 1971; Brickman, Coates and Janoff-Bulman, 1978). The result is that the gap between expectations and assessments of one's current life remains about the same. In a sense we are all on an hedonic treadmill; it is not possible to become much happier or more distressed.

The Australian data offer no support for the treadmill hypothesis. The evidence is that events occurring over a two year period have no effect on expectations but do change assessments of one's current life.

**Proposition 13.1**
A mechanism by which events affect well-being is by changing the gap between assessments of one's current life and expectations for the future. Favourable events reduce the gap, while adverse events increase it. In the short term (two years or less) gap changes are entirely due to changes in assessments of one's current life and not to changes in expectations.
The effects of ageing

Proposition 14.1
As people get older they move into stages of the family and career cycle in which fewer major life events happen. This minimises change in well-being and distress.

Proposition 14.2
Adolescence and young adulthood are a period of fairly low life satisfaction and of high positive and high negative affect. Life is very up and down, very volatile. It is both pleasurable and stressful.

Proposition 14.3
There is no systematic evidence that middle aged people typically experience a mid-life crisis. Levels of life satisfaction, job satisfaction and marriage satisfaction do not generally fall when people are in their forties (or early forties).

Proposition 14.4
For most people old age is a satisfying period of life but one of relatively low positive and low negative affect. Satisfactions come especially from increased leisure, contentment with the local environment, and a relatively benign view of oneself and other people.

We have seen that lots of favourable events and lots of adverse events happen to young people. As people get older, even by middle age, they are reaching stages of the family life cycle and the career cycle in which fewer major events happen. This is not to say that nothing happens. Retirement from work is a major change and health changes are normally greater as one ages. Still, the relative paucity of major life events in later years minimises changes in well-being and psychological distress. As we commented earlier, history repeats itself in the lives of most people, but as they get older the waves get smaller.

Age differences in well-being and psychological distress are interesting in part because research does not confirm conventional wisdom. Adolescence, student years and young adulthood, often thought of as 'the happiest years of your life', are periods of relatively low life satisfaction. Young people experience high levels of both positive and negative affect; life is very up and down.

There has been much written recently about the 'mid-life crisis' which allegedly affects people in their early forties with devastating effects on life satisfaction and satisfaction with one's current partner and job. Evidence of the occurrence of these crises comes primarily from studies based on in-depth interviews with small samples of middle class Americans (for example Levinson, 1978; Vaillant, 1977). Survey studies in several countries, including the USA and Australia, have found no decline in satisfaction when people are in their forties, so there seems little reason to believe that crises at this age are more common than at other times.

Finally, and also somewhat counter-intuitively, it appears that old age, far from being a period of decline and depression, is for most people a fairly satisfying time. Contrary to casual impressions, most elderly people are not frail. Their health is reasonably good and they gain satisfaction from increased leisure and more time to spend with relatives and friends. In contrast to young people, the elderly experience low levels of both positive and negative affect. Life is on a fairly even keel.
Concluding propositions

**Proposition 15.1**
Type I people are extraverted and emotionally stable. Most years they experience many favourable and few adverse events. They have high levels of well-being and low levels of psychological distress.

**Proposition 15.2**
Type II people are introverted and neurotic. Most years they experience few favourable and many adverse events. They have low levels of well-being and high levels of distress.

**Proposition 15.3**
Type III people are extraverted and neurotic. Most years they experience many favourable and many adverse events. They have high levels of well-being and high levels of distress.

**Proposition 15.4**
Type IV people are introverted and emotionally stable. Most years they experience few favourable and few adverse events. They have low levels of well-being and low levels of distress.

**Proposition 15.5**
At any point in time a person's well-being is a result of his or her level of extraversion and neuroticism plus deviation from his or her normal pattern of favourable and adverse events.

The final propositions summarise evidence relating to both the stable personal characteristics which normally determine a person's level of well-being, and life events which can cause well-being to change. One way to do this is to think again of four types of person.

Type I people are extraverted and emotionally stable and, as a consequence, are predisposed to experience many favourable and few adverse events. They enjoy high levels of well-being. Type II people, having just the opposite personality characteristics, experience mainly adverse events and have low levels of well-being. The counter-intuitive types are III and IV. Type III, being extraverted and neurotic are predisposed to experience many favourable and many adverse events of all kinds. They rate high on well-being and on psychological distress. Type IV people experience few events of either kind and rate low on both well-being and distress.

Of course the life events one experiences are far from being entirely due to personality. They are also due to other people's actions and to chance. So, in any given time period, a person may deviate from his or her normal pattern of events. When more favourable events than usual happen, well-being increases. When unusually adverse events happen well-being declines. In the longer term a person can be expected to revert to his or her normal pattern of events and normal level of well-being.

**Notes**

1. The distinction between state and trait measures, while clear in principle, has caused a great deal of practical difficulty in psychology. Trait measures (for example, personality measures) are assumed to be stable over time, whereas state measures (for example, well-being and distress) refer to a recent time period and are assumed to be less stable. For a recent review of issues in the state-trait controversy, see Fridhandler (1986).

2. Costa and McCrae (1985) suggest that the facet of extraversion which they label positive emotion is also closely related to well-being. A difficulty here is that presumed trait measures of positive emotion are in practice very hard to distinguish from presumed state measures of positive affect.

3. A contrary view, denying the significance of the frequency-intensity distinction is given by Watson (1988). This dispute is discussed in chapter 3.
2

Well-being, psychological distress
and the Australian Quality of Life
Panel Study

On the face of it questions about well-being—about life satisfaction and happiness—should be
of central interest to psychologists and other social scientists. In fact, although reams have been
written about job satisfaction and marriage satisfaction, it would be true to say that until recently
social scientists have shied away from questions like 'Why are some people more satisfied with
life than others?' and 'What makes people happy?' These questions have perhaps seemed too
general, somehow embarrassing, not quite academically respectable, best left to pop
psychologists, theologians and perhaps philosophers. Furthermore, there was a widespread
belief, indeed there still is, that you can't measure happiness. The concept seemed too diffuse,
too multi-faceted. In recent years the situation has changed quite markedly. Research on well-
being has burgeoned in both sociology, where it is usually labelled quality of life (QOL)
research, and in psychology, where the phrase 'the psychology of happiness' has some currency
(Argyle, 1987). Furthermore, satisfactorily valid measures have been developed (reviewed in
chapter 3) which enable us to group people according to their levels of well-being.

Research on psychological distress has a much longer history. Clinical psychologists need to
treat depressed and anxious clients and much has been written about the symptoms, causes and
treatment of these common neuroses. In the last twenty years or so, epidemiologists, using
survey methods, have mapped the prevalence of depression and anxiety and tried to discover
which sections of the community are most and least at risk and why. In recent years the stress
and coping paradigm has come to the fore, with researchers asking how people cope with
stressful episodes in their lives and which coping strategies are more or less effective in
minimising distress.

The purpose of this chapter is to review the main thrusts of recent research in order to set the
context for developing the theory of well-being set out in this book. We also describe the
Australian/ Victorian Quality of Life Panel Study (1981-89) which provides a good deal of the
evidence underlying the theory.

I Social indicators and quality of life (QOL) research

In the 1970s, prodded by social scientists, the United States Government, the UK Government,
the Organisation of Economic Co-operation and Development (OECD) and various other
national and international organisations became interested in developing and using social
indicators which would serve the same function in monitoring progress or regress in social
policy areas as economic indicators (growth in GNP, the consumer price index, and so on) do for
economic policy. The idea was that governments would measure trends in social conditions—in
health, housing, leisure, the environment and so forth—in the same way as they already measure
economic trends. It was quite reasonably pointed out that the quality of life of a country should
not be equated with its GNP, and that by measuring economic progress while not making an
equal effort to measure social progress or regress, governments were perhaps induced to pursue
inappropriate priorities. Social and psychological man/woman matters as much as economic
man/woman.

The first social indicators to be developed were so-called 'objective' indicators. Examples
included housing indicators like number of persons per room (a measure of overcrowding),
health indicators relating to illness and mortality, and environmental indicators relating to levels
of pollution. It was then pointed out that as well as knowing about the objective conditions under
which people live, we (governments and social scientists) might also want to know how satisfied
or dissatisfied people are with government programmes and services, with aspects of their
personal lives and indeed with their lives-as-a-whole. This line of argument led to the
development of subjective social indicators based on sample surveys.

Quality of life surveys, embodying research on subjective indicators, were pioneered at the
University of Michigan (Andrews and Withey, 1976; Campbell, Converse and Rodgers, 1976),
although similar work was going on in Scandinavia (Allardt, 1973) and Britain (Abrams, 1973;
Hall, 1976). The Michigan researchers, and their followers, made big strides in developing
reliable and valid measures of well-being (see chapter 3), in assessing which domains of life
(family life, work, leisure, and so on) are most strongly related to well-being and in comparing
the satisfactions and dissatisfactions of different sections of the community. Among other things
they showed that differences in levels of well-being between social groups—higher and lower
income groups, men and women, old and young, blacks and whites—were much smaller than
might have been expected and that disadvantaged groups were apparently not all that
dissatisfied.

In the Australian/Victorian panel shady we draw heavily on the Michigan research tradition,
particularly in describing the equilibrium state of well-being.

II Research on positive and negative affects or moods

Beside studying satisfaction levels, another way to assess people's sense of well-being is to study
their characteristic moods or affects. In the late 1960s Norman M. Bradburn of the University of
Chicago collected evidence from samples of the American public about the moods they had
experienced 'during the last few weeks'. He made the remarkable discovery that people who
reported lots of positive affects (joy, elation, and so on) were neither more nor less likely than
others to report lots of negative affects (Bradburn, 1969). In statistical language positive affect
and negative affect were uncorrelated. This was remarkable because hitherto it had been
assumed that people could be thought of as characteristically happy or unhappy, that people
who experienced a great deal of positive affect would experience little negative affect and vice-
versa. Subsequent research has largely confirmed Bradburn's results (but see below). The
opposite of positive affect is not negative affect, but dullness or sluggishness. The opposite of
negative affect is calmness, relaxation (Warr, 1978; Warr, Barter and Brownbridge, 1983;
Watson and Tellegen, 1985).

Given that positive affect and negative affect are different dimensions, one would expect
them to have somewhat separate correlates and causes. Bradburn suggested that positive affect is
produced by active participation in social activities. Negative affect is associated with ill-health
and with marital and sexual problems (Bradburn, 1969). More fundamentally, Costa and McCrae
(1980) showed that positive affect is associated with the personality trait of extraversion, while
negative affect is associated with the trait of neuroticism. Since these two personality traits are
stable over a person's lifetime, it follows that characteristic moods (affects) tend not to change
all that much, although of course major life events and day-by-day experiences can produce
significant fluctuations (Costa and McCrae, 1980,1984).
Two current controversies in mood research have implications for the measurement of well-being and psychological distress. One is whether mood at time of interview influences the reports of life satisfaction sufficiently to render the reports invalid. Are people's statements about how satisfied they are with their present lives really just readings of current mood? (Diener, 1984; Strack and Schwarz, 1989; Veenhoven, 1984, 1989). A second issue is whether, in measuring positive and negative affects, it is useful to distinguish between the frequency and the intensity with which moods are experienced. Diener has reported results indicating that if one measures only frequencies, then positive affect and negative affect are inversely related (Diener, 1984; Diener et al., 1985a). Watson, by contrast, has affirmed Bradburn's original view with evidence that the two dimensions are virtually uncorrelated whether the focus be on frequencies or intensities (Watson, Clark and Tellegen, 1988; Watson, 1988). These controversies will be reviewed in chapter 3.

III Research on psychological distress

Academic specialisation being what it is, there has been a strong tendency for social scientists who write about well-being to ignore the work of those who write about psychological distress and vice-versa. Yet clearly we would expect some overlap as well as (following Bradburn) some differences between the causes of well-being and the causes of distress.

We are using the term 'psychological distress' as a generic concept. Other terms which used to have wider currency are mental health or, its opposite, mental illness. Community surveys of psychological distress focus mainly on the two most common neuroses, depression and anxiety. Measures of distress include not only attempts to measure depression, anxiety and related affects directly, but also scales to assess somatic and psychosomatic symptoms (difficulty in sleeping, nervous sweating, shortness of breath, and so on) which often accompany these affects. In our review in chapter 3 we shall find that people who score high on some measures tend to score high on all. For survey research purposes it often makes sense to use the generic concept of psychological distress, although a clinician of course requires more detail and needs to know which particular neuroses (or psychoses) a client is suffering from.

The first community surveys of psychological distress were designed to assess the prevalence of symptoms and discover which groups in the community (for example, lower income people and women) suffered most (Gurin et al., 1960; Hollingshead and Redlich, 1958; Srole et al., 1962). Subsequently a major focus of interest became the impact of adverse life events (death in the family, ill-health, divorce, job loss, and so on) on psychological distress (for example, Dohrenwend, 1973; Paykel et al., 1969). Attempts were made to discover whether people with certain personality traits (for example, high self-esteem and internal locus of control) or with high levels of social support are less distressed than others following adverse events and experiences. The controversy over whether social support in particular buffers the impact of adversity is far from resolved (Berkman and Syme, 1979; Brown and Harris, 1978; Henderson et al., 1981; Thoits, 1982; Wethington and Kessler, 1986). Evidence from the Australian panel study casts some light on this controversy, as well as on the characteristics of people who are more rather than less likely to experience different kinds of adversity. We shall also, however, be interested to see what kinds of people tend to experience favourable life events (job promotions, improved health and fitness, improved social relationships, and so on) and with what consequences.

A relatively new area of research on psychological distress involves analysis of the coping strategies which people use to deal with adverse events. In other words, instead of just asking about the distress occasioned by adverse events, and whether personal attributes (personality traits, social support, and so on) buffer the impact of adversity, one may further ask which specific strategies people use to deal with different kinds of adversity (problem-solving strategies, avoidance and denial strategies or whatever) and which strategies are effective in
minimising distress (Antonovsky, 1979; Folkman et al., 1986; Holahan and Moos, 1986; Lazarus and Folkman, 1984; Pearlin and Schooler, 1978; Roth and Cohen, 1986).

One may also investigate questions about whether different kinds of people (more or less educated people, men and women, extraverts and introverts) use different kinds of strategies and about whether people have stable coping styles or whether they tend to select different strategies to deal with different problems.  

The Australian/Victorian Quality of Life Panel Study 1981-89

In developing a theory of well-being we have drawn heavily on insights and findings from the three areas of research just described. We also draw extensively on the Australian/Victorian Quality of Life Panel Study (VQOL) which we have been conducting since 1981. The central question posed in the VQOL panel study is: 'What causes change in people's levels of well-being?'

A panel study is one in which the same survey respondents are interviewed at successive points in time in order to assess change. The essence of a panel design is to ask the same people the same questions in the same sequence in order to measure change as accurately as possible.

We began the VQOL study in 1981 with a representative sample of 942 people in Australia's most densely populated State, Victoria. Panel members have been interviewed again in 1983, 1985, 1987 and 1989. Our basic strategy for measuring change is to ask the same questions about well-being and psychological distress at each wave of interviews and then, essentially, to try and understand the causes of change by asking respondents what has happened to them since they were last interviewed. They tell us this by completing a 'life events inventory' which is a long list of about ninety events (for example, job promotion, unemployment, marriage, divorce, new leisure activities, a religious conversion) which may have happened in their lives in the two-year period since the previous interview. They tell us which events happened and when, how satisfying or distressing the experiences were and, in some cases, what kinds of coping strategies they used to deal with resultant stress (more detail below).

The reason for focussing on change is a desire to understand the causes of well-being and psychological distress. To understand causation requires an understanding of change. After all, when we say that A is a cause of B, we mean, among other things, that a change in A (or the occurrence of A, where A is a life event) subsequently produces a change in B. So in order to establish causation one has to establish the time sequence in which changes occur. One has to know that change in B was subsequent and not prior to change in B. The way to establish time sequence is to take repeated measures, to conduct a longitudinal or panel study.

Most previous studies of well-being, prior to the VQOL study, had been cross-sectional studies, that is, studies based on evidence collected at one point in time. Cross-sectional studies are perfectly adequate for showing statistical associations between measures but they are of limited value for establishing causation. With the VQOL data, for example, we can investigate relationships between personal characteristics (for example, personality traits) measured at one point in time and the subsequent occurrence of particular kinds of adverse life events. We can see that the same kinds of adversity keep happening to the same people, and with the same consequences; that history repeats itself in many people's lives. Evidence of this kind is simply not available without panel data.

In designing the VQOL study, and specifically in writing the questionnaire, we sought to integrate concepts and measures taken from the three fields of research previously described.

Social indicators and QOL research
Measures of well-being and satisfaction with particular domains of life (job, leisure, friendship, and so on) are drawn from the subjective social indicators literature. In particular we have used
Andrews and Withey's (1976) Life-as-a-whole index and their indices of domain satisfactions. These measures are described in detail in chapter 3.

Positive and negative affects
Bradburn's (1969) scales of Positive Affect and Negative Affect, which are measures of characteristic moods, were included. These too are described in chapter 3. Ideally mood research should be based on frequent (daily) and random recording of moods. Plainly this was not possible in the VQOL study. There is some evidence, however, that survey reports of characteristic moods are reasonably reliable (Diener and Larsen, 1984).

Psychological distress
Measures of psychological distress included in the VQOL study, in addition to the Negative Affect Scale, are the General Health Questionnaire (Goldberg, 1978), the Beck Depression Inventory (Beck, 1976) and Spielberger's State Anxiety Scale (Spielberger, 1979).

Research on psychological distress has benefitted greatly from the construction of life events inventories, pioneered by Holmes and Rahe (1967). The inventory used in VQOL is an expanded version of the List of Recent Experiences (Henderson et al., 1981).

In addition to measures drawn from the four relevant research literatures we also included measures of social background, personality traits and social support.

Social background, personality and social support
Social background variables include measures of occupational status, family income, education, country of birth, religious affiliation, sex, age and marital status. Personality measures include: the Eysenck Personality Inventory Form B (Eysenck and Eysenck, 1964) which comprises extraversion, neuroticism and a lie scale; facets of extraversion and openness to experience from the NEO Inventory (Costa and McCrae, 1985); a personal competence scale (Campbell et al., 1976); a self-esteem scale (Rosenberg, 1965); Type A personality and Kobasa's Hardiness scale. Measures of social support, all drawn from Henderson et al. (1981), include availability of allies, friends and intimate attachment.

The panel 1981-89
Panel members were selected in 1981 in order to provide a representative sample of Victoria's population, which currently stands at 4 million. The sample was drawn in consultation with the State Government (which partly funded the study) by selecting local government areas which were representative of Victoria, particularly with regard to socio-economic status and urban-rural balance. Four of the six areas selected are in the capital city, Melbourne (2.5 million population). Camberwell is an upper-middle-class area, Moorabbin could be described as middle-middle-class and Brunswick and Northcote are working-class areas with large immigrant populations. Ballarat, a provincial city with a population of about 50000, was selected to provide representation of non-metropolitan centres which play an important role in the State's economy. The final sub-sample was drawn from four rural shires around Echuca in the north of the State. Interviewing was conducted by Reark Research Ltd, a well respected social and market research company, based in Melbourne.

The initial sample size was 942. Sample members were aged between 18 and 65, since we took the view that it would be unwise to include older people in a study which was intended to run for a decade. Within the local government areas, panel members were selected according to rigorous stratified probability sampling procedures, using a Kish grid to select one individual at random from each designated household (Kish, 1965). By matching the demographic characteristics of panel members to census information about the demographic characteristics of
the local government areas, we were able to confirm that the panel was an accurate representative sample, particularly with regard to income, education, occupation, age and marital status. Women were somewhat overrepresented, but not seriously so (women 54 per cent, men 46 per cent).

Subsequent interviews with panel members have taken place in 1983, 1985, 1987 and 1989. We kept in touch with members and sought to retain their interest with regular study reports. We also routinely requested change of address information. House movers were usually traced and interviewed, regardless of where they moved within Australia. Between 1981 and 1989 over 350 panel members moved. Despite our efforts, panel loss was inevitably fairly substantial. By 1989, 502 people remained in the panel. Slightly above average drop-out rates occurred among young and lower socio-economic status people who are exceptionally mobile. This is what usually happens in panel studies (Kessler and Greenberg, 1981). Even so, evidence relating to average scores (means) and distributions (variances) of the main measures used in the survey suggests that panel loss had little effect on survey results.\(^3\)

However, leaving aside technical considerations, it would be quite incorrect to claim that the 502 remaining panel members were by 1989 strictly representative of Victoria's population. They were representative in 1981, but by 1989 they were really just 502 people drawn from the normal (as opposed to clinical or institutionalised) population who had been kind enough to give us five interviews. We would certainly argue that precise statistical representativeness scarcely matters at all for the long-term purposes of this study. We are interested in the causes of change in well-being and distress. This involves looking at relationships, at statistical associations (correlations, regression coefficients, and so on) among variables. Precise or even imprecise estimation of mean scores is not involved—we are not trying to forecast election results!

Questions about the causes of well-being and distress are questions about human nature, or at least questions about Western man or woman in the second half of this century. From this standpoint the fact that our panel is Australian is just happenstance. Any sample of approximately 500 people from the Western world would probably have done equally well.

Conclusion

The VQOL study is an attempt to integrate findings from three fields of research, three academic specialisations which have tended to go their own way in sealed boxes. In trying to develop a theory of subjective well-being one cannot afford to be a specialist. Nor can we afford to rely only on results from our own study. We draw heavily on research done in the United States and, to a lesser extent, in Europe. Hopefully the panel study makes some useful contributions but it should be clear that the aim of this book is to set out a theory with supporting evidence, not simply report Australian data.

The next chapter concludes the preliminaries by discussing how well-being and distress are measured and the extent to which they are related (or unrelated) to each other.

Notes

1 Evidence from the Australian panel study (not reported in the book) suggests that coping strategies which involve use of problem-solving in a context of social support can be effective in minimising distress. Avoidance and denial strategies are, of course, ineffective (Headey and Wearing, 1990).

2 In the 1985 and 1987 surveys we also included a coping strategies inventory (Moos et al., 1984). The aim was to see which coping strategies were most and least effective in minimising the impact of adverse life experiences on psychological well-being and distress.

3 Average scores (means) and variances for all variables (except age and socio-economic status) have remained virtually constant over the five waves of the survey.
You can't measure happiness or can you?

Common sense perhaps suggests that 'you can't measure happiness'. Social scientists used to agree; textbooks used to cite happiness, love and hope for the future as things that could never be measured in surveys. Nowadays many social scientists think that well-being can be measured in a sufficiently valid way to enable us to make comparisons between different groups or sections of the community and to test hypotheses about why some individuals experience a greater sense of well-being than others.

A practical aim of this chapter is to decide first on valid measures of well-being and psychological distress to be used in the rest of the book. The measures we choose will in fact be composite indices based on the specific scales we are about to describe. Secondly, we need to review the long-running debate about whether well-being and psychological distress should be regarded as distinct dimensions (that is, more of one does not necessarily mean less of the other), or whether indeed it is useful to distinguish a third or even a fourth dimension. A final task is to summarise evidence about the reliability and validity of survey measures. Technical as this task is, it cannot be avoided in view of widespread scepticism about the possibility of valid measurement.

It may be helpful at the outset to say where we stand in the conceptual debate about the number of dimensions which need to be measured. We conceive of two main dimensions which can, for particular purposes, each be split into two sub-dimensions. The main dimensions can be labelled subjective or psychological well-being and psychological distress. Sub-dimensions of well-being are two: life satisfaction or happiness (virtually identical in the English language), and positive affect. Ratings on life satisfaction and happiness represent relatively calm, cognitive judgements about how well one's life is going, whereas ratings on positive affect scales reflect one's characteristic moods or affects. Sub-dimensions of psychological distress are the two most common neuroses: anxiety and depression (psychotic states cannot be conveniently measured in surveys and so are not discussed in this book). We regard the distinction between anxiety and depression as fairly borderline. People who are anxious are often depressed and vice-versa. So we have no strong objection to widely used survey measures of negative affect and somatic symptoms which combine indicators of anxiety and depression. It transpires, however, that by distinguishing between anxiety and depression we are able to cast light on the otherwise puzzling relationship between the main dimensions. It appears that, while one can be both satisfied with life and anxious, it is rare indeed to find people who report being both satisfied and depressed. Figure 3.1 sets out a hierarchy of relationships between main dimensions, sub-dimensions and survey measures.
In the following pages we give reasons for distinguishing these dimensions and sub-dimensions. We begin by listing the measures of well-being and psychological distress included in the Australian (VQOL) panel surveys. We then examine correlations among these measures and report the results of statistical analyses (factor analyses) designed to explore the dimensionality issue further.

Measuring well-being and psychological distress

Virtually all the measures of well-being and psychological distress used by social scientists are self-reports. We do not play psychiatrist and make our own diagnoses. Well-being is a subjective state and it appears that, using well designed scales, people can validly report their own felt levels. Others' observations and reports can sometimes be used as a check on self-reports but it seems unlikely that, in general, other people could gauge a person's level of well-being more accurately than the person him or herself. It makes little sense to say that a person's subjective level of well-being is such and such, but that the 'objective' state is something else.

Of course some scales for measuring subjective well-being are better designed, more reliable and valid than others.

Measures of well-being

Life-as-a-whole index

The life-as-a-whole index (Andrews and Withey, 1976) is derived by twice asking respondents, 'How do you feel about your life-as-a-whole?' and averaging the results. The two administrations

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**Figure 3.1** Main dimensions, sub-dimensions, measures
of this question should normally be separated by at least fifteen minutes of other survey questions, so that there is little chance that respondents will remember their first answer and simply repeat it. The response scale used in the Australian panel surveys was a 9 point delighted-terrible scale. This was expanded from the 7 point scale developed by Andrews and Withey because they found that responses bunched too much at points 4 to 7 on the original scale. On the cards shown to respondents each point was labelled to clarify the meaning of responses and increase the consistency with which the scale was used.

In our survey the two life-as-a-whole questions were embedded among other questions asking about levels of satisfaction with many specific domains of life (work, family, leisure, health, and so on). The intention was that as a result of answering questions about numerous domains prior to answering about life-as-a-whole, people would be induced to provide well-considered, reliable responses. We find that a comparison between the two sets of responses to the life-as-a-whole questions shows that about 90 per cent of people answer at the same or at adjacent points on the scale on each occasion. This provides evidence of the measure's short-term reliability or stability.

**Figure 3.2** The delighted-terrible scale
Life fulfillment index

A second measure of well-being used in the Australian panel survey is also based on the delighted-terrible scale. This is the life fulfillment index which is constructed by combining answers to four items asking 'How do you feel about "the sense of purpose and meaning in your life?"', "how exciting your life is?", "the extent to which you are achieving success and getting ahead in life?" and "what you are accomplishing in life?". People's answers to these questions are highly intercorrelated (all correlations are over 0.4). The advantage of combining the items into a multi-item index (here as elsewhere) is that the index is more reliable, it reflects a more stable, consistent pattern of response than one could expect from a single item to which some people's responses would inevitably be idiosyncratic.

Satisfaction with life scale (SWLS)

A reliable five item measure, recently developed by Diener and his colleagues, is the satisfaction with life scale. This is based on a 7 point scale, the ends of which are labelled 'strongly agree' and 'strongly disagree', and which includes items like, 'in most ways my life is close to my ideal' and 'the conditions of my life are excellent'. This scale was not available earlier but was included in the 1987 and 1989 VQOL surveys.

0-10 happy scale

Several widely used scales ask directly about happiness, Perhaps the most valuable of these have been developed by Michael W. Fordyce, a psychologist from Florida. In 1987 we included in the Australian panel survey the most straightforward of his scales which runs from 0 ('extremely unhappy') to 10 ('extremely happy'). Despite being a single item, this scale appears to be reasonably reliable and shows a high degree of agreement with the results of other well-being scales (Larsen, Diener and Emmons, 1985).

Positive affect scale

People's reports of their recent or characteristic moods show only a moderate relationship with more cognitive measures of life satisfaction and happiness. Bradburn's positive affect scale (1969) asks, 'During the last few weeks did you ever feel..."particularly excited or interested in something?", "proud because someone complimented you on something you had done?", "pleased about having accomplished something?", "on top of the world?", "that things were going your way?". These questions are just answered yes or no and the five answers combined to form a scale or index.

Measures of psychological distress

When social scientists refer to psychological distress or 'community mental health', they usually say that they have in mind the two most common neuroses: anxiety and depression. However, the most widely used survey scales do not measure anxiety and depression separately. Instead, they cover a range of negative affects (for example, boredom and loneliness as well as anxiety and depression) and/or somatic symptoms (for example, sleeplessness, upset stomach) which accompany these affects.

Negative affect scale

Bradburn's negative affect scale, invariably administered in conjunction with the positive affect scale, consists of five yes-no items asking 'During the last few weeks did you ever feel..."particularly excited or interested in something?", "proud because someone complimented you on something you had done?", "pleased about having accomplished something?", "on top of the world?", "that things were going your way?". These questions are just answered yes or no and the five answers combined to form a scale or index.
"so restless you couldn't sit long in a chair?", "very lonely or remote from other people?", "bored?", "depressed or very unhappy?", "upset because someone criticised you?"."^{6}

This scale is quick to administer, it is widely used and it correlates strongly with other more elaborate measures of psychological distress, as well as with other variables of interest (for example, personality measures and measures of adverse life events).

**General health questionnaire (GHQ)**

Perhaps the most widely used measure of psychological distress is the GHQ. In Australian surveys we have employed a short 12 item version which has been shown to be adequately reliable (Henderson et al., 1981).^{7} This questionnaire mainly focusses on somatic symptoms and negative affects. Typical items ask whether respondents have 'felt constantly under strain?', 'been thinking of yourself as a worthless person?', 'lost much sleep over worry?'

**Beck depression inventory (BDI)**

Measures which directly assess depression and anxiety tend to be too long and perhaps too intrusive (or offensive) for inclusion in general surveys. The best known measure of depression is the BDI which was added to the 1987 and 1989 surveys. A typical item to be answered in a multiple choice format is:

0 I am not particularly pessimistic or discouraged about the future.
1 I feel discouraged about the future.
2 I feel I have nothing to look forward to.
3 I feel that I won't ever get over my troubles.
4 I feel that the future is hopeless and that things cannot improve.

**Spielberger's state anxiety scale**

Also included in the 1987 and 1989 surveys was an index intended to measure people's current level or state of anxiety. This index comprised eight items to be answered on a 4 point scale running from 'not at all' to 'very much'. Typical items were 'I am tense', 'I feel upset', 'I feel nervous'.^{9}

**Well-being and psychological distress: dimensions and sub-dimensions**

Common sense suggests that well-being and psychological distress are opposite ends of the same pole or dimension. That is, one might expect that people who scored high on measures of well-being would score low on measures of psychological distress, and vice-versa. In fact, although a majority of people fit the commonsense picture, a large minority give themselves scores which are surprising either because they rate high on both well-being and psychological distress, or low on both. So most social scientists have gradually become convinced that it is better to treat well-being and psychological distress as separate concepts, separate dimensions and search for their potentially separate correlates and causes.

It would be misleading to imply, however, that there is a consensus. Some social scientists cling to belief in a single dimension (Grichting, 1983; Kamman et al., 1979; Stones and Kozma, 1985). Others (for example, Andrews and McKennell, 1980; Argyle, 1987) distinguish three dimensions—life satisfaction, positive affect and negative affect—while we prefer to speak of two main dimensions—well-being and psychological distress—each of which can be regarded as having a pair of sub-dimensions.

How does one resolve issues of this kind? There are two main approaches. One is to examine correlations among measures which their authors claim measure various dimensions or sub-dimensions and see if one can detect any underlying dimensions—any patterns, any sets of measures which run together and seem distinct from other sets. There are various statistical techniques to assist the search for underlying dimensions, the most common being factor
A second approach, a construct validity approach, is based on the view that it only makes sense to regard well-being, psychological distress and anything else as separate dimensions if they can be shown to have separate correlates and causes. So one tests hypotheses about potentially distinct sets of correlates. Only the first approach is used in this chapter. In a sense, most of the rest of the book, which involves looking at the correlates and causes of well-being and psychological distress, implements the construct validity approach.

Tables 3.1 and 3.2, which should be read together, give preliminary evidence supporting the view that well-being and psychological distress should be regarded as the two main dimensions.

**Table 3.1** Correlations among (A) measures of well-being (WB) and (B) measures of psychological distress (PD)

<table>
<thead>
<tr>
<th>(A) WB Measures</th>
<th>(B) PD Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAW</td>
<td>Negative affect</td>
</tr>
<tr>
<td>.78</td>
<td>.48</td>
</tr>
<tr>
<td>.67</td>
<td>.65</td>
</tr>
<tr>
<td>Life fulfillment</td>
<td>GHQ</td>
</tr>
<tr>
<td>.58</td>
<td>.42</td>
</tr>
<tr>
<td>SWLS</td>
<td>BDI</td>
</tr>
<tr>
<td>Positive affect</td>
<td>Anxiety</td>
</tr>
</tbody>
</table>

LAW = Life-as-a-whole index; SWLS = Satisfaction-with-life scale; 0-10 happy = Fordyce's 0-10 happy scale; GHQ = General health questionnaire; BDI = Beck depression inventory; Anxiety = Spielberger state anxiety scale.

On the left of table 3.1 are correlations among the measures of well-being mentioned earlier in the chapter. On the right are correlations among measures of psychological distress. The high correlations among the five measures of well-being (average = 0.55) suggest that, at a rather general level, they appear to be measuring the same underlying dimension. However, notice that the correlations among the first four measures, dealing with feelings about life-as-a-whole, life fulfillment, life satisfaction and happiness are particularly high (average = 0.62), whereas the correlations between these measures and positive affect (average = 0.41) are considerably lower. This suggests two inferences. First, it indicates that positive affect should be regarded as a distinct sub-dimension of well-being. Second, it indicates that, for practical purposes, the first four scales are all measuring the same sub-dimension, which may be termed life satisfaction. It is worth commenting here that the survey results show that, in the English language, the word happiness means much the same as 'life satisfaction'. This confirms previous analyses by Andrews and McKennell (1980) and runs counter to earlier speculation by Bradburn (1969) that happiness is the balance between positive and negative feelings. The second part of table 3.1 shows correlations among psychological distress measures (average = 0.46). This suggests a
single underlying main dimension. No sub-dimensions are immediately obvious (however, for reasons given later, we believe this 'obvious' conclusion is somewhat misleading).

Table 3.2 shows correlations between well-being measures on the one hand and psychological distress measures on the other. Within the set of well-being measures the table also distinguishes between the life satisfaction sub-dimension and the positive affect sub-dimension.

**Table 3.2** Correlations between well-being (WB) and psychological distress (PD) measures

<table>
<thead>
<tr>
<th>WB Measures</th>
<th>PD Measures</th>
<th>Negative affect</th>
<th>GHQ</th>
<th>BDI</th>
<th>Anxiety</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life satisfaction</td>
<td></td>
<td>Negative affect</td>
<td>GHQ</td>
<td>BDI</td>
<td>Anxiety</td>
</tr>
<tr>
<td>LAW</td>
<td>-.40</td>
<td>-.50</td>
<td>-.43</td>
<td>-.33</td>
<td></td>
</tr>
<tr>
<td>Life fulfillment</td>
<td>-.36</td>
<td>-.50</td>
<td>-.41</td>
<td>-.31</td>
<td></td>
</tr>
<tr>
<td>SWLS</td>
<td>-.40</td>
<td>-.45</td>
<td>-.42</td>
<td>-.30</td>
<td></td>
</tr>
<tr>
<td>0-10 Happy</td>
<td>-.38</td>
<td>-.46</td>
<td>-.49</td>
<td>-.23</td>
<td></td>
</tr>
<tr>
<td>Positive affect</td>
<td>-.16</td>
<td>-.30</td>
<td>-.25</td>
<td>-.17</td>
<td></td>
</tr>
</tbody>
</table>


LAW = Life-as-whole index;
SWLS = Satisfaction-with-life scale;
0-10 happy = Fordyce's 0-10 happy scale;
GHQ = General health questionnaire;
BDI = Beck depression inventory;
Anxiety = Spielberger state anxiety scale.

It can be seen that there is a fairly clear separation between the well-being and the psychological distress dimensions. The average of the sixteen correlations between life satisfaction (happiness) measures and psychological distress measures is -0.40. This is a moderate correlation and indicates that people who score high on life satisfaction are only somewhat more likely than others to score low on psychological distress. The correlations between positive affect and psychological distress measures are even lower (average=-0.22), indicating that people who characteristically report positive moods are not much less likely than others also to experience feelings of psychological distress.

Examining correlations is really only a preliminary step. To explore the dimensionality issue more carefully we now summarise factor analyses of both the well-being and psychological distress scales and of the items (the individual survey questions) which make up the scales. The factor analysis of scales will confirm the presence of two main dimensions. The item analysis will point towards the need to distinguish sub-dimensions.

Factor analysis is a method of seeking or confirming underlying dimensions beneath a set of correlations. It makes sense to employ factor analysis when one believes that all or most of one's
measures really describe a smaller number of more basic dimensions. Put slightly differently, factor analysis is a search for simple structure. An ideal simple structure has been found if each measure has a high loading on just one factor (dimension) and a loading close to zero on all other factors (Factor loadings can be thought of as correlations between underlying factors or dimensions and the particular measures in question. They range between +1 and -1).

Table 3.3 Factor analysis of well-being (WB) and psychological distress (PD) measures

<table>
<thead>
<tr>
<th>WB factor</th>
<th>PD factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAW</td>
<td>.83</td>
</tr>
<tr>
<td>Life fulfillment</td>
<td>.83</td>
</tr>
<tr>
<td>SWLS</td>
<td>.72</td>
</tr>
<tr>
<td>Positive affect</td>
<td>.71</td>
</tr>
<tr>
<td>0-10 Happy</td>
<td>.65</td>
</tr>
<tr>
<td>Anxiety</td>
<td>.13</td>
</tr>
<tr>
<td>BDI</td>
<td>-.18</td>
</tr>
<tr>
<td>Negative affect</td>
<td>-.18</td>
</tr>
<tr>
<td>GHQ</td>
<td>-.44</td>
</tr>
</tbody>
</table>

1 This was the factor pattern matrix after an oblimin rotation. Only two factors had eigenvalues over 1.0. They accounted for 63 per cent of the variance (50.2 per cent and 12.8 per cent respectively). The factors were correlated -0.43. The results shown exclude the GHQ. If the GHQ is included it has the factor loadings shown in parentheses.

LAW = Life-as-whole index;
SWLS = Satisfaction-with-life scale;
0-10 happy = Fordyce's 0-10 happy scale;
GHQ = General health questionnaire;
BDI = Beck depression inventory;
Anxiety = Spielberger state anxiety scale.

The well-being measures have been arranged in descending order according to how strongly they load on the well-being factor and the psychological distress measures have been similarly arranged on the psychological distress factor. The analysis shows two distinct factors. All well-being measures load strongly on their own factor and have weak loadings on psychological distress. The psychological distress measures all clearly load on their own factor, except the general health questionnaire (GHQ), which loads almost as highly on well-being as on psychological distress. On this basis the GHQ is clearly unsatisfactory for use in any study in which it is important to distinguish between well-being and psychological distress. In retrospect we can see why. It contains some items which, on the face, are hard to distinguish from well-being items (for example, 'Been feeling reasonably happy, all things considered' and 'Felt that you are playing a useful part in things').

The analysis in table 3.3 is not detailed enough to explore the possibility of sub-dimensions of well-being and psychological distress. To do this we conducted separate factor analyses of the items in the well-being scales and the items in the psychological distress scales (Headey and
Wearing, 1989). First the well-being items; two clear factors emerged. All the items in the life-as-a-whole, life fulfillment, satisfaction with life and 0-10 happy scales loaded strongly on a factor which we labelled life satisfaction. The second factor was labelled positive affect because all five items in the positive affect scale loaded strongly on it. We infer that life satisfaction and positive affect form distinct sub-dimensions of well-being.

The analysis of psychological distress items proved much less straightforward. Inclusion of all items resulted in an uninterpretable series of factors. The problem, we believe, lies at a conceptual level. Generalised psychological distress measures, whether they comprise negative affect items, symptoms items, or both, are not specifically designed to measure the extent to which people are suffering from one particular neurosis at either a clinical or sub-clinical level. In practice, however, the only two neuroses which are common enough to make analysis of data from a general population survey worthwhile, are anxiety and depression. It seems reasonable to suggest that, in studies in which it is considered important to distinguish between different dimensions of psychological distress, the measures of choice should specifically relate to anxiety and depression.

Following this line of thinking, we subjected the eight items of the anxiety scale and the nine items measuring feelings of depression in the BDI to further analysis. As expected two clear factors—anxiety and depression—emerged (Headey, Kelley and Wearing, forthcoming).

Resolving a paradox: estimating 'true' correlations among life satisfaction, positive affect, anxiety and depression

A great deal of light is thrown on the apparently paradoxical relationship between well-being and psychological distress if we now seek to estimate the 'true' correlations among the four sub-dimensions. This is done by adjusting the observed correlations among our indices for differences in measurement reliability. In figure 3.3 the estimated true correlations are shown (observed correlations in parentheses).

Figure 3.3 Estimates 'true' correlations among sub-dimensions of WB and PD

The reliability estimates (Cronbach alphas) used to disattenuate the observed correlations were: life satisfaction 0.92, positive affect 0.64, depression 0.82 and anxiety 0.85.

As expected, the two sub-dimensions of well-being prove to be highly correlated, as do the sub-dimensions of psychological distress. The major insight is that life satisfaction and depression are strongly negatively correlated (-0.59), whereas life satisfaction and anxiety are...
only moderately negatively correlated (-0.39). This indicates that, while a person can be both satisfied or happy with life and anxious, he or she is much less likely to be both satisfied and depressed.

This result helps to resolve the puzzle which has troubled all researchers concerning the weak relationships between most measures of well-being and psychological distress. Depression is a more serious condition than anxiety, so it makes sense that depression and life satisfaction are scarcely compatible. The degree of independence between well-being and psychological distress measures can now be seen to be due to anxiety items and to generalised negative affect and somatic symptom items, which predominate in most psychological distress measures.

A further point of considerable interest is that depression, as well as anxiety, is apparently not incompatible with high levels of positive affect. It seems that a person may be quite depressed and/ or anxious but may at the same time report high positive affect scores.

But what exactly is meant by 'high' positive affect scores or by 'high' anxiety and depression scores? A second finding that probably helps to explain the otherwise puzzling relationship between well-being and psychological distress has been reported by Diener (Diener, 1984; Diener, Larsen, Levine and Emmons, 1985). He makes a distinction between the frequency with which positive and negative affects are experienced and their intensity. His results indicate that, as common sense perhaps suggests, the more frequently one experiences positive affects, the less frequently one experiences negative affects. But people who experience positive affects intensely also tend to experience negative affects intensely. So if a researcher uses conventional measures of positive and negative affect, for example the Bradburn scales, which make no distinction between frequency and intensity, then something close to a zero correlation will be found. That is, the negative correlation between frequencies will be cancelled out by the positive correlation between intensities.

Diener's results have been challenged by Watson (Watson, Clark and Tellegen, 1988; Watson, 1988). The dispute is both conceptual and technical. At a conceptual level Watson believes that Diener's results are based on an inappropriate sampling of adjectives describing positive and negative affects. At a technical level he believes that Diener has selected an inappropriate factor analysis solution. In our view Diener is likely to prove at least partly correct. We are unimpressed by assertions that one factor solution is right and another is wrong. Diener's distinction between frequency and intensity of affect makes good sense, particularly as individual differences in intensity of affect seem to rest on the personality trait of openness to experience (Costa and McCrae, 1985). We think it very plausible to assert that some people tend to experience all feelings rather intensely, whereas others experience all feelings mildly.

Constructing composite indices of well-being and psychological distress

In the light of the factor analyses and of the estimated 'true' correlations among sub-dimensions, we are now in a position to construct reliable composite indices to serve as outcome measures (dependent variables) for the rest of the book.

Life satisfaction (4) index
This index gives equal weight to the four scales which loaded on the life satisfaction factor: Life-as-a-whole, life fulfillment, SWLS and 0-10 happy. It can only be used in cross-sectional analyses of the 1987 and 1989 data, since the last two scales were not included in earlier surveys. For analysis of change in part 3 of the book we therefore need an additional index based on the two scales included in all waves between 1981 and 1989.
Life satisfaction (2) index
This index gives equal weight to life-as-a-whole and life fulfillment.\(17\)

Positive affect scale
The Bradburn scale is the sole available measure of positive affect in the Australian surveys.

Anxiety
Spielberger's state anxiety scale serves.

BDI
The BDI serves as our measure of depression.

The last two scales were included only in the 1987 and 1989 survey. For analysis of change in psychological distress between 1981 and 1989 we shall use:

Negative affect scale
As noted, this scale covers a range of negative affects related to both anxiety and depression.

Finally in cross-sectional analyses of the 1987 and 1989 data, when we want a highly reliable measure, and where the distinction between anxiety and depression is empirically unimportant, we shall use:

Psychological distress (3) index
This index gives equal weight to anxiety, the BDI and negative affect.\(18\)

Assessing the reliability and validity of well-being and psychological distress measures

Are the measures of well-being and psychological distress used in this book credible? Can we really believe the results of hour long interviews, conducted in a person's living room, in which a trained interviewer asks several hundred survey questions, including questions designed to assess levels of well-being and psychological distress?

Technically, to deal with these issues, we have to assess the reliability and validity of well-being and psychological distress measures. Reliability refers to the extent to which measures are consistent and repeatable. Validity refers to the extent to which we measure the concept we really intend to measure and not something else.

First, some background points which bear on these issues. The large majority of people tell us (in surveys) that they think about how happy or satisfied they are with their lives at least every week if not every day (Dalkey, 1973; Veenhoven, 1984). So when we ask them to rate their well-being on simple survey scales we are just asking them to provide a numerical record of feelings they frequently experience. This is quite different from the situation in many market research surveys, or surveys of social and political issues. Such surveys are criticised, sometimes rightly, for inducing people to provide answers to questions which they almost never think about and on which they do not genuinely have opinions. In contrast, there is every reason to believe that most people genuinely have an opinion about how happy, satisfied, depressed or anxious they are. A pointer to this is the speed with which questions are usually answered. Typically questions of the kind described in this chapter are answered within a few seconds. Psychologists usually consider that quick response times indicate that 'real' attitudes are being tapped.

To claim that people genuinely have attitudes or feelings relating to well-being and psychological distress does not of course mean that they are able to give reliable and valid
reports; it only means that they can get to the starting line. One possibility which researchers who study well-being are forced to confront whenever they present results to a sceptical audience is that in responding to surveys people just lie about their levels of well-being and psychological distress. Or, a little more subtly, they may just want to put a brave face on things, to present a smiling, socially desirable image to the world (social desirability bias).

The usual way of checking whether respondents lie or supply socially desirable answers is to include a lie or social desirability scale (in practice they are very similar) in one's survey. Typical items to assess social desirability bias are, 'I am always courteous, even to people who are disagreeable' and 'Do you sometimes boast a little?' The test is to see whether answers to items like these correlate with scores on the measures under review. When this is done with well-being and psychological distress measures the correlations are sufficiently low to cause little concern. Another way of making this point is that if one throws out of the sample respondents who score high on social desirability scales, one's estimates of average well-being and psychological distress scores, and relationships between well-being, psychological distress and other variables are scarcely affected (Andrews and Withey, 1976; Campbell et al., 1976; Larsen, Diener and Emmons, 1985). Lying in surveys is really the least of our worries.

We now move to more technical assessment of the reliability of well-being and psychological distress measures. The two most commonly used methods of assessing reliability are to examine the internal consistency of people's answers to the items (questions) which make up the measure and to see whether approximately the same results are obtained when the measure is repeated after an interval long enough for people to have forgotten their previous answers (test-retest reliability). In broad terms, although with a few caveats, all the measures listed in this chapter pass the standard reliability tests (Andrews and Withey, 1976; Larsen, Diener and Emmons, 1985).

A difficult issue is whether people's reports of well-being and psychological distress are strongly influenced by passing moods. If they are, then our measures may be regarded as too unreliable for it to be worth using them as a basis for exploring causes and consequences of happiness and distress. The evidence on mood effects is, on the surface, somewhat contradictory. A German psychologist, Norbert Schwarz, has shown that in experimental situations it is possible to alter people's well-being reports quite a lot, depending on the weather, the comfort of the room, whether they just found a coin, or whether their soccer team just won or lost (Strack and Schwarz, 1989). But in non-experimental or 'natural' situations it seems that well-being reports are quite stable. Evidence from Diener and his colleagues is convincing on this point. They have obtained well-being and psychological distress (positive affect and negative affect) reports from the same people every day for six to eight weeks. In some of their studies measures are taken when beepers go off at random intervals (experience sampling methodology). It transpires that people's moods are rather stable both over time and in different situations (Diener and Larsen, 1984). On balance we conclude that, in any given survey, most people's reports will reflect their normal level of well-being and psychological distress (A few people, however, will just be reporting the soccer scores).

Turning now to issues of validity, how can we assess whether well-being and psychological distress scales measure what they are supposed to measure and not something else? The simplest criterion of validity is content validity. A measure should look and read as if it deals with the concept it is supposed to cover, and nothing else. Well-being and psychological distress measures should surely deal with people's feelings about life-as-a-whole or their characteristic moods. All the measures described in this chapter do one or the other. However some researchers have proposed measures which deal with specific domains of life (for example, measures of satisfaction with family life or work) or which might assess personality (for example, feelings of self-esteem or personal competence). In our view, personality traits and domain satisfactions should be regarded as possible determinants (or, in the case of domains, perhaps as consequences) of well-being and psychological distress and not confused with the concepts themselves.
A second way of assessing validity is to examine statistical relationships among a set of measures which are all intended to measure the same concept (convergent validity). If one or two measures in the whole set have weak relationships with the rest, then they are probably measuring something else or measuring the core concept quite badly. Earlier in this chapter we carried out a small convergent validity test and shown that the presumed measures of life satisfaction and happiness are highly intercorrelated, as are the presumed measures of psychological distress. More elaborate studies have also concluded that the measures listed above show high convergent validity when compared with other possible measures (Andrews and Withey, 1976; Larsen, Diener and Emmons, 1985).

So far the evidence we have reviewed is all self-report survey evidence. Ideally it is desirable to establish external validity, to check one's evidence against some source outside surveys. In some areas of research this is fairly straightforward. For example, health reports can be checked against health records. In the case of well-being and distress reports, the difficulty is that presumably nobody knows as well as the person him or herself how happy or distressed he or she is. Nevertheless, the issue is important because people in different social or personal circumstances (for example, recently married or recently bereaved) may have different implicit standards (for example, different expectations of what is possible or desirable) which make their answers to survey questions non-comparable. It is also likely that, to some degree, people respond to scales in different ways so that, for example, some always use the extremes and others the middle of a scale, even though their real feelings are not sharply different.

Although it is extremely difficult to conceive of validation evidence that does not depend on surveys or interviews of some sort, we can obtain corroborative evidence not based on self-reports. Several studies have involved comparisons between self-reports of well-being and psychological distress and ratings given by respondents' spouses and close friends (Andrews and Withey, 1976; Diener, 1989). These ratings have agreed quite well (been highly correlated) with respondents' own ratings. Spouses, not surprisingly, guess better than friends.

Comparisons between self-reports and psychologists' ratings are also of great interest. The argument is sometimes made that people cannot accurately tell us how satisfied or distressed they are, or accurately report their moods, because they employ sub-conscious defence mechanisms which blind them to their own feelings. With this possibility in mind several researchers have arranged for in-depth interviews and/or psychiatric examinations to be conducted by trained psychologists or psychiatrists (Headey, Holmstrom and Wearing, 1982; NSW Health Commission, 1979; Henderson et al., 1981; Vaillant, 1977). The purpose of these studies was, so to speak, to penetrate the defense mechanisms and see whether professional assessments differed from self-reports. In general, but with individual exceptions, a high degree of agreement was found between the two kinds of evidence.

Conclusion

The distinction between well-being and psychological distress is central to this book. Contrary perhaps to common sense, it appears that they are distinct dimensions, not opposite ends of the same dimension. Life satisfaction (which is apparently synonymous with happiness in normal English usage) and positive affect are distinguishable but moderately correlated sub-dimensions of well-being. Anxiety and depression are distinguishable and more strongly related sub-dimensions of psychological distress. The overall relationship between well-being and psychological distress is clarified by finding that, while depression has a strong inverse relationship with life satisfaction, anxiety does not. A person may be both satisfied with life and simultaneously rather anxious about things. But few people report both general life satisfaction and depression.

In subsequent chapters we will, for some purposes, use the composite and highly reliable indices of life satisfaction and psychological distress developed in this chapter. However, we will present separate results for life satisfaction and positive affect, and also for anxiety and...
depression, where analysis indicates that the sub-dimensions have distinctive relationships with other variables of interest—with social background, personality traits, social networks and reports of life events and experiences.

Notes

1. Correlations between the two administrations in our surveys have ranged between 0.6 and 0.7.
2. This scale has been referred to as the self-fulfillment scale in previous publications.
3. Cronbach's alpha (1989) = 0.91.
4. Cronbach's alpha (1989) = 0.84.
5. Cronbach's alpha (1989) = 0.64.
7. Cronbach's alpha (1989) = 0.81.
8. Cronbach's alpha (1989) = 0.82.
10. The average is -0.37 if the GHQ is excluded which, for reasons given below, it probably should be.
11. If the GHQ is excluded the average drops to -0.19.
12. The GHQ was designed as a screening instrument for physicians, especially general practitioners. For this purpose the confounding of dimensions may not matter,
13. The only blemish was that one positive affect item ('things going your way') also loaded moderately on the life satisfaction factor.
14. The first 9 items in the BDI measure feelings of depression. The remaining 12 items measure signs and symptoms which are associated with depression but which not every individual suffering depression would manifest. The BDI is not intended to be unifactorial (Seek, 1972) but the first 9 items are usually found to form a single factor (Zimmerman, 1986).
15. This is done by dividing the observed correlations by the product of the square root of the reliabilities (Cronbach alphas). That is:

\[
\frac{r_{AB}}{\sqrt{\alpha_A \cdot \alpha_B}}
\]

16. Cronbach's alpha = 0.92.
17. Cronbach's alpha = 0.92.
18. Cronbach's alpha = 0.89.
19. The first item is from the Marlowe-Crowne social desirability scale (1964), the second is from the Eysenck personality inventory lie scale (1964).
20. The internal consistency of the positive affect and negative affect scales (alphas = 0.64 and 0.65 in VQOL, 1987) are not entirely satisfactory.
21. They could, of course, still be reliable as mood reports.
22. This statement needs qualifying with regard to the Bradburn positive and negative affect scales, They would no longer be measures of choice if one were beginning a panel study (Watson, 1988), However they were the best available affect measures when our study began in 1981.
23. Such methods effects generate systematic response bias and can lead to over-estimation of correlations among variables (Andrews, 1984).
PART 2  Equilibrium states of well-being
The equilibrium state of well-being

It is obvious enough that people want to be happy. It is much less obvious that the normal, typical, equilibrium state for most people—the state to which they keep reverting—is one of high well-being. The purpose of this chapter is to provide evidence that in most countries and even in the most disadvantaged sections of society, the majority of people report high levels of well-being. We then describe the perceptions or constructions of reality that maintain this surprising equilibrium state (In the next chapter we will also document a misperception that helps people along). At the same time it is also appropriate to show the extent to which feelings and symptoms of distress co-exist with high subjective well-being.

Of course people want to be happy

When people are asked in an unprompted way to say what they want from life they usually mention happiness as one of their top priorities. For example, the British Gallup poll in 1979 asked, 'What values or goals in life do you think are most worth striving for, either for yourself or for society as a whole?' The most frequently mentioned goal was 'happiness' or 'being generally happy' (Harding, 1985). Unsurprisingly Milton Rokeach, in his huge international survey of *The Nature of Human Values* (1973) also found that in all countries happiness was ranked as a key value. Most people quite often think about how happy they are and wonder how they might be happier. The majority of Dalkey's (1973) American sample confessed that they thought about how happy they were 'almost every day', and in a casual way we all repeatedly inquire about each other's well-being, 'How's it going?', 'How's life treating you?'

The English utilitarians led by Jeremy Bentham made 'the greatest happiness of the greatest number' the keystone of their political philosophy. Others tend to think that state action to promote happiness smacks of totalitarianism and that individuals should do their own path-finding. The American Constitution stipulates that 'life, liberty and the pursuit of happiness' are individual rights which the state should never interfere with. The word 'pursuit' is dubious in this context. We shall argue that, although people certainly want to be happy, they do not exactly pursue happiness in the sense of trying to maximise it. It is more a question of mutually reinforcing perceptions which support a comfortable level of happiness or felt well-being.
International and group comparisons

A person who knew nothing about research on well-being would probably expect it to show that some people are very happy, some are very miserable and most are in between. In other words this person would expect a normal curve. Other reasonable expectations might be that people in rich countries would experience higher levels of well-being than people in poor countries and that, within one country, people whose objective social and economic conditions were advantageous would feel better than those who were disadvantaged. None of these expectations is strongly supported by the evidence.

Figure 4.1 shows average scores on a 1-10 life satisfaction scale in fifteen countries which participated in the European Values Survey; a survey which spread well beyond Europe! The most striking finding is that the international differences are not great and that in all countries the average score is well above the middle of the scale. The scale end-points were labelled 'satisfied' (point 10) and 'dissatisfied' (point 1), so presumably most people are reporting that, on balance, they feel more satisfied than dissatisfied with their lives. In fact over two-thirds of people in all countries except South Africa gave scores above the scale mid-point. Only South African blacks, an exception which 'proves' the rule if ever there was one, gave themselves scores averaging just below the mid-point.

**Figure 4** Satisfaction with life

Source: European and Australian Values Surveys, 1981-83
Few quality of life surveys have been conducted in poor countries but such evidence as there is indicates that well-being is somewhat lower but not a great deal lower than in Western countries (Gallup, 1976). In so far as well-being depends on material standards of living (true to only a moderate degree) it appears that people mainly compare their own standards with others in their home country and not in the world's wealthiest countries (Easterlin, 1974; but see Veenhoven, 1988a).

Repeated surveys in the West do show consistent differences between countries. The Dutch, Scandinavian (except the Finns), American, Australian and British people score high on measures of well-being, whereas the Japanese, Spanish, Italian, French and German people score low. In Belgium, well-being seems to have declined quite markedly in recent years (Inglehart and Rabier, 1986). The reasons for these international differences are explored in chapter 7. For the moment we mainly want to emphasise that similarities outweigh differences and that the large majority of people in most countries claim to be fairly well satisfied with their lives.

Shifting from international comparisons to comparisons between groups within a single country, we still find surprisingly small differences. Common sense might suggest that rich or high status people would experience greater well-being than poor, lower status people. In fact evidence from many countries indicates that a majority of both groups report quite high levels of well-being. There are small correlations, within the range of 0.05 to 0.20, between income and well-being, and between socio-economic status and well-being. These correlations are worth further discussion (chapter 6) but for the moment the main point is that objective socio-economic disadvantages do not produce well-being scores much below average.

Contrary to what feminists might expect in a male dominated society there are also no strong gender differences in well-being. Men and women have virtually identical scores on life satisfaction measures, but women give somewhat higher readings on both positive and negative affect measures, probably because they feel emotions more intensely (Costa and McCrae, 1985; Diener, Sandvik and Larsen, 1985).

There also appear to be only small differences between young and old. Some studies have reported that the old tend to be more satisfied with life (lowered expectations?) but score a little lower on happiness measures (for example, Campbell et al., 1976). In the Australian surveys we find that the old score fractionally higher on both sets of measures (see chapter 11),

Finally, and most contrary to commonsense expectations, there are several studies which report that permanently handicapped people also adjust to the point where only small or negligible differences are found between their levels of well-being and those of non-handicapped people. Studies have been conducted with blind and severely handicapped people and paraplegics (Brickman et al., 1978).

All this is not to say that there are no meaningful differences in well-being. People who are not permanently handicapped but who have recently suffered major adverse experiences do suffer losses of well-being and increases in psychological distress (see chapters 9 and 10). Cancer victims have low well-being scores, especially if their medical treatment is debilitating (de Haes, Tempelaar and Pennink, 1986). Some experiences are so dreadful that people may never recover. Lehman, Wortman and Williams (1987) found that people whose spouses or children had died in car accidents seven years ago were still seriously affected. It is also the case, as we shall see, that differences in personality and social support contribute to marked differences in well-being.

For the moment, however, we continue to try to understand why most people's levels of well-being are apparently so high. One key to understanding is to appreciate the set of supporting perceptions within which people's assessments of their current level of well-being are nested. Figure 4.2 shows a 'ladder of life' which was introduced to respondents in the Australian panel surveys like this:

Here is a ladder with 20 steps on it. At the top of the ladder, on the top step, is the best possible life, the most wonderful life you could imagine for anybody. At the bottom of the ladder is the worst possible life, the most miserable life you could imagine for anybody. Right in the middle is the 10th step on the ladder.
Now looking at the ladder, where would you put the *best previous period* of your life?

**Figure 4.2** The equilibrium state: “ladder of life”

- **Bold type = scale anchor points**
- **Normal type = empirical observations (xs)**
- Note also that standard deviations are quite low — around 2-3 on the 0-20 scale.
Respondents were then asked to rate the worst period of their life, the life of the average or typical Australian, the life they expected in five years time... and, most important, 'your own life at present, the life you lead these days'.

Notice first that your present life receives an average rating of 14.6 on the 0-20 ladder, indicating that it is seen as much closer to the best life than the worst life that could be lived. Even more to the point, it is not much below the best previous period of your life, the life you expect in about 5 years time (expectation level), the life you feel you deserve (perception of equity) and the best life you could realistically hope for (aspiration level). All these perceptions appear to reflect a construction of reality which supports or bolsters a strong sense of well-being. There are only small gaps, small discrepancies, between what one has and what one expects, aspires to, feels one deserves. Reference points or standards which are rated less favourably than one's present life also seem to bolster current well-being. One's present life is typically seen as much better than the worst previous period of your life and somewhat better than the life of the average Australian and the life your parents led.

Many social scientists have theorised that satisfaction ratings reflect gaps or discrepancies between one's current situation (or perceived achievement level) and standards which are used to make sense of and evaluate one's life. If the discrepancies between desirable standards and one's current situation are small, then a high level of well-being results. If the discrepancies are large, well-being is likely to be low. Michalos (1980,1985) labels this multiple discrepancies theory. Others (for example, Diener, 1984) refer more generally to judgement theories.

The conventional way of expressing the theory, by referring to differences between people's discrepancies, slides over the crucial point that the whole set of perceptions shown in figure 4.2 appear to be mutually adjusted to support a high level of well-being. The suggestion is that people construct and reconstruct their perceptions of reality to make themselves feel good. Presumably this is done in a largely sub-conscious way. Again we stress that the similarities among people are at least as important as the differences.

Most people succeed quite well in reaching a satisfying equilibrium state. The 'ladder of life' evidence perhaps has implications for our understanding of people's strategy in pursuing well-being. We commented earlier that the phrase in the American Constitution, 'the pursuit of happiness', could be taken to imply that people try to maximise their level of happiness. It is hard to plumb people's motives, but the 'ladder of life' data suggest that what people generally go for is a well adjusted, comfortable level of well-being. To use Herbert Simon's term, they 'satisfice' rather than maximise (Simon, 1976). They try to construct and reconstruct their picture of reality so that they feel good, rather than trying to change objective situations to eliminate constraints on well-being and feel happier and happier. This is admittedly speculative and a difficult issue to investigate.

Marxist commentators are inclined to dismiss evidence about high levels of life satisfaction as a reflection of 'false consciousness'. More particularly, they believe that if people who are economically disadvantaged report high well-being, it must be because such people are unaware that they are exploited and unaware of more desirable alternative societies.

Because these arguments tend to be slippery they are hard to rebut. An initial point is that, strictly, the 'false consciousness' hypothesis is an explanation of the equilibrium state of high well-being, not a denial of its existence. As an explanation it is seriously flawed. First, it assumes that economic well-being is the key component of subjective well-being. In fact, as we will see, personal relationships and even leisure satisfaction are as strongly associated with well-being as economic factors. It would be hard to make a case that, when poorer people say their marriages, relationships with children, friendships and leisure are satisfying, their perceptions are somehow false. Second, the view that poorer people are unaware of alternative societies against which to evaluate their own perhaps implies that other social groups do make wider ranging comparisons. This seems true only to a very limited extent. The evidence is that almost everybody makes social comparisons with those who are close to them: family, friends,
neighbours, workmates (Runciman, 1972). Almost nobody evaluates their lives by the highest international standards!

An alternative view that lower income people are just resigned to their fate also does not stand up. Resignation implies lowered expectations and low positive affect. In fact there is a fairly strong relationship between people's reports of life satisfaction and their positive affect scores (see chapter 3). Life satisfaction is associated with cheerful moods, and this is as true for low income as for high income people. In this context the accurate statement to make about low income people is that, on average, their satisfaction levels, positive affect and expectations are a little lower than those of high income people. There is no basis for a verdict of false consciousness.

The prevalence of symptoms of psychological distress

At the same time as a majority of people report high levels of well-being, they also report a few symptoms of psychological distress. A number of scales have been developed to estimate the prevalence of symptoms. The most valid of these, like the Present State Examination (Wing, Cooper and Sartorius, 1974) require highly trained interviewers, preferably psychiatrists or clinical psychologists, so they are unsuitable for use in most surveys. Evidence collected in Camberwell, London, using the Present State Examination, indicated that just over 42 per cent showed no symptoms of neurosis, about 40 per cent had non-specific symptoms, 7 per cent had specific symptoms and about 12 per cent were either on the threshold or were definite cases of neurosis. An Australian study showed rather lower rates of neurosis and a Ugandan study much higher (Henderson et al., 1981).

More straightforward measures, like the General Health Questionnaire (GHQ) and the Beck Depression Inventory (BDI), can be included in national surveys and give results which quite closely match diagnoses made by psychiatrists. A major Australian study, for example, found a correlation of 0.76 between scores on the GHQ and the Present State Examination (Henderson et al., 1981). The same study also found that short scales measuring negative affect also gave results well correlated with psychiatric reports.

Some people may repress feelings of depression and anxiety to the point of being unaware of them. However, quite high proportions of the population directly report such feelings. In Henderson et al.'s (1981) study of neurosis in the Australian capital, Canberra, 21 per cent reported suffering depression in the last month and 24 per cent suffered anxiety. A national welfare survey in Germany, with a sample of over 2000, found that 47 per cent often had spells of complete exhaustion or fatigue, 21 per cent had recurring frightening thoughts, 16 per cent were constantly keyed up and jittery, 15 per cent were usually unhappy or depressed and 8 per cent often shook or trembled. Only 43 per cent said they had none of these symptoms (Glatzer, 1987).

We have already reviewed evidence showing that well-being and psychological distress are not true opposites. Further to this, we notice that on the ladder of life (figure 4.2) the typical person rates his or her present life favourably (average = 14.6 on the 0-20 scale) but at the same time gives a moderate rating (average = 10.8) to 'the amount of stress, strain and pressure you are under'. Even some people who rate very highly on measures of life satisfaction report symptoms of psychological distress. In the German national study, 37 per cent of those who reported that they were completely satisfied with their lives also said that they often had spells of complete exhaustion or fatigue (Glatzer, 1987). Of the same group, 10 per cent said they were constantly keyed up and jittery. Similarly, in the Australian panel study, 16.2 per cent of those who claimed that they were in general either extremely happy, very happy or pretty happy (the top three points on the 0-10 happy scale) also said that during the last few weeks they had felt depressed or very unhappy and 10.6 per cent said they had felt very lonely or remote from other people. Of the same people, 7.1 per cent said that right now, at this moment 'I am tense' and 6.7 per cent said 'I am worried' (items on the State Anxiety Scale). Of course, some puzzling combinations of answers can be partly reconciled by recognising that they refer to different time
frames. It is also plain, however, that cognitive judgements of life satisfaction quite commonly co-exist with feelings of anxiety and, less commonly, with feelings of depression.

Conclusion

This chapter has described the typical equilibrium state of high well-being and the surrounding perceptions which prop it up. We have also seen that moderate levels of psychological distress are not uncommonly associated with high levels of well-being. The chapter may be summarised by these propositions:

People strongly desire to experience a high level of well-being. High well-being is a fundamental human goal.

Regardless of their objective social and economic conditions, the majority of people report high levels of well-being. In any stable life situation, that is, in the absence of recent major life changes, people arrive at an equilibrium state in which their present life is viewed as being almost as satisfying as the best life they could aspire to, the life they feel they deserve and the best previous period of their life. Their present life is regarded as considerably better than the worst previous period of their life and than the life of the average person in the country.

Despite high average levels of well-being, over 50 per cent of people show a few symptoms of psychological distress, about 15-20 per cent suffer 'non-psychotic disorders' and about 10 per cent are on the threshold or definitely suffer neurosis.

Well-being and psychological distress are distinct dimensions, not opposite ends of the same dimension.

People who perceive small gaps between their present life and the life they expect, aspire to and feel they deserve (sense of equity) rate high on well-being. People who perceive large gaps rate low on well-being.

Notes

1 Cantril's (1965) results provide a partial exception to this generalisation. See also Veenhoven's (1989) commentary on these results.

2 It is important to realise that the spread of scores is not wide. Standard deviations of the measures in figure 4.2 range only between 2 and 3 on the 0-20 ladder.
5

The human sense of relative superiority

We now explore further the paradox that most people simultaneously feel well satisfied with their lives and show at least a few symptoms of psychological distress. The purpose of this chapter is to provide some resolution of the paradox by offering explanations of both elements of it. The word 'explanation' here does not have quite its usual meaning in social science. When social scientists write about explanation they usually mean accounting for variances (differences). In this chapter we are not accounting for differences in levels of well-being and psychological distress; that comes next. The aim is to account for averages—high average levels of well-being and moderate average levels of psychological distress.

The sense of relative superiority

A clue to high apparent levels of well-being can be found by noticing that on the 'ladder of life' shown in figure 4.2 a large majority of people rate their own life as a good deal more satisfying than 'the life of the average of typical Australian'. There is nothing particularly Australian about this belief. A huge majority of Americans (Campbell et al., 1976) and Canadians (Michalos, 1980, 1985) also feel that their lives are decidedly above average.

Clearly not everyone can actually be above average; it is a statistical impossibility. Still we are aware that psychologists have found that most people believe they are above average on a range of fairly minor matters like their performance as car drivers and tennis players, their capacity to judge the length of objects and their chances of long life (Myers, 1980). It seemed possible that this same pattern might hold true for life's more important roles. Could it be that people also believe that they are better than average husbands and wives, parents, workers and so forth?

With this in mind we included in the 1985 Australian survey a series of questions asking respondents to rate their own performance in major roles on a 7 point scale running from 'way above average' (point 7) to 'way below average' (point 1). The scale was designed to get respondents explicitly to compare themselves with 'the average person'. It was introduced like this:

Figure 5.1 Please compare yourself with other people and tell me the number which says how you compare with the average person. If you are way above average you would choose a high number. If you are way below average you would choose a low number. If you are average you would say 4.

<table>
<thead>
<tr>
<th>Average scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
</tr>
<tr>
<td>way below average</td>
</tr>
</tbody>
</table>
Survey respondents rated themselves in seven roles, which were selected because they are key roles in domains of life which are most strongly related to well-being. Two family roles were selected. Respondents were asked 'How good a husband/wife/partner are you?' and 'How good a parent are you?'. They were also asked how good they were at their main job and main spare time activity, how good a friend they were, how good at handling money matters, and how good their health was compared with other people about the same age.

Most people, it seems, explicitly believe that their own performance in most roles is nicely above average. Far from being troubled by feelings of inferiority or deprivation, most people feel superior to their fellow human beings. We label this the human sense of relative superiority (SRS). We are inclined to think that SRS is almost a law of human nature. Most people feel above average in most roles most of the time. To feel below average or even just average is abnormal and may well be an indication of depression. Indeed Alloy and Abramson (1979) have found that almost the only people who rate their own performance realistically and recognise that they are average are people who are suffering depression. The rest of us combine to produce a statistical howler — well over 50 per cent are above average.

Before we conclude that modesty is stone dead, it should be recorded that, while most people feel above average in most roles, they do not believe themselves to be a long way above average. Ratings on the 7 point scale range from 5.5 for job performance to 4.7 for main spare time activity. If we think in terms of school grades, this suggests that most people see themselves as B or B+, not as A, let alone A+. They feel superior to most of their peers, but they do not actually believe they are peerless.

Roles have been arranged in table 5.1 in descending order according to the proportion of people believing they are above average. This ranges from 85.9 in regard to job performance down to 49.8 per cent for main spare time activity. Only tiny percentages believe themselves below average. The range is from 1 per cent in regard to job, through to 1.7 per cent as parents and friends, 3.5 per cent as spouses/partners, to a high of 11.5 per cent in regard to health. One fifth of the sample saw

### Table 5.1 The sense of relative superiority

<table>
<thead>
<tr>
<th>Roles</th>
<th>Above average</th>
<th>Above average</th>
<th>Below average</th>
<th>Below average</th>
<th>Total</th>
<th>X (1-7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main job</td>
<td>85.9%</td>
<td>13.1%</td>
<td>1.0%</td>
<td>100%</td>
<td>5.5</td>
<td></td>
</tr>
<tr>
<td>Parent</td>
<td>78.3%</td>
<td>20.2%</td>
<td>1.7%</td>
<td>100%</td>
<td>5.3</td>
<td></td>
</tr>
<tr>
<td>Spouse/partner</td>
<td>77.9%</td>
<td>19.7%</td>
<td>3.5%</td>
<td>100%</td>
<td>5.3</td>
<td></td>
</tr>
<tr>
<td>Friend</td>
<td>76.1%</td>
<td>22.2%</td>
<td>1.7%</td>
<td>100%</td>
<td>5.2</td>
<td></td>
</tr>
<tr>
<td>Money manager</td>
<td>64.7%</td>
<td>26.0%</td>
<td>9.3%</td>
<td>100%</td>
<td>5.0</td>
<td></td>
</tr>
<tr>
<td>Keeping fit and healthy</td>
<td>56.0%</td>
<td>32.5%</td>
<td>11.5%</td>
<td>100%</td>
<td>4.8</td>
<td></td>
</tr>
<tr>
<td>Main spare time activity</td>
<td>49.9%</td>
<td>43.2%</td>
<td>7.0%</td>
<td>100%</td>
<td>4.7</td>
<td></td>
</tr>
</tbody>
</table>
themselves as above average in all roles. The typical (median) respondent felt above average in five of the seven roles.

One may speculate about how we nearly all manage to feel above average. All major roles—parent, marriage partner, worker—are exceedingly complex and may be divided into many sub-roles. It seems likely that almost everybody could find at least one sub-role in which his or her performance really was above average. That sub-role could then be given great importance (high priority) in judging one's overall role performance. The importance or priority ratings could be conscious but might be sub-conscious. Take an example close to home. University lecturers are required to teach, research and administer. Daily observation suggests that those who think they are good teachers tend to give teaching highest priority and believe that they are above average in their job. Those who feel they are good at research arrange their priorities and timetable accordingly and also feel superior. Those who believe they are good at administration sit on committees and presumably also feel that they are doing well. As a second example take the role of parent. Different parents may see themselves as above average in developing their children's skills, or communicating with them, or maintaining a warm relationship, or inculcating worthwhile values and so on. Each parent could then fix on the sub-role that he or she genuinely felt good at and then (consciously or otherwise) weigh it heavily in feeling a sense of superiority.

There is some evidence in the literature of both economics and psychology to support this line of reasoning. The evidence is that people modify their priorities to bring them into line with perceived performance and not vice-versa (Cohen and Axelrod, 1984; Juster and Stafford, 1985; Lewicki, 1983). In other words, people do not first decide what their role priorities are, then try hard to improve in those roles or sub-roles and then feel satisfied if they succeed. The more usual sequence is first to feel good at something and then decide that the something is really very important.

A second mechanism by which people may feel SRS is by restricting their comparisons (their reference groups) to other people who are similar to themselves and by excluding those who are more advantaged or perform better (Runciman, 1972). This mechanism would be more applicable to some roles than others. So in judging one's job performance it may seem appropriate only to compare oneself with others whom one knows personally and who hold the same or similar jobs. The reference group for one's main spare time activity may be similarly restricted. A local tennis player presumably compares himself or herself with other locals, not with international stars. However the argument about restricted reference groups seems implausible with regard to some roles listed in table 5.1. It seems quite possible that performance as a spouse, parent or friend might be judged not just by local standards but also by reference to standards derived from the media and general impressions of society. Indeed, in these roles use of broader societal standards might enhance SRS. One's own performance as a spouse or parent might well compare favourably with the performance of people who make the news; people many times divorced or whose children were repeatedly delinquent. Such media items may be taken as representative of society's standards rather than as indicating that only bad news is newsworthy.

SRS seems to be prevalent in all sections of the community. In view of all that has been written about female socialisation, one might have expected that women would be less likely to feel SRS than men. In fact the differences were slight. Women and men rated themselves virtually the same in most roles, with women thinking they were better friends than men and men rating themselves a little better at their jobs. One might also have expected that people of higher social status would feel a greater SRS than lower status people. Not so—the only difference was that higher status people rated their job performance a little more favourably (r = 0.12). Another plausible hypothesis was that as people get older they realise with experience that their performance is not all that fantastic and their SRS declines. Again, the hypothesis is not borne out. There was only a tiny correlation between age and ratings on an SRS scale.2

It seems reasonable to suggest that people are strongly motivated to try and feel above average; a bit better than the herd. To feel SRS apparently enhances self-esteem and well-being and reduces psychological distress. In the Australian panel survey (1987), there was a correlation of 0.29 between SRS and a measure of self-esteem (Rosenberg, 1965). The correlation between SRS and measures of well-being and psychological distress ranged between 0.37 with the life satisfaction (4) index and -0.29
with the psychological distress (3) index, to 0.13 with positive affect. In the present context, however, these correlations are less relevant than people's absolute scores on the SRS scale. The finding that most people explicitly believe their own performance in most roles to be substantially above average goes some way towards explaining the existence of a normal equilibrium state of high well-being.

Non-zero sum domains

Another reason for most people being able to attain a satisfying equilibrium state may be that the world is not as competitive as we sometimes think. In the next chapter we give evidence that the seven domains which matter most to well-being are marriage and sex, friendship and leisure, material living standards, work and health. A key point about five of these domains—marriage and sex, friendship and leisure, health—is that more satisfaction for one person does not mean less for others. Indeed the best way to enhance one's own satisfaction is to contribute to the satisfaction of others. In social science jargon the benefits in these domains are non-zero sum; there is no fixed cake such that more for some entails less for others. Plainly, the fact that non-zero sum benefits matter a great deal to well-being makes it possible for most people to attain high levels of well-being. If, on the other hand, well-being depended overwhelmingly on satisfaction in domains which are unavoidably competitive, then it would be impossible for most people to rate high. If well-being depended on enjoying high social status or a standard of living superior to other people's, then not everyone could succeed. As the economist Fred Hirsch (1977) pointed out, when he coined the term 'positional goods', not everyone can have a house overlooking a secluded beach or membership of an exclusive club.

Presumably because of the widespread use of economic concepts and market analogies, we tend to think of life as highly competitive. There is increasing evidence, however, that even in domains like work and international relations, where competition among equals or near equals is unavoidable, co-operative strategies produce better outcomes for all parties than harshly competitive strategies which involve betrayal, subversion and, generally, attempts to subtract from the benefits of others (Axelrod, 1984). In recent decades even evolution has come to be seen as involving a considerable degree of inter-species co-operation rather than just a competitive struggle for survival. Be this as it may, the suggestion here is that human well-being depends heavily on shared benefits in domains of life where competition has little place.

Are people usually in a good mood?

A final possible explanation of high average levels of well-being seems almost too simple and bold to take seriously. Perhaps most people really are in a good mood most of the time. They know this and so give themselves high scores on happiness and life satisfaction scales. The possibility that this hypothesis is correct is opened up by the work of Diener and his colleagues. They have conducted several studies in which people have recorded their characteristic moods at the end of each day, or their moods at specific moments when alerted by a beeper set to go off at random intervals. Typically respondents do this for several weeks continuously. Diener finds that a typical person reports positive moods just over 70 per cent of the time and fewer than 10 per cent report negative moods over half the time (Diener and Sandvik, 1987). Furthermore, there is evidence that people have the capacity to recall and report the frequency of different moods with considerable accuracy. Diener has shown quite high correlations between people's overall estimates of how frequently they feel happy and subsequent detailed records of their moods. In one particular study respondents estimated they were happy 72 per cent of the time, while later mood recordings gave a figure of 78 per cent. Diener's research has been based on samples of convenience (mainly students) rather than large representative samples of the public. It is possible that people who voluntarily participate are happier than average. In our Australian panel the average respondent estimated that he or she was happy 63 per cent of the time, a figure somewhat lower than Diener's, but still well
over the 50 per cent mark. Without detailed mood records from representative samples we cannot be sure, but the possibility that most people feel positive most of the time cannot be dismissed.

**Explaining moderate levels of psychological distress**

Accounting for the fact that most people show at least a few symptoms of psychological distress seems more straightforward than accounting for the strange-seeming phenomenon of high average levels of well-being. It is obvious that most people's lives include what psychologists are pleased to call chronic stressors. These may include financial worries, health problems, or continuing difficulties with people one sees regularly: work colleagues, children, parents, siblings, one's partner. There is considerable evidence that daily hassles contribute more to psychological distress than major crises (Eckenrode, 1984; Fleming, Baum and Singer, 1984). Major crises like a death or serious illness in the family, unemployment or a financial disaster, separation or divorce, of course add to the burden. Some people are remarkably resistant to stress but there seems little doubt that, when major adverse changes occur, most people register at least some increase in psychological distress. What is more, no-one leads a charmed life. Long-term studies in which people have been interviewed and reinterviewed for most of their adult lifetimes have shown that even those from highly advantaged backgrounds faced periods of quite severe adversity (see, for example, Levinson, 1978; Vaillant, 1977).

For example, Vaillant's study of Harvard classes of 1939 to 1944 showed that, over a thirty-year period all of these men, many of whom might have appeared to lead charmed lives, faced periods of adversity in their families and careers. Interestingly, those who resolved family problems successfully were also more successful in their careers. There was little evidence of family being sacrificed for career or vice-versa. Interestingly, too, psychiatric interviews and quantitative survey evidence told the same story, not contradictory stories about who were the successful and who the unsuccessful copers (Vaillant, 1977).

Finally, many studies show that what causes the most severe psychological distress is often a major adverse life change coming on top of quite stressful daily hassles. This tends to be what drives people to or beyond the threshold of neurosis and may lead them to seek counselling.

**Conclusion**

A typical Westerner reports both an equilibrium state of high well-being and at least a few symptoms of psychological distress.

**Propositions to account for high levels of well-being**

A majority of people explicitly believe that their own performance in most major roles is well above average. This human sense of relative superiority is a major prop to well-being.

People's life priorities are the same in all Western countries. The seven domains of life which are most strongly related to well-being are marriage and sex, friendship and leisure, material standard of living, work and health.

At least five of the priority domains—marriage and sex, friendship and leisure, and health—are characterised by non-zero sum satisfactions. In these domains everyday pleasures and satisfactions can be obtained while enhancing not subtracting from other people's pleasures and satisfactions. This makes it possible for most people to attain a high level of well-being.

Most people really are in a good mood most of the time.

**Propositions account for the prevalence of moderate levels of psychological distress**

Most people's lives include some chronic stressors or daily hassles.
Almost no-one leads a charmed life, that is, almost no-one avoids experiencing some major adverse events. These at least temporarily increase psychological distress.

Notes

1. We use this term by way of contrast to sociological writings on the 'sense of relative deprivation' (Runciman, 1972).
2. This scale was constructed by averaging scores for the seven roles listed in table 5.1.
3. A caveat is required: it is not clear to what extent SRS causes well-being and to what extent well-being causes SRS. Our panel data suggest that, contrary to the usual line of thinking (for example, Taylor and Brown, 1988), SRS may be more consequence than cause of SWB. Certainly reciprocal causation seems to be involved (Headey and Veenhoven, 1989).
4. The question was, 'what percentage of the time do you feel happy? What percentage of the time do you feel unhappy? What percentage of the time do you feel neutral?' (Fordyce, 1986).
Why are some people happier than others?

The question we are instantly asked when we mention that we do research on happiness is, 'OK, what makes people happy?' The aim of this chapter is to give at least partial answers to questions about why some people are happier than others and why some suffer more psychological distress than others. In fact we will juxtapose answers to these two questions in order to try and identify the relatively distinct correlates and causes of well-being and psychological distress. The issue here is, 'what are the satisfiers?' and 'what are the dissatisfiers?'

Four categories of variables will be considered as potential correlates and causes of well-being and psychological distress. First, we look at differences between demographic and social groups; between men and women, rich and poor, ethnic groups and so on. Second, we see what difference personality (for example, extraversion, neuroticism, personal competence) makes to well-being and psychological distress. Third, we consider the importance of social networks, of the practical and emotional support people get from their networks. Fourth, we review the contribution which satisfaction or dissatisfaction with different domains of life (for example, marriage, work, health) makes to overall well-being and psychological distress. Our final task is to select key variables from each of the four categories and integrate them into statistical models which give an overview of the causes of well-being and psychological distress.

Differences between social groups

One of the first things that quality of life researchers discovered was that social background variables, which social scientists find explain many social and political outcomes, make much less difference than expected to well-being and psychological distress. Differences between the sexes, income and status groups, and urban-rural differences tend to be fairly small. This is even more true for well-being than psychological distress.

Gender

In country after country no differences are found between men and women on measures of life satisfaction and happiness. This seems just as true in countries in which women plainly have lower status, as in Western countries where some changes have occurred (Argyle, 1987; Veenhoven, 1984). This is partly because women and men 'construct' the same set of adjusted, nested expectations and aspirations which we have called the equilibrium state of well-being. Also, as we shall see, well-being depends more on personal relationships than on status or material standards, and there is some evidence that women are better at forming close relationships than men (Rubin, 1983).

By contrast it is fairly clear that women suffer higher levels of psychological distress than men. Some American and European studies have reported substantial differences in anxiety and depression (Argyle, 1987; Diener, 1984). In Australia gender differences in psychological
distress appear slight. Even so, all large-scale studies report some difference even if it is not statistically significant (Henderson et al., 1981). Part of the explanation seems to be that women are more open to their feelings than men (Costa and McCrae, 1985) and so report feeling all emotions more intensely (Diener, Sandvik and Larsen, 1985).

Income and social status

It has become usual in well-being research to say that there is not much relationship between income or social status and well-being. Such statements seem unbelievable, especially to people on the left of politics. Table 6.1 gives correlations between a range of well-being and psychological distress measures and measures of social status, and reveals a much more interesting and varied pattern than polemicists allow. The three indicators of social status are family income, the occupational status of the main breadwinner and the educational level of the respondent. The last row of the table shows a combined socio-economic status (SES) measure which gives equal weights to the three indicators.

Table 6.1 Correlations of well-being (WB) and psychological distress (PD) with measures of social status

<table>
<thead>
<tr>
<th>WB Measures</th>
<th>PD Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social status</td>
<td>Life satisfaction</td>
</tr>
<tr>
<td>Family income</td>
<td>.11</td>
</tr>
<tr>
<td>Occupational status</td>
<td>.09</td>
</tr>
<tr>
<td>Education</td>
<td>.06 ns</td>
</tr>
<tr>
<td>SES</td>
<td>.10</td>
</tr>
</tbody>
</table>

1. Victorian Quality of Life Survey. ns=not significant at the 5 per cent level.

The evidence is that higher status people report only slightly greater life satisfaction and somewhat greater positive affect than lower status people. On the psychological distress side it appears that differences of status are more strongly associated with depression than anxiety.

The Australian data seem broadly in line with evidence from other Western countries, although we are not aware of other studies in which the same people responded to as wide a range of well-being and psychological distress indices. A limitation is that we have little reliable information about the very rich and the very poor, Diener, Horowitz and Emmons (1985) surveyed forty-nine American millionaires and found them only slightly happier than average. Although very poor people appear to be adequately represented in national surveys, and are apparently not conspicuously dissatisfied, this impression could be misleading. Such surveys fail to distinguish between the more or less permanently poor and the temporarily poor, for example students. Studies of the first group need to be undertaken.

Nearly all the evidence relates to the last twenty-five years and comes from Western countries. A Dutch sociologist, Ruut Veenhoven, has assembled and reanalysed all surveys available from developing countries and finds that well-being and psychological distress differences between rich and poor are considerably greater than in the West (Veenhoven, 1988).
Poverty which causes hunger, and not 'just' social deprivation, plainly decreases well-being and increases distress.

The fact that status no longer greatly affects overall well-being does not mean that it has no impact on satisfaction with particular domains of life. Lower status people are clearly more dissatisfied in most countries with their jobs and standard of living (The ex-communist countries may be an exception. In Yugoslavia, where worker participation was the norm, managers rate no higher than workers on job satisfaction (Tannenbaum, 1975)). People of lower status, however, are not less satisfied than others with their personal relationships—their marriages, children, friends and colleagues—and that is partly why their overall levels of well-being are not markedly lower. The way in which social background links to domain satisfactions and through them to well-being is described in the statistical models at the end of the chapter. The key point here is that income and status or, material well-being and prestige, are not of paramount importance to subjective well-being and psychological distress.

Ethnic groups and migrants

One would expect members of ethnic groups who are disadvantaged and/or discriminated against to be relatively dissatisfied with their lives. The same would apply to immigrants. In fact ethnic minorities and migrants reach the same equilibrium state of well-being and show similar levels of psychological distress as the native born, provided that major changes are not occurring in their lives. There is unmistakable evidence, for example, that in the 1980s American blacks and Hispanics have differed little from whites in well-being and psychological distress (Jackson, Chatters and Neighbours, 1986; Ortiz and Arce, 1986). They have adjusted to their situation and, even though fairly significant social changes are occurring or are constantly discussed, these have not disturbed the equilibrium state.

Vast social change which raises expectations and increases discontent with existing conditions does lower well-being. South African blacks at present clearly have lower levels of well-being than whites (see chapter 4) and a similar gap between blacks and whites seems to have developed in the United States in the late 1960s when pressure for racial equality was at its strongest (Veenhoven, 1984). Recent immigrants to a country have of course experienced a huge life change and rate below average on well-being and above average on psychological distress. However, after a few years, immigrants appear to be as well adjusted as natives. The first Australian National Social Science Survey (Kelley, Gushing and Headey, 1984-85), which included a large immigrant sample, indicated that after ten years immigrants had similar levels of well-being to native Australians, and after twenty years they seem to enjoy life more than the natives (Headey, 1988). There remains, however, a significant correlation between well-being and the ability to speak English well.

Marriage and the family life cycle

Jessie Bernard (1982) has argued that marriage is good for men but bad for women. The main evidence for this is that married women show higher levels of psychological distress than married men. This is true, however, of women in general compared with men. Contrary to Bernard, all quality of life surveys show that marriage is good for both sexes. Married people clearly rate higher on well-being and lower on psychological distress than all categories of singles, that is, young singles, older singles, divorced and widowed (Andrews and Withey, 1976; Argyle, 1987; Campbell et al., 1976; Veenhoven, 1984). The only prop for the Bernard thesis that holds up is that single women rate higher on well-being (but not lower on psychological distress) than single men. In this limited sense women without men do better than men without women.

There are fascinating differences among married people at different stages of the family cycle. Not surprisingly, people who have just married and not yet had children, especially young
women, report very high levels of well-being (Campbell, 1981). What is surprising is the finding that parents whose children have left home are also more satisfied and score lower on psychological distress than parents with children still at home. So it seems that married people are happier before and after children. This is paradoxical because (as we shall see) the single aspect of life with which Westerners express most satisfaction is their relationship with their children. It is not easy to resolve the paradox but maybe we can restate it so it sounds less strange. Most people who have had children wanted them and, looking back, would not wish to have missed it all. However, children are great dissatisfiers—great sources of anxiety—as well as great satisfiers. Alas, we cannot resist adding to the paradox. Married people who do not have children report rather high levels of well-being; higher than parents of similar age.

Employment status

In Australia we find that working men and working women both report higher levels of well-being and less psychological distress than homemakers. However, Veenhoven (1984), after reviewing international evidence, concluded that this was not universally true. In any case we are unable to tell in Australia whether the reason for homemakers being less satisfied is that home-based work is dissatisfying and has decreasing status, or that women who have less ambition, and perhaps rate lower on well-being and higher on psychological distress, are the ones who choose to stay at home.

Unemployment has greater effects on psychological distress than well-being. Unemployed people do not, in general, report much lower levels of well-being than people with jobs, but they do show more symptoms of emotional strain (Argyle, 1987; Warr and Payne, 1982). Distress is acute among people who liked their former jobs (Veenhoven, 1984) and among school leavers who cannot find work (Tiggerman and Winefield, 1984). It has been suggested that people with psychological problems are more likely to be unable to find work or to lose their jobs, but panel studies have shown that the direction of causation runs mainly the way one would expect; that is, unemployment increases distress (Argyle, 1987; Kessler, House and Turner, 1986).

Town and country

Country life is not a paradise; people in rural areas and small towns do not report higher levels of well-being and less psychological distress than in the city (Veenhoven, 1984). Indeed, in Scandinavia city people are clearly in better shape, though they still claim to yearn for the country (Allardt, 1973). In developing countries, too, people who have streamed into shanty towns around and within big cities report greater well-being than people left in rural villages (Veenhoven, 1984).

Religious belief

People with strong Christian beliefs have a greater sense of well-being than people who are non-religious or mildly religious. However most people who report a strong 'sense of purpose and meaning in life' report high well-being, whether or not they are Christians. So perhaps what matters is having some belief system which gives meaning to life, not so much the substance of the beliefs. It might be suggested that the reason Christians are happier is not their faith but the support they receive from a church community. This does not appear to be true. Christians who are regular churchgoers but who lack a sense of religious fulfillment report lower well-being than Christians who feel fulfilled but do not attend church much (Headey and Wearing, 1981). Christian belief does, however, seem to be part of a broader tendency towards accepting tradition, convention and the status quo. Many surveys have shown that socially conservative and politically conservative people are somewhat more satisfied with their lives than people on the left who favour social change (European Values Surveys, 1981-83; Buttel et al., 1977).
Health and a healthy lifestyle

Good health is taken for granted whereas ill-health is a serious burden. This is almost certainly the reason for finding that health status is more strongly related to psychological distress than well-being (Headey, Holmstrom and Wearing, 1985).

In recent years major government campaigns have been mounted to get people to adopt healthier lifestyles; give up smoking and overeating and exercise more. In the VQOL (1987) survey we added questions intended to assess links between lifestyle, health status, health satisfaction, well-being and psychological distress. The lifestyle questions involved asking respondents to rate themselves relative to an average person of their own sex and age in terms of how much they exercised, smoked, drank alcohol, drank coffee, took tranquillisers, aspirin, and so on. Algebraically there were fifteen items which we combined into a 'healthy lifestyle' scale. Government campaigners and fitness freaks may be pleased to know that a healthy lifestyle correlates 0.16 with the life satisfaction index and -0.36 with the psychological distress index. The greater strength of the relationship with psychological distress confirms that the health domain is more of a dissatisfier than a satisfier.

The lifestyle scale also correlates with a measure of perceived health status (r=0.32) and with health satisfaction (r=0.41).

Personality

One would certainly expect well-being and psychological distress to be significantly affected by personality. Unfortunately, psychologists have never managed to agree about the main components of personality. Freudians refer to the ego, the super ego and the id. Among psychologists who are not psychoanalytically oriented there is a division between those who, like Eysenck and Cattell, believe in underlying personality types and others who prefer to investigate more specific traits.

Our preference is for the Eysenck personality type approach with amendments recently suggested by Costa and McCrae (1985). Eysenck regards extraversion and neuroticism as the two main dimensions of personality. Costa and McCrae have proposed a third dimension—openness to experience—and have also taken the useful step of relating many specific traits or facets of personality to the more basic dimensions.

From the start the Australian panel survey has included the Eysenck Personality Inventory (Eysenck and Eysenck, 1964, Form B). Typical extraversion items are, 'Do you like plenty of excitement and bustle around you?' and 'Do you like mixing with people?' Typical neuroticism items are, 'Are you moody?' and 'Have you often lost sleep over your worries?'. In the 1987 survey we added one particular facet of openness to experience, namely openness to feelings (Costa and McCrae, 1985). Typical items are, 'Without strong emotions life would be uninteresting to me' and 'I find it easy to empathise—to feel what others are feeling'. We have also included in all surveys a measure of personal competence, which is conceived as a measure of internal locus of control, of the extent to which a person feels capable to plan, organise and control his or her own life (Campbell et al, 1976). A typical item is, 'When you make plans do you usually carry things out as expected, or do things come up and make you have to change your plans?' Empirically, personal competence is closely related to neuroticism and so should probably be regarded as a facet of that more basic dimension.

In table 6.2 we show correlations between personality measures, well-being and psychological distress. The personality measures have been grouped in order to distinguish between basic dimensions and more specific traits or facets.

The broad picture is that extraversion is more strongly related to well-being than to psychological distress, while for neuroticism the opposite is true. Openness is significantly related to positive affect but not to life satisfaction or distress measures. When we look at
Table 6.2 The effect of personality on well-being (WB) and psychological distress (PD)

<table>
<thead>
<tr>
<th>Personality measures</th>
<th>Life satisfaction</th>
<th>Positive affect</th>
<th>Anxiety</th>
<th>Depression</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extraversion and</td>
<td>.26</td>
<td>.22</td>
<td>-.17</td>
<td>-.23</td>
</tr>
<tr>
<td>related traits</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extraversion (EPI)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sociability(^2)</td>
<td>.21</td>
<td>.18</td>
<td>-.04(^*)</td>
<td>-.11</td>
</tr>
<tr>
<td>Warmth(^3)</td>
<td>.27</td>
<td>.19</td>
<td>-.11</td>
<td>-.13</td>
</tr>
<tr>
<td>Impulsiveness(^2)</td>
<td>.11</td>
<td>.15</td>
<td>-.14</td>
<td>-.14</td>
</tr>
<tr>
<td>Neuroticism and</td>
<td>-.34</td>
<td>-.12</td>
<td>.40</td>
<td>.46</td>
</tr>
<tr>
<td>related traits</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neuroticism (EPI)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal competence(^4)</td>
<td>.34</td>
<td>.22</td>
<td>-.28</td>
<td>-.42</td>
</tr>
<tr>
<td>Openness</td>
<td>.08</td>
<td>.18</td>
<td>-.05(^*)</td>
<td>-.01(^*)</td>
</tr>
</tbody>
</table>

1 Source: VQOL surveys.
2 Sub-scales of extraversion in the Eysenck Personality Inventory (EPI: Eysenck and Eysenck, 1964).
3 Sub-scales from the Neuroticism-Extraversion-Openness Inventory (NEO: Costa and McCrae, 1985).
4 Campbell et al. (1976).
5 ns= not significant at the 5 per cent level.

particular facets of the three major personality dimensions, a finer drawn picture emerges. The link between extraversion and well-being is mainly due to the fact that extraverts are more sociable and display greater interpersonal warmth. The impulsiveness facet of extraversion, by contrast, is about equally strongly related to well-being and psychological distress.\(^6\) A facet of neuroticism, which is of particular interest, is low personal competence.\(^7\) This short scale by itself correlates almost as strongly with the well-being and psychological distress measures as the full neuroticism measure.\(^8\) A further finding about neuroticism which is of considerable interest is that people who score high on neuroticism report larger gaps than others between their expectations, aspirations, sense of equity and their present life. Neuroticism, it appears, generates a plaintive set of responses.

Perhaps the best summary is that facets of extraversion are mainly satisfiers (related to well-being) and that neuroticism is mainly a dissatisfier (related to psychological distress). We shall find that openness has quite strong relationships to other variables of interest, notably the incidence of major life events, but it is not a major determinant of well-being or psychological distress.

Social networks

Family, friends and allies make up a social network which promotes well-being and relieves psychological distress. Students of social networks generally distinguish between confidants (intimates, including family members, whom one can confide in), good friends, and allies whom one can turn to for practical help (Henderson et al, 1981; Kendig, 1987; Sarason et al., 1983; Thoits, 1982). It is useful to make a distinction between the availability of a network and the quality of relationships. In practice the survey items we use to assess availability are simple 'count' measures (for example, 'Are there people living around here from whom you can easily
ask small favours? I mean people you know well enough to borrow tools or things for cooking?" If yes, 'How many?') The items used to assess the quality of relationships are typically satisfaction measures, although measures relating to frequency of interaction and disagreements can also be used.

Table 6.3 gives correlations between the well-being and psychological distress indices and a range of both availability and quality of relationship measures.

The picture could scarcely be clearer. Intimate relationships (confidants) contribute more to well-being and to the prevention of psychological distress than friends, who in turn contribute more than allies. Furthermore, it is the quality of relationships which matters more than the number of intimates, friends and allies one has available. These results are not surprising; they confirm folk wisdom. Less obvious altogether is that networks contribute more to well-being than to relief of psychological distress. There is a long tradition in social work and in social psychological research which implies that the chief function of network members is to provide support in times of stress. Without discounting this possibility entirely, we certainly find that networks affect well-being more than psychological distress. Friends, it appears, do more to enhance the good times than relieve the bad times.

Satisfaction measures provide an overall judgement of the quality of relationships. Wanting more detailed information we also asked about family cohesion (for example, 'Family members really helped and supported one another'; 'Family members seemed to avoid contact with each other when at home') and about family disagreements (for example, regarding 'household chores'; 'money matters'). Family cohesion was more strongly associated with well-being ($r = 0.34$), while disagreements related to psychological distress ($r = 0.31$).

Finally, in the 1987 and 1989 VQOL surveys, we added a single question measuring loneliness. The question simply asked respondents whether they felt lonely frequently, sometimes, seldom or never. Single item measures are unreliable and generally yield observed correlations which underestimate the 'true' strength of relationships. We were astonished therefore to find that the loneliness item correlated -0.46 with well-being and 0.51 with psychological distress. No other single item scale relates so strongly to our outcome measures. Loneliness is almost synonymous with misery.

### Table 6.3 Social networks, well-being and psychological distress correlations

<table>
<thead>
<tr>
<th>Availability</th>
<th>Life Satisfaction Index</th>
<th>Psychological Distress Index</th>
<th>Quality of relationships</th>
<th>Life Satisfaction Index</th>
<th>Psychological Distress Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intimates (mainly family)</td>
<td>0.30</td>
<td>-0.22</td>
<td>Family satisfaction</td>
<td>0.53</td>
<td>-0.40</td>
</tr>
<tr>
<td>Friends</td>
<td>0.23</td>
<td>-0.11</td>
<td>Friendship satisfaction</td>
<td>0.42</td>
<td>-0.21</td>
</tr>
<tr>
<td>Allies (helpers)</td>
<td>0.08</td>
<td>-0.07 ns</td>
<td>Allies satisfaction</td>
<td>0.30</td>
<td>-0.15</td>
</tr>
</tbody>
</table>

1. Source: VQOL Surveys.

ns = not significant at the 5 per cent level.
Domain satisfactions and life priorities

We now ask how satisfied or dissatisfied people are with particular domains of life (family life, work, leisure, and so on). We also want to know which domains are satisfiers in that they are strongly related to well-being, which are dissatisfiers associated with psychological distress, which are both, and which do not matter much because they are related neither to well-being nor psychological distress.

Table 6.4 gives the average domain satisfaction scores of VQOL panel members in the five surveys. Domain satisfaction levels are remarkably similar from country to country and, within Australia, have scarcely changed at all in the last ten years. In the left hand column of the table we list domains which are generally found very satisfying. In the middle are domains which are moderately satisfying, and on the right are domains with which people tend to be relatively dissatisfied. All ratings have been scaled to run from 0 (extreme dissatisfaction) to 100 (extreme satisfaction) and so can be thought of as quasi-percentages.

People report high levels of satisfaction with their personal relationships and low levels with public institutions. Relationships with one's children are the single most satisfying aspect of life, followed by friendships and marriage. Satisfaction with material things—with housing, work and one's standard of living in general—is also high. However satisfaction with one's current pay ('the amount you are paid') is only moderate. Other domains which generate moderate levels of satisfaction include leisure, health and fitness ('your physical fitness and the exercise you get'). What might very broadly be called the public domain generates least satisfaction. The Federal Government only just sneaks over the 50 per cent mark and state and local government are not thought of a great deal better. Television and the ideas and beliefs of the Women's Movement share in the general disapprobation of the public domain. Housework—an occupation of declining status—and the amount you worry about things also receive ratings indicating relative dissatisfaction.

International similarities in domain satisfactions are so striking that we must look for a general explanation of the results not an explanation that refers to Australia specifically. It may be true, but it is too parochial to say, as some writers have, that Australians are well satisfied with their private lives but cynical about their public institutions (for example, Brugger and Jaensch, 1985). The internationally relevant explanation is surely psychological rather than sociological In the personal domains of life people construct similar sets of mutually reinforcing perceptions to those which bolster their equilibrium state of well-being. In their family life and with regard to their material standard of living they perceive their present situation to be better than the past and almost as good as they expect, aspire to and deserve (Headey and Wearing, 1988).
One common reaction to reports of high levels of satisfaction with family relationships is that something must be wrong with the evidence because 30-40 per cent of marriages end in divorce and families split up. Campbell (1981) has labelled this the fallacy of social pathology. The fact that so many marriages eventually split does not mean that, at any given time, most are not reasonably happy. Partners may be happy for years before things turn sour and they decide to break up. We should note that, in any one year, scarcely 1 per cent of marriages terminate which is below, not above, the percentage who claim to be dissatisfied in surveys.

Domain satisfactions are also useful for assessing life priorities. As we noted earlier, the obvious way to discover people's life priorities is to ask them. However, this approach runs into problems of social desirability bias. That is, people tend to give answers which put themselves in a favourable light. For example, they give high rankings to 'a world at peace' and 'good government'; matters for which they might not evince much concern if the items were not on the interviewer's list (Campbell et al., 1976). So a preferable method, for most purposes, is to examine correlations between domain satisfactions, well-being and psychological distress and to infer that domains which are highly correlated with the outcome measures matter a great deal to people, and domains which have weak correlations do not matter much.

Correlations do not exactly tell us people's conscious life priorities but they provide the best measures available.

There are seven major domains which each correlate highly with well-being and psychological distress and which, taken together, account for most of the variance (differences) in people's scores. These domains are; marriage and sex life, friendship and leisure, material standard of living, work and health. Table 6.5 gives correlations between domain satisfactions, well-being and psychological distress.

### Table 6.5 Relationship of domain satisfactions with well-being and psychological distress: correlations

<table>
<thead>
<tr>
<th>Domain satisfaction</th>
<th>Life satisfaction index</th>
<th>Positive affect</th>
<th>Anxiety</th>
<th>Depression</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leisure</td>
<td>.42</td>
<td>.28</td>
<td>-.29</td>
<td>-.29</td>
</tr>
<tr>
<td>Marriage</td>
<td>.39</td>
<td>.17</td>
<td>-.29</td>
<td>-.32</td>
</tr>
<tr>
<td>Work</td>
<td>.38</td>
<td>.26</td>
<td>-.27</td>
<td>-.36</td>
</tr>
<tr>
<td>Standard of living</td>
<td>.38</td>
<td>.20</td>
<td>-.18</td>
<td>-.26</td>
</tr>
<tr>
<td>Friendships</td>
<td>.37</td>
<td>.19</td>
<td>-.15</td>
<td>-.12</td>
</tr>
<tr>
<td>Sex life</td>
<td>.34</td>
<td>.17</td>
<td>-.19</td>
<td>-.33</td>
</tr>
<tr>
<td>Health</td>
<td>.25</td>
<td>.11</td>
<td>-.23</td>
<td>-.14</td>
</tr>
</tbody>
</table>

1 Source: VQOL Surveys. Correlations with the LS Index and Positive affect are averages calculated from the five waves of VQOL data. This procedure was adopted because correlations fluctuated to a moderate degree from wave to wave. The correlations shown with the LS Index have been reduced by 0.1 relative to the observed correlations. This represents an estimate of response bias (Andrews and McKennell, 1980; Headey, Holmstron and Wearing, 1985) given that domain satisfactions and two of the four scales in the LS Index are measured on the delighted-terrible scale.

The domains have been listed in descending order according to the strength of their correlation with the Life Satisfaction Index. Although not too much should be read into the rank order which fluctuates to a moderate degree from survey to survey, it is interesting that satisfaction with leisure ranks at least as high as satisfaction with one's marriage, work and...
standard of living. These last three domains might perhaps have been expected to correlate most strongly to life satisfaction. Perhaps the main point, however, is that all seven domains make significant contributions and together account for 80 per cent of the variance (Headey, Holmstrom and Wearing, 1985).

Which domains are satisfiers and which are dissatisfiers? When we compare the correlates of well-being and psychological distress, we find that satisfaction with one's friendships is more highly correlated with well-being than with psychological distress, and the same is probably true of leisure. The finding regarding friendships is in line with earlier results on social networks (table 6.3). It confirms that friends tend to increase one's sense of well-being but do not do all that much to relieve distress. Levels of health satisfaction, on the other hand, appear more strongly related to depression than to well-being. This tends to confirm our earlier speculation that, while good health is often taken for granted and so is only moderately relates to well-being, dissatisfaction with health is a major handicap and is associated with psychological distress. The other four domains—marriage and sex, work and material standard of living—are approximately equally strongly associated with well-being and psychological distress.

Correlations between domain satisfactions and measures of well-being and psychological distress should not be regarded as self-evidently causal. There is an interesting controversy between proponents of bottom-up models (domain satisfactions influence well-being) and top-down models (well-being influences domain satisfactions). With panel data it is possible to try and assess reciprocal causation. We take up these issues in chapter 11. It is enough to say here that the Australian data suggest that the direction of causation varies depending on the domain. The top-down model apparently holds for leisure and for the domains of standard of living and, surprisingly, work. In the domains of marriage and sex, it seems that domain satisfactions contribute to well-being and vice-versa. Perhaps a fair summary is that domain satisfactions should be thought of as components of well-being (ingredients of the cake) rather than as causes or consequences in the usual sense.

Hedonism fails

A hypothesis we wanted to test is that hedonism is a recipe for well-being. We speculated that people who manage to spend most of their time on activities they enjoy would be happier than people who have to spend their days doing things they dislike. If this hypothesis had been confirmed, the likely reaction would have been that we were just restating the blindingly obvious. However studies based on time diaries, faithfully kept by national samples of respondents In the United States as well as Australia, appear to show that hedonism fails (Holmstrom, 1985; Juster and Stafford, 1985). This seems very strange until one realises with benefit of hindsight, that many of the people who can spend their time doing just what they like are singles, divorcees without children and widows. By contrast the people whose time is tightly constrained are married people who work full-time, and people with children at home. These latter groups rate higher on well-being and lower on psychological distress than singles, divorcees, and so on. They are happier because they have more satisfying personal relationships. These relationships need to be maintained, which necessitates time spent at work and time spent on not very satisfying routine activities like housework, physical care of children and ferrying children around. To be free to do what you want is not all fun. Hedonism fails!

Models of well-being and psychological distress

We have reviewed the contribution which four sets of variables—social background, personality, social networks and domain satisfactions—make to well-being and psychological distress. In order to move towards a theory of well-being and psychological distress we need to try and integrate these variables into statistical models. This is a fairly technical exercise and we
can only outline our methods here. It is assumed in the models that the four sets of variables can be arranged in a four-step chain of causation.

On the left of figure 6.1 are the background variables. They are regarded as exerting causal influence on other variables in the model, but are not themselves open to influence. At the second step of the model are personality measures. These are regarded as open to influence by (but not influencing) the background variables. This is a controversial assumption because some personality theorists, like Hans Eysenck, regard personality as largely hereditary. It is clear, however, that extraversion and openness are related to age, and that personal competence is related to SES. So we feel reasonably justified in putting personality second in the causal chain. At the next step are social network variables. They are open to influence by social background and personality. At the fourth step are domain satisfactions, which are influenced by background, personality and social networks. They combine to account for differences in people's well-being and psychological distress.

**Figure 6.1** Outline of models of well-being (WB) and psychological distress (PD)

1 Clearly health is not a social background variable. However it seems appropriate to include it at this step in the causal sequence.

We have estimated a number of statistical models of this kind and they suggest two somewhat distinct chains of causation, one for well-being and one for psychological distress (Headey, Holmstrom, and Wearing, 1984,1985; Headey, 1988). The chain of well-being runs as follows. People who are extraverted tend to form rich social networks. As a consequence they find their friendships and leisure more satisfying and have high levels of well-being. The chain of psychological distress is that people who rate high on neuroticism and have a weak sense of personal competence, who also tend to be of low social status, are dissatisfied with most domains of life, especially their work and standard of living (that is, two domains in which a low level of competence seems especially damaging). Psychological distress is also strongly associated with an unhealthy lifestyle, poor health and health dissatisfaction.

The chains of well-being and psychological distress are by no means completely distinct. Extraversion, or rather introversion, is associated to some extent with psychological distress as well as with well-being, and neuroticism and personal competence affect well-being, although not as strongly as psychological distress. Some variables, like being married or partnered, rather than single, affect well-being and psychological distress just about equally. Still, well-being and psychological distress are fairly distinct dimensions, so we would expect them to have fairly distinct correlates and causes. The distinctive satisfiers appear to be extraversion, especially being sociable and displaying warmth, social networks and enjoyable friendships and leisure.
The distinctive dissatisfiers are neuroticism, a weak sense of personal competence, an unhealthy lifestyle, poor health and dissatisfaction with one's health.

Conclusion

The following propositions summarise the chapter:

Differences in well-being and psychological distress are partly accounted for by differences in personality. Extraverts report a higher level of well-being and a lower level of psychological distress than introverts. People who rate high on neuroticism report lower levels of well-being and greater psychological distress than people who rate low on neuroticism.

Two facets of extraversion which are particularly strongly related to well-being are sociability and interpersonal warmth.

People who are sociable and display interpersonal warmth form extensive social networks and enjoy their friendships and leisure more than others. Having extensive social networks is associated with well-being.

Neuroticism is not only directly related to low well-being and high psychological distress, but also partly accounts for gaps between perceptions of one's present life and one's expectations, aspirations and sense of equity.

Of seven major life domains, satisfaction with friendship and leisure are more closely related to well-being than to psychological distress, whereas health (dis)satisfaction is more closely related to distress. The other four domains—marriage and sex, work and material standard of living—are about equally strongly related to well-being and distress.

Notes

1 Veenhoven has shown that Easterlin's (1974) well-known paper, which concluded that differences in average happiness levels between rich and poor countries were negligible, was based on a misleading analysis of Cantril's (1965) original data. See chapter 7 for more detail.
2 The correlation was 0.18.
3 The scale used was the 1-7 average scale described in chapter 5 with an additional off-scale zero for people who did not exercise, drink and so on at all.
4 The correlation with psychological distress may be somewhat inflated, however, by response bias. That is, respondents who score high on psychological distress may unwittingly overstate their tendency to an unhealthy lifestyle relative to the average person of their own sex and age. A tendency to complain (plaintive set) and/or to denigrate the self may be involved.
5 Costa and McCrae (1985) found that openness is also related to negative affect. The link was positive but not significant in our data. It should be noted that the difference could well be due to the fact that we measured only one facet of openness not all six.
6 Emmons and Diener (1985) found that impulsiveness was more strongly related to negative than to positive affect.
7 Termed vulnerability by Costa and McCrae (1985).
8 In fact if the two scales are 'corrected' for differences in reliability personal competence is more strongly related to all outcome measures.

9 For recent reviews of a vast literature see Thoits (1982); Wethington and Kessler (1986).

10 See Moos et al. (1984).

11 Indeed the relationship is so strong that we would prefer to regard the loneliness item as an indicator of psychological distress rather than a cause. Questions about loneliness are in fact sometimes included in psychological distress scales, for example, the Bradburn Negative Affect Scale.

12 It is important here not to imply that domain satisfactions cause well-being and distress. They are correlated with these outcomes but issues of causal direction are difficult to resolve, and some domain satisfactions may be consequences (a spin-off) of life satisfaction. See chapter 11.

13 They are not true percentages because there is no true zero and so one cannot say that, for example, 80 per cent is twice as much as 40 per cent.

14 This figure is usually in the 5-10 per cent range.

15 Campbell et al. (1976) found a correlation of 0.41 between conscious priorities and rankings inferred from correlations with well-being.

16 In earlier work we sometimes referred just to five domains. We combined the marriage and sex life domains and also the friendship and leisure domains (Headey, Holmstrom and Wearing, 1984,1985).

17 Using LISREL procedures (Joreskog and Sorbom, 1978) to correct for measurement error.

18 However the relationship may be due to cohort effects rather than maturational effects (Costa and McCrae, 1983).

19 As noted above, this last step should not be regarded as causal. Domain satisfactions are components of life satisfaction and the causal direction may run both ways.
International surveys consistently seem to show that people in some Western countries are happier than others. In the 1970s and 1980s, the Danes, Swedes, Swiss, Norwegians, Dutch, Irish and Australians have reported rather high levels of well-being, whereas the Japanese, Greeks, Italians, Spanish and French have reported lower levels. These differences appear to be quite stable over time. With the exception of Belgium, where levels of well-being have declined quite sharply (see below), the rank order of countries has changed little in the last twenty years.

Three kinds of explanation seem possible for these international differences. The most interesting explanations, if correct, would relate to collective political and economic characteristics of society and to major political and economic events. Could it be that people are happier in countries with a history of stable democracy than in countries currently or recently under dictatorship? Are people happier in wealthier, more affluent countries, countries with a higher per capita income? Do income equality or sex equality raise or lower levels of well-being, or do they make no difference to average levels but reduce inequalities of well-being? It is also important to ask about the impact of major events like wars and economic slumps. Does the experience of war lower well-being? Or only if you are on the losing side? Does rapid economic growth enhance well-being and do economic slumps lower it? What are the effects of emigration and immigration?

We shall review research findings on these issues, recognising that the evidence is far from conclusive, mainly because it is based on a limited range of countries (relatively few surveys have been conducted in non-Western countries) and a limited time period (mainly the 1970s and 1980s). We must also recognise that some researchers doubt whether international differences in well-being exist, or at least can be accurately measured in surveys. First, it can be argued that difficulties in translating the nuances of words like happiness, satisfaction and well-being into foreign languages vitiate the whole exercise. Perhaps the word 'heureux' does not have exactly the same connotations to the French as 'happy' does to the English. Or perhaps 'zufrieden' in German is not the same as 'satisfied' in English. Another suggestion which would explain away
rather than explain international differences is that varying cultural norms govern the extent to which it is acceptable to express feelings of happiness and life satisfaction. Perhaps in some countries it is just normal and expected to tell others that you feel happy, that things are going great. In other societies it may be normal to be modest and say that you are moderately happy, or only moderately satisfied with life.

Another possibility is that international differences in well-being are not due to the collective features of society (democracy, affluence, and so on) but to international differences in the distribution of personality traits, quality of social networks, domain satisfactions and so on. In other words it could be that in happy countries there are more extraverts, fewer introverts, fewer neurotic people, more people with rich social networks, happy marriages and satisfying jobs. Perhaps there is something to the hoary old idea of national character. If this is so, the question of how some countries come to have more extraverts, better quality social networks and so forth still arises.

It should be clear that the various types of explanation of international differences in well-being are not mutually exclusive. Differences could be partly due to linguistic or cultural conventions, partly to varying distributions of personality traits, and partly to collective societal characteristics and to political and economic events. Furthermore, collective societal characteristics and major events could influence the distribution of personality traits. Personality is partly genetically determined and partly due to environment. We shall find some evidence that events and social changes in the last fifty years have changed the distribution of personality traits in some Western countries.

International differences in well-being

During the 1970s and 1980s numerous surveys which included questions about life satisfaction and happiness were carried out in Western industrialised countries. Unfortunately few similar surveys were undertaken in communist countries or in the so-called Third World. Table 7.1 divides Western countries into three roughly equal groups according to whether they report relatively high, moderate or low levels of well-being. In doing this, we are averaging survey results over the last twenty years. As noted above, countries show little change in their relative positions, with the certain exception of Belgium and the possible exception of Ireland. It must be stressed that the grouping of countries reflects relative positions, not absolute scores on life satisfaction and happiness scales. Even in countries described as low scoring, the average person rates above the mid-point of the scale (see chapter 4). The high scoring countries are those whose citizens have usually scored 7.8 or higher on scales with a maximum of 10. The moderate scoring countries usually average between 7.0 and 7.7 on the scale, and the low scoring countries average under 7.0.
Table 7.1 Happy, moderately happy and less happy Western countries

<table>
<thead>
<tr>
<th>Happy</th>
<th>Moderate</th>
<th>Less happy</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Denmark</td>
<td>USA$^2$</td>
<td>Hungary</td>
<td></td>
</tr>
<tr>
<td>Sweden</td>
<td>Canada$^3$</td>
<td>France</td>
<td></td>
</tr>
<tr>
<td>Switzerland</td>
<td>UK</td>
<td>Italy</td>
<td></td>
</tr>
<tr>
<td>Norway</td>
<td>Finland</td>
<td>Spain</td>
<td></td>
</tr>
<tr>
<td>Australia</td>
<td>S. Africa (whites)</td>
<td>Portugal</td>
<td></td>
</tr>
<tr>
<td>Netherlands</td>
<td>Belgium</td>
<td>Greece</td>
<td></td>
</tr>
<tr>
<td>Ireland</td>
<td>W. Germany</td>
<td>Japan</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Austria</td>
<td>S. Africa (blacks)</td>
<td></td>
</tr>
</tbody>
</table>


2 White and Hispanic Americans score higher than black Americans but blacks also rank in the moderately happy group.

3 English and French Canadians report similar levels of well-being with the French apparently slightly higher.

The list of happy countries, contrasted with the less happy countries, immediately suggests some explanations. The democratic, affluent and relatively egalitarian countries of North-Western Europe figure prominently in the happy list (Denmark, Sweden, Norway, The Netherlands). Affluent, neutral and democratic Switzerland is also there, as is Australia (moderately affluent and egalitarian, fairly well insulated from war). Ireland is something of a puzzle, being neither particularly affluent nor particularly egalitarian, although neutral in recent years.

The list of less happy countries provides some fairly sharp contrasts. All but France have been dictatorships within living memory, with Greece, Spain and Portugal only recently adopting democratic systems of government (Presumably South African blacks would regard the regime they live under as a dictatorship, at least until very recently). With the exceptions of France and Japan, the less happy countries are among the least affluent of the industrialised world, and all of them probably have relatively unequal income distributions which their less-than-generous welfare systems do little to ameliorate (Buhmann et al., 1988; Saunders, Hobbes and Stott, 1989; Sawyer, 1976).

Our preliminary scan has suggested three propositions:

1 Democratic countries which protect freedom of expression and civil liberties are happier than dictatorships.

2 Wealthier countries are happier than poor countries.

3 Countries with a relatively equal income distribution are happier than countries with an unequal distribution.
Democracy

A pioneer of international research on well-being is the Dutch researcher, Ruut Veenhoven, who has compiled the invaluable *World Databook of Happiness* (1990). Among other projects, Veenhoven has reviewed relationships between political system characteristics and well-being. Essentially this has involved correlating national scores on indices of political freedom and democracy developed by political scientists (Gastril, 1987; Kurian, 1979; Taylor and Jodice, 1988) with results of national surveys of well-being. The basic finding is that people in democratic countries are happier but that the relationship is stronger in developed industrialised countries than in poorer countries. Veenhoven speculates that in wealthier countries the absence of democracy is felt as a major deprivation, whereas in poorer countries the desire for material advance has higher priority.

**Figure 7.1** Average happiness in 1975 and governmental coercion in the years between 1948 and 1970

1 Source; Veenhoven (1989).
Correlations: r=0.67, p <0.005 when computed for the separate nations.
It is clear that average well-being scores are higher in, for example, the Scandinavian countries, Australia, Britain and North America, where democracy and the relative absence of coercion are well established, than in the countries of Asia, Africa and Latin-America where democracy is non-existent or insecure. India is an exception; a democratic country with a low level of well-being.

Veenhoven (1989) reports similar results for the relationships between well-being and other indicators of democracy such as freedom of the press, separation of executive and legislative powers, and freedom of association and interest groups. However, since all these aspects of democracy tend to be found together in the same countries, an issue that remains unclear is which aspects of democracy and dictatorship most affect happiness. Is it the absence of media freedom in dictatorships that people most resent, or the dangers of arbitrary arrest, or just inability to vote the government out?

Affluence and the effects of economic boom and slump

The issue of whether money buys happiness is highly contentious. In a famous paper Easterlin (1974) purported to show that there was no relationship between the wealth of nations and the happiness of their people but that, within a single country and despite the counter example of the stars of Hollywood, the rich tended to be happier than the poor. His explanation was that, in assessing their economic lot, people do not make comparisons between countries (why not—don't they watch television?) but only compare themselves with people in their own country. Veenhoven (1990) has obtained data for twenty-eight countries and reanalysed Easterlies data, using more appropriate methods. Overall, he finds a moderate relationship between national per capita income and levels of well-being. The poorer countries mostly record quite low levels. India, the Philippines, Mexico, Malaysia, South Korea, Spain, Portugal and Greece are all below average in the list of twenty-eight countries. Brazil, however, is an exception. Within the group of wealthier countries, the relationship is much less clear. Japan rates very low and wealthy Germany is below half-way. However, as economic growth moved ahead, Japan and Germany recorded greater increases in well-being than countries with lower growth rates (Veenhoven, 1989).

It must be open to doubt whether additional income would make much further difference to well-being in the wealthiest countries of North America and North-Western Europe. The law of diminishing returns would probably apply, indeed it probably already has. In other words, money like other goods confers less utility or satisfaction, the more of it you have (Veenhoven, 1989).

The reasons for wealth increasing happiness are partly obvious and partly non-obvious. Presumably people gain some increment in well-being from consuming more and better quality goods, from better housing, cars, electrical goods and so forth. It also seems to be the case, however, that affluence increases extraversion which, as we know, is associated with well-being. Lynn (1982) has shown that, as countries become wealthier, their people become more extraverted and that, on average, people in wealthier countries are more extraverted than people in poorer countries. Americans are the most extraverted nationality, but even the Japanese, who are most introverted, are becoming more extraverted as they get wealthier. Perhaps the mechanism is that affluence opens up opportunities for sociable leisure activities and that participation in these activities slowly modifies personality in an extraverted direction; this is an example of environment moulding personality. It is also possible that education, which is associated with affluence, enhances social skills and, eventually, extraversion levels.

If affluence is associated with happiness, one would expect economic booms and slumps to affect national averages, and particularly to affect the happiness scores of the people most affected, notably small businesspeople, the self-employed, and the unemployed. In practice the evidence is not decisive, partly perhaps national surveys of well-being have mainly been conducted in Western countries and almost without exception since the Second World War. During this period there have been economic recessions but no serious economic slumps;
certainly nothing as serious as the economic slump of the 1930s. So far as we can tell, economic recessions do not usually lower average levels of well-being, although people become less satisfied with their standard of living (Veenhoven, 1989). There is some evidence of increased psychological distress, especially among self-employed and unemployed people. Anxiety and depression levels appear not to change much but drug consumption (tranquillisers) increases (see Veenhoven, 1989). There is also some evidence that mortality and suicide rates increase as a consequence of recessions (Brenner, 1979; Durkheim, 1897), but some scholars have disputed this and claimed that in recent recessions these more serious effects have not been felt, perhaps due to benefits provided by the welfare state (Mackenbach and Kunst, 1989; Wagstaff, 1985). Veenhoven (1989) in fact concludes that the welfare state does buffer the impact of recessions on well-being and psychological distress but admits that the evidence is inconclusive.

Despite what has just been said, it seems likely that if a severe economic slump occurred, rather than a recession, there would be a substantial decline in well-being. The case of Belgium and perhaps Ireland in the late 1970s and early 1980s is significant here. In Belgium the recession bit deeper than elsewhere in Western Europe and well-being quite sharply declined (Inglehart and Rabier, 1986).

Equality

A fascinating question, which has only recently attracted research interest, is whether income equality, and perhaps other forms of social equality, including sex equality, are related to happiness. It is plausible that greater income equality would increase the well-being of those who were previously worse off, while not seriously (if at all) reducing the happiness of the better off. Some economists allow for this possibility by assuming that extra dollars provide more additional utility (well-being) for poor people than for the wealthy (Gillespie, 1963). An alternative view, however, is that the utility of the wealthy derives from positional goods; goods like private beaches which may be enjoyed partly because they are not available to others (Hirsch, 1977). A further possibility is that increases in income equality, while not increasing average well-being in a country, have the effect of reducing inequality of well-being (that is, the dispersion or standard deviation of well-being scores diminishes).

The evidence is not available to test whether historical changes in income equality in individual countries have been accompanied by changes in well-being. However, in a recent paper, Veenhoven (1990) investigated the link between equality and happiness with data on twenty-eight countries for the years around 1980. His main measures of income inequality were Gini-coefficients (which summarise the overall income distribution) and social security spending per head relative to income per head (a measure of the extent to which government seeks to level up people with low incomes). It transpired that in countries with greater income equality, the average level of happiness was higher and the spread of happiness scores (inequality of happiness) was lower.

Gender equality also appears positively related to happiness but happiness is not more equally distributed in relatively egalitarian countries. Veenhoven speculates that this may mean that men and women profit equally from the emancipation of women.
Figure 7.2 Happiness in 1979 and income inequality measured by Gini-coefficients in preceding years in various parts of the world\textsuperscript{1}

\begin{itemize}
\item Source: Veenhoven (1989).
\item Correlations: $r=-0.45$, $p<0.05$ when computed for the separate countries.
\end{itemize}
War and enemy occupation

The effects of war on happiness are not completely understood. It seems clear that being on the losing side or being occupied by enemy forces decreases well-being and increases distress. But the effects of fighting and winning are much less clear. Veenhoven (1984) found that happiness was considerably lower after the Second World War in defeated countries (Germany, Italy) and in occupied countries (France, Belgium, Netherlands) than in victorious countries (UK, USA). More interestingly, Lynn (1982) assembled data on anxiety levels in nine defeated and occupied countries and nine countries that were victorious or neutral in the Second World War. In all defeated and occupied countries anxiety levels (measured by alcoholism, caffeine consumption and suicide) rose between 1935 and 1950 and then fell between 1950 and 1960. Among the victorious and neutral nations, six showed no rise in anxiety between 1935 and 1950 and two showed only minimal increases (Sweden was the exception, showing a marked increase in this period). There is no evidence here that war is good for morale, but it does not seem to be bad provided you win.

Alternative explanations of international differences

So far we have attributed international differences in happiness mainly to collective characteristics of society (democracy, equality, and so forth) and to political and economic events (war, economic slump). Now we consider alternative explanations, including attempts to 'explain away' the differences.

The nuances of language

A common reaction of laypeople and linguists to apparent international differences in well-being is to suggest that they are due to problems of translation, to nuances of language. Can we adequately translate words like happiness and satisfaction into French, Italian, Swahili and Japanese? In fact there is fairly strong evidence that translation difficulties are of little significance. There are three countries—Canada, Switzerland and Belgium—in which considerable research has been done and in which people who speak different languages can be compared both with each other and with citizens of the country in which the language originated. French speaking Canadians report just slightly higher levels of life satisfaction than English speakers and markedly higher levels than the citizens of France (Inglehart and Rabier, 1986; Veenhoven, 1989). Switzerland provides an even more striking case. Here French, German and Italian speakers report much higher levels of well-being than the citizens of France, Germany and Italy (Inglehart and Rabier, 1986). Finally, French speaking Belgians appear happier than French people, while Flemish speaking Belgians rate lower than the citizens of Holland whose language is very similar.

Cultural norms

Another suggestion is that apparent differences could be due to cultural norms, that is, to the extent to which it is acceptable in different cultures to express feelings of happiness and life satisfaction. Inglehart and Rabier (1986) are enamoured of this suggestion:

Can it be true that the Italians, French, Germans and Greeks really are a great deal less happy, and more dissatisfied with their lives than the Danes, Swiss, Dutch and Irish? The thought seems staggering. Could fate be so unkind as to doom entire nationalities to unhappiness,
simply because they happened to be born in the wrong place? We suggest that the observed cross-national differences have an important cultural component.

The difficulty with many so-called cultural explanations is that they are not explanations at all but just confessions of ignorance. To say that a cultural norm explains something is often like saying, 'I don't understand what is going on over there. They seem to do things differently'. To give a cultural explanation any bite, it is necessary to specify which particular norms explain which particular attitudes and behaviours. It also helps to describe how and when such norms are acquired, for example, by parental admonitions to young children, or in elementary school. Inglehart and Rabier cite only one example of a specific norm affecting reports of life satisfaction, namely Iijima's (1982) statement that, in Japanese society, people are expected to restrain themselves and express modesty. This example seems dubious; detailed evidence is given in this chapter indicating that Japan really is an unhappy country.

Because cultural explanations tend to be flexible, it is hard to know how to refute them. One possibility would be to investigate the relationship between life satisfaction scores and reports of the frequency of experiencing positive emotions (positive affect). If it transpired that people in countries which reported high satisfaction scores also frequently reported experiencing joy, elation, enthusiasm, zest, and so on, whereas people in countries with low satisfaction scores less frequently experienced these emotions, this would be limited evidence that the satisfaction scores were veridical. After all, we know that life satisfaction and positive affect are moderately highly correlated among individuals (see chapter 3), so if the same thing were found for countries, this would lend credence to the cross-national data (in the technical jargon of social scientists we are conducting a convergent validity test).

In twelve of the countries which participated in the European Values Survey in the early 1980s, questions were asked on both life satisfaction and positive affect (the positive affect questions were the familiar Bradburn questions introduced in chapter 3). The following table ranks these twelve countries from highest to lowest on the two scores.

Table 7.2 International comparisons of life satisfaction and positive affect

<table>
<thead>
<tr>
<th>Countries</th>
<th>Life satisfaction rank (1-12)</th>
<th>Positive affect rank (1-12)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denmark</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Australia</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Netherlands</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>Ireland</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>N. Ireland</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Britain</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>Belgium</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>W. Germany</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>France</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>Italy</td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td>Spain</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>Japan</td>
<td>12</td>
<td>12</td>
</tr>
</tbody>
</table>

The two sets of rankings are quite similar, although they are by no means identical. The four countries which rate lowest on life satisfaction (Japan, Spain, Italy and France) also rate lowest on positive affect. Of the six countries in the top half of the life satisfaction list, five are also in the top half on positive affect. The two 'surprising' countries are the Netherlands and West Germany. The Netherlands ranks lower on positive affect than one would expect. This is probably because Dutch people score relatively low on extroversion scales (see below), and extraversion is even more strongly associated with positive affect than with life satisfaction. The West Germans, on the other hand, score much higher on positive affect than their life satisfaction scores would have led us to expect. Again, the explanation has to do with extraversion. Germans score high on extraversion scales, although also high on neuroticism (see below).

Of course, the objection could be made that reports of positive affect (excitement, joy, and so forth) could result from the same cultural norms as reports of life satisfaction...maybe so. A possible method of countering this argument would be to use 'experience sampling methodology' (see chapter 3) to provide more direct readouts of emotions. International studies which document the duration and intensity of emotions experienced in specific life situations may also eventually cast light on the issue, but have not done so yet (Scherer, Summerfield and Wallbott, 1983).

To some extent the limitations of cultural explanations can be exposed by showing that more substantial factors account for international differences. We have already attempted to assess the role of political systems, affluence and equality. Now we ask whether personality traits are differently distributed in different countries and whether this could account for international variance in well-being.

Personality traits: do some countries have more extraverts and fewer neurotics?

A fascinating attempt to assess international differences in personality (national character?) has been made by the British psychologist, Richard Lynn. He assembled measures of extraversion and neuroticism for eighteen countries between 1935 and 1970. For some countries and some dates Eysenck scale scores were available, but for other countries and times he used indirect measures based on the known association between extraversion and neuroticism and certain social behaviours. Extraversion is known to be associated with cigarette smoking, a tendency to get divorced, and accident proneness. Neuroticism is associated with alcoholism, high suicide rates and low caffeine consumption.

Fortunately, we have reasonably reliable data on well-being (although not on psychological distress) for all Lynn's eighteen countries. The clearest results are at the bottom end; the countries with the lowest well-being. These are Japan, Italy and France. Japan records very low levels of extraversion (lowest of the eighteen countries) and very high levels of neuroticism (second highest). Italy and France also record low levels of extraversion and high neuroticism. In the countries which report high levels of well-being, the picture is less clear. In Denmark and Sweden, the two happiest countries, high levels of extraversion and low levels of neuroticism are reported. However in Switzerland (third on the list of happy countries) extraversion and neuroticism levels are about average, while Norway, the Nether-lands and Ireland rate low on extraversion but also low on neuroticism. Australia and New Zealand record fairly high levels of well-being and also above average levels of extraversion and below average levels of neuroticism.

In countries which report moderate levels of well-being, we find two quite different but understandable patterns. Moderate well-being can result from high levels of extraversion combined with high levels of neuroticism, as is found in the USA, Germany and Austria. It can also result from the combination of moderate levels of extraversion and neuroticism, as in Canada and Belgium. However, a third possible recipe for moderate well-being, namely low
extraversion and low neuroticism, seems instead to produce high well-being (Netherlands, Norway, Ireland).

It is interesting to speculate on the causes of national personality differences. We have already suggested that defeat and occupation in war raise levels of neuroticism and anxiety, while affluence seems to increase extraversion. It has also been suggested that extraverts are more likely to emigrate and, if this is so, one would expect to find higher extraversion scores in countries to which many emigrants have gone than in countries from which many departed (Lynn, 1982). The relatively high levels of extraversion in the United States, Canada, Australia, New Zealand and South Africa (whites) would appear to support this hypothesis, as would low extraversion scores in Ireland and Norway. As ever, there are exceptions. Germany and Austria are countries which have experienced quite high emigration levels and low levels of immigration (with the exception of recent guest-workers in Germany) but they report high levels of extraversion.

Overall, it seems reasonable to conclude that national levels of well-being are partly a result of different distributions of personality traits. In a sense this a partial vindication of the idea of 'national character'. However, this conclusion should not be pressed strongly since it depends quite heavily on indirect measures of extraversion and neuroticism. It is also the case that the personality measures were mostly taken around 1970 (although one would only expect small changes over time), whereas the well-being measures were taken around 1960. The link between personality traits and national levels of well-being is a fascinating and wide open area for further research.

Social networks

The social networks available to people, particularly the number of close friends they have, is quite strongly related to well-being. There is some evidence that the quality of social networks varies from country to country and that this too is linked to national levels of well-being. In 1986 the International Social Survey Programme, to which seven countries belong (Australia, West Germany, Britain, the United States, Austria, Hungary and Italy), devoted its annual survey to social networks. Many of the questions related to family matters rather than friendship networks. The question closest to the concept of social networks used in this book was:

Thinking now of close friends—not your husband, or wife, or partner, or family members—but people you feel fairly close to. How many close friends would you say you have?

The Australian and American respondents, followed (by a large margin) by the British, recorded the greatest number of friends. The Italian, Germans, Hungarians and Austrians followed in that order. This suggests that social networks help to account for well-being differences, since we know that the Australians, Americans and British rate higher than the Austrians, Germans, Hungarians and Italians (see table 7.1).

Domain satisfactions

We would expect that in countries which report high levels of life satisfaction, people are also well satisfied with their jobs, family life, material standard of living and so forth. The European Values Survey, conducted in the early 1980s, provides limited evidence of domain satisfactions. In table 7.3, the twelve countries for which data are available have been ranked from highest to lowest in life satisfaction (first column). Rankings are then given for job satisfaction, satisfaction with 'your home life' and satisfaction with 'the financial position of your household'.

It is clear that there are very strong international relationships between life satisfaction on the one hand and job satisfaction and satisfaction with one's home life on the other. The same countries are in the top six and the bottom six in all three lists, although the rank orders vary slightly. The question about satisfaction with the financial position of your household does elicit
a somewhat different pattern of responses. The wealthy Germans move up the list and
Australians, the real value of whose personal incomes fell

Table 7.3 International comparisons of life satisfaction and domain satisfaction

<table>
<thead>
<tr>
<th>Country</th>
<th>Life satisfaction</th>
<th>Job satisfaction</th>
<th>Home life</th>
<th>Financial position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denmark</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Australia</td>
<td>2</td>
<td>5 ns</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>Netherlands</td>
<td>3</td>
<td>4</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Ireland</td>
<td>4</td>
<td>2</td>
<td>4 ns</td>
<td>4</td>
</tr>
<tr>
<td>N. Ireland</td>
<td>5</td>
<td>3</td>
<td>4 ns</td>
<td>5 ns</td>
</tr>
<tr>
<td>Britain</td>
<td>6</td>
<td>5 ns</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Belgium</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>W. Germany</td>
<td>8</td>
<td>9</td>
<td>9</td>
<td>5 ns</td>
</tr>
<tr>
<td>France</td>
<td>9</td>
<td>11</td>
<td>8</td>
<td>11</td>
</tr>
<tr>
<td>Italy</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>9</td>
</tr>
<tr>
<td>Spain</td>
<td>11</td>
<td>10</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>Japan</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>10</td>
</tr>
</tbody>
</table>

All questions were answered on a 1-10 satisfaction scale.

in the 1980s, move sharply down the list. The Japanese for once move off the bottom, although
only from twelfth to tenth. By and large, however, it remains true that people in happy countries
manage to feel reasonably happy with their financial position, even if by Western standards they
are really quite poor. This is most clearly true of the Irish. Conversely people in the unhappy
countries manage to feel quite unhappy with their financial position, even if, like the French,
they are really quite well-off. It is worth noting, incidentally, that in all countries satisfaction
with one's financial position is lower (an average of 6.6 on the 10 point scale) than satisfaction
with one's job (7.3) and satisfaction with one's home life (7.8).

The finding that domain satisfactions are strongly associated with life satisfaction opens up a
possibility, to be explored in chapter 11, that feelings about specific aspects of life are partly
consequences rather than only causes (or antecedents) of well-being. In any event the results we
have reviewed here indicate that countries like Denmark, Sweden, the Netherlands, Australia
and Ireland consistently record results indicating that their people enjoy relatively high levels of
well-being, whereas Japan, Greece, Spain, France and Italy are countries where people
experience lower levels of well-being.
Psychological distress

We have seen that well-being and psychological distress are different dimensions, and that, contrary to what a layperson might expect, there are many individuals who rate high on both well-being and distress especially anxiety, while others rate low on both dimensions. What is true of individuals is true of countries. Anxiety levels are in the middle, not low, range in several countries which rate high on well-being. These include Australia, Switzerland and Sweden (Lynn, 1982). Other countries, notably Germany and Austria, rank in the middle on well-being but display high levels of anxiety and negative affect.

Critics of well-being research sometimes point to statistics on suicide, divorce and alcoholism as casting doubt on findings like those given in this chapter. It is pointed out that suicide rates are high in some countries (Denmark, Finland and Switzerland but not, contrary to general belief, in Sweden) which record high levels of well-being (Argyle, 1987). Divorce rates are high in Denmark and Sweden (and higher still in the United States) and death from cirrhosis of the liver (an indication of alcoholism) is also relatively common in Switzerland and the United States, although much more common in some of the unhappy or moderately happy countries, notably France, Italy, Germany and Austria (Argyle, 1987).

These statistics should not be seen as running counter to evidence on well-being. They are symptoms of psychological distress, if not social pathology. Only a very small number of people commit suicide in any country and there is no particular reason why the numbers should be related to average levels of well-being. Clearly, too, death from cirrhosis of the liver is not particularly common (in France, which has the highest rate, it runs at 29 per 100,000 deaths). Even high divorce rates, while they certainly affect many more people, cannot be taken as evidence of unhappy lives, or even as evidence that marriages which eventually broke up were unhappy for most of their duration. As Angus Campbell, a pioneer of well-being research, once wrote, it is a fallacy of social pathology to quote statistics reflecting the distress of minorities as if they reflected the general well-being of society (Campbell, 1981).

Conclusion

The results given in this chapter appear very comforting for Western democrats. It appears that democracy, affluence and equality are all positively associated with happiness. Whenever a researcher gets results in line with his or her preferences, warning bells should ring and a double dose of caution be called for. It has to be remembered that international comparative research on happiness is in its infancy and that all results given here are preliminary. A particularly difficult issue arises because of possible confounding of the effects of democracy, affluence and equality. In general, the three goods (if goods they be) are found in the same countries of Western Europe, North American and Australia. To discover the relative importance of the three factors, particular attention needs to be focussed on countries which are now or recently have been non-democratic but which are fairly affluent (for example, South Korea, Taiwan) or fairly egalitarian (for example, the ex-communist countries of Eastern Europe).

The effects on happiness of many other societal features, including levels of crime, violence, riots, protest, unemployment, strikes, pressure group and organisational participation, have scarcely been investigated at all. These are topics which can probably best be addressed by means of international comparisons and the work remains to be done. In the meantime five rather tentative propositions emerge from this chapter:
Levels of well-being are higher in democratic countries than in dictatorships.
Levels of well-being are higher in wealthy countries than in poor countries.
Levels of well-being are higher in countries which have relatively egalitarian income distributions.
Levels of well-being are higher in countries with a greater degree of sex equality,
Levels of well-being are higher in countries whose citizens score relatively high on extraversion and relatively low on neuroticism.

Notes

1. That is the standard deviations of happiness scores are not lower in egaliatarian countries.
2. By reasonably reliable data we mean national sample surveys in which well-being has been measured on scales of at least 7 points with appropriately labelled end-points (for example, satisfied-dissatisfied, happy-unhappy, delighted-terrible).
3. The well-being measures taken closest to 1970 were used in the foregoing analysis in order to facilitate comparisons with Lynn's 1970 personality measures. However, for most countries, the earliest available results were for years around 1980.
4. The national averages (means) for close friends were: Australia 7.2, USA 7.1, Britain 4.1, Italy 3.9, Germany 3.7, Hungary 3.6 and Austria 3.6.
PART 3  Stability and change in well-being and distress
Four personality types: their equilibrium levels of well-being and psychological distress

Before proceeding further it will be useful to provide an overview of the static analysis of part 2 in order to prepare the way for analysis of change (dynamic analysis) in part 3. We designate four personality types and review their differing equilibrium levels of well-being and psychological distress.

Most people report that they are pretty well satisfied with their lives and, if Diener's results can be generalised (Diener and Sandvik, 1987), that they are actually in a good mood most of the time. So the normal equilibrium state for most people is one of high well-being. Nevertheless, some symptoms of distress, particularly anxiety, co-exist with this high level of well-being.

After describing the typical equilibrium state in chapters 4 and 5, together with the perceptions and misperceptions (sense of relative superiority) which bolster this state, we proceeded in chapter 6 to discuss why, even so, there are differences in people's levels of well-being and psychological distress. Numerous explanations were suggested, each supported by statistical evidence. In chapter 8 we want to highlight the crucial role of personality and to suggest that because of stable but differing personalities, individuals can be thought of as each having their own normal equilibrium levels of well-being and psychological distress.

The personality traits we focus on are extraversion and neuroticism. These traits are partly genetic—Eysenck believes up to 75 per cent genetic—and they have been shown to be highly stable over a lifetime (Block, 1981; Costa and McCrae, 1984; Eysenck and Eysenck, 1969). In the VQOL survey we find nearly 100 per cent stability in panel members' extraversion and neuroticism scores between 1981 and 1989. Now it should be remembered that extraversion and neuroticism are almost uncorrelated with each other. It follows that we can, for convenience, think of four types of person—four personality types—who are found in roughly equal numbers in the population. We shall refer to type I people who are extraverted and stable (non-neurotic), type II people who are introverted and neurotic, type III people who are both extraverted and neurotic, and type IV people who are introverted and stable.

Classifying people into types is, in this instance, nothing but a mental convenience which has helped us to understand why it is that individuals apparently have different equilibrium states of well-being and psychological distress, and why they also as we shall see have differing but persistent patterns of life events and experiences. As the figure below illustrates, the four types are really extreme or polar types; most people are 'in the middle'. There are no cut-off points which sharply designate individuals as belonging to one of the four types. However, provided that it is well understood that the statistical relationships described in this book are relationships between variables and not attempts to characterise different species, the typology will be useful as a simplifying device; a device that helps us see the wood for the trees.
Four personality types

Type I people, being extraverted and stable, rate high on well-being and low on psychological distress (see table 6.2). When we analyse stability and change in part 3, we shall find that high well-being and low psychological distress is the persisting equilibrium state of people who were classified as type I when the Australian panel survey started in 1981. Being extraverted, they have rich social networks and they particularly enjoy their friendships and leisure time. Being stable (low scorers on the neuroticism scale), they feel in control of their lives and are not inclined to worry unduly about family problems, money or health. Their expectations, aspirations and sense of their just deserts are high, but only a little higher than their assessments of their present life. Of course, major adverse experiences can and do upset them but their tendency, we shall find, is to keep reverting to their own equilibrium state of high well-being and low psychological distress.

Type II people, being introverted and neurotic, rate low on well-being and high on psychological distress. They have poor social networks. They feel relatively helpless, vulnerable, unable to control their lives. They worry a lot. There are relatively large gaps between their expectations and their perceptions of their current life.

Types III and IV are the more surprising, counter-intuitive types. Type III people are both extraverted and neurotic and so manifest both high levels of well-being and high levels of psychological distress. They are impulsive, volatile, excitement-seekers. They are good at both making and losing friends and partners, and probably at making and losing money. They live in the fast lane. Some are fun to be with, and some are criminals (Eysenck and Eysenck, 1969).
Type IV people are introverted but stable. They report low levels of both well-being and psychological distress. They are dour and phlegmatic. As we shall see, they lead rather monochrome lives; lives short of variety and of either satisfying or distressing experiences.

Conclusion

This section has reviewed part 2 (static analysis) and previewed part 3 (dynamic analysis). To repeat:

Type I people, being extraverted and stable, rate high on well-being and low on psychological distress.

Type II people, being introverted and neurotic, rate low on well-being and high on psychological distress.

Type III people, being extraverted and neurotic, rate high on well-being and high on psychological distress.

Type IV people, being introverted but stable, rate low on well-being and low on psychological distress.

The hypothesis that we carry into part 3 is that these combinations of well-being and psychological distress represent persistent equilibrium states for the four personality types.

Notes

1 This is shown by how close the over-time correlations are to the reliability of the measures. The eight year correlation of extraversion (1981-89) was 0.62, relative to reliability (Cronbach's alpha) of 0.63. The eight year correlation of neuroticism was 0.67 compared with a reliability of 0.82.
History repeats itself in people's lives: why?

Some people enjoy consistently higher levels of subjective well-being than others; people who are happier at one point in time tend to be happier at later times. However, considerable change does occur in the well-being and psychological distress of individuals in particular time periods. Essentially the theory of stability and change put forward in chapters 8 and 9 states that stable personal characteristics influence both the life experiences that happen to people and their levels of well-being and psychological distress. Personal characteristics, life experiences and well-being and psychological distress are in dynamic equilibrium. However, if, in a particular period, a person deviates from his or her own normal pattern of life experiences, then levels of well-being and psychological distress will change. The tendency will always be, however, to revert to the equilibrium pattern.

The results which follow are quite complicated and may strike some readers as counter-intuitive. When we began our research we held the conventional view that life events are more or less external (exogenous) shocks which happen to people unexpectedly and presumably affect their levels of well-being for better or worse, depending on the nature of the events. As the panel study progressed, however, we noticed that history repeats itself in people's lives. The same people kept reporting the same kinds of events. This raised a number of fascinating possibilities. One was that events are by no means all external shocks and that people's own characteristics predispose them to experience certain patterns of events. Another possibility was that people just perceive and recall events differently, perhaps because of their differing personalities. A third, mixed possibility, which we think the evidence points to, is that persistent differences in reports of life experiences are partly 'real' (objective, what an outside observer would record) and partly due to differences of perception.

In fact we shall find that the four personality types have quite different patterns of reported life events. Type I people report many favourable and few adverse events. Type II report the reverse pattern. Type III report many favourable and many adverse experiences, whereas type IV report that nothing much has happened to them. However, classifying into the four types does not enable us to tell the whole story. Other individual attributes—age, socio-economic status, social networks and the personality trait of openness to feelings—also influence the events that happen or are reported as happening.

In this chapter we first consider the degree of stability and change in the well-being and psychological distress of Australian panel members in the years 1981 to 1989. Next we show that the degree of stability is quite largely due to extraversion and neuroticism. A key set of results then show that life experiences are fairly persistent over time and that this, too, can be attributed to stable personal characteristics, including extraversion and neuroticism. A crucial implication of these results, to be explored in chapter 9, is that events do not always change...
individual levels of well-being and psychological distress. Provided individuals continue to experience their own characteristic pattern of events, there is no reason for well-being or psychological distress to change. Previous researchers have expressed surprise that major life events, especially favourable—seeming events, often seem to have little impact on well-being and psychological distress (Abbey and Andrews, 1985; Atkinson, 1982; Block and Zautra, 1981; Campbell et al., 1976; Maddi et al., 1987; Rahe and Arthur, 1978; Schroeder and Costa, 1984). Our suggestion is that an individual's normal pattern of events is something that he or she has adjusted to, so that repetitions of the pattern do not affect the equilibrium state. It is only when more or less exogenous events intervene (a sudden death in the family or a natural disaster, to give extreme examples) and disrupt the normal pattern that well-being and psychological distress are substantially affected.

Before results are presented we need to describe how life events were recorded.

The life events inventory

The experiences which happened to respondents in each time period (1981-83, 1983-85, 1985-87, 1987-89) were recorded on an inventory listing 93 events. Events were dated and respondents recorded the degree of satisfaction or distress occasioned by each event.

The inventory was a modified form of the List of Recent Experiences (LRE) (Henderson et al., 1981). These researchers in turn drew on inventories developed by Holmes and Rahe (1967) and Tennant and Andrews (1976). The main modifications we made to the LRE involved redressing an imbalance in the original inventory by adding favourable events (for example, 'you made lots of new friends', 'you experienced a religious conversion or a great deepening of faith') in order to help explain improvements in well-being. It should be noted that the LRE, unlike older inventories, includes continuing experiences and 'daily hassles' (for example, 'serious problems or arguments with your children') as well as discrete events.

The usual way to score life events inventories has been to calculate total stress and/or change scores for each respondent, based on predetermined stress or change weights for events. Given our focus on the relationship between events and well-being, it was more appropriate to distinguish between favourable or satisfying events (for example, got married; promoted at work) and adverse or distressing events (for example, spouse died; became unemployed). We used two scoring methods. First we used unit weights (+1 for favourable events -1 for adverse events) having found, like previous researchers, that unit weights enabled us to account for as much variance in outcome measures as more elaborate scoring systems based on predetermined weights (Dawes and Corrigan, 1974; Rahe and Arthur, 1978; Schroeder and Costa, 1984). This method required us to determine, somewhat arbitrarily, which events were favourable and which adverse. The second method (not adopted until the 1985 survey) involved asking panel members to rate each event which happened to them on a 0-10 scale ranging from 'extremely distressing' to 'extremely satisfying'. By summing these scores we obtained a measure of subjective reaction to events in each time period. The correlations between events scored by the unit weighting method and the satisfaction-distress scores were high, ranging between 0.70 and 0.85. In this chapter all results are based on the unit weighting method, but it is worth recording that subjective ratings yield virtually identical results.

Stability and change in well-being and psychological distress

Some people tend to be persistently happier than others. Table 8.1 gives two, four, six and eight year-correlations for the life satisfaction(2) index, positive affect and negative affect.
Table 8.1 Over-time correlations of life satisfaction, positive affect and negative affect

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LS</td>
<td>0.64</td>
<td>0.51</td>
<td>0.52</td>
<td>0.43</td>
<td>0.47</td>
</tr>
<tr>
<td>PA</td>
<td>0.39</td>
<td>0.31</td>
<td>0.35</td>
<td>0.25</td>
<td>0.39</td>
</tr>
<tr>
<td>NA</td>
<td>0.42</td>
<td>0.36</td>
<td>0.40</td>
<td>0.39</td>
<td>0.60</td>
</tr>
</tbody>
</table>

1. Correlation divided by Cronbach alpha. For LS alpha = .92, for PA alpha = .64 and for NA alpha = .65

These correlations may be interpreted as showing a moderate degree of stability over time. Tentatively, we infer that persons have their own normal equilibrium levels of well-being and psychological distress (see below). We should note, however, that the over-time correlations are well below the reliabilities (Cronbach alphas) of the measures; an indication that some change in levels of well-being does occur. Table 8.2 confirms this by showing the percentage of respondents whose well-being scores changed by more than one standard deviation in the same two, four, six and eight-year periods.

Table 8.2 Percentage of panel members whose well-being scores changed by more than one standard deviation

<table>
<thead>
<tr>
<th>Measures</th>
<th>1981-83</th>
<th>1981-85</th>
<th>1981-87</th>
<th>1981-89</th>
<th>(X^1)</th>
<th>SD^1</th>
</tr>
</thead>
<tbody>
<tr>
<td>LS</td>
<td>18.1%</td>
<td>21.1%</td>
<td>25.1%</td>
<td>27.4%</td>
<td>6.8</td>
<td>1.1</td>
</tr>
<tr>
<td>PA</td>
<td>28.3%</td>
<td>31.8%</td>
<td>31.1%</td>
<td>32.5%</td>
<td>3.4</td>
<td>1.4</td>
</tr>
<tr>
<td>NA</td>
<td>27.7%</td>
<td>25.4%</td>
<td>27.3%</td>
<td>27.9%</td>
<td>1.3</td>
<td>1.3</td>
</tr>
</tbody>
</table>

1. Refers to 1981. There were negligible shifts in means and SDs in later years.

Plainly there are some people whose lives take a sharp turn for the better or worse in any given time period. To highlight just one set of figures: the life satisfaction scores of 27.4 per cent of respondents shifted by over one standard deviation between 1981 and 1989, while the equivalent shifts for positive affect and negative affect were 32.5 per cent and 27.9 per cent.

The moderate degree of change in well-being and psychological distress scores indicates that it is reasonable to regard the measures as state measures rather than wholly stable traits. The scales were originally designed as state measures but some observers have implied that they might be better regarded as trait measures (for example, Costa and McCrae, 1980; Diener, 1984). In this regard it is worth noting that, while the well-being measures show over-time correlations well below their reliabilities (see table 8.1), the trait measures of personality included in the VQOL survey show eight-year correlations which are close enough to their reliabilities to suggest that little true change occurs.2
The next steps are to try and account for the degrees of stability and change in well-being and psychological distress. We shall deal with stability first. A reasonable hypothesis is that the moderately high over-time correlations in table 8.1 are due to stable personal characteristics—above all personality traits—which predispose people towards certain equilibrium levels of well-being and psychological distress. Here we invoke the four personality types. Table 8.3 shows that extraversion and neuroticism measured in 1981 do a fairly good job of predicting the life satisfaction, positive affect and negative affect scores of panel members in 1983, 1985, 1987 and 1989. A straightforward extrapolation is that type I people (high on extraversion and low on neuroticism) have persistently high levels of well-being and persistently low levels of psychological distress, Type II people display the reverse pattern. Type III people regularly report high well-being and high psychological distress scores, while type IV people rate low on both dimensions.

The type I, II, III and IV classification only allows us to give a partial explanation of stability. Other stable or only slowly changing personal characteristics which also influence life satisfaction are openness to feelings and the availability and quality of one's social networks (Headey and Wearing, 1989). Positive and negative affect are influenced by the same variables, plus age and socio-economic status. It is interesting that openness to feelings is positively related to both positive and negative affect, whereas being older is negatively related to both these measures (Costa and McCrae, 1985). Socio-economic status, on the other hand, is positively correlated with positive affect and inversely with negative affect. That is, higher status people characteristically experience more positive moods and fewer negative moods.

Table 8.3 Personality promotes moderate stability of well-being (WB) and psychological distress (PD)

<table>
<thead>
<tr>
<th>Personality</th>
<th>Outcome measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extraversion</td>
<td>LS&lt;sub&gt;WB&lt;/sub&gt; r, Beta</td>
</tr>
</tbody>
</table>

| Variance accounted for: R | 0.34 0.30 0.49 0.33 0.21 0.45 0.34 0.21 0.46 0.30 | 0.17 0.31 |

\(a.r = \) Pearson correlations. Beta = standardised regression coefficients. All coefficients have been 'corrected' for measurement error: see appendix 8.1.

ns = not significant at the 5 per cent level.

They key proposition we derive from these results is that persons have their own normal, equilibrium level of well-being and psychological distress deriving from stable personal characteristics. The most important of these characteristics are extraversion and neuroticism.

We now seek to account for the degree of change in well-being and psychological distress. As noted earlier, we began our research with the expectation that life experiences would serve as exogenous shocks, or bolts from the blue, which would change well-being and psychological distress for better or worse depending on whether they were favourable satisfying experiences, or adverse distressing experiences. However, history apparently repeats itself in people's lives. The extent to which both favourable and adverse events are correlated over time is quite remarkable and this is perhaps the most unexpected finding to emerge from the VQOL panel surveys. Equally remarkable is that there is some tendency for people who report more favourable events also to report more adverse events.
Table 8.4 Over-time correlations among aggregate life events scores

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>(7)</th>
<th>(8)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Favourable events 81 - 83</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Favourable events 83 - 85</td>
<td>.52</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Favourable events 85 - 87</td>
<td>.43</td>
<td>.50</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Favourable events 87 - 89</td>
<td>.35</td>
<td>.44</td>
<td>.50</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adverse events 81 - 83</td>
<td>.15</td>
<td>.18</td>
<td>.20</td>
<td>.11</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adverse events 83 - 85</td>
<td>.21</td>
<td>.28</td>
<td>.32</td>
<td>.23</td>
<td>.49</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adverse events 85 - 87</td>
<td>.24</td>
<td>.31</td>
<td>.44</td>
<td>.33</td>
<td>.49</td>
<td>.48</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Adverse events 87 - 89</td>
<td>.21</td>
<td>.27</td>
<td>.32</td>
<td>.38</td>
<td>.46</td>
<td>.45</td>
<td>.47</td>
<td>1.00</td>
</tr>
</tbody>
</table>

1. Observed Pearson correlations.

Table 8.4 shows correlations up to 0.5 among favourable events scores, and similar correlations for adverse events scores. The correlations between favourable and adverse events occurring in the same time period were 0.15, 0.28, 0.44 and 0.38. Much of the rest of the chapter will be concerned with explaining just what we mean by saying that history repeats itself in people's lives. We shall also try to account for repeating patterns of life events.

Our classification of personality types would lead us to expect that repeating patterns of life experiences might also be due to extraversion and neuroticism. As table 8.5 indicates, this is true to some extent. However, two other variables, age and the personality trait of openness to feelings, are also implicated. Table 8.5 tells a fascinating but complicated story. Extraverts are more likely than introverts to experience or report favourable events, but extraversion is completely unrelated to experiencing adverse events. Neuroticism shows just the reverse pattern: relatively neurotic people experience many adverse events, but neuroticism is unrelated to favourable experiences. It follows that type I people who experience many favourable and few adverse events, while type II people suffer much adversity and have few favourable experiences. Type III people experience many events of both kinds, while type IV people experience few events of either kind.

Earlier we noted the surprising result that, for the total sample, favourable and adverse scores were positively, not negatively, correlated. Table 8.5 gives a partial answer to this puzzle. The personality trait of openness to feelings and age (being relatively young) are related to experiencing both more favourable events and more adversity. The openness to feelings scale includes such items as, 'I find it easy to empathise—to feel myself what others are feeling' and 'Without strong emotions life would be uninteresting to me'. It is easy to see why people who give positive responses to such items might elicit or be predisposed towards experiencing and reporting diverse life events. Age, however, seems to be the best single predictor of both favourable and adverse events. Younger adults are at a stage of their careers and family lives when major events (promotions, unemployment, marriage, birth of children, divorce) are more likely to happen to them than is the case for older adults, whose lives have attained a more stable pattern.

The chief proposition we infer from table 8.5 is that, as well as having their own equilibrium levels of well-being and psychological distress, people also have their own equilibrium
patterns of life events. These also depend on stable or, in the case of age, slowly changing personal characteristics.

Which events are particularly likely to recur?

Strictly speaking, table 8.4 only showed that favourable events of some kind and adverse events of some kind keep happening to the same people. We conjectured, however, that history repeats itself in a more direct fashion and that particular categories of events or even specific events are repeated in people's lives. One plausible hypothesis was that young extraverts would be predisposed to experience and report favourable events of an interpersonal kind due to their sociability and warmth. Young, neurotic people, by

Table 8.5  Effect of age and personality on life events

<table>
<thead>
<tr>
<th>Personal characteristics</th>
<th>Favourable events</th>
<th>Adverse events</th>
<th>Favourable events</th>
<th>Adverse events</th>
<th>Favourable events</th>
<th>Adverse events</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>r</td>
<td>Beta</td>
<td>r</td>
<td>Beta</td>
<td>r</td>
<td>Beta</td>
</tr>
<tr>
<td>Age</td>
<td>-0.41</td>
<td>-0.38</td>
<td>-0.20</td>
<td>-0.15</td>
<td>-0.25</td>
<td>-0.16</td>
</tr>
<tr>
<td>Extraversion</td>
<td>0.28</td>
<td>0.15</td>
<td>-0.02</td>
<td>-0.04</td>
<td>-0.20</td>
<td>0.14</td>
</tr>
<tr>
<td>Neuroticism</td>
<td>0.02</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.06</td>
<td>0.06</td>
</tr>
<tr>
<td>Openness to feelings</td>
<td>0.21</td>
<td>0.12</td>
<td>0.15</td>
<td>0.14</td>
<td>0.28</td>
<td>0.20</td>
</tr>
<tr>
<td>Variance accounted for R</td>
<td>0.50</td>
<td>0.30</td>
<td>0.38</td>
<td>0.33</td>
<td>0.33</td>
<td>0.33</td>
</tr>
</tbody>
</table>

a  Events in the 1983-85 period have been omitted for reasons of space.
b  r = Pearson correlations; Beta - standardised regression coefficients. All coefficients have been 'corrected' for measurement error; see appendix 8.1.
c  Openness to feelings serves here as a proxy for openness. The trait was first measured in the 1987 survey.

ns = not significant at the 5 per cent level.

contrast, might be expected to keep experiencing adverse events in domains of life in which their relative youth, combined with a sense of helplessness, would make them vulnerable.

In examining correlations among events scores for the periods 1981-83, 1983-85, 1985-87 and 1987-89, we found that four categories of events displayed a fair degree of repeatability: favourable friendship and job related events and adverse financial and job related events (Headey and Wearing, 1989). Specific and friendship events, which were related to being young and extraverted and which tended to be repeated were, 'a friendship with someone of the same sex became closer', 'a friendship with someone of the opposite sex became closer' and 'made lots of new friends'. The job events were, 'promoted at work', 'your boss praised you for your work' and 'your ability to do your job well increased'. Similarly, being young and relatively neurotic predicted adverse financial and job events. The specific financial and job events which repeated were 'you had a financial crisis', 'continuous financial worry', 'unemployed or seeking work', 'sacked or laid off', 'you found out you were not going to be promoted' and 'trouble or arguments with people at work'.
Biassed reporting?

A serious objection to the view that history actually repeats itself in people's lives is that reports of events could be so biased by personality or by the mood at interview to be almost worthless (Schroeder and Costa, 1984). It is in fact well established that mood has significant effects on event recall (Bower, 1969; Diener, Larsen and Emmons, 1984). Also, no student of personality would doubt that traits like extraversion and neuroticism could have some effect on event recall. Extraverted people might readily suppose that they had 'made lots of new friends' and neurotic people would almost be expected to complain about their health. The issue is not whether event reports contain some bias but whether the degree of bias totally invalidates the reports. Maddi, Bartone and Puccetti (1987) have investigated this issue by restricting analysis to those events which appeared so salient and so objective (for example, got married; child died) that it is difficult to believe reports could be biased. They found that there were still significant relationships between events scores and outcome measures. In the same vein, we have re-run all analyses reported in this chapter using 'objective' events only. This greatly reduced the sample of events, but, even so, all relationships had the same sign, although some were considerably weaker. Appendix 8.2 at the end of the chapter, illustrates these points by giving over-time correlations for objective events between 1981 and 1989.

Conclusion

The implications of ceasing to regard life events as entirely exogenous are profound. Previous researchers have recognised that some events are controllable (Dohrenwend and Dohrenwend, 1974) but have continued to treat them as exogenous in statistical models. Researchers need to break away from this convention and ask which events are, practically speaking, exogenous and which are internally driven (for example, age and personality driven). We then need to inquire more deeply into the predispositions and processes driving people to experience different patterns of events.

The propositions we draw from this chapter are:

Well-being and psychological distress are moderately stable. People who are happier at one point in time are likely to be happier at later times. Similarly, people who are relatively distressed in one period are likely to be distressed in later periods.

Nevertheless considerable change can occur in individuals' levels of well-being and psychological distress. So it is reasonable to regard well-being and psychological distress scales as state measures rather than measures of entirely stable traits.

Persistent differences in well-being and psychological distress are due to stable personality traits, especially extraversion and neuroticism. As a result of these traits each person experiences levels of well-being and psychological distress which may be regarded as their own normal equilibrium levels.

Type I people have high equilibrium levels of well-being and low equilibrium levels of psychological distress. Type II are just the reverse. Type III have high equilibrium levels of both well-being and psychological distress, while type IV have low equilibrium levels.

The life events which people experience are also fairly persistent over time. The patterns of favourable and adverse events which repeatedly happen to people are also due to stable personal
characteristics. Each person may be said to experience his or her own normal equilibrium pattern of life events.

Type I people, rating high on extraversion and low on neuroticism, experience many favourable and few adverse events.

Type II people, rating low on extraversion and high on neuroticism, experience few favourable and many adverse events.

Type III people, rating high on both extraversion and neuroticism, experience many favourable and many adverse events.

Type IV people, rating low on both extraversion and neuroticism, experience few favourable and few adverse events.

Other things (especially extraversion and neuroticism) being equal, younger adults and people who rate high on the openness to feelings trait, experience more favourable and more adverse events than older people and people who rate low on the openness trait.

In short, if we know four things about a person—his or her level of extraversion, neuroticism, openness to feelings and age—we can predict with reasonable accuracy the kinds of events that will subsequently happen to him or her. The final proposition here is that:

Personality, life events, well-being and psychological distress are in dynamic equilibrium. That is, over time they tend to remain in the same balance relative to each other. Stable personality performs a key equilibrating function, tending always to pull events, well-being and psychological distress back to their equilibrium level.

Notes

1. The reader is reminded that these are the only measures available for all five waves of the VQOL survey (see chapter 3).
2. The alpha of extraversion was 0.63 and its eight-year correlation was 0.62. For neuroticism alpha was 0.82 and the eight-year correlation was 0.67.

Appendix 8.1: 'correction' for measurement error

It is sensible to estimate corrections for measurement error in analyses in which some variables are measured very reliably and others relatively unreliably. The main harmful consequence of not correcting is that, in comparing the effects of well and poorly measured independent variables on a particular dependent variable, one over-estimates the relative importance of the well measured variables and underestimates the importance of the poorly measured variables. In table 8.5, for example, age is presumably almost perfectly measured, whereas the personality traits are measured with significant error. The consequence of correcting (disattenuating) is to reduce the estimated importance of age as a predictor of events scores relative to the personality traits.

Correction for error was undertaken in the usual way (for example, Andrews, 1984) by dividing each observed correlation (r_{AB}) by the product of the square roots of the reliabilities of the two variables. This yielded an estimated true correlation (r_{AB}'): 

\[ r_{AB}' = \frac{r_{AB}}{\sqrt{\text{Rel}.A \times \text{Rel}.B}} \]
In the case of regression analyses, the input was a disattenuated correlation matrix. The estimated reliabilities of the variables were given by Cronbach alphas for those variables measured by multiple indicators. Reliabilities were conservatively estimated by us for variables measured by single indicators. The imputed reliabilities were as follows: life satisfactions 0.92, positive affect= 0.64, negative affect= 0.65, age= 1.0, extraversion= 0.63, neuroticism= 0.82, openness to feelings= 0.76, favourable events= 0.9 and adverse events= 0.9.

Appendix 8.2

Over-time correlations among 'objective' life events scores

1 These are observed correlations. All correlations would be 10% higher if a correction for measurement error had been used. See appendix 8.1.

ns = not significant at the 5 per cent level.

The favourable events classified as objective were: 'you were promoted; you passed an important exam; you became engaged; you got married; husband and wife got together again after separation; you experienced a religious conversion'.

The objective adverse events were: 'you were unemployed; sacked or laid off; you had a major financial crisis; your own business failed; you failed an important exam; you had a serious illness or injury; you had a serious accident; you broke off an engagement; you separated from your spouse; you divorced; your spouse died; a child of yours died; a close family member (not including spouse or own child) died; you (your wife) had a miscarriage, abortion or stillbirth; a close friend died; you were robbed; you were physically assaulted; problems with the police leading to a court appearance; prison sentence; you had a civil suit (for example, divorce, custody, debt).
Many writers have expressed surprise that life events do not have a greater impact on well-being and psychological distress. But if, as we have suggested, each person has his or her own normal equilibrium pattern of events, then there is no reason to expect that repetition of the normal pattern would produce any change in well-being or psychological distress. The purpose of this chapter is to complete our account of the dynamic equilibrium model by describing when events do change well-being and psychological distress and when they do not. The basic argument is that change only occurs when, due to external forces (the actions of other people, good fortune or misfortune), a person deviates from his or her equilibrium pattern of events.

One widely quoted paper (Costa and McCrae, 1980) implies, although it does not demonstrate, that events have no impact at all. We begin this chapter by showing that this assertion is false. Next, we report results which are consistent with the central argument that well-being and psychological distress only change in response to deviations from people's normal equilibrium patterns of events. This involves using the panel data to estimate each respondent's normal pattern.

In the latter part of the chapter we turn the argument of the sceptics on its head by indicating that, if one has an appropriate and more detailed model, which links events in specific domains of life to changes in domain satisfactions and only then (indirectly) to changes in well-being and psychological distress, then one in fact finds that the impact of events is very much greater than had previously been thought.

In the concluding section we compare the dynamic equilibrium model with alternative models proposed by other researchers.

Life events make a difference over and above personality

Costa and McCrae's (1980) influential paper is often interpreted as showing that events make no impact on well-being and psychological distress once the effects of extraversion and neuroticism have been taken into account. Table 9.1 shows that life events in fact have a significant impact over and
above personality, even if analysis is restricted only to objective events, the reporting of which would be unlikely to be influenced by personality (Schroeder and Costa, 1984). Table 9.1 is based on a hierarchical regression analysis in which personality traits are first allowed to explain as much variance (differences) in well-being and psychological distress as they can, and events are only then allowed to explain any additional variance. This type of analysis is appropriate because we, and Costa and McCrae, believe that personality exerts causal influence on both subsequent events and subsequent levels of well-being and psychological distress. To illustrate this time sequence the personality traits included in the analysis in table 9.1 were measured in our first survey in 1981, life events are for the 1981-83 period, and well-being and psychological distress were measured in 1983.

It is plain that life events can significantly affect well-being and psychological distress. If the analysis is restricted to objective events, the contribution of events is smaller, although still statistically significant, but it should be remembered that restricting the sample in this way is bound to weaken observed relationships. The common interpretation put on Costa and McCrae's results—that events have no independent effect on well-being and psychological distress—seems incorrect.

A point of considerable interest is that, while both favourable and adverse life events substantially affect cognitive life satisfaction, positive affect is only influenced by favourable events and negative affect only by adverse events. In other words, favourable events

Table 9.1 Combined effects of personality and life events on well-being and psychological distress

<table>
<thead>
<tr>
<th>Personality and events</th>
<th>LS\textsubscript{83}</th>
<th>PA\textsubscript{83}</th>
<th>NA\textsubscript{83}</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extraversion\textsubscript{81}</td>
<td>.24</td>
<td>.32</td>
<td>-.05\textsuperscript{ns}</td>
</tr>
<tr>
<td>Neuroticism\textsubscript{81}</td>
<td>-.22</td>
<td>.05\textsuperscript{ns}</td>
<td>.47</td>
</tr>
<tr>
<td>Variance accounted for: R</td>
<td>.35</td>
<td>.31</td>
<td>.49</td>
</tr>
<tr>
<td>Life events\textsubscript{81-83}</td>
<td>.24 (.12)\textsuperscript{b}</td>
<td>.35 (.19)\textsuperscript{c}</td>
<td>.34 (.18)\textsuperscript{d}</td>
</tr>
<tr>
<td>Additional variance accounted for: R</td>
<td>.07 (.02)</td>
<td>.16 (.06)</td>
<td>.10 (.03)</td>
</tr>
<tr>
<td>Total variance accounted for: R</td>
<td>.42 (.37)</td>
<td>.47 (.37)</td>
<td>.59 (.52)</td>
</tr>
</tbody>
</table>

\textsuperscript{a} Coefficients not in parentheses relate to all life events. Coefficients in parentheses relate to 'objective' events only.

\textsuperscript{b} Both favourable and adverse events are related to life satisfaction.

\textsuperscript{c} Only favourable events are related to positive affect.

\textsuperscript{d} Only adverse events are related to negative affect.

\textsuperscript{ns} = not significant at the 5 per cent level.

NB Coefficients have been 'corrected' for measurement error. See appendix 8.1.
provide a mood uplift but do not reduce feelings of anxiety and depression, while adverse events
do not reduce the propensity to experience positive moods but do increase negative feelings.
These results add further weight to the view that positive affect and negative affect are distinct
dimensions with distinct correlates and causes.

Only deviations from an equilibrium pattern of events change well-being and psychological
distress.

The results in table 9.1 by no means tell the whole story about the effects of life events on
well-being and psychological distress. In particular, they take no account of the finding that the
same events keep happening to the same people, so that each individual may be said to have an
equilibrium pattern of events which is normal for him or her. In this context it is useful to think of
recent events which have happened to individuals as consisting of two components:

**Equation 1** recent events = equilibrium events + deviation from equilibrium events

Our next proposition says that, provided an individual maintains exactly his or her own
equilibrium pattern of events in a given time period, then no change away from equilibrium
levels of well-being or psychological distress will occur. Personality, events, well-being and
psychological distress will remain in dynamic equilibrium. A corollary proposition is that if, in a
particular period, an individual experiences a pattern of events more favourable than normal, then
this will cause his or her level of well-being to increase above the equilibrium level and
psychological distress to decrease. But if events are worse than normal, life satisfaction will
decrease below equilibrium and psychological distress will increase.

The chief difficulty in testing these two propositions lies in providing estimates of equilibria.
We have treated average life events scores for the three periods 1981-83, 1983-85 and 1985-87 as
event equilibria, and we have treated events in the 1987-89 period as representing deviations
from equilibrium. It is essential to realise here that deviations could be zero (in which case no
change in well-being or psychological distress would be expected), as well as positive or
negative. The same approach is taken with life satisfaction, positive affect and negative affect.
Equilibrium levels are represented by average scores for 1981, 1983, 1985 and 1987. Scores in
1989 are then treated as deviations from equilibrium.

The essence of what we need to know is whether changes from equilibrium patterns of events
produce changes away from equilibrium levels of well-being and psychological distress.
However, for technical reasons, the appropriate method of answering this question is not to
calculate a simple correlation between two change scores but to estimate the following regression
equation (Kessler and Greenberg, 1981):

**Equation 2** well-being\text{89} = \text{B}_1 \text{equilibrium well-being} + \text{B}_2 \text{equilibrium events} + \text{B}_3 \text{recent events}

In this equation 'well-being\text{89}' is shown as depending on prior equilibrium levels of well-
being and of life events, and also on recent events. Each regression coefficient can properly be
interpreted as showing the net effect of its variable on change in well-being, controlling for the
other variables in the equation. In particular, the coefficient for 'recent events (B3)' represents the
net effect of these events, controlling for the effect of 'equilibrium events'. Another way of
expressing this point is that B3 estimates the impact of deviations from normal events on well-
being, because the impact of the normal component of events, which is part of 'recent events' (see equation 1), has been stripped out by the inclusion of 'normal events' in the equation.

In order for results to be consistent with the twin propositions we would have to find that $B_2$ was not significantly different from zero and that $B_3$ was significant and positive. This would show that equilibrium events, or a repetition of normal events, have no effect, but that deviations from equilibrium do change well-being and psychological distress. (It should be noted that $B_1$ is of no great interest; it simply shows the strong relationship between equilibrium levels of well-being and well-being).  

Table 9.2 A dynamic equilibrium model

<table>
<thead>
<tr>
<th>Explanatory variables</th>
<th>LS$_{eq}$ Beta$^a$</th>
<th>PA$_{eq}$ Beta$^a$</th>
<th>NA$_{eq}$ Beta$^a$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equilibrium well-being (distress)</td>
<td>.72</td>
<td>.44</td>
<td>.71</td>
</tr>
<tr>
<td>Equilibrium events</td>
<td>-.02$^{ns}$</td>
<td>-.04$^{ns}$</td>
<td>.03$^{ns}$</td>
</tr>
<tr>
<td>Recent events</td>
<td>.20</td>
<td>.29$^b$</td>
<td>.18$^c$</td>
</tr>
</tbody>
</table>

a Betas = standardised regression coefficients.
b Only recent favourable events are related to changes in PA.
c Only recent adverse events are related to changes in NA.
ns = not significant at the 5 per cent level.

In practice, results for all three outcome measures are consistent with our propositions. Deviations from a person's own equilibrium pattern of both favourable and adverse events have the effect of shifting life satisfaction away from its equilibrium level. In the case of positive affect only deviations in favourable events make a difference, whereas for negative affect only adverse events matter. The dynamic equilibrium model is broadly confirmed.  

A point of particular interest is that favourable events seem to have at least as much impact on well-being as adverse events. A conclusion reached in much previous research has been that favourable events make little difference, or may even be stressful, whereas adverse events exert some impact (Selye, 1956; Holmes and Rahe, 1967). We think the impact of favourable events has been missed or understated partly because favourable events tend to be repeated even more than adverse (see chapter 8). So if one's theory does not say that what matters is deviation from a previous pattern of events, then the impact of favourable events is particularly likely to be missed. The propositions tested in table 9.2 imply psychological mechanisms which need to be made explicit. They imply that individuals have fairly accurate perceptions of their own equilibrium pattern of events and base their expectations for the future on these perceptions. If events turn out better than expected, well-being is enhanced, if events turn out worse, well-being declines. As noted, results are consistent with this model. However, it must be conceded that slightly different models fit the data equally well. A model which says that expectations for the future are based solely on events experienced in recent times would predict that change in well-being would occur to the extent that events in the most recent period, for example the last two years, differed from events in the period before that, for example two to four years ago. In other
words, change in well-being would depend on contrast effects (Helson, 1964). A contrast effects model fits the data approximately as well as the dynamic equilibrium model. So, too, does a model which combines the equilibrium and contrast models and which, in effect, says that expectations are based on both normal patterns of events and recent events. We have preferred to present the dynamic equilibrium model here because of its coherence with other propositions in the theory of well-being and psychological distress. Clearly, however, a great deal of further investigation is needed.

The impact of events in particular domains of life on domain satisfactions

So far we have assessed the impact of all kinds of events on global measures of well-being and psychological distress. Significant but not very strong statistical relationships have been found. In our view tables 9.1, 9.2 and similar analyses understate the impact of events because they are based on a model which has missing links. Suppose that instead of treating events as direct causes of change in well-being, we take the view that events in specific domains of life (for example health events, marital events, job events) would first affect satisfaction with the relevant domain and would only then, indirectly, affect well-being and psychological distress. When we examine correlations between domain specific events and domain satisfactions it transpires that they are fairly substantial. The correlation between health events for 1987-89 and health satisfaction in 1989 was 0.42. For job events and job satisfaction the correlation was 0.33. In the financial and standard of living domain the correlation was 0.50, and in the marriage and friendships domains the correlations were 0.18 (The events scores used in these calculations were net scores, derived by subtracting adverse domain events scores from favourable scores).

These correlations portray only static relationships. However, from them we can infer that an appropriate dynamic model would involve estimating the effects of deviations from equilibrium patterns of domain specific events on deviations from equilibrium levels of domain satisfaction. These in turn would affect deviations from equilibrium levels of well-being and psychological distress. In practice our capacity to obtain reliable estimates for such models is limited by the small sample of events in some domains and hence the small number of respondents whose experiences are reflected in particular statistical relationships. Nevertheless, we have obtained reasonably promising results, although it is evident that no great reliance can be placed on individual estimates (Headey et al., 1985). The main point to stress here is that events can be seen to exert a much greater impact than previous researchers have suggested, if one adopts an appropriate model in which the first link is between domain specific events and domain satisfactions. Previous research which has appeared to show that events have relatively little impact was based on models with a hole in the middle.

The impact of events on expectations for the future

It has been suggested (Brickman et al., 1978; Brickman and Campbell, 1971) that we are all on a hedonic treadmill. We can never become much happier or much more distressed, except for a brief time, because expectations for the future rapidly adapt to take account of recent life events. If favourable events happen, expectations are revised upwards, whereas if adverse events happen, expectations are lowered. Either way there is only a very brief effect on well-being and
psychological distress because the gap between expectations and perceived reality stays about the same. Adaptation is all.

The results given in this chapter run counter to a strong version of adaptation level theory. We have seen that events occurring in the last two years significantly affect well-being and psychological distress (It is relevant to add here that re-runs of our models assessing the impact of events which had occurred only in the last few months or the last year did not show greater effects than models based on two years of events). This leads to the inference that adaptation of expectations is not particularly rapid. It is not necessary to rely solely on inference, however. In the 1985, 1987, and 1989 surveys, the 'ladder of life' was included (see chapter 4) and questions were asked about expectations for the future ('the life you expect in about five years time'). We can therefore directly examine the impact of events on expectations. In the short term (two years) they apparently have no impact. Regression analyses indicate that favourable events do not increase expectations (or aspirations, or sense of just deserts) and adverse events do not lower them.\(^4\)

Life events do, however, have an effect on the gap between people's expectations and their assessment of their present life. Favourable events reduce the gap and adverse events increase it.\(^5\) However, the change in gap size is entirely due to a shift in individuals' assessments of their present life and not to a shift in expectations. A proposition put forward in chapter 4, namely that high levels of well-being are associated with small gaps and low levels with large gaps, has now been confirmed in analyses of change, but the mechanisms involved appear rather different from what many social scientists, including ourselves, would have forecast.

Conclusion

In concluding we contrast the dynamic equilibrium model with alternative models proposed in previous research. Before considering these alternatives, one limitation of our proposed model should be stated. The model is only supposed to account for stability and change in well-being and psychological distress in the medium term, say, five to ten years. In the longer term, personal characteristics, which perform a crucial equilibrating function in the model, may well change. Obviously people age and this reduces the likelihood of both favourable and adverse events. Other changes, for example newly acquired skills or improved social networks, could also bring about long term change.

One alternative to the dynamic equilibrium model has already been mentioned, namely the adaptation level model proposed by Brickman, Coates and Janoff-Bulman (1978). The authors' evidence of adaptation related to lottery winners and paraplegics. However, their sample sizes were small\(^6\) and many researchers have shown that adverse events have significant effects not only on well-being and psychological distress but also on health (for example Abbey and Andrews, 1985; Block and Zautra, 1981; Headey et al., 1985; Henderson et al., 1981; Holmes and Rahe, 1967; Reich and Zautra, 1983; Tennant and Andrews, 1976). Several other researchers beside us have also found that favourable events affect well-being (Block and Zautra, 1981; Reich and Zautra, 1983). The balance of evidence clearly runs counter to the proposition that adaptation is so rapid and so complete that the impact of events is undetectable.

A second alternative model, proposed by Costa and McCrae (1980, 1984) is that well-being and psychological distress depend almost entirely on stable personality traits. Clearly personality matters, but if that were the whole story people's levels of well-being and psychological distress would remain virtually unchanged over their entire lifetimes. Stable personality would produce
stable well-being. In fact, as we have seen, levels of well-being and psychological distress are correlated over time, but many individuals nevertheless record substantial changes.

A third set of alternatives may be described as static equilibrium models. In these models it is recognised that life events can change levels of well-being and psychological distress. However, life events are treated as exogenous shocks (bolts from the blue) which disturb equilibrium levels. The implicit assumption—a static equilibrium assumption—is that if no events happened well-being and psychological distress would remain unchanged. We have challenged this assumption by indicating that the normal condition is not for events not to happen but for the same kinds of events to keep happening to the same people, largely because of stable personal characteristics. Personal characteristics, events, well-being and psychological distress are in dynamic equilibrium.7

The following propositions summarise this chapter:

Recent life events can influence current levels of well-being and psychological distress over and above the influence of stable personality traits.

Provided that no change occurs in a person's equilibrium, pattern of life events, well-being and psychological distress remain unchanged. Personal characteristics, events, well-being and psychological distress remain in dynamic equilibrium.

Deviations from a person's equilibrium levels of well-being and psychological distress occur when he or she deviates from his or her equilibrium pattern of events. Unusually favourable events enhance well-being and unusually adverse events increase psychological distress.

A mechanism by which events affect well-being is by changing the gap between assessments of one's current life and expectations for the future. Favourable events reduce the gap, while adverse events increase it. In the short term (two years or less) gap changes are entirely due to changes in assessments of one's current life and not to changes in expectations.
Notes

1 These results cast a slightly different light on the results given in table 9.1. In practice it is only the deviation-from-equilibrium component of events scores (see equation 1) which is responsible for the relationships between events and measures of well-being and psychological distress shown in this table.

2 A few recent papers indicate some impact of favourable events on well-being (Block and Zautra, 1981; Headey et al., 1984; Reich and Zautra, 1983). Others have suggested that favourable events buffer the impact of adversity on well-being or psychological distress (Cohen, Burt and Bjorck, 1987; Dohrenwend, 1973).

3 These correlations were corrected for measurement error. Estimated reliabilities for events scores and for domain satisfactions were 0.8.

4 In these analyses we controlled for previous levels of expectations and life events. To not do so leads to incorrect inferences based on spurious cross-sectional correlations between events scores and expectations. The spuriousness is due to the fact that both events scores and levels of expectation are affected by personality.

5 Again, the results are drawn from regression analyses in which previous assessments of one's present life and previous expectation levels were controlled.

6 Also, lottery winners scored somewhat higher on well-being than the control group and paraplegics scored lower. However, given the small samples, these differences were not significant at the 0.05 per cent level.

7 Another possible model, which we reject, is that people to whom mainly favourable events happen become steadily happier, while people to whom mainly adverse events happen become steadily more distressed. This could be termed a 'dynamic feedback' model. The VQOL data do not support this model.
Ageing: the mid-life crisis is a myth and old age is a happy time for many

There are many stereotypes and titbits of received social wisdom about happiness at different ages and stages of the life cycle. Schooldays are said to be the happiest days of one's life. University students are thought, by everyone but themselves, to lead a carefree existence. Newly marrieds are portrayed as living in married bliss, although it is also known that many will have separated and divorced in two or three years. An important recent piece of social wisdom, or perhaps folklore, concerns the mid-life crisis. Many people, influenced by both academic and pop-psychology books, refer to acquaintances who are said to be going through a mid-life crisis. This mid-life crisis involves questioning the value of previous commitments and achievements. One grows dissatisfied with life (especially a comfortable life?) and considers changing jobs, partners and lifestyles. Some books indicate that this most frequently happens to people in the 40-45 year age group (Levinson, 1978).

Old age is the subject of particularly strong stereotypes. It is often viewed as a period of decline, loneliness, poverty, frailty, resignation, even depression. It is widely known that a typical woman is widowed for about fifteen years, and elderly widows are commonly thought to be lonely and unhappy. In recent years some of these stereotypes have been challenged. Surveys have shown repeatedly, and many non-elderly probably now realise, that most people in their sixties and seventies are in good health and not at all frail. It may also be fairly well known that poverty in old age, once a scourge, has become much less common in most Western countries, due to a combination of home ownership and state and private superannuation and savings (Hauser and Semrau, 1989).
This chapter reviews trends in well-being and psychological distress at different ages. The stereotypes just referred to are not only wrong, they are beside the point. When we compare people of different age groups we find not just evidence that contradicts the stereotypes, but evidence which suggests changing and non-obvious combinations of life satisfaction, positive affect and psychological distress.

Life satisfaction, positive affect and psychological distress at different ages

Table 10.1 shows differences in well-being and psychological distress among Australian young adults (18-34), adults in middle life (35-54) and older adults (55 plus). Age differences in happiness are not large—nothing like as large as personality differences—but they are found very consistently in surveys in many countries.

<table>
<thead>
<tr>
<th>Age groups</th>
<th>Measures</th>
<th>18-34</th>
<th>35-54</th>
<th>55+</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Well-being</strong></td>
<td>Life satisfaction</td>
<td>72.5</td>
<td>75.0</td>
<td>77.5</td>
</tr>
<tr>
<td></td>
<td>Positive affect</td>
<td>74.0</td>
<td>68.0</td>
<td>62.0</td>
</tr>
<tr>
<td></td>
<td>Happiness Index</td>
<td>71.5</td>
<td>72.0</td>
<td>73.0</td>
</tr>
<tr>
<td><strong>Psychological distress</strong></td>
<td>Negative affect</td>
<td>30.0</td>
<td>24.0</td>
<td>16.0</td>
</tr>
<tr>
<td></td>
<td>Anxiety</td>
<td>16.7</td>
<td>16.7</td>
<td>13.3</td>
</tr>
<tr>
<td></td>
<td>Depression</td>
<td>10.0</td>
<td>10.0</td>
<td>10.0</td>
</tr>
<tr>
<td></td>
<td>Psychological Distress Index</td>
<td>17.0</td>
<td>16.0</td>
<td>12.5</td>
</tr>
</tbody>
</table>

1 Victorian Quality of Life Survey. All scales have been rescored to run from 0 to 100.

The overall picture is that young adults report slightly lower levels of life satisfaction than older adults but also record high levels of both positive and negative affect. They also record relatively high scores on the Psychological Distress Index. Emotionally they are very up and down. Adults in their middle years report somewhat higher levels of life satisfaction and moderate levels of positive and negative affect. Older people report slightly higher levels of life satisfaction than the middle aged and the highest levels of satisfaction with virtually all domains of life except health. They experience the lowest levels of both positive and negative affect and score lowest on the Psychological Distress Index. In other words they evaluate their lives as pretty satisfying but they also appear somewhat emotionally flat.

These findings could scarcely have been guessed or predicted. They call for careful scrutiny and interpretation. We now look separately at the well-being of teenagers, young adults, middle aged and older adults.
Schooldays: the happiest days of your life?

The popular image of happy schooldays is far from the truth. The most comprehensive study of the lives of high school children, which included measures of well-being, has been conducted by Jerald G. Bachman (1978) and his colleagues of the Youth In Transition project at the University of Michigan. They interviewed over 2000 boys, unfortunately no girls, during their last three years of school and one year and five years after finishing school. One of their most striking findings was that school is bad for self-esteem or, to put it another way, leaving school is very good for self-esteem. School children suffer put-downs from teachers and are subject to academic and other comparisons which are not flattering for most of them. By definition, only a few can be near the top of the class. Self-esteem picks up a little in the last years of high school and negative affect declines. Once school is left behind, self-esteem increases quite sharply, provided that one can get a job. It appears that just holding a job enhances self-esteem, even if the job is relatively dissatisfying, which, as we shall see, most people's first jobs are.

Satisfaction with most domains of life appears to be fairly low in teenage years, although little evidence is available except for the United States. Andrews and Withey (1976) found that 15-19 year olds were particularly dissatisfied with their local communities, recreation facilities, spare time, the amount of privacy available to them and their jobs. They were more satisfied than other age groups with their health, presumably reflecting the objective situation.

Young adults: lots of good times and lots of bad times

Like teenagers young adults experience both lots of good times and lots of bad times. They report lower than average levels of life satisfaction and higher levels of positive and negative affect than any other group. The up and down nature of their lives has been documented in studies in which people kept daily records of activities they found pleasant or unpleasant and of the emotions that accompanied these activities (Diener, Sandvik and Larsen, 1985; Lewinsohn and MacPhillamy, 1974). It transpires that young adults engage in both activities they find pleasant and activities which turn out unpleasant more frequently than other people, and they also report greater intensity of emotion. The combination of frequent and intense emotions is a potent brew and means that their lives are both relatively vibrant and relatively alarming.

Young adults are at a stage of the family life cycle and of their working careers when a relatively large number of major events and experiences are likely to happen to them. On the personal front they are establishing new relationships, getting married, having children, and maybe becoming separated and divorced, and then having to start again. On the career front they may be completing their education, or perhaps dropping out of college or university, and they have to get a job. Others find that their first choice of job is a false start or that, starting at the bottom of the ladder, their work lacks interest and they have to follow routine and obey orders. There are many opportunities and many hassles.

The life events inventories completed at each interview by members of the Australian panel survey document reflect, albeit crudely, this up and down and rather intense way of life. Respondents in the under 35 age group typically reported four or five significant favourable events every year (for example, getting married, obtaining a promotion) and two adverse events (for example, getting divorced, arguments at work). This compares with the three or four
favourable events and the one or two adverse events reported by people in the 35-54 age group, and the still less eventful pattern (three favourable and one adverse event) recorded by people aged 55 or older. The differences are not huge but they were found in each wave of the Australian survey panel and in comparable studies overseas (Norris and Murrell, 1987; Reich, Zautra and Hill, 1987).

Part of the explanation for the more eventful life patterns of younger people may be a stronger demand for events on their part. We have seen that events are by no means always external shocks; they are often personality driven. Young people in their search for a relatively exciting life may thus demand and generate events. The consequences of events cannot be completely controlled, hence the high levels of both positive and negative affect and the greater fluctuations in well-being reported by younger people.

The particular domains of life with which young people report especially high satisfaction are their marriages, sex lives, children, friends, and the amount of fun and enjoyment they have. In other words, family and personal relationships are their main source of happiness. On the other hand, they have much lower levels of job satisfaction than older people and, quite reasonably, greater concerns about job security. They are also less satisfied than others with the amount of free time they have, their spare time activities and the organisations they belong to (Headey and Wearing, 1988). They worry about things more than older people and feel under a greater amount of pressure. Life is a strain as well as fun.

Of course the pattern of satisfactions and dissatisfactions varies depending on personal situation. Young married people, particularly young women who have not yet had children, are especially happy with most aspects of their lives. Married people with young children, while deriving great satisfaction from parenting, are less satisfied overall and feel the strain. Financial concerns trouble them. Single young people most strongly exemplify the up and down pattern. They report the most positive and the most negative emotions of all groups. They rate their lives as very exciting and feel they experience lots of fun and enjoyment but they also felt the most worried and pressured.

As we saw in chapter 4, satisfaction levels are related to the gap between one's expectations and aspirations and perceptions of one's present life. The bigger the gap the lower the satisfaction level. Young people tend to have very high expectation and aspiration levels. Consequently, as the Canadian researcher Michalos (1980, 1985) has shown, young people in both rich and poor countries report big gaps between what they want from life and what they have so far achieved. Their dreams are still intact and from both a personal and a societal point of view this may be beneficial. But it is not a recipe for satisfaction here and now.

The mid-life crisis: a myth?

It used to be generally believed, and perhaps still is, that personality, values and life priorities are formed in childhood, and that once people reach adulthood, they do not change much. Maturity was sometimes equated with stasis. Psychologically, although not of course biologically, adulthood was seen as a plateau.

In the 1970s there was considerable research and media discussion about stages of adulthood and 'adult development crises' (for example, Levinson, 1978; Sheehy, 1976; Vaillant, 1977). The most serious of these crises was the so-called mid-life crisis, which some writers said happens to most people in their early forties (Levinson, 1978). Previous adult commitments, especially one's choice of partner and career, are likely to be questioned at this time and many people, it is
claimed, choose a new partner, job and lifestyle. Adult development crises are portrayed as crises of identity and authenticity, with the implication that a psychologically healthy person needs to confront and resolve these crises if he or she is to be productive, fulfilled and reasonably happy. It is implied that failure to resolve adult crises leads to a stultifying repressed existence and inability to negotiate the next stages of development.

Virtually all the evidence relating to the mid-life crisis came from studies of middle class Americans, mainly professional men (Levinson, 1978; Vaillant, 1977). In-depth interviews with a relatively small number of subjects were the foundation on which claims of universal stages of adult development were built. Critics of this research noted that the careers of professionals tend to peak in their late thirties or early forties. At that age people either make it to senior management, to an academic professorship, or to the top ranks of the Public Service. So it seems quite plausible that professionals might experience a career crisis. The issue is whether other people do too, and whether the crisis affects other domains of life besides work, and also affects a person's overall sense of well-being.

Survey researchers, relying on much larger samples than are possible in in-depth studies, have been unable to find any evidence that men or women typically experience a mid-life crisis in their early forties. If such crises occur, one would expect to find that people in this age group report lower levels of job satisfaction, marriage satisfaction and well-being and higher levels of psychological distress than people who are somewhat younger and somewhat older. Table 10.2 compares people aged 40-45 with people in their thirties and people aged 46-55.

It is clear that people in the potential crisis group rate much the same as people in the age cohorts preceding them and following
Table 10.2 Is there a mid-life crisis?  

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Well-being</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Life satisfaction</td>
<td>73.8</td>
<td>76.3</td>
<td>72.5</td>
</tr>
<tr>
<td>Positive affect</td>
<td>70.0</td>
<td>68.0</td>
<td>66.0</td>
</tr>
<tr>
<td>Happiness Index</td>
<td>71.6</td>
<td>71.9</td>
<td>70.7</td>
</tr>
<tr>
<td><strong>Psychological distress</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative affect</td>
<td>26.0</td>
<td>22.0</td>
<td>26.0</td>
</tr>
<tr>
<td>Anxiety</td>
<td>16.7</td>
<td>16.7</td>
<td>16.7</td>
</tr>
<tr>
<td>Depression</td>
<td>6.7</td>
<td>10.0</td>
<td>10.0</td>
</tr>
<tr>
<td>Psychological Distress Index (0-100)</td>
<td>16.1</td>
<td>16.0</td>
<td>15.9</td>
</tr>
<tr>
<td><strong>Domain satisfaction</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marriage</td>
<td>76.3</td>
<td>77.5</td>
<td>73.8</td>
</tr>
<tr>
<td>Job</td>
<td>72.5</td>
<td>70.0</td>
<td>72.5</td>
</tr>
<tr>
<td>Life-Fulfillment Index</td>
<td>68.8</td>
<td>68.8</td>
<td>66.3</td>
</tr>
<tr>
<td>Sense of purpose and meaning in life</td>
<td>70.0</td>
<td>68.8</td>
<td>67.5</td>
</tr>
</tbody>
</table>

1 Victorian Quality of Life Survey. All scales have been rescored to run from 0 to 100.
2 These domains were selected as the ones most likely to be affected by mid-life crises if they commonly occur.

them regarding well-being, psychological distress and relevant domains, including work, marriage, life-fulfillment and the sense of purpose and meaning in your life. It is worth noting that results are virtually identical if one extends the potential crisis to the entire decade of the forties (rather than just 40-45). It also makes no difference if people who are a little below or above the age limits are omitted from the analysis on the grounds that early starters and late finishers might confuse the picture.

Of course most people experience periods of life when they question previous commitments and undergo what might be labelled identity crises. That is perhaps why books on the mid-life crisis ring a bell in readers’ minds; they feel they recognise themselves. Be that as it may, we are inclined to conclude that the mid-life crisis is a myth, or at most is confined to professional men,
and does not occur at a specific age. Patterns of well-being and psychological distress do change with age, as this chapter indicates, but there appears to be no reliable evidence of a mid-life crisis.

Old age: it is not all downhill

Most people who are not old themselves perhaps think of old age as a period of decline and depression. Older respondents in the Australian panel survey give a quite different picture of their own lives. One's senior years emerge as a calm, benign period. People over 60 report higher than average levels of life satisfaction and low levels of both positive and negative affect. As we shall see, they find several important life domains, especially those associated with leisure, organisational activity and their local community, markedly more satisfying than other age groups.

There is something of a tradition in quality of life research of reporting the apparent satisfactions of seniority but of downplaying the results, not fully accepting them. It is pointed out that satisfaction could be due to resignation, to lowered expectations, to acceptance of one's lot. There is some evidence to support this view. It is certainly true, as table 10.3 shows, that the gap between perceptions of one's current life and one's expectations, aspirations and sense of just deserts disappears among the over sixties. They are beyond ambition. Also the over sixties give a higher rating to the whole of your past life than other groups. This could be interpreted as rationalisation ('I have had a good innings'), or looking at the past through rose-coloured glasses. Some may just feel pleased to be alive; after all many of their contemporaries may

Table 10.3 Gap between expectations, aspirations and so forth and perceptions of present life: age groups

<table>
<thead>
<tr>
<th>Ladder of life (0–20)</th>
<th>Age</th>
<th>Score</th>
<th>Gap²</th>
<th>Score</th>
<th>Gap²</th>
<th>Score</th>
<th>Gap²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present Life</td>
<td>60+</td>
<td>14.9</td>
<td>-0.9</td>
<td>14.6</td>
<td>1.4</td>
<td>14.5</td>
<td>1.8</td>
</tr>
<tr>
<td>Expectation: life in 5 years time</td>
<td>35–59</td>
<td>14.0</td>
<td>16.0</td>
<td>1.4</td>
<td>16.3</td>
<td>1.8</td>
<td></td>
</tr>
<tr>
<td>Aspiration: best life could hope for</td>
<td>Under 35</td>
<td>14.9</td>
<td>0.0</td>
<td>16.9</td>
<td>2.3</td>
<td>17.5</td>
<td>3.0</td>
</tr>
<tr>
<td>Deserts: life you deserve</td>
<td></td>
<td>15.1</td>
<td>0.2</td>
<td>16.7</td>
<td>2.1</td>
<td>17.3</td>
<td>2.8</td>
</tr>
</tbody>
</table>

1 Victorian Quality of Life Survey.
2 Gap scores represent the difference between people's scores on a reference standard (expectations, aspirations, and so forth) and their perceptions of their present life. All scores are recorded on the 'ladder of life' 0-20 scale (see chapter 4).
The conventional account, given by cognitive or judgement theories of well-being, is that young people start off with high aspirations and are somewhat dissatisfied with life because of the gap between high hopes and current achievements. In middle age this gap becomes middling and in old age it disappears (Michalos, 1980,1985).1

While not totally rejecting this view, we feel that the evidence supporting it is flawed and that there is much credible evidence of genuine satisfaction (not mere resignation) in senior years. Does the evidence in table 10.3 really suggest resignation? The usual method of assessing expectations (followed here) is to ask about the life a person expects in five years time, and the usual way to ask about aspirations is to ask about the best life one could realistically hope for. Would it really make much sense, in normal circumstances, for a person over sixty to say they expected a much better life in five years time, or that they realistically hoped for something much better in the future? Why should not most older people feel that their past life has been pretty satisfying? Most of them do not need rose-coloured glasses to feel that they have raised their children reasonably successfully and that their own standard of living has increased a lot during their lifetimes.

There is also a dubious assumption about causal direction in asserting that levels of expectation and aspiration account for differences in life satisfaction. Could it be the case that happy people, because they are happy, or because they are extraverted and non-neurotic, develop a picture of reality in which small or zero gaps are perceived between their present life and their reference standards? Conversely, unhappy people may be predisposed to perceive big gaps. We shall explore these issues of causal direction in the next chapter and find evidence that life satisfaction has greater effects on reference standards than vice-versa.

The strongest evidence for accepting a picture of satisfying old age comes from reviewing the specific domains with which older people report high levels of satisfaction. These fall into four main categories (Headey and Wearing, 1988).

1 free time, leisure activities, organisational involvements and helping other people;
2 housing, suburb and local community;
3 estimation of one's own moral qualities (kindness, generosity, sincerity and so on) and the moral qualities of other people;
4 the amount one worries and feels pressured and strained.

It seems entirely plausible that older people, most of whom have retired, would feel well satisfied with the amount of free time at their disposal and their leisure and community activities. It also seems quite likely that they would be pleased with their houses (mortgage paid off, plenty of room now that the children have left) and the suburb in which they live and have many old friends and acquaintances. The benign view which senior citizens take of their own and other people's moral qualities may be partly due to retirement and reduced family commitments. At work many people engage in and witness a fair amount of competition and conflict. The same is true of some families. In retirement, by contrast, one encounters other people mainly in leisure activities or in a context where they are providing a service. A benign view of humanity could easily follow. Finally, it seems entirely reasonable that, compared with younger people, senior citizens would feel less pressured, strained and worried.

There are a few domains in which satisfaction declines with age. These include one's marriage, sex life and the amount of fun and enjoyment one experiences. A decline in satisfaction with health might have been expected. However, Australians in their sixties report high levels of
health satisfaction and satisfaction with your physical fitness and the amount of exercise you get. Only when people reach their eighties is a clear decline observed (Campbell, 1981; Kelley, Cushing and Headey, 1984). People in their eighties are also more likely to report feeling lonely.

Widowhood, which is about five times more common for women than men, is a source great distress for two or three years, but after that widows report about the same levels of life satisfaction and similar domain satisfactions as married people. However their positive affect scores are well down, indicating a relative absence of joy, fun and elation. Even so they are in considerably better shape on all well-being and psychological distress indicators than single people who never married or elderly divorced people (Campbell, 1981).

Rather neatly in view of previous evidence, we find that people over sixty, some of whom are about to retire and others who have already done so, report much higher levels or potential levels of satisfaction with 'your life after retirement' than younger and middle aged people for whom this period of life is a distant prospect. We do not doubt that to some extent people just make the best of what they have got, but it seems clear that for many people senior years are calm, agreeable and relatively satisfying.

So far we have concentrated on explaining satisfaction levels. How do we account for low levels of positive and negative affect in old age? A major factor seems to be the reduction in major life events—both favourable and adverse events—that comes with advancing years. Adverse events and daily hassles are the main source of negative affect, while favourable events and daily uplifts (enjoyable encounters and activities) are a source of positive affect (Argyle, 1987; Headey, Holmstrom and Wearing, 1984; Lewinsohn and Graf, 1973; Lewinsohn and McPhillamy, 1974; Reich, Zautra and Hill, 1987). In survey studies it is found consistently that older people report fewer major events than younger people. They are less likely to change marital or job status, less likely to have wonderful or distressing interactions with their children. Of course the probability of some events increases—widowhood, retirement and ill-health to name the three most obvious—but on balance life becomes less eventful.

A consequence of this relative lack of events is not only low levels of positive and negative affect but also relatively small changes in levels of well-being and psychological distress. The average amount of change recorded by older people in the Australian panel study from one wave of interviews to the next was considerably lower than among younger people. In short the lives of older people run on a more even keel.

It seems possible that biochemical changes and small changes in personality also contribute to low levels of positive and negative affect. Production of natural pain and pleasure drugs (beta endorphins) in the brain probably declines in one's older years, in line with a general decline in hormone production and reactivity.

There is clear evidence that people who are now old are less extraverted and less neurotic than people who are now young (Argyle, 1987; Lynn 1982). If these differences were due to ageing, they would contribute a great deal to declining positive and negative affect, since extraversion is strongly associated with positive affect and neuroticism with negative affect. However, the balance of opinion among psychologists is that the differences are not due to maturation but are mainly differences between generations (that is, cohort effects: see Argyle, 1987; Lynn, 1982). Personality is partly environmentally determined and it has been suggested that the older generation grew up in a less affluent period with longer working hours and less leisure. Consequently, they had less opportunity to engage in sociable, outgoing activities and develop extraverted dispositions (Lynn, 1982). Some support for this interpretation perhaps comes from the finding that older people, perhaps because they are less extraverted, have smaller social
networks (fewer intimates and casual friends) than younger people. However, this could also be partly due to loss of friends through death and, in the case of the very old, inability to travel.

The lower levels of neuroticism reported by older people are probably due to the decline in adverse events and daily hassles mentioned earlier. Older people face problems and hassles with health, transport and sometimes in doing routine housework. However it appears that, in general, they are considerably less pressured and strained than middle aged and younger people. Their lives are less volatile, the waves have diminished. It is tempting to end with a quote from Robert Browning's Rabbi ben Ezra:

\[
\text{Grow old along with me,} \\
\text{The best is yet to be,} \\
\text{The last of life for which the first was made...}
\]

Conclusion

Several myths about ageing have been punctured if not entirely deflated by the research reviewed in this chapter. Three propositions, one each referring to young adulthood, middle age and old age, follow:

Adolescence and young adulthood is a period of relatively low life satisfaction and of high positive and high negative affect. Life is very up and down, very volatile. It is both pleasurable and stressful.

There is no systematic evidence that middle aged people generally experience a mid-life crisis. Levels of life satisfaction, job satisfaction and marriage satisfaction do not typically fall when people are in their forties.

For most people old age is a fairly satisfying period of life but one of low positive and low negative affect. Life is on an even keel. Satisfactions come especially from increased leisure, contentment with the local environment, and a relatively benign view of oneself and other people.

As people get older they move into stages of the family and career cycle in which fewer major life events happen. This minimises change in well-being and distress.

Notes

1. Cognitive theories assert that well-being depends on relatively cool, calm judgements about the gap between reference standards and perceptions of one's current life.
2. The standard deviations of older people's change scores were also lower.
Ignorance of which variables are causes of well-being and which are consequences is a black hole in current research. In this book we have reviewed relationships between well-being and many other variables: personality traits, social networks, domain satisfactions, and levels of expectation and aspiration. We, like other researchers, have more or less assumed that all these correlates should be regarded as causes not consequences of well-being. But is this assumption justified? In the case of social background variables and personality traits it almost certainly is. A person's level of happiness could not possibly affect his or her gender and it is implausible that one's social class or status could be affected. In the case of major personality traits, like extraversion and neuroticism, there is such strong evidence that they are partly hereditary and fairly stable over a lifetime, that we can reject the idea that they are caused by happiness. But what about the other variables on the list? Is it not possible that the quality of a person's social network, domain satisfactions and levels of expectation and aspiration are wholly or partly consequences rather than causes of well-being? Perhaps happy people, just because they are cheerful and happy, attract friends and confidants and so develop a rich social network. Miserable people, on the other hand, may repel potential friends and so lack an extensive network. It seems quite likely that these differences go back to childhood. Extraverted, cheerful children generate positive feedback from other people. They may learn to generate positive experiences and develop interpersonal strategies which hold them in good stead for the rest of their life. Introverted and neurotic children, on the other hand, probably generate less positive feedback and fail to develop interpersonal skills.

There are really three possible models which could describe the relationship between a variable of interest, for example, job satisfaction (JS) and subjective well-being (SWB).
In model I job satisfaction is a cause of well-being; people are more or less happy depending on job satisfaction. In model II job satisfaction is a consequence (or a spin-off) of how happy one is in the first place. In model III we have two-way causation or, one might say, a feedback loop. People who are satisfied with their jobs are happier because of this, but it is also true that happy people are predisposed to find their jobs satisfying.

A few researchers have commented on these alternative models and urged greater attention to issues of casual direction (Diener, 1984; Veenhoven, 1989). However their exhortations have been more or less ignored, because it has always seemed that they were presenting an impossible chicken-and-egg problem. There is no point in asking which came first the chicken or the egg.

Or is there? Given panel data, there are statistical models and techniques available which give us a chance to sort out issues of causal direction. These techniques are rarely used and somewhat controversial. In this chapter we make use of one particular statistical model which, we believe, is promising for the purpose of determining causal direction in the Australian panel data. Unavoidably, this is a rather technical chapter, employing complicated techniques. But the issues it addresses are central to understanding of subjective well-being. We cannot go on assuming that all variables which are correlated with well-being are causes.

In this chapter we illustrate the use of the proposed statistical model by testing Freud's famous dictum that, 'To be happy is to work and to love'. We assume that Freud meant that people who have satisfying work and satisfying love lives will, as a result, be happy. In other works Freud proposed that Model I in figure 11.1 applies to the relationship between happiness and satisfaction with one's work and love life.

Having illustrated the statistical model by testing Freud's dictum, we will then summarise results relating to relationships between subjective well-being and, first, domain satisfactions, second, levels of expectation and aspiration and, thirdly, longevity—do happy people live longer?

It should be understood that this chapter, even more than others, is exploratory. It is a first attempt to disentangle complex issues of causal direction. Results should be regarded as tentative, not at all conclusive.

To be happy is to work and to love?"
which a model (or, to be more exact, the equations which represent a model) contains too many unknowns relative to the amount of information or data available. Many readers will remember learning simultaneous equations in high school algebra. If the number of unknowns (x, y and so on) exceeds the number of equations, then under-identification occurs and no solution is possible. If the number of unknowns exactly equals the number of equations, then the equations are said to be just identified—there is one correct solution. Finally, if the number of equations exceeds the number of unknowns, the equations are over-identified—there is more information than is necessary to provide a unique solution. This additional information is useful, however, because it enables several estimates to be made and gives greater confidence in the final result.

Let us now consider a diagram representing a statistical model which we would like to be able to solve but cannot. The diagram shows three waves of panel data dealing with job satisfaction (JS) and life satisfaction (LS). Causal links represented by arrows indicate that job satisfaction causes life satisfaction at time 1 ($t_1$),

time 2 ($t_2$) and time 3 ($t_3$). There is also a lagged relationship such that job satisfaction at time 1 causes life satisfaction at time 2, and job satisfaction at time 2 causes life satisfaction at time 3. The diagram also shows life satisfaction causing job satisfaction both at the same point in time and in lagged relationships. Finally, it shows links between job satisfaction at consecutive time points and life satisfaction at consecutive points.¹

**Figure 11.2 Unsolvable model linking job satisfaction and life satisfaction**

This model is under-identified; there is no mathematical solution. However, if we are willing to make a number of reasonable assumptions which have the effect of reducing the number of unknowns in the equations representing the model, then it becomes possible to achieve a solution. The most important of these assumptions is that each particular relationship shown in the model remains the same at each point in time (Kessler and Greenberg, 1981; Greenberg and Kessler, 1982). That is, we assume that the relationship $LS_1 \rightarrow JS_1$ is the same as $LS_2 \rightarrow JS_2$ and $LS_3 \rightarrow JS_3$. Similarly, we assume that $JS_1 \rightarrow LS_1$ equals $JS_2 \rightarrow LS_2$ and $JS_3 \rightarrow LS_3$. We also assume that lagged relationships between consecutive time points do not vary. In other words $JS_1 \rightarrow LS_2$ equals $JS_2 \rightarrow LS_3$ and $LS_1 \rightarrow JS_2$ equals $LS_2 \rightarrow JS_3$.

Our view is that these assumptions are reasonable for the Australian panel data because we have found, in practice, that mean scores and standard deviations of variables like job satisfaction
and life satisfaction, and also correlations between variables, have remained virtually the same in each of the five surveys (1981-89).

The details of the statistical model used to test Freud's dictum are described in the appendix at the end of this chapter. The model uses all five waves of panel data and includes simultaneous and lagged relationships between job satisfaction and life satisfaction, between marriage satisfaction and life satisfaction, and also between job satisfaction and marriage satisfaction. This last set of relationships was included because it seemed possible that being happily married increases one's job satisfaction, and even that job satisfaction enhances marriage satisfaction.

The actual measures of happiness, work and love included in our 'Freudian' model were the Life-as-a-whole Index, and the job satisfaction and marriage satisfaction indices. De facto couples were asked questions about marriage satisfaction and are included here. However, single people are omitted from the analysis.

First, is it true that marriage satisfaction causes happiness, or does happiness affect marriage satisfaction, or is there a feedback relationship between the two? The answer seems to be that marriage satisfaction and life satisfaction reinforce each other. People who are happily married are happier with their lives-as-a-whole than people who are unhappily married, that is, a happy marriage causes or contributes to life satisfaction. It also appears to be true that being a happy sort of person contributes to having a happy marriage. In other words, happy people are easier to live with for their marriage partners, as well as presumably everyone else. In short, satisfaction with one's marriage or de facto partnership is both a cause and a consequence of life satisfaction.

The relationship between job satisfaction and life satisfaction is quite different. Following the assumption of previous research, we had expected that job satisfaction would be primarily a cause of life satisfaction; apparently not. Using the statistical model described earlier, the link from job satisfaction to life satisfaction turned out not to be statistically significant; it was close to zero. However, there was a strong link from life satisfaction to job satisfaction. In other words happy people tend to be satisfied with their jobs; job satisfaction is a consequence of life satisfaction.

This result is counter-intuitive but (if we accept it; see below) it enables us to reinterpret puzzling findings in previous research. Research has consistently shown that people involved in low status, routine jobs with little autonomy are almost as satisfied as people in high status, autonomous, decision-making jobs (Andrews and Withey, 1976; Campbell, Converse and Rodgers, 1976; Headey and Wearing, 1988). Such findings are hard to understand if one regards job satisfaction as a cause of life satisfaction. But if it is mainly a consequence, the puzzle is removed. We know that people of high and low social status are about equally happy (although low status people experience rather more psychological distress; see chapter 6). Social status and job status are closely associated (indeed many researchers treat them as virtually identical) so approximately equal levels of job satisfaction could be seen as a spin-off of nearly equal levels of life satisfaction.

So Freud appears half right and half wrong, at least for Australia. To be happy is to love but not, in Australia, to work. Marriage satisfaction is both cause and consequence of life satisfaction but job satisfaction is only a consequence. There was, incidentally, no relationship between marriage and job satisfaction—they do not appear to affect each other at all.

When we consider the relationship between life satisfaction and other domain satisfactions, we get further results which are initially surprising but which, with hindsight, appear to cast light on previously puzzling findings. Satisfaction with one's material standard of living is like job satisfaction; it is primarily a consequence or spin-off of life satisfaction, not a cause. In other words happy people manage to feel satisfied with their material conditions, whereas unhappy
people feel dissatisfied, more or less regardless of what the conditions are (It should be understood that this statement only holds true for the range of material conditions normally experienced in Australia; extreme poverty probably would affect life satisfaction; see chapter 7).

Satisfaction with one's leisure is highly correlated with life satisfaction. Previous researchers, who have interpreted the relationship as causal, have expressed some surprise. How could leisure be so important to people? Perhaps, after all, it is not. Results from the two-way causation model suggest that satisfaction with leisure is solely a consequence of life satisfaction. When people tell you whether or not they enjoy their leisure, they are really just telling you whether or not they are happy people.

Satisfaction with health seems to be neither a cause nor a consequence of life satisfaction. The relationship appears completely spurious and depends mainly on levels of neuroticism. In other words, people who are quite neurotic report low levels of both health satisfaction and life satisfaction, whereas stable non-neurotic people score high on both counts. So the correlation between health satisfaction and life satisfaction is spurious, the causal factor being neuroticism.

Expectations and aspirations

The statistical model can also be used to test important propositions in adaptation theory (Brickman, Campbell and Janoff-Bulman, 1970; Helson, 1964) and multiple discrepancies theory (Michalos, 1980, 1985). These theories both rest on the assumption that expectations and aspirations, and gaps between these reference standards and perceptions of one's current achievements, are causally related (or at least antecedent) to life satisfaction. Adaptation theory postulates that, in response to major life events, people fairly rapidly adjust their expectation and aspiration levels. If an adverse event occurs, for example, death of one's spouse, expectations and aspirations for the future are lowered. So the gap between these standards and perceptions of one's current life is fairly soon restored to whatever it was before and, the adjustment complete, one is neither more nor less happy than before. If a favourable event occurs, for example, a financial windfall, future expectations and aspirations are raised with the same eventual outcome for happiness.

Results from the two-way causation model indicate that expectations and aspirations are primarily consequences not causes of life satisfaction. A plausible interpretation of these results is that when people are happy, they just want to continue as they are or become just a little happier. They set themselves reasonably high standards but not so high that there are large gaps or discrepancies between their standards and perceptions of their current achievement levels. We saw earlier (chapter 4) how happy people construct a picture of reality in which they see their current lives as being almost as satisfying as the life they expect, aspire to and deserve but considerably better than the worst period of their life, the life their parents led and the life of the average person in the country.

Unhappy people have a more difficult task in forming expectations and aspirations. They know they are unhappy now and want to feel better. They have to make a guess at where to set their standards and, as it turns out, set them considerably higher than their present level of satisfaction; hence the large gaps or discrepancies reported earlier. However their expectations and aspirations are still lower than those set by relatively happy people.

Taken together with earlier evidence from the panel study (chapter 9), which indicated that life events do not in fact modify expectations and aspirations in the short term, these results cast serious doubt on adaptation theory and multiple discrepancies theory. These theories have little
value if changes in expectations and aspirations follow from rather than precede, or cause, changes in well-being.

Longevity and happiness

Happiness helps you live longer. This was the conclusion of the Dutch Longitudinal Study Of The Elderly which involved interviewing a sample of 3000 people aged sixty-five and over between 1955-57 and then, in 1983, obtaining data relating to their health status or age of death (Deeg and Zonneveld, 1989). It was found that high levels of life satisfaction and domain satisfaction were related to longevity. Controlling for other variables (including, of course, state of health at the time of the first interview) it transpired that people who were happier in 1955-57 were more likely to be still alive in 1983. A man of seventy, for example, who was in the top 20 per cent of the sample in happiness was likely to live twenty months longer than a man whose happiness score was just average.

Making sense of these results

The possibility that some domain satisfactions, and also expectations and aspirations, are primarily consequences or spin-offs of well-being is puzzling enough that we must consider all reasonable counter-interpretations, including the possibility that the results are wrong.

One possibility is that, although the results are true in general, they are not true in extreme cases. Take job satisfaction. It could be true that in general (and especially in the middle of the distribution where most cases lie) job satisfaction is primarily a spin-off of life satisfaction. However, in extreme cases, for example if a person received an outstanding and unexpected promotion at work, or was demoted or sacked, one would expect that the consequent change in job satisfaction would also affect life satisfaction. This interpretation implies a non-linearity in the relationship between job satisfaction and life satisfaction, at least in specific circumstances. Like other researchers (for example, Andrews and Withey, 1976), we have been unable to detect such non-linearities, but they are notoriously hard to detect in survey data and we cannot confidently rule them out.

Suppose that we tentatively accept that some domain satisfactions are mainly spin-offs of well-being. How can this result be integrated into our dynamic equilibrium model? To this point the model has portrayed relationships between personality traits, life events and well-being. The hypothetical model shown below adds to the story by including domain satisfactions (marriage satisfaction and job satisfaction, as in our 'Freudian' model) and imagining that the events which occurred were favourable marriage events and adverse job events. The plus signs is the model indicate a positive relationship and the minus signs a negative relationship.
Figure 11.3  An extended, hypothetical dynamic equilibrium model

+ = a positive relationship
- = a negative relationship
ns = not significant

The model indicates that extraverted people are more likely to experience favourable marriage events, and have higher levels of marriage satisfaction, job satisfaction and well-being. Neurotic people are more likely to experience adverse job events and have lower domain satisfactions and well-being. When favourable marriage events occur the effect is to enhance marriage satisfaction and indirectly to enhance well-being. When adverse job events occur, job satisfaction is lowered but the effect on well-being is not significant. This last hypothesised 'result' is counter-intuitive, but it is what the findings given in the first part of the chapter imply.²

Reasoning by analogy may help to clarify the reasoning behind the model. First, a sporting analogy. Let us suppose that general sporting ability (analogous to well-being) depends on partly hereditary characteristics like speed and strength (analogous to extraversion and neuroticism). Ability at specific sports like athletics and bowls (analogous to domain satisfactions) may be mainly a consequence or spin-off of general sporting ability. If good coaching (analogous to a favourable life event) is taken in one specific sport, ability to perform in that sport improves. However, the effect on general sporting ability may or may not be significant. One might guess that athletics coaching would indirectly improve general sporting ability, whereas coaching in bowls perhaps would not. In this respect athletics coaching would be analogous to marriage events, while bowls coaching would be analogous to job events.

Another analogy may be found in the effects of intelligence (partly hereditary) on general academic ability (compare well-being) and on ability in specific subjects. Intensive teaching of
one subject (compare a life event) may well improve ability and performance in that subject, but may or may not have spin-off effects on general academic ability.

Plainly, reasoning by analogy cannot prove a case. But it does perhaps suggest plausible relationships between personality traits, life events, domain satisfactions and well-being which are similar to relationships in fields which are better understood.

Conclusion

It needs to be stressed that the results given in this chapter are provisional. They are based on a complicated statistical model which may be open to criticism, and they certainly require confirmation in other studies before a great deal of confidence can be placed in them. However, if correct, they suggest the following propositions:

Marriage satisfaction is both a cause and a consequence of well-being. Happily married people tend to be happier with their lives, but it is also true that people who are happy in the first place tend to form happier marriages.

Job satisfaction, satisfaction with one's material standard of living and satisfaction with leisure are all primarily consequences not causes of well-being.

Levels of expectation and aspiration, and gaps between these levels and perceptions of one's current life, are consequences rather than causes of well-being. In this regard adaptation theory and multiple discrepancies theory appear to be based on incorrect causal ordering.

Happiness promotes long life.

In the final chapter we consider methods of increasing well-being and domain satisfactions. One lesson of this chapter is that it cannot be assumed, except perhaps in the case of marriage satisfaction, that increases in domain satisfactions will automatically enhance well-being.

Notes

1 These links are inserted not because it is believed that LS₁ causes LS₂ which causes LS₃ and so forth, but because of the so-called 'regression-to-the-mean' phenomenon. Very high and very low scorers at a previous time point tend to have moved back towards the mean when measured at a later point. There is thus a systematic relationship between scores at adjacent time points. So if one wants to estimate the effect of one variable on another, for example, the effect of JS₂ on LS₂, a more accurate estimate is obtained by also including in the model an estimate of the effect of JS₁ on JS₂ and LS₁ on LS₂.

2 Attempts to test this model empirically were generally confirmatory but yielded results which were not completely consistent across all five waves of the panel data. There were also statistical difficulties, primarily due to multicollinearity.
Appendix

The two-way causation model

A two-way causation model was used to test Freud’s dictum that: To be happy is to work and to love. It includes twelve sets of equalities (=1, =2 and so on) which were imposed on the assumption that the true causal relationships among the variables remained the same within each wave of data and between consecutive waves. This assumption seems justified, given that observed means, standard deviations and correlations remained virtually unchanged across all five waves of the Australian panel data. The effect of the imposed equalities is to produce a set of over-identified equations.

Unfortunately there is another difficulty. Although the model is in principle identified, one is likely to find that, in actually estimating equations, problems of multi-collinearity are encountered. In particular, estimates of lagged and contemporaneous effects of a predictor variable (for example, MS₁ → JS₂ and MS₂ → JS₂) are likely to be too highly correlated to be reliable. So, in practice, in any given computer run, one is forced to drop from the model either the cross-lagged links between the variables of interest or the contemporaneous, reciprocal links. All is not lost, however. Models with only lagged links and only contemporaneous links can be run consecutively. Provided that the estimates of the lagged and contemporaneous estimates showing causation running from, for example MS to JS are reasonably close, results may be considered consistent, although both will be conservative if the true causal (time) lag falls between the two points of observation.

In the present paper there are perhaps reasons for believing that contemporaneous links-come closer to providing accurate estimates than lagged links. On a priori grounds one might expect that, if they had any effect at all, changes in marriage and job satisfaction would have fairly rapid effects on life satisfaction. Similarly, changes in life satisfaction might be expected soon to affect domain satisfactions. At a more practical level it should be noted that interviews in the panel study are conducted at two-year intervals. It seems most unlikely that the causal effects analysed here take anything like two years to be felt. Supporting this view is the fact that contemporaneous correlations in the data are somewhat higher than lagged correlations. In practice we rely primarily on contemporaneous estimates of reciprocal causation. It is found, however, that the lagged estimates not only have the same signs as contemporaneous estimates but are not a great deal lower.

Two features of the model are included to test hypotheses about the possible spuriousness of links between the variables of interest (that is, their joint dependence on other variables). Five stable personal characteristics—sex, age, socio-economic status, extraversion and
Reciprocal causation model linking marriage satisfaction, job satisfaction and life satisfaction

- In fact all five waves of the panel data were used to estimate the model. For clarity only three waves are shown here.
- The variables below are linked only to the satisfaction measures at time (1985).

Neuroticism—are included as exogenous variables. The first three may be regarded as standard background variables which need to be routinely controlled, while extraversion and neuroticism are included because Costa and McCrae (1980) hypothesis that apparent causal relationships between variables of interest and well-being are spurious due to these personality traits, which they, among others, have shown to be very stable over a lifetime. Exogenous variables are of course assumed to be causes not consequences of MS, JS and LS, and in so far as relationships between MS, JS and LS are due to joint dependence on exogenous variables, the model allows these effects to be partialled out, providing more accurate estimates of the two-way causal effects of chief interest. It should be noted that only time 1 (1981) measures of these stable exogenous variables have been included. They are assumed to be related directly to MS, JS and LS only at time 1. (However if direct links to later measures of MS, JS and LS are inserted, then the two-way causal results of main interest are virtually unaffected.)

Spuriousness could also be due to variables omitted from the model. The effects of such variables are obtained by estimating correlations between error terms of equations for MS, JS and LS (the correlated errors are labelled =10, =11 and =12 in figure A11.1).

The previous paragraphs dealt with possible relationships in a causal model. It is also necessary for work of this kind to provide a measurement model; a model specifying linkages between underlying concepts (variables) and the survey questions used to measure concepts. Whenever the same variables are measured at successive time points, there is a risk of mis-estimating relationships due to measurement errors made on the first occasion being repeated on later occasions. However, provided that there are at least two indicators (survey questions) for each concept, autocorrelated error can be estimated if three or more waves of data are available (Kessler and Greenberg, 1981). In the measurement model which accompanied the causal model, autocorrelated error terms are estimated whenever the same indicator (survey question) is repeatedly used to measure the same concept. Furthermore, error terms relating to the same indicator are constrained to be equal, because it is reasonable to assume that the degree of error is the same on each occasion.
The ideal software for estimating the model is LISREL IV (Joreskog and Sorbom, 1978) (For present purposes LISREL IV is preferable to later versions of LISREL. Kessler and Greenberg’s (1981) demonstration that the model is identified relates to the reduced form of the equations and these are employed in LISREL IV. Later version of LISREL directly estimate the structural equations). LISREL first estimates measurement model in order to calculate disattenuated (estimated true) correlations among the concepts in the causal model. It then uses these correlations to calculate the coefficients in the causal model (maximum likelihood estimates).

The LISREL runs for this paper were based on correlation matrices and, in presenting results, standardised (not metric) maximum likelihood estimates are given. The use of standardised estimates is often considered appropriate when, as is the case here, all variables of interest have arbitrary metrics. The use of standardised estimates makes it easy to assess the relative magnitude of two-way causal effects, since estimates are constrained to fall between -1 and +1. It should be noted, however, that all models were re-run using variance-covariance matrices as inputs into LISREL in order to obtain metric (unstandardised) estimates. In all cases the metric results told essentially the same story as the standardised results given below.

**Results**

In giving results in figure A11.2, we show only estimates of the two-way causal relationships between MS, JS and LS. Furthermore, only contemporaneous results are shown. It should be noted that a similar model embodying lagged relationships between the three variables yielded very similar results.

**Figure A 11.2** Two-way causal relationships between marriage satisfaction, job satisfaction and life satisfaction.

\[
\text{ns} = \text{not significant at the 5 per cent level.}
\]
It can be seen that marriage satisfaction affects life satisfaction and vice-versa, both coefficients being significant at the 5 per cent level. Job satisfaction has no significant effect on life satisfaction, but the effect of life satisfaction on job satisfaction is quite strong. Marriage satisfaction and job satisfaction have no effect on each other.

A more detailed and technical explanation of the model can be found in Headey, Veenhoven and Wearing (1991). Detailed results for the model discussed in this article obtained from the authors.
PART 4  Personal and policy implications
Increasing happiness

What makes for increased happiness? Can we identify ways in which individuals can improve their lot and also, perhaps, indicate how governments could enhance the lives and satisfaction levels of citizens through appropriate policy programmes?

So far this book has been about explaining stability and change in levels of well-being and psychological distress. The focus of this chapter shifts from explanation to intervention. Do the explanations (the theory) we have developed suggest interventions which individuals or governments could usefully make to enhance well-being?

This chapter focusses almost entirely on well-being and ignores methods of relieving psychological distress. The justification for this decision is firstly that well-being and psychological distress are separate dimensions with distinct correlates and causes, so it is logically possible to concentrate on one and ignore the other. Secondly, psychologists, psychiatrists, sociologists and others who have written about mental health have concentrated almost exclusively on relieving ill-being rather than promoting well-being. Explicitly or implicitly they employ a medical model in which human beings are thought of as either ill (suffering from pathologies or deficits) or in normal health. There is a vast literature on the causes of anxiety, depression and other forms of psychological distress, and numerous therapies have been developed to bring relief. These therapies have been well reviewed by other authors and we have nothing to add (Argyle, 1987; Beck, 1976; Blaney, 1981; Brewin, 1985; Coyte & Gotlib, 1983; Miller and Berman, 1983). Our focus is on well-being and positive emotions. The underlying assumption is that happiness is a significant goal (although of course not the only goal) of most individuals and that governments...
should sometimes (although not always) formulate policies which promote the utilitarian goal of the greatest happiness of the greatest number.

The first part of the chapter is concerned with how individuals, sometimes with the help of counsellors or therapists, can directly enhance their own levels of life satisfaction and positive affect. The latter part deals with government policies to enhance domain satisfactions. Governments cannot directly affect people's well-being but they can provide facilities and opportunities for increased satisfaction with various life domains: leisure, work and even family life.

It should be admitted at the outset that research on enhancing well-being is at an early stage. Our own work has involved observation but not intervention in people's lives. So this chapter reviews the work of colleagues in England, New Zealand and the United States who have developed methods of intervention.

A word of caution

It is important to be realistic about the extent to which change is possible. The dynamic equilibrium model of well-being, outlined in part 3, appears to offer only limited scope for enhancement. The model stipulates that a person's normal or equilibrium level of well-being is determined partly by enduring personality dispositions. It also suggests that each person's normal pattern of life events and experiences is partly personality-driven. Increases in well-being occur when an individual has favourable experiences which deviate from his or her normal pattern.

Nothing in this chapter involves trying to change basic personality dispositions. However, suggestions are made to enable individuals to develop skills which come more easily to those who are extraverted than those who are introverted, and to those who are relatively stable rather than relatively neurotic. We also make recommendations about how individuals can change their own normal pattern of life events and experiences by recognising what they find satisfying and enjoyable, and training themselves to do more of it.

Popular writing sometimes suggests that it is possible for people to transform their lives overnight. It is much more likely that change will be incremental. Evaluations of therapies for relieving psychological distress show that most have a modest track record (for example, Coyne and Gotlib, 1983; Sutherland, 1976). We suspect that interventions to enhance well-being may be more effective. People suffering from serious anxiety and depression often do so for reasons so complicated and intertwined that it is hard to find relief. Efforts to enhance the well-being of people who are not suffering from serious pathologies, but would just like to be happier, may well be more successful.

Life satisfaction

The main factors associated (correlated) with high levels of life satisfaction are extraversion, good social networks, realistic expectations and aspirations, and satisfaction with major life domains. However, we have seen that it is doubtful whether expectations and aspirations and most domains are causally related to life satisfaction; they may well be primarily consequences. Extraversion and the good social networks that usually flow from being extraverted stand out as the clearest causes of happiness.

An obvious reaction to this statement is to say that, 'You can't turn introverts into extraverts, so the finding is of no practical help'. Insofar as extraversion is partly hereditary this reaction is justified, but insofar as it is moulded by environment, it is open to change. Taking this line of reasoning a stage further, the Oxford happiness researcher, Michael Argyle, thinks of extraverts as
having a package of skills which come naturally to them but which others can be taught. He has now begun a research programme which involves providing social skills training, assertiveness training and even advice on the 'rules of friendship'. Social skills training involves such things as practising self-disclosure, learning how to ask questions which will draw others out, practising appropriate body language and reciprocal movement, and gaining confidence in initiating social contact. Assertiveness training does not just involve teaching people how to say no! It includes coaching in non-aggressive ways of expressing preferences, hopes and anxieties. Advice on the rules of friendship involves realisation that friends often come in networks, rather than singly (Argyle and Henderson, 1984). It is important to keep confidences, to stand up for friends if they are criticised, and to avoid jealousy of other relationships within the network. In general women friends seem easier to confide in and are more rewarding than men friends both for women and men (Rubin, 1983).

Argyle's happiness training has produced initially promising results but it is too early to judge the longer term effectiveness of his programme. The basic approach of inculcating extravert skills seems extremely valuable. Clearly, however, long term results matter more than short-term uplifts in mood.

An integrated programme for increasing happiness has been developed by the American researcher and counsellor Michael Fordyce (Fordyce, 1977, 1983, 1988). Fordyce identifies fourteen fundamentals of happiness:

1. keep busy and be more active;
2. spend more time socialising;
3. be productive at meaningful work;
4. be better organised and plan things out;
5. stop worrying;
6. lower your expectations and aspirations;
7. develop positive, optimistic thinking;
8. become present oriented;
9. work on a healthy personality;
10. develop an outgoing, social personality;
11. be yourself;
12. eliminate negative feelings and problems;
13. close relationships are the number one source of happiness;
14. make happiness your number one priority.

The list might appear somewhat bland and repetitive (points 2 and 10 seem much the same, as do points 5 and 12) but the actual teaching and self-teaching packages which Fordyce has produced are quite detailed. They involve regular practice sessions and exercises to improve at each of the fundamentals. Evaluations of the programme's short-term effectiveness (up to four months) with both student and adult groups have been very favourable. Longer-term effects are harder to evaluate but Fordyce has reported on a small scale study conducted nine to eighteen
months after participants completed his course. Of the sixty-nine people who replied, most reported that they still used his methods and that they felt happier than before they took the course. However, it appears that this last judgement was retrospective and that no direct comparisons were made between happiness scores before starting the course and scores nine to eighteen months afterwards. Fordyce (1983) reports that:

The specific fundamentals most often mentioned as the most helpful were 'spend more time socialising', 'stop worrying', 'lower your expectations and aspirations', 'be yourself and 'develop positive, optimistic thinking'.

Less broad-based programmes, directed more towards using 'the power of positive thinking' and eliminating 'erroneous zones' (Dyer, 1977) have been developed by the New Zealand psychologist, Richard Kamman (Lichter, Haye and Kamman, 1980). This type of cognitive retraining, whether done through group discussions or individual practice, has beneficial short-term effects on both domain satisfactions and overall happiness.

It seems fair to conclude that happiness training programmes show promising results but that further research is needed to assess their longer-term benefits. It is also tempting to suggest that the key elements in these fairly broad based programmes need to be identified, although it could be that a scatter-gun approach is quite desirable. Perhaps most people benefit from a combination of exercises and techniques rather than a targeted programme.

A further point: happiness programmes seem very unlikely to be noxious. It is hard to imagine that Fordyce's fourteen fundamentals, or group discussions about eliminating erroneous zones could actually be harmful. That said, it is important in future evaluations to discover what kinds of people benefit most and least from the programmes.

The single item which correlated most strongly with life satisfaction in the Australian panel surveys was 'the sense of purpose and meaning in your life'. Religious people and others with a more secular sense of purpose were strikingly more satisfied than people who lacked purposiveness. The satisfaction of religious people derived not from church attendance but from a more intrinsic 'sense of religious fulfilment'. A more secular sense of mission can come from family commitments, paid work, community work, or leisure activities which provide a strong sense of self-fulfillment. Clearly a person cannot quickly or simply invent a new mission in order to achieve a sense of purpose and meaning in life, but it is worth remembering that in the long haul this is what matters most.

Positive affect

The first major surveys of positive affect showed quite clearly that active participation in leisure activities with friends and relatives (especially children) is the most common recipe for getting people into a good mood (Bradburn, 1969). Activities like sport, adult education, community work, involvement in drama and music clubs, dancing, or just a meal and a drink at the pub with friends all involve pleasant social interaction and raise the spirits. In general, it seems that people smile more and have more fun with friends than relatives, but relatives may be more dependable, especially in bad times (Argyle, 1987).

The question is how can people be induced to engage in more pleasant activities. The American researcher, Peter Lewinsohn, has devised what he calls pleasant activities training (Lewinsohn and Graf, 1973; Lewinsohn and McPhillamy, 1974). People are asked to keep daily records for a month of what they consider to be pleasant events and activities and of the moods that accompany these activities. Statistical analysis is then undertaken of the association between
activities and moods, in order to select for each individual only those activities which actually are enjoyable (It is not unusual for 'social desirability bias' to creep in; that is, people record as enjoyable activities which they think they ought to enjoy but do not really). Each person is then encouraged to spend more time on activities which he or she enjoys. The 'easy wins' principle is applied. That is, at first people are set easy goals involving small increases in enjoyable activity. If they succeed the 'trainer' or therapist rewards them, for example by spending more time with them. They are also encouraged to reward themselves. There seems no doubt that pleasant activities training is very successful for normal people, as well as for those suffering from anxiety and depression (Blaney, 1981; Reich and Zautra, 1983).

Exercise usually produces a positive mood and has the advantage of not necessarily requiring the co-operation of other people. Numerous studies have shown the beneficial psychological effects of exercise; they are much better documented than benefits to health and longevity (Wood, 1985). Some of the benefits almost certainly come from nor-adrenaline and endorphins stimulating the pleasure centres of the brain (Argyle, 1987).

So far we have concentrated on methods of invoking positive moods which can be used repeatedly and, hopefully, with sustained effects. Psychologists are more familiar with laboratory methods which provide short-term mood enhancement. The Velten method (1968) originally involved getting people to read and concentrate on statements in which they reinforce their own self-worth and tell themselves that they are feeling happy, elated, joyful, fit, alert, and so forth. The trouble is that this method only works for about 50-75 per cent of people and, even then, only for about a quarter of an hour (Clark, 1983). Recognising these serious limitations, later researchers have tried methods which might produce most lasting benefits. Watching funny films works for many people, and, for people who have a good ear, listening to classical music can be both happiness-inducing and cathartic in purging or working through painful emotions (Clynes, 1989). Another helpful procedure is to describe a happy event or experience in detail to a friend and to have him or her do the same. Argyle (1987) has found that this works particularly well for people who are good at self-disclosure and who can reinforce what they say with appropriate facial signals and body language. Doing the same thing on the telephone or by letter is much less effective.

Mood enhancement may seem less important than increasing life satisfaction. It is reasonable to think of moods as short term and life satisfaction as long term. Still, to adapt the famous saying of the economist, John Maynard Keynes: 'In the short run we have moods; in the long run we are all dead'.

Domain satisfactions: quality of life policies

For twenty years or so after the Second World War the main domestic policy aim of national governments was to pursue economic growth and increase the material standard of living of citizens. It was also important to develop a welfare state to prevent or relieve the economic problems of those who could not fend for themselves in the market: the elderly, the sick, the unemployed, widows, single parents and people with physical and intellectual disabilities. In the 1960s and subsequent years the range of demands on government has increased. Governments have been pressed to take account of quality of life issues and to provide a range of facilities and services which seem intended to promote satisfaction with various domains of life rather than just material well-being. As Angus Campbell (1981) wrote, there has been some tendency for 'economic man' to be replaced by 'psychological man'. 
The obvious term to use for government programmes intended to enhance domain satisfactions is quality of life programmes. It is the only more or less appropriate term currently in use, although it has perhaps become too closely identified with environmental programmes. In what follows, then, we outline a range of quality of life programmes; programmes designed to enhance satisfaction with particular domains of life.

The first thing to recognise is that many quality of life programs already exist. They include programs which provide leisure and recreational facilities, which promote the arts, which protect or expand wilderness areas, state parks and city parks, which make holidays and long service leave compulsory, which are intended to increase job participation and satisfaction, which promote health and physical fitness, which assist families to stay together and enjoy activities together, and which promote community development and integration.

The programmes discussed in the following pages operate by providing services or grants which enhance opportunities for satisfaction with leisure, work, or family and community life. They are facilitative programmes; they do not compel, enforce or mandate anything. They are also fairly low-cost programmes. Finally, it is not suggested that they directly enhance well-being. We have seen that the causal links between domain satisfactions and well-being are problematic. Plainly, however, it is worthwhile to enhance domain satisfactions for their own sake whether or not they affect overall levels of well-being.

Leisure and spare time activities

Research on well-being and more specialised leisure surveys indicate that most people only derive a moderate level of satisfaction from their leisure. The chief difficulty seems to be a lack of resourcefulness, a failure to turn one's interests and enthusiasms into specific activities which enhance leisure. One symptom of this lack of resourcefulness is the vast amount of leisure time which is spent watching television; the point being that television is one of the least enjoyed of all leisure activities. It is engaged in because it is easy, untroubling, home-based and requires minimal search for opportunities in the use of leisure time. It is, incidentally, also a major reason for the assumption of welfare economists that more leisure means more pleasure is false; false for most people, that is, not for all.

As noted above, there is considerable evidence that people enjoy themselves most when they engage in leisure pursuits which actively engage their physical or mental faculties, rather than activities which supply essentially passive entertainment. Insofar as this is true, a preliminary step is to run advertising campaigns of the kind promoted in Australia by Life Be In It. Life Be In It featured an overweight, sedentary, beer-swilling man called Norm who was slowly convinced to engage in mildly healthy physical activity, for example, brisk walking. The campaign won advertising prizes and was apparently highly successful. There seems no reason, however, why these campaigns should be restricted to encouragement of physical activity and fitness, and should not also encourage cultural and mentally stimulating pursuits, family outings and involvement in community groups.

A serious imbalance in existing leisure facilities, particularly those provided by government, is that they cater relatively well for young active males (sporting facilities) and inadequately for women and people whose interests are less physical. We do not wish to derogate the desirability of encouraging physical fitness. Satisfaction with 'your physical fitness and the exercise you get' was lower than satisfaction with almost all other aspects of living (see chapter 6). There is clearly, then, a continuing demand for both open space and indoor facilities (provided or run by
the private sector, of course, as well as by public and voluntary organisations) which cater for sport and exercise and promote physical fitness. It is reasonable, however, to give priority attention to sections of the community whose leisure demands and needs are currently not well provided for.

In all probability the people who have most leisure time but whose leisure interests are least well catered for are the elderly. Many elderly people suffer enforced leisure, having been compulsorily retired. One possibility is to develop government or voluntary agency programmes to make use of the skills and leisure time of elderly people, so that they are enabled to give more help to each other and to other sections of the community. It has not proved easy to design effective programmes, but the SPAN Community Project, sponsored by the Brotherhood of St Laurence in Victoria, deserves mention. Through this project, which was self-administered, elderly participants provided some services which benefitted other elderly people, for example a handy-man service, and other services which transferred skills to other citizens, for example teaching English to migrants, or dressmaking to younger women. The cost of projects like SPAN depends to a substantial degree on whether they can be wholly self-administered and whether government or a voluntary agency pays any of the operating costs, rather than just start-up costs. However the experiment was very worthwhile because it provided a possible method of tapping a large reservoir of unused skills and resources.

Historically, the service which elderly people have most often provided for others is child-care in their role as grandparents. But, increasingly, grandparents do not live with their married children, or even live close enough to provide and enjoy regular child-care. It seems probable that, in general, this causes emotional loss all round; to the grandparents, the parents and the grandchildren. An obvious answer, at least in principle, is surrogate grandparent schemes. Perhaps with the help of community workers, elderly people could be put in touch with families with young children for whom they would provide some child-care. They would also expect to become, to some extent, part of the family, in the sense of sharing meals, family outings and the like. There would, of course, be concern about exploitation of the services of elderly people in this situation. However, arrangements would be voluntary and so could be instantly terminated on either side. Some degree of continued monitoring by community or voluntary workers would also tend to prevent exploitation. Alternatively, or additionally, commercial baby-sitting agencies could (and to a limited extent do) have elderly people on their staff and these staff could simply be paid for their services. This perhaps prevents the crudest forms of exploitation but tends to limit the social and emotional ties between surrogate grandparents, parents and children.

Finally, we would like to canvass the possibility of more whole family leisure activities. One strikingly high set of correlations (chapter 6) was among questions relating to levels of satisfaction with spare time activities, 'fun and enjoyment' and 'activities which you and your family do together'. These strong linkages suggest that it may be worth consciously planning more leisure facilities which the whole family can enjoy, rather than providing facilities which have the effect of splitting up families (as is the case with most sports facilities). Activities in which entire families can readily participate include watching entertainment or races in parks and on beaches, street events as featured in, for example, May Day festivals, and family days at clubs and community centres. Schools and tertiary institutions could also more frequently open up their recreational facilities and meeting rooms to families at weekends and during holidays. (This is commonly done in small college towns in the United States but poses more risks in large cities). As ever, there is no reason why all the running should be made by the public sector. In several West European countries a leisure activity which families regularly enjoy is eating out at restaurants which welcome children and cater specially for them. Frequent eating out is now an
accepted and pleasant activity among many Australians, especially young people. There is still, however, a paucity of family restaurants.

Work

Most people like their jobs. However the aspect they are least satisfied with is their promotion prospects and this is a fairly high correlate of job satisfaction. Clearly not everyone can be promoted and some jobs are inevitably dead-end. It may be, however, that satisfaction would be increased by more job rotation, by more systematic and frequent vetting of employees for promotion and, in some occupations, by inserting extra gradations in the hierarchy, allowing more frequent, albeit small, promotions to occur.

Not only do most people enjoy their jobs, but their work is very important. Job satisfaction is enhanced by variety, autonomy and the opportunity to use skills, and also by material incentives, rewarding social interaction and participation in decision-making (Argyle, 1987).

One reason why efforts to enhance job satisfaction are often rather limited is that there appears to be little or no relationship between satisfaction and productivity (Argyle, 1987; Locke, 1976; Jenkins, 1974). So employers have little incentive to increase employee participation in decision-making, increase job autonomy and so forth. It follows that trade unions and governments need to take the initiative, and this is what has happened in Germany and the countries of North-Western Europe where employee participation and autonomous work groups are the norm (Jenkins, 1974).

In view of the rarity in Australia of arrangements for employee participation in decision-making we were a little surprised at the fairly high level of satisfaction with 'the amount of say you have in how your job should be done'. However, standard deviations were relatively high, indicating that a fair proportion of employees are not well satisfied with the degree of control they have over their own jobs. The breakdown, or at any rate increasing distrust of hierarchy in many areas in life, seems likely to be reflected sooner rather than later in participatory arrangements at the workplace.

Trade unions in Australia have not yet pressed hard for industrial democracy or worker participation, but we would expect developments on these lines in the next decade.

Low status respondents in our surveys were particularly dissatisfied with two job related matters; their job security and 'the life you expect after you (or your partner) retires from work'. Concern about job security clearly derives mainly from the threat of unemployment, but we should also remember that many countries, including Australia, afford non-unionised and non-Public Service workers very little protection from unfair dismissal. The promulgation of a code delimiting the circumstances under which dismissal from a job is justified, and allowing for appeals and arbitration, would provide some degree of security and reassurance for lower income employees now at risk.

Family and community life

Family life and marriage are probably the domains in which interventions to increase life satisfaction are most promising. We have seen that marriage satisfaction contributes significantly to life satisfaction. It also appears to be the case that family and marriage counselling and therapy are highly effective in improving family and marital relationships. Several detailed evaluations
have been conducted and it seems reasonably clear that, given motivation on the part of family members, their own and the therapist's efforts usually bear fruit (Wolcott and Glazer, 1989).

In the past, counselling usually focussed on remedying negatives (relieving psychological distress) rather than enhancing family well-being. However in recent years more and more counsellors have come to the view that one problem in many marriages and many families is the lack of good times together—the lack of positive events and mutually enjoyable shared activities—rather than the occurrence of overwhelming conflicts and problems. Some conflicts and problems may be unavoidable. The task of the family (and their counsellor) may often be to identify activities which they enjoy doing together and then arrange to do them more often. The aim is to enhance satisfactions and positive affect, not merely to relieve distress.

We were surprised to find how relatively dissatisfied many young parents are with a wide range of life domains, including their privacy, physical fitness and exercise time, the amount of fun and enjoyment they feel they have, and their standard of living. Perhaps the first years of parenting have always involved difficult adjustments. It seems certain, however, that the problems of young parents have been exacerbated by the effects of a major social change which occurred in the 1960s and 1970s. It is now the case that about 50 per cent of Australian mothers with young children undertake paid jobs and that most women return to the paid labour force at around age thirty-five, when their youngest child starts school. Whatever one thinks of the social consequences of this change (for example, its effect on the emotional well-being of children), it is almost certainly irreversible. It is a change which has occurred as rapidly in countries where social programmes to help dual career families are relatively undeveloped (like the United States, Canada, and Australia) as in countries which make generous provision for such families (notably the countries of North-Western Europe). Arguably, then, policy makers should accept dual career families as a given, as a social fact to which policies must be adapted.

From the point of view of young parents their chief problem is the pressure and strain they are subject to in trying to do three jobs; two paid jobs plus homemaking (not surprisingly young parents report that they have less leisure time than any other section of the community). From the point of view of children, the problem is that they may be inadequately cared for while their parents are working, and may also lack sufficient emotional warmth and mental stimulation. Governments have responded more fully to the problems of children than their parents, because society has a clear interest in preventing children growing up with their emotional and mental capacities impaired. So governments and voluntary, often subsidised, agencies have provided day care for children of working parents, after-school programmes and school holiday programmes. Government has also regulated and inspected private enterprise day-care centres to try and ensure that children are cared for adequately.

In many families with young children, problems are worsened by the tendency of fathers to withdraw and participate only to a slight extent in child-care and housework. Australian time budget data on the point are lacking, but there is a striking American time budget study which shows that the more children there are in a family, the less time fathers spend on child-care and housework (Robinson, 1977). A suggestion that Australian women may be dissatisfied with the help they get from their husbands while their children are young is contained in our finding that the only women who were relatively dissatisfied with their 'capacity to assert themselves when necessary' were mothers with children at home.

Even in the former communist countries of Eastern Europe, where major propaganda campaigns were mounted to promote sex equality, time budget studies indicate that men are usually willing to undertake only limited homemaking tasks (Szalai, 1972). Probably the most governments can do is provide opportunities for sex role interchangeability for those who are so...
inclined. Provision of paternity leave, as well as maternity leave, is an obvious move. More radically, in Sweden, men and women both have the right to work part-time without loss of seniority until their youngest child is eight-years-old. In this way both marriage partners are encouraged to experience, more or less equally, the pains and pleasures of both homemaking and paid work.

For women at home with young children, provision of creches at shopping centres, community centres, libraries, sports facilities and so on would be a great help. Some commercial operators, for example squash court owners, already find it worthwhile to provide creches. For other types of premises, governments may want to consider whether capital subsidies should be available to set them up. Modest operating costs could then be met on a user pays basis. Pleasant opportunities for young parents to meet and talk can also be provided at community houses and neighbourhood children's houses. Conversational and social opportunities can be mixed with activities like exercise classes and crafts classes. Again, the government may decide that it is worthwhile to subsidise initial capital costs.

Making time to be alone in the evening is an obvious problem for young parents and is reflected in low levels of satisfaction with 'the privacy you have; I mean being alone when you want to be' (chapter 6). Privacy within the home is not something that outside agencies can readily help with. However, the surrogate grandparent scheme suggested earlier might help to some degree, and would make it easier for parents to spend evenings out together.

So far, in this section, we have concentrated on programmes to enhance satisfaction with family life. Community development programmes are concerned more broadly with increasing social contact in local communities and promoting participation in local organisations. Social contact among neighbours in Australia is often strikingly low (Kendig, 1987). For many young people this does not matter much because their social network is not neighbourhood based. For middle-aged and certainly for elderly people it can pose problems because they tend to be dependant on neighbourhood contacts and less willing or able to travel long distances to make and meet friends.

Ways of promoting community development include producing local resource handbooks listing neighbourhood organisations and facilities. The creation of community learning exchanges can also help. Learning exchanges have been promoted by several local governments in Australia. They involve producing a community newsletter in which individuals and groups who have skills or resources they want to give, teach or sell, communicate with people who wish to acquire skills and resources. Both givers and getters list their requirements and, hopefully, satisfactory match-ups occur. Another suggestion derives from the finding that much social contact in which elderly people engage is by telephone. Frail elderly people cannot move around easily, even to talk with neighbours, but they can pick up the telephone. For low income seniors it may be worth subsidising both the initial cost of installing a telephone and operating costs.

**Conclusion**

The beginning of wisdom in making recommendations about enhancing well-being is to be clear about which dimension of well-being or which domain satisfaction one is targeting. It is also important to be clear about whether the agent of intervention is the individual, working perhaps with a counsellor or therapist, or a government agency implementing a policy programme. In this chapter we have reviewed preliminary research and ideas about methods of enhancing life satisfaction, positive affect and satisfaction with leisure, work and family life.
Life satisfaction can be significantly enhanced by learning the skills that come relatively easily to extraverts: social skills, assertiveness and an appreciation of the rules of friendship. Social skills training and assertiveness training can provide a basis for developing both the close, confiding relationships and the wider social networks that contribute greatly to happiness. Even more important, though not teachable, are goals and tasks which infuse people with a clear sense of purpose and meaning in life. A sense of purpose and meaning is the single attitude most strongly associated with life satisfaction.

The most common source of positive affect is fairly intense involvement (not passive participation) in physically or mentally stimulating activities in the company of relatives or friends whom one genuinely likes. Pleasant activities training, which has been used successfully with depressed and anxious people as well as those who just want to enjoy life more, is a systematic way of recording the activities one enjoys most and planning to do them more frequently.

The main purpose of this book has been to develop a theory of the causes of stability and change in well-being. The next research agenda is to discover actionable variables and methods of intervention which are effective in enhancing well-being.
Appendix: inventory of recent experiences

The main measures used in this book are personality measures of extraversion and neuroticism taken from the Eysenck Personality Inventory, measures of subjective well-being and psychological distress, and measures of recent life events and experiences. The Eysenck Personality Inventory has been used all over the world and does not need further description here. The measures of well-being and distress are described in chapter 3. The List of Recent Experiences is reprinted below.

Events and experiences in the last two years

Section 1: leisure
Please read carefully through this list of events.
For each event that happened to you in the last two years circle a '1' to mean 'yes, it did happen'.
For each event that did not happen, circle a '2' to mean 'no, it did not happen'.
Please don't list the same event twice.

<table>
<thead>
<tr>
<th>Event</th>
<th>Interviewer record</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Has this event occurred in the past two years?</td>
</tr>
<tr>
<td>YES NO</td>
<td>MTH YR</td>
</tr>
</tbody>
</table>

1 You took up a new spare time activity or greatly increased your involvement in a spare time activity.

a The codes 1 (yes) and 2 (no) are not printed in this appendix, but did appear in
<table>
<thead>
<tr>
<th>Event</th>
<th>Interviewer record</th>
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</thead>
<tbody>
<tr>
<td>2 You joined or became more active in an organisation or club for</td>
<td></td>
</tr>
<tr>
<td>spare time activity (not including a church or religious organisation)</td>
<td></td>
</tr>
<tr>
<td>3 You stopped or became less active in a spare time activity which you</td>
<td></td>
</tr>
<tr>
<td>used to enjoy.</td>
<td></td>
</tr>
<tr>
<td>4 You left or became less active in an organisation or club for</td>
<td></td>
</tr>
<tr>
<td>spare time activity (not including a church or religious activity).</td>
<td></td>
</tr>
<tr>
<td>5 You increased the number of family outings.</td>
<td></td>
</tr>
<tr>
<td>Event</td>
<td>Interviewer record</td>
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<tr>
<td>----------------------------------------------------------------------</td>
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</tr>
<tr>
<td></td>
<td>Has this event occurred in the past two years?</td>
</tr>
<tr>
<td>6 You increased time spent doing enjoyable things at home with family members.</td>
<td>YES NO</td>
</tr>
<tr>
<td>7 You did particularly well or had real success in a spare time activity.</td>
<td>YES NO</td>
</tr>
<tr>
<td>8 You had a real failure in a spare time activity.</td>
<td>YES NO</td>
</tr>
<tr>
<td>9 A family member did particularly well or had real success in a spare time activity.</td>
<td>YES NO</td>
</tr>
<tr>
<td>10 A family member did particularly badly or had a real failure in a spare time activity.</td>
<td>YES NO</td>
</tr>
<tr>
<td>Event</td>
<td>Has this event occurred in the past two years?</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>11 You did creative or artistic work (e.g. building, writing fiction, designing a dress).</td>
<td>YES NO</td>
</tr>
<tr>
<td>12 You had more leisure time than before to do what you wanted.</td>
<td></td>
</tr>
</tbody>
</table>

**Section 2: Standard of living, finances, housing**

<table>
<thead>
<tr>
<th>Event</th>
<th>Has this event occurred in the past two years?</th>
<th>When did the event happen?</th>
<th>Is event still continuing?</th>
<th>If 'No' when did the event end?</th>
<th>Satisfaction distress score</th>
</tr>
</thead>
<tbody>
<tr>
<td>13 You or your family became much better off financially. (e.g. big increase in income, or inherited money).</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>14 You had a major financial crisis.</td>
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<tr>
<td>15 You had continuous financial worry.</td>
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<tr>
<td>Event</td>
<td>Interviewer record</td>
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<tr>
<td></td>
<td>Has this event occurred in the past two years?</td>
<td>When did the event happen?</td>
<td>Is event still continuing?</td>
<td>If 'No' when did the event end?</td>
<td>Satisfaction distress score</td>
</tr>
<tr>
<td>16 You moved house from interstate.</td>
<td>YES NO</td>
<td>MTH YR</td>
<td>YES NO</td>
<td>MTH YR</td>
<td>00-10</td>
</tr>
<tr>
<td>17 You moved house from another city (town) in Victoria.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 You moved house within this city.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19 You retired, or resigned for good, from work.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Section 3: Jobs

<p>| 20 You were unemployed or seeking work. |  |  |  |  |  |
| 21 Continuing risk of being laid off or made redundant. |  |  |  |  |  |
| 22 Started a completely different type of job or started a new business. |  |  |  |  |  |</p>
<table>
<thead>
<tr>
<th>Event</th>
<th>Interviewer record</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Has this event occurred in the past two years?</td>
</tr>
<tr>
<td></td>
<td>YES NO</td>
</tr>
<tr>
<td>23 Sacked or laid off.</td>
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<tr>
<td>24 Your own business failed.</td>
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<tr>
<td>25 You were promoted.</td>
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<tr>
<td>26 You found out you were not going to be promoted.</td>
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<tr>
<td>27 You had a bonus big pay rise or other important success (not including promotion).</td>
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<tr>
<td>28 Your boss praised you for your work.</td>
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</tr>
<tr>
<td>29 A family member had an important success at work.</td>
<td></td>
</tr>
<tr>
<td>30 You got on better with people at work.</td>
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</tr>
<tr>
<td>31 Trouble or arguments with people at work, or other difficulties.</td>
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<tr>
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<tr>
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</tr>
<tr>
<td></td>
<td>Has this event occurred in the past two years?</td>
</tr>
<tr>
<td>32 Your ability to do your job well increased.</td>
<td>YES NO MTH YR YES NO MTH YR</td>
</tr>
<tr>
<td>33 Worried about not being able to do your work well.</td>
<td></td>
</tr>
<tr>
<td>34 A family member had trouble or arguments with people at work, or other difficulties.</td>
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Section 4: Education, studying, courses

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<tr>
<td>35 You passed an important exam or had other successes in your studies.</td>
<td></td>
</tr>
<tr>
<td>36 You failed an important exam or had other important failures in your studies.</td>
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</tr>
<tr>
<td>Event</td>
<td>Interviewer record</td>
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<tr>
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<tr>
<td></td>
<td>Has this event occurred in the past two years?</td>
</tr>
<tr>
<td>37 You took an educational or training course, or studies, and you felt that you had really increased your knowledge and skills.</td>
<td>YES NO</td>
</tr>
<tr>
<td>38 Courses or studies you were doing seemed pointless, or not to be helping you in any way.</td>
<td></td>
</tr>
</tbody>
</table>

Section 5: Health and fitness

<p>| 39 You had a serious illness or injury. | |
| 40 Your husband or wife had a long and serious illness. | |
| 41 Someone close to you (not husband or wife) had a long and serious illness. | |</p>
<table>
<thead>
<tr>
<th>Event</th>
<th>Has this event occurred in the past two years?</th>
<th>When did the event happen?</th>
<th>Is event still continuing?</th>
<th>If 'No' when did the event end?</th>
<th>Satisfaction distress score</th>
</tr>
</thead>
<tbody>
<tr>
<td>42 You were personally involved in a natural disaster (e.g., fire or flood).</td>
<td>YES NO</td>
<td>MTH YR</td>
<td>YES NO</td>
<td>MTH YR</td>
<td>00-10</td>
</tr>
<tr>
<td>43 You had a serious accident (e.g., a car accident).</td>
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<td>44 Your health improved a lot.</td>
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<td>45 You did more exercise and your physical fitness improved a lot.</td>
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<tr>
<td>46 You did less exercise and your physical fitness worsened a lot.</td>
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<tr>
<td>47 You received psychotherapy or personal counselling.</td>
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<tr>
<td>48 Your own appearance improved.</td>
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<td>Event</td>
<td>Interviewer record</td>
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<td>Is event still continuing?</td>
<td>If 'No' when did the event end?</td>
<td>Satisfaction distress score</td>
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<td>49</td>
<td>YES NO</td>
<td>MTH YR</td>
<td>YES NO</td>
<td>MTH YR</td>
<td>00-10</td>
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Section 6: Family life

50 You became engaged.

51 You broke off an engagement.

52 You separated from your husband/wife/partner.

53 Husband and/or partner got together again after separation.

54 You divorced.

55 You began an extramarital affair.

56 An extramarital affair ended.

57 Your husband or wife began an extramarital affair.
<table>
<thead>
<tr>
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<th>Has this event occurred in the past two years?</th>
<th>When did the event happen?</th>
<th>Is event still continuing?</th>
<th>If 'No' when did the event end?</th>
<th>Satisfaction distress score</th>
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<td>58 Your husband or wife died.</td>
<td>YES NO</td>
<td>MTH YR</td>
<td>YES NO</td>
<td>MTH YR</td>
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<tr>
<td>59 A child of yours died.</td>
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<tr>
<td>60 A close family member died (not including spouse or own child).</td>
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<tr>
<td>61 You became pregnant.</td>
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<td>62 You or your wife had a baby.</td>
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<td>63 You or your wife had a miscarriage, abortion or stillbirth.</td>
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<td>64 Definite improvement in relationship with husband or wife.</td>
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<tr>
<td>65 Serious worsening in relationship with husband or wife.</td>
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<td>66 Behaviour of husband or wife a serious problem.</td>
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<td>Event</td>
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<td></td>
<td>Has this event occurred in the past two years?</td>
<td>When did the event happen?</td>
<td>Is event still continuing?</td>
<td>If 'No' when did the event end?</td>
<td>Satisfaction distress score</td>
</tr>
<tr>
<td>67 Definite improvement in your relationship with one or more of your children.</td>
<td>YES NO</td>
<td>MTH YR</td>
<td>YES NO</td>
<td>MTH YR</td>
<td>00-10</td>
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<tr>
<td>68 Serious problem or arguments with one or more of your children.</td>
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<td>69 A child of yours left home.</td>
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<td>70 Definite improvement in your relationship with one or both of your parents (or parents-in-law).</td>
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<tr>
<td>71 Behaviour of one or both of your parents (or parents-in-law) was a serious problem.</td>
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<td>Event</td>
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<tr>
<td>72 Behaviour of one of your brothers or sisters was a serious problem.</td>
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<td>73 You experienced some sexual difficulties.</td>
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<td>74 You did something very important or very useful for another family member.</td>
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<td>75 Your children got along better together.</td>
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<td>76 You were unable to spend enough time with your family.</td>
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Section 7: Friends and friendships

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<td>77 A friendship with someone of the same sex became much closer.</td>
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<td>Interviewer record</td>
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<tr>
<td></td>
<td>Has this event occurred in the past two years?</td>
</tr>
<tr>
<td></td>
<td>YES NO</td>
</tr>
<tr>
<td>78 A friendship with someone of the same sex worsened or split up.</td>
<td></td>
</tr>
<tr>
<td>79 A friendship with someone of the opposite sex became much closer.</td>
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</tr>
<tr>
<td>80 A friendship with someone of the opposite sex worsened or split up.</td>
<td></td>
</tr>
<tr>
<td>81 A close friend (either sex) died.</td>
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<tr>
<td>82 You made lots of new friends.</td>
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<tr>
<td>83 You lost a lot of friends.</td>
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<tr>
<td>84 You did something very important or very useful for a friend.</td>
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<tr>
<td>Event</td>
<td>Interviewer record</td>
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<tr>
<td></td>
<td>Has this event occurred in the past two years?</td>
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<tr>
<td></td>
<td>YES NO</td>
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</tbody>
</table>

Section 8: Legal matters

85 You were robbed.

86 You were physically assaulted.

87 You had problems with the policy leading to a court appearance.

88 You had a prison sentence.

89 You had a civil suit (e.g., divorce, custody, debt).

Section 9: Religion

90 You experienced a religious conversion or a great deepening of faith.

91 You became much more actively involved in a church or religious organisation.
<table>
<thead>
<tr>
<th>Event</th>
<th>Interviewer record</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Has this event occurred in the past two years?</td>
</tr>
<tr>
<td></td>
<td>YES NO</td>
</tr>
<tr>
<td>92 You lost your religious faith.</td>
<td></td>
</tr>
<tr>
<td>93 You experienced a sense of personal growth and development.</td>
<td></td>
</tr>
</tbody>
</table>
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### Frequency of citations.

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