Chapter 3
Hope and optimism

Learning objectives

• Be able to describe positive illusions and the psychological processes of self-deception, denial, repression, selective attention, and benign forgetting.
• Distinguish between dispositional optimism and optimistic explanatory style.
• Understand hope theory.
• Be able to describe expectationism.
• Give an account of current knowledge concerning the neurobiological basis for optimism.
• Understand the implications of research on positive illusions, optimism, hope and expectationism for facilitating happiness.
• Be able to identify research questions that need to be addressed to advance our understanding of positive illusions, hope, optimism and happiness.

Up until the end of the 1970s optimism was considered to be a psychological deficit, a sign of immaturity or weakness of character while making a balanced even-handed appraisal of one’s future prospects was considered to be a sign of mental health, maturity and strength (Petersen, 2000a). This negative view of optimism is to be found in the work of Voltaire (1759), whose Dr Pangloss naively insisted that we live in the best of all possible worlds, Porter’s (1913) Pollyanna, who celebrated misfortune, and Sigmund Freud’s (1928) analysis of religion as an optimistic illusion.

In *Future of an Illusion* Freud (1928) argued that the optimistic belief in a benevolent father-like God who would reward us in the afterlife if we controlled our aggressive and sexual instincts, was an illusion essential for civilisation. Without this illusion, people would be tempted to act out their aggressive and sexual instincts. However, this optimistic illusion came at a price. It entailed denial of the reality of sexual and aggressive instincts. Through the process of psychoanalysis, people could attain insight into the various defences, neurotic compromises and optimistic illusions they used to balance their need to fulfil sexual and aggressive impulses with their need to behave in a socially acceptable way. The goal of analysis was to attain a level of psychological maturity, where reality could be clearly perceived and where optimistic illusions could be discarded.

In the late 1970s, cognitive psychologists had accumulated a wealth of research data, integrated by Margaret Matlin and David Stang (1978) in *The Pollyanna Principle* which showed that people’s thinking processes were optimistic. So, most people recalled positive things sooner than negative things. In spoken and written language they used more positive than negative words. They also evaluated themselves more positively than others. The only exception to this is people with anxiety or depression who view
themselves in more realistic or pessimistic ways. Tiger (1979) in *Optimism: The Biology of Hope* argued that the capacity to think in an optimistic way was a naturally selected characteristic of our species which evolved when we developed the capacity to reflect on our future. Members of our species who were realistic or pessimistic about their future and the inevitability of danger, illness and death were not motivated to do the things necessary for survival. Their optimistic counterparts, in contrast, were motivated to struggle for survival because they believed things would work out well for them.

Within positive psychology, three research traditions have thrown considerable light on how and why people take a positive view of the world. These traditions focus on positive illusions and self-deception; optimism; and hope. Each of these research traditions will be addressed in this chapter.

**POSITIVE ILLUSIONS**

Professor Shelly Taylor (1989) at the University of UCLA, in her book *Positive Illusions*, summarised research which showed that most people, especially healthy people, are biased towards viewing themselves in an optimistic way. Human thought is distinguished by a robust positive bias. That is, our minds are designed to think in positive rather than realistic or negative ways. Most people view themselves, the world and the future in positive terms. In many carefully designed experiments in social psychology Taylor and others have shown that there are three main ways in which people see themselves in a more positive light than is warranted by the facts of the situation, or other peoples’ views of the situation. First, they see their past behaviour, personal attributes and self as a person in an enhanced light. That is, they experience the illusion of self-enhancement. Second, they have an unrealistic sense of personal control and an exaggerated and unfounded belief that they can make things turn out better rather than worse; but are never responsible for bad things that happen to them. Third, they have an unfounded sense of optimism that the future will be rosier than the facts suggest it will. That is, they believe that it will hold more opportunities for good things to happen rather than adversity, stress and chaos. Most people are not aware of these positive illusions, mainly because the illusions work so well that we do not become aware of their positive nature. People avoid engaging in positive illusions that can be easily disconfirmed.

**SELF-DECEPTION**

To maintain a positive view of the self and the world, results from laboratory and field studies show that we use a variety of defences and self-deceptive strategies to manage negative information (Taylor, 1989; Taylor and Brown, 1988, 1994). This negative information which is contrary to a positive world view includes the facts that our talents and attributes are broadly speaking normal, not exceptional; we have limited control over an unpredictable and chaotic world and over our own impulses, emotions, thoughts and actions; and our future is bleak. Our future is bleak insofar as it entails many losses including: the loss of youth and vitality; loss of health; loss of intellectual abilities and talents; loss of valued friendships; loss of work role; and inevitably our future entails our
own deaths and the deaths of everyone we hold dear. The self-deceptive strategies we use to manage this awful information, which is contrary to an optimistic world view, includes defence mechanisms and positive illusions.

**Denial and repression**

Denial and repression are two widely used defence mechanisms which help us to maintain a positive or optimistic world view. Denial involves not acknowledging the existence or meaning of threatening or stressful events in the external world. Repression involves not acknowledging unacceptable aggressive or sexual impulses in a person’s inner world. To be accepted into society only a limited range of impulses are permitted expression. Repression is one way of keeping unacceptable impulses that society demands we should not feel out of consciousness. Shelly Taylor (1989) argues that defences like denial and repression are maladaptive because they distort reality. One part of the brain becomes dissociated from another part that ‘knows’ the denied or distorted facts. Self-deceptive positive illusions, in contrast, allow people to know negative information about the self and manage this in a way that preserves a positive view of the self. Illusions are adaptive because they permit people to interpret reality in the best light possible. Extensive research has shown that positive illusions involve the cognitive processes of selective attention, benign forgetting, maintaining pockets of incompetence and maintaining negative self-schemas (Taylor and Brown, 1988, 1994).

**Selective attention and benign forgetting**

Selective attention involves noticing positive things and screening out negative things about ourselves, that is, filtering information in a biased way so that only positive news is registered and encoded. Benign forgetting is a process where negative information about the self is not easily recalled. In contrast, positive information that supports a positive view of the self is recalled in considerable detail.

**Pockets of incompetence**

Negative information about the self can also be managed by having clearly defined pockets of incompetence and accepting that in these areas one has few skills, for example saying ‘I’m not good with numbers’ but be that one is of high intelligence. We then ring-fence these areas off as peripheral to the essential core of the self which is viewed as having predominantly positive attributes. By ring-fencing pockets of incompetence and not using information about our performance in these domains in evaluating our self-worth, self-esteem is preserved.

**Negative self-schema**

A further strategy for managing negative information about the self is to develop a negative self-schema (in addition to a positive self-schema). Self-schemas may be developed around characteristics like being shy or overweight. A negative self-schema is an organised set of beliefs that allows us to anticipate situations in which negative
information is likely to be received about the self and then to develop strategies for dealing with these, for example announcing that we are shy and so do not talk much. A negative self-schema allows a person to put a boundary around a negative personal attribute, to anticipate situations that may be relevant to it or not and to plan for these. Negative self-schemas may also protect self-esteem by allowing a person to attribute any negative evaluation of the self to the negative characteristic at the core of the negative self-schema, e.g. ‘I didn’t do well in the exam because my shyness prevented me from asking questions in class, and only those who ask questions get good exam results.’

**Development of positive illusions**

The development of positive illusions is fostered by a parenting style where children are given information by their parents and encouraged to make choices within the context of a warm relationship, with clear behavioural limits. Permissive or authoritarian parenting or parenting that is very cold does not facilitate the development of positive illusions.

Positive self-perception begins early in life. Pre-schoolers see themselves as competent and popular and this tendency to have a positive view of the self continues throughout life, although its strength diminishes gradually. This view of the self as good is partially determined by the way memory works. Memory is egocentric. Most of us remember the past as a drama in which we were the protagonists or heroes. Furthermore the information to which we selectively attend and remember is determined by our self-schemas, that is, beliefs about the type of people that we are and our unique attributes.

For example, a person whose self-schema includes the belief ‘I am musical and athletic’ may remember ‘I ran quickly and was not out of breath. Then I made an informed comment about the musical show.’ In contrast, a person who sees themselves as intelligent and kind may recall that the same person tried hard not to be late and even though he was puffed tried to put people at their ease with light banter about the music.

Self-schemas determine which aspects of a situation we attended to, and then our impressions of the situation are reinforced by that very information. So the athletic, musical person remembers that he was athletic and musical in that situation. Or the kind intelligent person remembers that he was kind and intelligent.

Most people see themselves as responsible for good things such as passing an exam or helping someone and not responsible for bad things such as failure or hurting others, because good things like success and kindness are what we intend to do and bad things like failure and cruelty are rarely intended. People also exaggerate the degree to which they are responsible for good outcomes in joint ventures. They take more than their share of the credit. When you ask husbands and wives who does the most housework, the sum usually exceeds 100 per cent. The same is true for creative teams in the fields of science, writing or music.

People who evaluate themselves positively hold others in high esteem also and so are more popular with others. This is true across the lifecycle from pre-school to old age (Mruk, 1999). People who view themselves as having positive attributes, who are optimistic about their future and who believe they can control important events in their lives work longer and harder because they expect a positive outcome from their work. When they confront an obstacle they keep trying various different solutions until they succeed, because they believe eventually they will. Thus their work style is characterised
by strong motivation to succeed, a high level of persistence at challenging tasks, more effective performance and greater overall success.

The need for control and the perception of the self as capable of controlling the environment is present from birth. From their earliest months of life children show a need to control and master the environment. As they master one aspect they become bored and move on to the next. For example, a child may be intrigued by a new mobile, but then tire of it and be more interested in a new rattle, and then tire of that when they find a new squeaky toy. For children moderately novel situations are more stimulating and interesting than very familiar ones or situations that are completely unfamiliar. Thus children like environments that contain new challenges that are just beyond the limits of their competence, not one that contains very easy or very hard tasks and challenges.

Most adults believe that the world is controllable. We believe that with hard work, careful planning, and the right tools, technology and science, there is little that cannot be accomplished. We believe that natural disasters, diseases, social and economic problems, and war are all solvable problems. We believe that we succeed through effort and fail through laziness; so success is a sign of effort and failure is a sign of laziness. Most people do not believe that chaos or the unexpected play a major role in determining the course of their lives. In his book *Denial of Death*, Ernest Becker (1973) argues that our belief in the controllability and orderliness of the world protects us from constantly having to face the reality of our mortality, that we all live one step away from death.

We maintain a belief in personal control for a variety of reasons. We mistakenly categorise many events that have a desired outcome as being due to our actions. So, ‘I watered the plants and they grew’ is an example of correctly categorising a desired outcome as due to my actions. I have a friend who leaves the light on in his garage in the winter because he believes this guarantees that his car will start in the morning. This is an example of incorrectly categorising a desired outcome as due to one’s own actions. We misclassify events as controllable, because sometimes they co-occur. So my friend’s car didn’t start one winter morning after a night when the garage light was off. He left the light on by mistake that night and the next day it started. So he attributed the car starting to leaving the light on and has continued to do so ever since on cold nights. Every time his car starts after he has left the light on, his belief that he can control whether or not the car will start by leaving the light on is strengthened. This common error of searching for examples to confirm prior beliefs underpins a lot of superstitious behaviour. People have the tendency not to seek out negative instances, like turning the light off for a few nights in the winter and seeing if the car starts the next day on each occasion.

The belief in control reduces stress responses. In laboratory experiments where two groups of people are exposed to the same number of electric shocks or bursts of loud noise, but one group has a panic button (which they do not use), the group that perceives they have control shows less stress on physiological measures of heart rate and skin conductance (Carr and Wilde 1988). Furthermore, in games of chance, if there are any cues that suggest that winning is due to skill, like introducing a well-dressed expert at the game who shows how it is done, people behave as if rolling a dice or drawing a card is a skilled activity (Langer, 1975).
Modifying positive illusions

Positive illusions are stronger in children than in adults. They are probably hard-wired into our nervous systems because they are so adaptive from an evolutionary perspective. Illusions are best modified if they are maladaptive. Modifying positive illusions involves giving negative information in a way that is corrective but not devastating. Trauma, victimisation and loss can shatter positive illusions and prevent people from seeing the self as good, the self as in control, and the future as rosy and safe. People who have been traumatised by catastrophic events, victimised and abused by others, or who become suddenly seriously ill, or suddenly bereaved all question their own worth, power to control things and the safety of the future world. Where these events happen early in life people are vulnerable to depression and illness in later life.

OPTIMISM

Two main approaches to the measurement of optimism have been taken and these are based on distinct conceptualisations of optimism (Peterson, 2000a). At one extreme optimism has been conceptualised as a broad personality trait characterised by general optimistic expectations (Scheier and Carver, 1985) while at the other it has been construed as an explanatory style (Seligman, 1998), that is, researchers have made a distinction between optimistic explanatory style and dispositional optimism.

Dispositional optimism

Dispositional optimism is a global expectation that more good things than bad will happen in the future. Scheier and colleagues argue that optimistic people, in the face of difficulties, continue to pursue their valued goals and regulate themselves and their personal states using effective coping strategies so that they are likely to achieve their goals (Scheier, Carver and Bridges, 2000). To evaluate dispositional optimism, Scheier and Carver (1985) have developed a brief self-report Life Orientation Test (LOT), and subsequently revised this instrument (Scheier et al., 1994). A copy of this scale is given in Table 3.1. The type of optimism evaluated by the LOT is a personality trait characterised by favourable personal future expectations. Dispositional optimism is associated with good health and a positive response to medical interventions for conditions such as heart disease and cancer. The impact of dispositional optimism on recovery from medical procedures is mediated by

Table 3.1 The Life Orientation Test—Revised

| Please circle the answer that applies to you to show how much you agree or disagree with each of the following statements |
|---|---|---|---|---|
| 1 In uncertain times I | Strongly agree | Unsure | Disagree | Strongly disagree |
| times I agree | | | disagree |
usually expect the best

2 If something can go wrong for me it will

3 I’m always optimistic about my future

4 I hardly ever expect things to go my way

5 I rarely count on good things happening to me

6 Overall I expect more good things to happen to me than bad

Source: Adapted with permission from Scheier and Carver and Bridges (1994).

Note: All items are scored 5–4–3–2–1 for SA-A-U-D-SD, except items 2, 4 and 5 which are scored in the reversed direction.

effective coping strategies such as redefinition or reframing. Pessimists, in contrast, use avoidant coping strategies or disengage from coping with problems. Coping strategies will be discussed fully in Chapter 7.

Optimistic explanatory style

Professor Martin Seligman (1998) and his colleagues have conceptualised optimism as an explanatory style, rather than a broad personality trait. Optimistic people, according to this perspective, explain negative events or experiences by attributing the cause of these to external, transient, specific factors such as the prevailing circumstances. In contrast, pessimists explain negative events or experiences by attributing their cause to internal.
stable, global factors such as being a personal failure. So optimists are more likely to say they failed an exam because the wrong questions came up or the atmosphere in the exam hall was not conducive to concentration. Pessimists, in contrast, are more likely to attribute failure to not being any good at academic work generally or to being stupid. Optimism and pessimism conceptualised in this way may be measured with the Attributional Style Questionnaire (ASQ) (Dykema et al., 1996; Peterson et al., 1982; Peterson and Villanova, 1988) and the Content Analysis of Verbal Explanations (CAVE). (Peterson et al., 1992). With the ASQ, respondents are given a series of hypothetical events which have positive and negative outcomes. They are asked to indicate what they think would be the one major cause of each of these positive and negative events if the situations happened to them. They then are invited to rate these causes on three multipoint scales to indicate the degree to which the causes are perceived as: (1) internal or external; (2) stable or transient; and (3) global or specific. Ratings are combined to give indices of optimism and pessimism. With the CAVE, explanations for positive and negative events are abstracted from diaries, interview transcripts, newspaper quotations, or indeed any documents and rated by experts using: the internal or external; stable or transient; and global or specific rating scales of the ASQ. Ratings are combined to give indices of optimism and pessimism.

In addition to the ASQ and the CAVE, a children’s version of the ASQ has also been developed (Seligman et al., 1984; Seligman, 1998). A Relationship Attribution Measure (RAM) has been developed to evaluate optimism within marriage (Finchman and Bradbury, 1992; Fincham, 2000). The Leeds Attributional Coding System provides a way of coding optimistic explanations for events from transcripts of marital and family therapy (Stratton et al., 1986).

**Development of optimism**

The development of optimism is determined by parental mental health, the type of role modelling offered by parents and the degree to which parents encourage and reward optimism (Abramson et al., 2000; Gillham, 2000; Seligman, 1998). Optimists are more likely to come from families in which neither parent had depression. Parents of optimists are good role models for using an optimistic explanatory style, attributing success to internal, global, stable factors and failures to external, specific, transitory factors. Optimists come from families where their parents are understanding of their failures and attribute them to external rather than internal factors. Where youngsters come from families that have experienced major traumas (such as unemployment and poverty), they develop optimism if their families cope and recover from adversity. Parents of optimists encourage their children to deal with setbacks in an optimistic way and differentially reinforce optimism and persistence. Pessimists are more likely to come from families in which parents are depressed, are role models for a pessimistic explanatory style, and differentially reinforce the development of pessimistic explanatory style. Where parents criticise children and attribute their failures to internal, global stable factors the children are more likely to grow up to be pessimists. Child abuse and neglect also renders children vulnerable to developing a pessimistic explanatory style and depression. Optimism is also related to the ability to delay gratification and to forgo short-term gains in order to
achieve long-term goals, probably because optimistic people can have faith that long-term goals are achievable.

Prospective and retrospective studies have shown that individuals with an optimistic explanatory style are less likely to develop physical ill-health, depression or suicidality when they face major stressful life events than individuals with a pessimistic explanatory style. In contrast, pessimists who face major stressful life events as children (such as chronic parental conflict, divorce or maternal bereavement) are more likely to develop depression. This can be counteracted if they have one good socially supportive relationship. Or it can be exacerbated and maintained if their depression leads them to fail at school where they are criticised, with critical internal, global, stable attributions being made for their failure.

In adulthood optimism is associated with better academic achievement, sport performance, occupational adjustment and family life (Seligman, 1998; Gillham, 2000). Optimism predicts better performance at college and predicts it more accurately than ability measures such as the Scholastic Aptitude Test (Peterson and Barrett, 1987). Optimism predicts better performance at individual and team sports (Seligman et al., 1988). Optimism predicts success in various occupations such as sales. When insurance salesmen who scored in the top and bottom 10 per cent on the ASQ were compared, those with very optimistic explanatory styles sold 88 per cent more than those with very pessimistic styles (Seligman, 1998; Seligman and Schulman, 1986). Optimism within marriage, as assessed by the RAM, has been found to be associated with higher rates of positive interactions and to predict long-term marital satisfaction (Fincham, 2000).

Optimism also has an important impact on the way people deal with bereavement and loss. Susan Nolen-Hoeksema (2000) found that bereaved optimists tended to use coping strategies such as: reappraisal of the loss in positive terms; problem solving by seeking social support; and distraction through involvement in hobbies and exercise. Pessimists, in contrast, tended to use coping strategies such as denial or distraction through excessive drinking. Optimists construed bereavement as a ‘wake-up call’ to reprioritise their lives. They became aware of the fragility of life and lived more in the present than the past or the future. They focused more on important relationships and less on work and casual relationships. They resolved family conflicts that had been unresolved for years. They made important life changes they had been putting off, such as changing jobs or pursuing retraining. They became more tolerant of others. They became aware of strengths that they did not know they had and became less afraid of their own death. Optimists who found some positive benefit from their loss within six months of bereavement showed better psychological adjustment and fewer symptoms of depression or anxiety over the subsequent 18 months.

A series of studies in which the CAVE system for conducting content analysis of historical documents such as speeches, diaries and newspaper reports of prominent political and military figures has shown that optimism determines success in public life (Satterfield, 2000). An optimistic explanatory style has been found to be associated with electoral success in the USA, aggressive campaigning in the USA, resilience to stress among international leaders, and military aggression and risk taking in the Gulf War and the Second World War.
Attributional retraining

Seligman (1998) has developed programmes to help adults and children change their explanatory style from pessimism to optimism. The programmes are based on the cognitive therapy models developed by Dr Aaron T. Beck (1976) and Dr Albert Ellis (Ellis and Harper, 1975). In these programmes participants learn to monitor and analyse mood-altering situations and then to modify their pessimistic beliefs so that their explanatory style becomes more optimistic.

In the first part of these programmes participants learn to monitor mood changes associated with encountering adversity. In each adverse situation they conduct an ABC analysis which involves specifying the adversity, the beliefs and thoughts that occurred when the adversity was encountered, and the consequent mood changes. Here is an example of an ABC analysis of a specific situation.

Adversity: My friend didn’t call.
Beliefs: He’s not interested in our friendship any more because I’m always so boring to be with.
Consequent mood change: I changed from feeling OK to feeling fairly depressed (from 3 to 8 on a 10-point depression scale, where 1=very happy and 1=very depressed).

In these programmes you analyse a dozen such situations and then notice what beliefs precede mood changes involving depression or other negative mood states and how these beliefs differ from those that precede positive mood changes. You find that beliefs which precede negative mood changes are based on a pessimistic explanatory style while those that precede positive mood changes are based on an optimistic explanatory style. Where beliefs are based on a pessimistic explanatory style, internal, global and stable attributions will be made for adversity. Where beliefs are based on an optimistic explanatory style, explanations for adversity will involved external, specific and transient attributions. Three sets of skills for changing pessimistic explanations for adversity are practised once ABC analysis has been mastered. These include distraction, distancing and disputation.

Distraction involves doing something to stop the internal pessimistic explanation for the adversity from taking all your attention and preoccupying you. Specific techniques include: saying ‘stop’ loudly and hitting the table with your hand; snapping yourself with an elastic band worn on the wrist; looking at a flash card you carry with STOP written on it in large letters; concentrating your attention on an external physical object; postponing rumination until later that day; or writing down the pessimistic explanation for the adversity as soon as it occurs.

Distancing involves reminding ourselves that pessimistic explanations of adversity are only one possible interpretation of the situation, not true facts. While distraction is a strategy for ‘turning off’ pessimistic thinking, distancing is a strategy for ‘turning down’ their impact on mood by recognising that beliefs are not facts, they are just one ‘spin’ on the situation. Distancing sets the stage for disputation.

Disputation is the process of carrying on an internal dialogue, the goal of which is to show that there is an equally valid or more valid optimistic explanation for the adversity.
When disputing pessimistic explanations we ask four questions that centre on evidence, alternatives, implications and usefulness.

1. What is the evidence for that explanation or belief and is there evidence that it is not true?

2. Are there alternative optimistic explanations for the adversity where I can attribute this adversity to external, specific, transient factors?

3. If I cannot justify an optimistic explanation for adversity, are the implications of the pessimistic explanation catastrophic with huge long-term negative consequences or just a bit of a temporary nuisance?

4. If I cannot decide whether there is more evidence for an optimistic or pessimistic explanation for adversity, which explanation or belief is most useful for me in terms of having a positive mood and achieving my goals?

Armed with ABC analysis skills and distraction, distancing and disputation skills, the next step is to put them together in ABCDE practice. ABCDE stands for Adversity, Beliefs, and Consequent mood changes, Disputation and Energisation. In each adverse situation, in addition to noting the adversity, beliefs and mood-change consequences, you also note how you disputed your pessimistic beliefs and the impact of this on your mood state: how the alternative optimistic explanation and beliefs energised you.

For example:

Adversity: My friend didn’t call.
Beliefs: He’s not interested in our friendship any more because I’m always so boring to be with.
Consequent mood change: I changed from feeling OK to feeling fairly depressed (from 2 to 7 on a 10-point depression scale, where 1=very happy and 1=very depressed).
Disputation: Evidence? There is evidence that he is interested in our relationship. We have seen each other two or three times a week for the past year. Alternatives? He may have other things on his mind? He may be dealing with a crisis? Implications? Even if he is losing interest, it is not a catastrophe. I will survive. I have other friends. Usefulness? It’s more useful to think that he didn’t call because of some temporary thing, like a crisis, not because of some negative personal characteristic of mine.
Energisation? I feel more upbeat now. Much less depressed (3 on a 10-point depression scale).

To develop your disputation skills, work with a close friend. Take adverse situations and ask your friend to present the pessimistic explanations and beliefs to you. Your job is to dispute these and examine the evidence for the negative beliefs, generate optimistic alternatives, examine the real rather than catastrophic implications if the pessimistic viewpoint seems valid, and evaluate the usefulness of optimistic and pessimistic beliefs.

The Penn Optimism Programme, an example of an attribution retraining programme, was designed to help school-age children develop optimistic rather than pessimistic
explanatory attributional styles and so prevent depression (Jaycox et al., 1994; Gillham et al., 1995). This 12-week programme contains modules on analysing mood-altering situations in terms of antecedents, behaviour and consequent mood changes; analysing beliefs about causes along the three dimensions of explanatory style, i.e. internal-external; global-specific, stable-transient; generating alternative explanations for mood-changing situations and evaluating the evidence; and challenging catastrophic thinking. The programme also includes behavioural skills training modules drawn largely from behaviour therapy. These modules cover managing family conflict; assertiveness and negotiation training; problem-solving skills training; decision-making skills training; relaxation and coping skills training; dealing with procrastination; and social skills training. The programme is highly effective in reducing depression scores on standardised measures of helplessness, hopelessness and depression and these gains are maintained at two-year follow-up. The cognitive part of the programme helps children develop hope that they can solve problems that once seemed insurmountable. The behavioural aspect of the programme provides youngsters with the skills required to deal effectively with life difficulties.

**HOPE**

Hope, a construct closely related to optimism, has been conceptualised by Professor Rick Snyder (2000) as involving two main components: the ability to plan pathways to desired goals despite obstacles, and agency or motivation to use these pathways. Hope is the sum of these two components. This is illustrated in the lower panel of Figure 3.1. According to this conceptualisation, hope is strongest when it entails valued goals that there is
Figure 3.1 Snyder’s Hope Theory

Source: Adapted from Snyder (2000):11–12.

an intermediate probability of attaining due to challenging but not insurmountable obstacles. Where we are certain of achieving our goals, hope is unnecessary. Where we are certain that we will not, then we become hopeless. According to this conceptualisation, positive and negative emotions are by-products of goal-directed hopeful or hopeless thought.
Snyder’s theory about the process of experiencing hope in a particular situation is diagrammed in the upper panel of Figure 3.1. In any situation where a valued goal is pursued, the hopeful goal-directed behaviour will be determined by the interaction of:

1. the degree to which the outcome or goal is valued;
2. thoughts about possible pathways to the goals and related expectations about how effective these will be in achieving the outcome or goal; and
3. the thoughts about personal agency and how effective one will be in following paths to goals.

All three of these factors will be dependent upon thoughts brought to the situation based on past experience and development in two areas:

1. thoughts about pathways to goals based on developmental lessons concerning correlations and causality; and
2. thoughts about agency based on developmental lessons about the self as author or causal chains of events.

In Figure 3.1 all of these relationships are expressed as thick arrows. The thin arrows in Figure 3.1 represent the feedback process in which goal-directed behaviour affects current and long-term thoughts about pathways to goals and the role of personal agency in achieving these; and the degree to which the current goal is valued.

Snyder’s group have developed a series of scales to measure different aspects of hope (Lopez et al., 2000). The Adult Dispositional Hope Scale and State Hope Scale are brief trait-and-state self-report measures of hope for use with adults. The Children’s Hope Scale has been developed for use with school-age children and the Young Children’s Hope Scale is for use with pre-school children. Observational versions of the Adult Dispositional Hope Scale, the Children’s Hope Scale and the Young Children’s Hope Scale have been developed for completion by research raters, parents and teachers. All of these self-report and observational rating scales yield overall hope scores, in addition to scores for hope-related agency and hope-related pathways. In addition to these scales, an Adult Domain Specific Hope Scale has been developed which assesses hope in the following specific domains: social, academic, family, romantic relationships, occupation and leisure activities. Reliability and validity data are available for all scales.

**Development of hope**

Snyder (2000) suggests that hope develops in a clearly defined way over the course of infancy, childhood and adolescence. By the end of the first year of life, object constancy and cause-and-effect schemas allow infants to have anticipatory thoughts about pathways to goals. Pointing skills which are well developed by the end of the first year allow infants to indicate what their goals are.

In the second year, infants learn that they can instigate goal-directed activities to follow pathways to desired goals. The idea of self as an agent evolves during this period. During the second year, one of the most important hope-related skills learned is the idea that pathways around barriers may be planned and actively followed. This process of encountering barriers, planning ways around them, and then actively executing these plans is central to the genesis of hope. Professor Sir Michael Rutter (1994) at the Institute
of Psychiatry in London has likened overcoming such barriers and adversities to a psychological immunisation process and referred to the outcome as resilience. The security of the child’s attachment to caregivers and the interpersonal context within which youngsters cope with adversity is critical. Children who are securely attached to their parents or caregivers and are provided with sufficient social support to cope with adversity develop resilience and hope.

During the pre-school period from 3 to 6 years, the rapid development of language, pre-operational intuitive thinking, interest in story-telling, and predictable routines, allows for the further growth of hopeful pathway planning in the face of barriers and obstacles. Physical development allows for the growth of sophisticated skills for putting plans into action. As the ability to empathise with others begins to develop towards the end of the pre-school years, children become aware that planning and pursuing pathways towards valued goals may sometimes help and sometimes hinder others to pursue their valued goals. The development of perspective taking allows pre-schoolers to include the wishes of others in their plans.

In middle childhood and pre-adolescence there is a rapid growth in logical rather than intuitive thinking skills, memory skills, reading skills and advanced social perspective-taking skills. These allow for increasingly sophisticated hopeful planning and pursuing pathways towards valued goals, and doing so within a social context mindful of the wishes of their parents, siblings, peers and teachers.

In adolescence, youngsters develop abstract reasoning skills. These skills facilitate the management of complex issues including: increasing autonomy from parents; forming exclusive intimate relationships; and developing career plans. These challenges provide opportunities for hopeful planning and hopeful pursuit of plans despite setbacks and barriers.

Children who develop a hopeful disposition typically have parents who serve as hopeful role models and who coach them in developing and executing plans to circumvent barriers to valued goals. These children have secure attachment to their parents who provide them with a warm and structured family environment in which rules are consistently and predictably applied and conflict is managed in a predictable and fair way.

Some, but not all, children who are neglected, abused, bereaved or who are exposed to ongoing interparental conflict associated with separation or divorce may fail to develop a hopeful disposition. Children who grow up in a particularly stressful home environment are more likely to become resilient and hopeful under certain circumstances (Mahoney, 1991). First, these children become aware that their parents have difficulties and so categorise their parents’ inadequate parenting as a parental shortcoming rather than a personal shortcoming. Second, these children find other adults who can routinely meet their needs for care, control and intellectual stimulation. Third, these children identify and refine a special talent or gift early in their lives which gives them access to new supportive social networks. Fourth, they have a high motivation to develop their talents marked by persistence and tenacity. Finally, they address adversity as a challenge or opportunity for development rather than an obstacle.

Hopeful adults have distinctive profiles (Snyder, 2000). Adults who have high levels of hope have experienced as many setbacks as others in their lives, but have developed beliefs that they can adapt to challenges and cope with adversity. They maintain an
ongoing positive internal dialogue including statements such as ‘I can do it, I will not give up’, etc. They focus on success rather than failure. They experience fewer and less intense negative emotions when they encounter obstacles to valued goals. This may be because they creatively generate alternative routes to achieve their goals when they encounter barriers or flexibly select other more achievable goals. When people with low hope encounter insurmountable barriers their emotions follow a relatively predictable sequence from hope to rage; from rage to despair; and from despair to apathy. When faced with problems in adult life, people with high levels of hope tend to break large vague problems into small clearly defined and manageable problems.

Hope therapy

Hope therapy is derived from Snyder’s hope theory and ideas drawn from cognitive-behaviour therapy, solution-focused therapy and narrative therapy (Snyder, 2000). Hope therapy aims to help clients formulate clear goals, produce numerous pathways to these, motivate themselves to pursue their goals and reframe obstacles as challenges to be overcome.

Hope therapy and attributional retraining help individuals or small groups develop optimism and hope-driven problem-solving strategies. Expectationism, in contrast, provides a framework for helping whole populations develop safer future-oriented lifestyles. Let us examine expectationism in more detail.

EXPECTATIONISM AND RISK HOMEOSTASIS THEORY

Expectationism is the name of the preventive strategy for reducing lifestyle-dependent disease, accidents, violence and death rate per head of population by enhancing people’s perceived value of the future. It is based on risk homeostasis theory (Wilde, 2001). Risk homeostasis theory argues that the degree of risk-taking behaviour and the magnitude of loss due to accidents and lifestyle-dependent disease in a population are maintained over time, unless there is a change in the target level of risk. Target risk is the level of risk a person chooses to accept in order to maximise the overall expected benefit from an activity. A nation’s accident rate, per head of population, is the outcome of a closed-loop control process. In this process, fluctuations in the accident rate determine fluctuations in the degree of caution people subsequently apply in their behaviour. And fluctuations in the degree of caution are the cause of the ups and downs in the nation’s per capita accident rate. Fluctuations in the accident rate are greatly reduced by people’s ability to anticipate the potential consequences of health and safety interventions of the technological kind. Feedback about accident and illness rates and the riskiness of certain behaviour patterns (e.g. speeding or smoking) along with anticipation lead to adaptive behaviour which has a stabilising effect on accident risk. The homeostatic nature of the accident-production process means that only interventions which reduce our target level of risk will reduce the accident rate per head of population.

According to risk homeostasis theory, health and safety advances based on: engineering, such as designing better roads and vehicles; education, such as providing information on health and safety; legislation, such as punishing people occasionally for
specific categories of unsafe behaviour; or medicine, such as developing better life-saving procedures for managing accidents and emergencies will have no significant effect on accident rates within a population. This prediction is based on the fact that none of these innovations influence the population’s target level of risk. They fail to enhance the desire for health, safety and a longer life. This remarkable prediction of risk homeostasis theory is supported by a large body of empirical data. For example, the standardised mortality ratios due to violence from 1900 to 1975 (if periods of war are disregarded) changed remarkably little despite the enormous advances in roads and vehicle design, education safety legislation and medicine (Wilde, 1986, 2001).

However, accident rates can be changed, according to risk homeostasis theory, by reducing the target level of risk within a population. This can be achieved by four classes of interventions:

1. increase the perceived benefit of safe behaviour by for example highlighting the advantages of it;
2. decrease the perceived cost of safe behaviour;
3. increase the perceived cost of risky behaviour; and
4. decrease the perceived benefit of risky behaviour.

Of these four strategies, a large body of empirical evidence suggests that incentive programmes based on the first strategy are particularly effective in reducing industrial and road-user accidents (Wilde, 1986, 2001). An essential feature of an incentive—as distinguished from a reward—is that it is a pre-announced bonus that is promised on the condition that some behavioural requirements be fulfilled. Thus, instead of offering immediate gratification, incentives enhance the expectation of future enjoyment and therefore enhance the subjective value of future time. We will be more careful and take fewer risks today if we believe that the future holds a wealth of positive experiences for us. Thus, health and safety management, the prevention of lifestyle-dependent diseases and the prevention of violence depend on the extent to which countermeasures can enhance perceived value of the future.

Offering a person an incentive for remaining accident-free or safe implies offering that person a reason for looking forward to the future with increased expectations; hence the term expectationism for the preventive strategy for reducing lifestyle-dependent disease and death rate per head of population by enhancing people’s perceived value of the future. The greater the perceived value of the future relative to the perceived value of the present, the more cautious a person would be expected to be. There is evidence that habits beneficial to health are more common among people who hold the future in high regard (Björgvinsson and Wilde, 1995; Strathman et al., 1994).

The Time Horizon Questionnaire (Table 3.2) may be used to assess the degree to which the future is valued over the present. An index to assess this variable may be computed by subtracting the mean item score on the present time value subscale from the mean item score on the future planning scale.

A distinction may be made between specific and general expectationist strategies. Specific expectationist strategies involve fulfilling particular requirements at some future point in time in order to qualify for a particular incentive. For example, people could be offered incentives for having a 12-month accident-free period at work or on the roads; or not suffering from alcohol-related cirrhosis of the liver at 50; or not suffering from
smoking-related respiratory disease at 55. General strategies do not entail detailed criteria. All that is required to receive the incentive is to be alive at that future date at which the incentive has been promised, for example offering

**Table 3.2 Time Horizon Questionnaire**

By circling the appropriate answer, please indicate how much you agree or disagree with each of the following statements.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Unsure</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 It is more important to live for today than to worry about tomorrow</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 I live for what is, rather than what will be</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 I work below my capacity, and do less than I can</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 I feel that I have insufficient time to accomplish everything that I must do</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 It’s more important to enjoy one’s life now than to worry about how it may be in the future</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Each day seems to fly by</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 The successes of</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Hope and optimism

8 I rarely schedule my time
   Strongly Agree Unsure Disagree Strongly disagree

9 Let us live for today, nobody knows what the future holds
   Strongly Agree Unsure Disagree Strongly disagree

10 I often feel pressure to speed up things
    Strongly Agree Unsure Disagree Strongly disagree

11 I often find, after beginning a job, that it is more difficult than I had imagined
   Strongly Agree Unsure Disagree Strongly disagree

12 I often have to do things faster than I am able to
   Strongly Agree Unsure Disagree Strongly disagree

13 I am more concerned about how I feel now than how may feel in the future
   Strongly Agree Unsure Disagree Strongly disagree

14 I organise my daily activities so that there is little confusion
   Strongly Agree Unsure Disagree Strongly disagree

15 I think a lot about what I am
   Strongly Agree Unsure Disagree Strongly disagree
16 I often schedule too many things at once
Strongly Agree  Unsure  Disagree  Strongly disagree

17 I am able to resist temptation when I know there is work to be done
Strongly Agree  Unsure  Disagree  Strongly disagree

18 I am aware of a sense of continuity in my life
Strongly Agree  Unsure  Disagree  Strongly disagree

19 I rarely think about the future
Strongly Agree  Unsure  Disagree  Strongly disagree

20 It seems to me that my career path is pretty well laid out
Strongly Agree  Unsure  Disagree  Strongly disagree

21 Today is much more important to me than a day in the future
Strongly Agree  Unsure  Disagree  Strongly disagree

22 I work fast and efficiently according to schedule
Strongly Agree  Unsure  Disagree  Strongly disagree
23 I engage in behavior now which I feel will have positive outcomes for me in the future  
   Strongly agree  Agree  Unsure  Disagree  Strongly disagree

24 I never seem to have enough time each day to get things done  
   Strongly agree  Agree  Unsure  Disagree  Strongly disagree

25 I know what I want to be and where I am going  
   Strongly agree  Agree  Unsure  Disagree  Strongly disagree

26 I waste lots of time before I finally settle down to business  
   Strongly agree  Agree  Unsure  Disagree  Strongly disagree

27 The future is more important to me than the ‘here and now’  
   Strongly agree  Agree  Unsure  Disagree  Strongly disagree

28 The list of things I need to do seems to get bigger by the hour  
   Strongly agree  Agree  Unsure  Disagree  Strongly disagree

29 Thinking about the future is pleasant to me  
   Strongly agree  Agree  Unsure  Disagree  Strongly disagree

30 I rarely feel rushed  
   Strongly agree  Agree  Unsure  Disagree  Strongly disagree

31 I plan and schedule my time far in advance  
   Strongly agree  Agree  Unsure  Disagree  Strongly disagree

32 I can never find time to relax  
   Strongly agree  Agree  Unsure  Disagree  Strongly disagree

33 I think planning for the future is a waste of time  
   Strongly agree  Agree  Unsure  Disagree  Strongly disagree

34 I think I will feel less happy 10 years from now than I do now  
   Strongly agree  Agree  Unsure  Disagree  Strongly disagree

35 It is important to enjoy the moment and not worry about tomorrow  
   Strongly agree  Agree  Unsure  Disagree  Strongly disagree

36 I usually put off today what I can do tomorrow  
   Strongly agree  Agree  Unsure  Disagree  Strongly disagree

37 I live my life for today rather than worrying about the future  
   Strongly agree  Agree  Unsure  Disagree  Strongly disagree

38 It is important to get the most out of today and not worry about tomorrow  
   Strongly agree  Agree  Unsure  Disagree  Strongly disagree

39 When I want to achieve something, I set goals and consider specific means for reaching those goals  
   Strongly agree  Agree  Unsure  Disagree  Strongly disagree

40 I never plan further than one day in advance  
   Strongly agree  Agree  Unsure  Disagree  Strongly disagree

Source: Reproduced with permission from Gerald J.S. Wilde, Queen’s University, Kingston, Ontario Canada.

Home page: <http://psyc.queensu.ca/faculty/wilde/wilde.html>
Note: All items are scored 5–4–3–2–1 for SA-A-U-D-SD, except items 8, 19, 26, 27, 30, 33, 34, 36, and 40 which are scored in the reversed direction, 1–2–3–4–5 for SA-A-U-D-SD. The future time value scale contains items 7, 15, 18, 19, 20, 23, 25, 29, 33, 34. The present time value scale contains items 1, 2, 5, 9, 13, 21, 27, 35, 37, 38. The future planning scale contains items 3, 8, 14, 17, 22, 26, 31, 36, 39, 40. The time pressure scale contains items 4, 6, 10, 11, 12, 16, 24, 28, 30, 32.
a sum of money that equals ten times the average annual wage at 65 years of age.

The accident rate, the incidence of unhealthy habits and the level of violence depend on people’s orientation towards their future. The more they expect from it, the more careful they will be. The level of risk taking in a society depends therefore, not on safety technology and education, but on prevailing societal values. According to expectationism, there are changes that could be made to our society that would give us good reason to look forward to our next birthday, our next decade and our later years. For youngsters we could increase their weekly pocket money at every birthday. For young adults we could reduce college fees after each year of study. For employees we could increase the minimum wage and the duration of annual leave as they grow older. The value of salaries and degree of job security could be made dependent on years of service. Tax advantages, retirement saving fund advantages and insurance discounts could be offered as we grow older so that we are motivated to contribute to the monetary value of our future. These financial incentives would go some way towards alleviating fears of becoming a burden upon others, or of being neglected, abused or lonely in our sunset years.

Expectationism entails the view that people can be motivated by incentives to save for later. One factor that contributes to the benefit of saving for later is a clean, green ecology and the conservation of natural resources. With incentives to live longer and save for the future, a society is more likely to protect the environment against pollution and destruction for short-term gains.

OPTIMISM, HOPE AND HEALTH

Optimism and hope as measured by the scales mentioned in preceding sections have been found to have important correlates (Peterson, 2000b; Snyder, 2000). Optimism and hope correlate negatively with measures of current psychopathology generally, and current depression in particular. Optimism and hope are predictive of physical and mental health as indexed and/or mediated by a variety of measures including self-reported health, positive response to medical intervention, subjective well-being, positive mood, immunological robustness, effective coping (reappraisal, problem solving, avoiding stressful life events, seeking social support) and health-promoting behaviour (Peterson, 2000; Snyder, 2000; Scheier et al., 2000; Taylor et al., 2000). Optimistic people are healthier and happier. Their immune systems work better. They cope better with stress using more effective coping strategies such as reappraisal and problem solving. They also actively avoid stressful life events and form better social support networks around themselves. They have healthier lifestyles which prevent them from developing illness, or if they develop illness they adhere to medical advice better and follow through with behaviour patterns that promote recovery. Optimism in early adulthood predicts health in later adulthood over periods of up to 35 years (Peterson et al., 1988).
THE NEUROBIOLOGY OF OPTIMISM AND HOPE

Little research has been conducted on the neurobiology of optimism. However, findings from neurobiological research in three areas are of relevance: (1) pessimism, depression and anxiety; (2) optimistic goal-directed and incentive-driven behaviour; and (3) optimistic affiliative behaviour.

Neurobiology of pessimism

Pessimism is a key feature of depression and anxiety and so the neurobiology of these conditions provides a starting point for understanding the biological correlates of optimism and hope. Depression and anxiety are associated with abnormal functioning in the limbic system (particularly the amygdala), the paralimbic system and the lateral prefrontal cortex. Depression is associated with the depletion of certain neurotransmitters (particularly serotonin and noradrenalin) or a decrease in the efficiency with which systems based on them function in the brain sites implicated in depression (Liddle, 2001). Antidepressants (tricylics, serotonin re-uptake inhibitors and monoamine oxidase inhibitors) increase the efficiency with which systems involving these neurotransmitters operate. It is probable that optimism and hope is associated with efficient functioning of neurotransmitter systems involving serotonin and noradrenalin, although research in this area is in its infancy. Depression is also associated with abnormal functioning of the hypothalamic-pituitary-adrenocortical axis leading to the overproduction of cortisol, a depletion of endorphin secretion and immune suppression. There is growing evidence that optimism and hope are associated with more efficient functioning of the immune system (Peterson, 2000b).

Anxiety is associated with abnormal gamma aminobutyric acid (GABA) binding (Liddle, 2001). GABA is usually released automatically once arousal reaches a certain level. It then binds with GABA receptors on excited neurones which underpin the experience of anxiety. This binding process causes inhibition, a reduction in arousal and a decrease in experienced anxiety. Treatment of anxiety with benzodiazepines such as diazepam (Valium) reduces anxiety because these drugs bind to the GABA neuroreceptors with a consequent reduction in arousal. Research by Professor Robert Drugan (2000) demonstrates that animals who show resilience in the face of uncontrollable stress, have a unique pattern of GABA binding. Animals who show resilience in the face of uncontrollable stress, show increased gamma aminobutyric acid (GABA) binding (as if they had been given diazepam) and an impaired emotional memory for the stressful event. Animals who become helpless, in contrast, show reduced GABA activity and vivid memory for uncontrollable stressors.

Neurobiology of optimistic goal-directed behaviour

Snyder’s conceptualisation of hope as involving the ability to plan pathways to desired goals despite obstacles and to be motivated to use these pathways suggests that research on the neurobiology of incentive-driven, goal-directed behaviour may throw light on the
biological correlates of hope (Snyder, 2000). Professor Jeffrey Gray at the Institute of Psychiatry in London has proposed that much goal-directed behaviour is governed by two antagonistic control centres within the central nervous system (Pickering and Gray, 1999). These are the behavioural activation system (BAS) and the behavioural inhibition system (BIS). The BAS system is conceptualised as a system particularly responsive to rewards or reinforcement and the BIS as a system that is particularly responsive to punishment. The BAS is activated by signals of reward and controls approach behaviour. It is a ‘go’ system. The BIS is activated by signals of punishment and controls passive avoidance. It is a ‘stop’ system. The BAS, which probably is of central importance to optimistic behaviour, is subserved by mesolimbic and mesocortical dopamine pathways.

Professor Richard Depue (1996) at Cornell University New York has similarly shown that a behavioural facilitation system (BFS) activated by signals of reward, accounts for much of the animal and human data on incentive seeking. The BFS controls incentive-driven or goal-directed behaviour and activities associated with securing food, a sex partner and a nesting place, and seeking other important goals and rewards. It is sometimes loosely referred to as the neurobiological reward system. The BFS includes the mesolimbic dopamine pathways which arise in the ventral tegmental area of the midbrain and project to the amygdala, hippocampus and nucleus accumbens in the limbic system. The reward system also includes the mesocortical dopamine pathways that originate in the ventral tegmental area and projects onto all areas of the cortex. Individuals with an active BFS are strongly motivated by incentives and rewards to pursue goals. In personality trait models, the BFS corresponds approximately to extraversion (Eysenck and Eysenck, 1985) or positive affectivity (Watson and Tellegen, 1985). The efficiency with which the BFS operates is normally distributed within the population, and optimism is probably associated with more efficient functioning of the BFS.

**Neurobiology of optimistic social interaction**

A further line of research of relevance to the study of optimism in women within the context of socially supportive relationships focuses on oxytocin and endogenous opioids (Taylor, Dickerson and Cousino Klein, 2002). Oxytocin is a peptide released from the posterior pituitary following the birth of offspring. It facilitates milk ejection during nursing and uterine contractions during labour. It may facilitate the processes of attachment between mother and offspring and stress-management through social support seeking in women. Oxytocin is released in response to stress and social support. It down-regulates sympathetic hypothalamic-pituitary-adrenocortical activity and so reduces stress responses. It also stimulates (optimistic) contact with others who may potentially offer social support.

Low levels of endogenous opioid peptides can also act as an incentive to (optimistically) seek social contact. They, like oxytocin, are released during supportive and affiliate social contact. They down-regulate sympathetic hypothalamic-pituitary-adrenocortical activity in response to stress and separation, and so reduce stress responses. High levels of endogenous opioid peptides are intrinsically rewarding.

In summary, optimism and hope probably have many biological correlates. These may involve: (1) efficient functioning of neurotransmitter systems involving serotonin and
noradrenalin; (2) efficient functioning of the immune system; (3) increased GABA binding and a capacity to forget or inhibit memories of stressful events; and (4) a particularly active or efficient behavioural activation or facilitation system involving mesolimbic and mesocortical dopamine pathways. In women, oxytocin and endogenous opioid-based systems may be associated with involvement in hopeful socially supportive relationships.

**IMPLICATIONS**

A summary of self-help strategies for enhancing positive illusions, hope, optimism and positive expectations is given in Table 3.3. These can be incorporated into clinical practice.

**CONTROVERSIES**

One of the interesting controversies in this field concerns risk homeostasis theory from which expectationism is derived. Professor Gerry Wilde (2001) has argued that the most effective way to reduce accidents and unhealthy lifestyles is to give people incentives so that they value the future more than the present. This strategy reduces the target level of risk that people are

**Table 3.3 Strategies for enhancing positive illusions, hope, optimism and positive expectations**

<table>
<thead>
<tr>
<th>Domain</th>
<th>Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive illusions</td>
<td>• When thinking about past experience, focus predominantly on details of positive events.</td>
</tr>
<tr>
<td></td>
<td>• Psychologically, ring-fence areas where you have poor skills or personal characteristics that you have but do not like. Define these as exceptions to your predominantly competent and attractive self-image.</td>
</tr>
<tr>
<td>Optimism</td>
<td>• For any situation in which you attribute adversity to intrinsic, global stable attributes identify the Adversity, the pessimistic Beliefs, and Consequent negative mood change on a 10-point scale.</td>
</tr>
<tr>
<td></td>
<td>• Distract yourself from adversity and rumination by saying STOP, by snapping yourself with an elastic band, or by focusing on another activity or object.</td>
</tr>
</tbody>
</table>
• Distance yourself from the pessimistic explanation by noting that there are other explanations.
• Dispute the pessimistic beliefs by checking the evidence for the pessimistic explanation and an optimistic alternative where you attribute adversity to extrinsic, specific and transient situational factors.
• Notice how distraction, distancing and disputing lead your mood to change positively to Energise you.

Hope
• To generate hope in a particular situation, formulate clear goals, produce numerous pathways to these, pursue your goals and reframe obstacles as challenges to be overcome.

Positive expectations
• To reduce risk taking that may foreshorten your lifespan, develop incentives to help you to value the future more than the present.

Source: Based on Seligman (1998); Snyder (2000); Taylor (1989); Wilde (2001).

prepared to accept and so motivates them to live safer lives. However, opposition to this view comes from those who advocate engineering a safer environment by, for example, designing vehicles with better safety features or roads with better traffic signals. However, extensive research has shown that once people receive feedback that seatbelts, crash helmets or new road signals have led to a reduction in annual accident rates, they become more reckless in their driving behaviour and the annual accident rate returns to its previous level. Wilde argues that safety interventions based on engineering, environmental changes and education are ultimately ineffective because they do not modify the target level of risk within a population.

SUMMARY

Up until the end of the 1970s optimism was considered to be a psychological deficit. Freud argued that the optimistic belief in God was an illusion essential for civilisation. In the late 1970s, cognitive psychologists had accumulated a wealth of research which showed that people’s thinking processes were optimistic. Within positive psychology research on positive illusions and self-deception, optimism, and hope have been particularly important.

Research on positive illusions and self-deception has shown that human thought is distinguished by a robust positive bias. Most people view themselves, the world and the future in positive terms. The self-deceptive strategies we use to manage this negative
information, which is contrary to an optimistic world view, includes defence mechanisms such as denial and repression and positive illusions. Positive illusions involve the cognitive processes of selective attention, benign forgetting, maintaining pockets of incompetence and maintaining negative self-schemas. The development of positive illusions is fostered by a parenting style where children are given information by their parents and encouraged to make choices within the context of a warm relationship, with clear behavioural limits. The tendency to have a positive view of the self continues throughout life, although its strength diminishes gradually. This view of the self as good is partially determined by the egocentric nature of memory and also by our self-schemas which determine which aspects of a situation we attended to. Modifying positive illusions involves giving negative information in a way that is corrective but not devastating.

Optimism has been conceptualised as a broad personality trait and as an explanatory style in which the causes of negative events are attributed to external, transient, specific factors rather than internal, stable, global factors. The development of optimism is determined by parental mental health, the type of role modelling offered by parents and the degree to which parents encourage and reward optimism. Individuals with an optimistic explanatory style are less likely to develop physical ill-health, depression or suicidality when they face major stressful life events than individuals with a pessimistic explanatory style. In adulthood optimism is associated with better academic achievement, sport performance, occupational adjustment and family life and response to bereavement and loss. Optimism contributes to success in public life. Effective programmes to help adults and children change their explanatory style from pessimism to optimism have been developed.

Hope involves the ability to plan pathways to desired goals, despite obstacles, and agency or motivation to use these pathways. Hope develops in a clearly defined way over the course of infancy, childhood and adolescence. Children who develop a hopeful disposition typically have parents who serve as hopeful role models and who coach them in developing and executing plans to circumvent barriers to valued goals. These children have secure attachment to their parents who provide them with a warm and structured family environment in which rules are consistently and predictably applied and conflict is managed in a predictable and fair way. Hope therapy aims to help clients formulate clear goals, produce numerous pathways to these, motivate themselves to pursue their goals and reframe obstacles as challenges to be overcome.

Expectationism is a preventive strategy for reducing lifestyle-dependent disease, accidents, violence and death rate by enhancing people’s perceived value of the future. It is based on risk homeostasis theory which argues that the amount of risk-taking behaviour, accident-rate and lifestyle-dependent disease rate in a population are maintained over time, unless there is a change in the target level of risk and enhancing the degree to which the future is valued over the present is one way of altering target risk.

Optimism and hope correlate positively with, and are predictive of, physical and mental health as indexed and/or mediated by a variety of measures including self-reported health, positive response to medical intervention, subjective well-being, positive mood, immunological robustness, effective coping (reappraisal, problem solving, avoiding stressful life events, seeking social support) and health-promoting behaviour.

Optimism and hope probably have many biological correlates including efficient functioning of neurotransmitter systems involving serotonin and noradrenalin; efficient
functioning of the immune system; increased GABA binding and a capacity to forget or inhibit memories of stressful events; and a particularly active or efficient behavioural activation or facilitation system involving mesolimbic and mesocortical dopamine pathways. In women, oxytocin and endogenous opioid-based systems may be associated with involvement in hopeful socially supportive relationships.

**QUESTIONS**

**Personal development questions**

1. In the domains of health, family, friends, romantic relationships, leisure activities, education and work what were your main success stories in the past year?

2. What is the evidence that these successes were due to your own personal strengths (rather than situational factors)?

3. In the domains of health, family, friends, romantic relationships, leisure activities, education and work what are your goals for the coming year?

4. What are some of the pathways that you can see to each of these goals?

5. What personal strengths have you got that will help you use some of these pathways to achieve your goals?

6. What incentives can you promise yourself to help you work towards these goals?

7. What would be the costs and benefits of pursuing some of the pathways that you can see to each of these goals?

8. Take some of these pathways and assess the impact it has on your well-being by assessing yourself before and afterwards on one of the well-being scales contained in Chapter 1.

**Research questions**

1. Design and conduct a study to test the hypotheses that there are significant correlations between self-deception, dispositional optimism, optimistic explanatory style, the trait hope, future-orientation and happiness. Which of these variables accounts for the greatest amount of variance in happiness?

2. Conduct a PsychInfo search covering literature published in the past couple of years using the terms ‘self-deception’, ‘optimism’, ‘hope’, and ‘future orientation’ individually and in combination. Identify a study that interests you and that is feasible to replicate and extend. Conduct the replication.