controls, but no clear advantage was shown for either approach over the other, except that the more active behavioural methods had a slight edge over the psychoanalytic ones for more severely disturbed patients.

In general, behavioural treatments are easier to evaluate than psychodynamic ones because their aims are more limited and more explicit, being largely confined to changing observable behaviours. The attempts to define equally explicit and measurable dynamic goals for psychoanalytically derived therapies has been made all too rarely, and seldom with success. The work of Malan (1963; 1976a, 1976b) is one of the more satisfactory in this field. Cognitive therapists (e.g. Beck, 1976) resemble the behaviourists in that they incorporate specific goals in their treatment programmes and, hence, research evaluation is feasible (Rush *et al.* 1977). Workers in the cognitive movement have set a recent trend in psychotherapy research which I personally find somewhat disturbing: in order to standardize the therapeutic "input", treatment manuals are prepared and therapists are trained to operate only in prescribed ways. This apparent simplification of the researcher's task (I say "apparent" for there will still be major variations in the style and personality of therapists) can only be achieved at the cost of crushing the subtlety and flexibility of the therapist, and the whole future of therapy could be distorted if only simple methods, simply evaluated, were blessed with scientific respectability.

In my own view, the development of more appropriate outcome criteria for the more complicated dynamic therapies is the first priority. It is important that we can specify and make measurable the full range of changes sought and, in particular, we must be able to measure the changes in underlying patterns of thinking, as well as the changes in observable behaviours. Small-scale studies of this sort, which demonstrate the achieving of specific cognitive changes indicated as goals at the start of therapy, following the focused, integrated, active therapy as described in this book, have been reported in Ryle (1979a and 1980).

2

The Procedural Sequence Model

In this chapter, the model of human action that is to serve as the focus for the book will be described. A model or theory of something is an account (in a form we are familiar with) to which we can refer when we want to explain or predict the qualities of the thing or process in question. Models can be verbal, pictorial, mathematical, mechanical, or loosely allegorical; their purpose is always to demonstrate or explain only certain selected characteristics, not to reproduce the reality of the thing itself. The same thing or process can be equally truly described by different theories or models. The engineer's model of the physical forces involved in building a bridge, and the physicist's model of the structure of the constituent atoms of iron out of which the bridge is made, are both true, but they serve different purposes. In psychotherapy we need a model of man that is appropriate to the task of understanding neurotic difficulty and informing our attempts to initiate change.

MODELS OF MAN

There is, of course, no shortage of models of man for, once men became self-conscious, they became the object of their own model-building propensities. However, most such models served both to describe and to control: they were expressions of the structure and belief system of the particular culture. Nothing is more effective as a social control device than giving an individual a description of himself that confines his self-understanding to the terms his society allots him. The attempt to build scientific models free from such moral and political influence (while also accounting for the operation of such influence) is of recent origin and has been incompletely successful, and indeed is likely to remain so. Laing (1967) has written with passion against that most general and prevalent distortion which stems from the failure to distinguish the scientific study of persons from the study of natural phenomena. Persons, he argues, must be defined in two ways: "in terms of experience, as a centre of orientation of the objective universe; and in terms of behaviour, as the

origin of actions''. On this basis, ''social phenomenology is the science of my own and of others' experience. It is concerned with the relation between my experience of you and your experience of me.'' We can only know people, as we know the rest of our world, by way of our mental representations of them, built up out of our experience. We have an image of a person we know, which is essentially a form of theory, or model, of him. Our aim, humanly and professionally, must therefore be to make that image or theory capable of encompassing the full range of his qualities — qualities which include, among others, his capacity to hold a theory or image of us, and to dispute our account of him.

Failure to build adequate theories of others characterizes all of us in our everyday lives, and are especially characteristic of those we call ''neurotic''. It is often the case in personal life, as in social life, that restrictions on our understanding of others are not just random errors: they serve to convey value and to impose control. Incorporated into a human psychology that claims to be scientific, such distortions of human reality acquire a false authority, while the absence of an explicit, humanly adequate, scientific model of man can lead only to reliance upon unacknowledged, covert models.

While psychological models of man must not be humanly reductive, they are bound to be reductive in a different sense. We must bear in mind the way in which the physicist's and the engineer's models of the bridge differed. A given theory will serve only a particular purpose; in Kelly's terms (Kelly, 1955) it will always have a limited ''range of convenience''. A psychological theory says, implicitly, ''For these purposes it may be useful to conceive of these phenomena in these terms'', and it should not be read as the outrageous, ''Human life is this, and only this.'' To talk about human change, and about the pains and distresses of troubled people, is to touch on experiences which everybody has shared and which everybody knows at first hand to be extraordinarily complex. In considering a theory designed to guide us in understanding and changing the sources of such distress, we should bear in mind that it is a theory for a particular purpose and not an attempt to convey or reproduce the experience.

TWO CASE HISTORIES

In order to anticipate the connection between the theory and the human reality, I will introduce at this stage the stories of two patients, Anne and David, who will be described throughout the book as illustrations. As the account of theory and practice is unfolded we will see how the proposed model can help us understand these two people and their therapies.

Anne

Anne embarked on her professional career at the age of 24. At that time she would have described herself as stable, happy, and competent; and as coming from a close family in which, however, there had been some problems. She had been married for 2 years, and enjoyed a good relationship with her husband. She had recently had minor physical symptoms which left her with a slight nagging anxiety about cancer and, shortly after beginning her new job, she had developed a new habit of compulsively rubbing her eyes. She then had a frightening experience: she took some alcohol while on medication for a physical complaint, not realizing that the pills and the alcohol were incompatible, and she had an experience of light-headedness during which she felt her thoughts were racing and out of control. This made her convinced that she was going to have a nervous breakdown. This fear became an increasing worry and preoccupation, and it was on account of this that she sought psychotherapeutic help.

Anne's life history as told in the first assessment interview was as follows. She was the eldest of three children and her mother had had a psychotic breakdown following the birth of the third, when Anne was aged 5. She had recovered but thereafter had remained moody, difficult, dependent, and morbidly suspicious. Anne, as a child, had taken on the role of ''little mother'' to her brother and sister, and her father had increasingly delegated to her the responsibility for her mother also. The first few years at primary school, following her mother's breakdown, were marked by slow progress but, at the age of 10, she rapidly caught up, and from that time onwards high achievement was very important to her and she worked somewhat obsessively. Despite this, she had done less well than predicted in all of her major examinations at school and university, in each case underperforming in the subject regarded as her best. From the time of puberty onwards, her mother showed extreme jealousy of Anne's relationship with her father, as a result of which he became rather remote and quite inexpressive physically. Despite this, Anne often accompanied him on social occasions, and when she did so was always cross-examined on their return by her mother about his behaviour. During her adolescent years, both parents drank heavily and there was frequent quarrelling between them.

By the time Anne had completed the first part of her therapy (20 sessions over some 6 months), she had a rather different view of her history. She recognized that she had had a difficult childhood, although it was still hard for her to acknowledge this. Looking back on her family role she could see that she had carried an inappropriate burden through her childhood and adolescence. She recognized how mistrustful she had been of others, and saw how she had tended to structure most of her relationships in such a way that she was in control and offering care to others whom she saw as relatively weak. She recognized that her academic failures had represented a form of self-sabotage, and her husband had pointed out that this was a characteristic pattern in other contexts also. She had almost lost her preoccupation with her fear of a nervous breakdown, and she felt much more in touch with her feelings and much more expressive and open in her marriage. Both she and her husband were pleased with the change in the quality of their relationship. Although she still worked hard and was somewhat over-perfectionist, she allowed herself more time for pleasure. As therapy approached a long interruption, she was able to express

openly her feelings about the break, and she was aware of the way in which this experience of directly knowing what she felt was important and unusual for her.

David

David was given an appointment at the request of an occupational guidance counsellor who had recognized his basic sense of not being in control of his life. By the time I saw him for assessment, however, his major preoccupation was the recent, sudden, unpredicted end of a 4-year-long relationship with a girlfriend, Patricia, which had plunged him into a state of disabling depression. He was a 26-year-old student who had left school at 17, soon after his parents had separated — an event which had been a complete surprise to him. He had gone to work as a nursing assistant in an old people's home, a post he held for 4 years. He formed his first serious relationship with a woman when he was 18, and lived with her for the following 4 years. Two months after that relationship ended, he met, and almost immediately began to live with, Patricia, the girl who had recently left him for a mutual friend.

At the interview, David was quietly spoken and self-deprecating. He was angry with himself for feeling needy, and reported that he was now largely avoiding the company of his friends, as he felt they were used to seeing him as a strong person and he could not bear to appear before them in his reduced state. He was not able to get on with his academic work and saw little point in doing so now that he had lost Patricia.

David was an only child and had had a happy childhood, but he had been notably upset at the age of 4, when he suffered a long separation of many months from his mother on account, first of all of his, and later of her, illness. David's first therapy (7 sessions over 3½ months) was concerned partly with supporting him through a period of mourning and with helping him get back to work, and partly with some exploration with him of how far his response to the loss of Patricia was linked with his earlier separation from his mother, and with the more general issues for which he had first sought help. It seemed that he had coped with the insecurity caused by the separation from his mother by "arranging" his later relationships with others in ways that ensured their availability as sources of security; and in this respect, both the professional role of caring for old people and being loved by his two girlfriends had been important. In most of his relationships he had adopted a helpful role which involved submerging his own needs and he now began to see that this had been accompanied by feelings of resentment. At the end of this time David was less depressed and angry, and felt that the experience of being on his own had been an important one. He felt more in control of his life and had begun to work again; he was beginning to be more assertive in general and attempting to be more mutual in his relationships with his friends. He was still markedly sad and lonely and he was aware of, but was resisting, an urge to seek another intense relationship. He had begun to feel more able to claim his life and to make decisions about what he wanted to do, and this was reflected in some firm career plans.

THE PROPOSED MODEL

In considering the model of man most helpful to the understanding of change, we are at once faced with philosophical considerations. The values implicit in a model informing the psychotherapist will have an effect upon the practice of his therapy. In behaviourist theory, the basic assumption is that behaviour is either a response to an environmental event (the stimulus response model), or an act upon the environment which is the result of previous learning about the effects of such acts (the operant model); favourable outcomes reinforce, and unfavourable outcomes extinguish, the tendency to repeat the behaviour. In such a view, change will be achieved by the manipulation of outcomes. In the psychoanalytic view, behaviour represents the expression of biological drives in forms modified by the ego's sense of reality and the superego's prescription of the permissible; with conflicts between these forces taking place largely in the unconscious.

The model proposed here represents a different view, emphasizing the human capacity for exploration and choice, and the human assumption of personal responsibility; it could, in that sense, be considered an existential position, although it is not directly influenced by either Sartre or the existential analysts. It starts from the position that man is in the world and acts upon it, living a life that is aim-directed, purposeful, or intentional. By intentional I mean that our lives are spent, consciously or unconsciously, in the pursuit of goals or in the defence of positions or values, rather than in random activity or in reining in, or giving expression to, instinctual impulses and drives. The satisfaction of basic biological needs such as hunger, thirst, sex, and attachment to others will be included among our intentions, but the way to these and other satisfactions will involve complex social judgements and actions, to be understood in terms of our overall personal understanding of our place in the world, acquired through experience and influenced in particular by our early years. In making aim-directed action the focus of a theory designed to explain and guide change in psychotherapy, I am also countering the assumption of powerlessness and passivity that characterizes many troubled people, by challenging the belief (falsely comforting in the short run) that it is possible *not* to act.

The model is a cognitive one because cognitive psychology offers the best available, and least reductive, account of mental processes. Cognitive psychology is concerned with knowledge, that is to say with how information is received, stored, coded, evaluated, and revised; and with how action is learned, selected, organized, carried through, evaluated, and modified: in brief, with how we know that world and know ourselves. Most of what we know, as information (knowing that), or as skills (knowing how), has been acquired through experience and has been stored in the memory, not as an infinite accumulation of detail, but coded in hierarchically organized systems of mental *schemata* (in Kelly's (1955) terms, *constructs*; in computer language, *programs*). All new experience, from the level of simple perception up to the most complex levels of understanding, is matched with this structured system. We see the world through a template, or grid; we know it by matching it

with the distillation of what we already know. Thanks to this system, most situations are easily construed and most acts simply carried out, and survival in a complex world is possible. But the system is not static, for, faced with a new experience that cannot be *assimilated* or with an action that is not adequate to the task, we have the capacity to learn: provided the discrepancy is not too great, our cognitive system *accommodates* itself to take account of the new information, thanks to which we can survive in a complex world that is changing.

DEFINITION OF TERMS

Schemata organizing perception and those organizing action may be separately located, but in practice our understanding of a situation is combined with our plans for dealing with it. These and other combinations of schemata may be called *scripts*. It is not implied, as in transactional analysis, that lives are to be described in terms of a defining script; and scripts as used here may either organize action in the world or be concerned with self-evaluation and self-judgement. Scripts organizing life aims, the most general values, and self-definitions are *self-identity scripts*. *Strategic scripts* express life concerns as they are manifest in different contexts, determining, for example, sex roles, career choices, political attitudes, and much that is generally called "personality". *Tactical scripts* concern small-scale acts or events. In general, lower-order scripts are subservient to, and often expressions of, higher-order scripts. The execution of an aim-directed act involves a series of scripts or schemata, and I propose to call such a series a *procedural sequence* and, hence, the model as a whole is called the *procedural sequence model*, or PSM for short.

A DESCRIPTION OF THE PSM

The basic model describes the sequence of stages involved in aim-directed acts; it can be applied to acts of any degree of complexity. It is a simplified model, leaving out, for example, consideration of short-term versus long-term memory, and not distinguishing the different roles of world and image, or of logical and associative relationships in memory. Any stage of the procedural sequence can occur without involving conscious awareness, and some are not accessible to such awareness. The sequence described involves perception, comprehension, action, and evaluation. It is helpful to distinguish between two forms of evaluation. One is basically concerned with performance, asking the questions: "Can the sequence be carried through?" "Is it being carried through?" "Has it been carried through?" This is a form of feedback control similar to the postural sense that is required in order to control a physical gesture. A second aspect of evaluation, of particular importance in understanding human conflict and difficulty, is concerned with our judgements of the consequences of our intentions and acts in terms of their compatibility with other aims, especially with those scripts that prescribe what is permissible or desirable (the equivalent of the psychoanalytic superego). We will now consider the basic features

of the PSM as it will be applied to the understanding of neurotic phenomena and to the analysis of different theories and methods of treatment. The sequence is summarized in Fig. 2.1. It represents, of course, an ideal and simplified version of the partly conscious, and often illogical, steps and judgements involved in real-life acts.

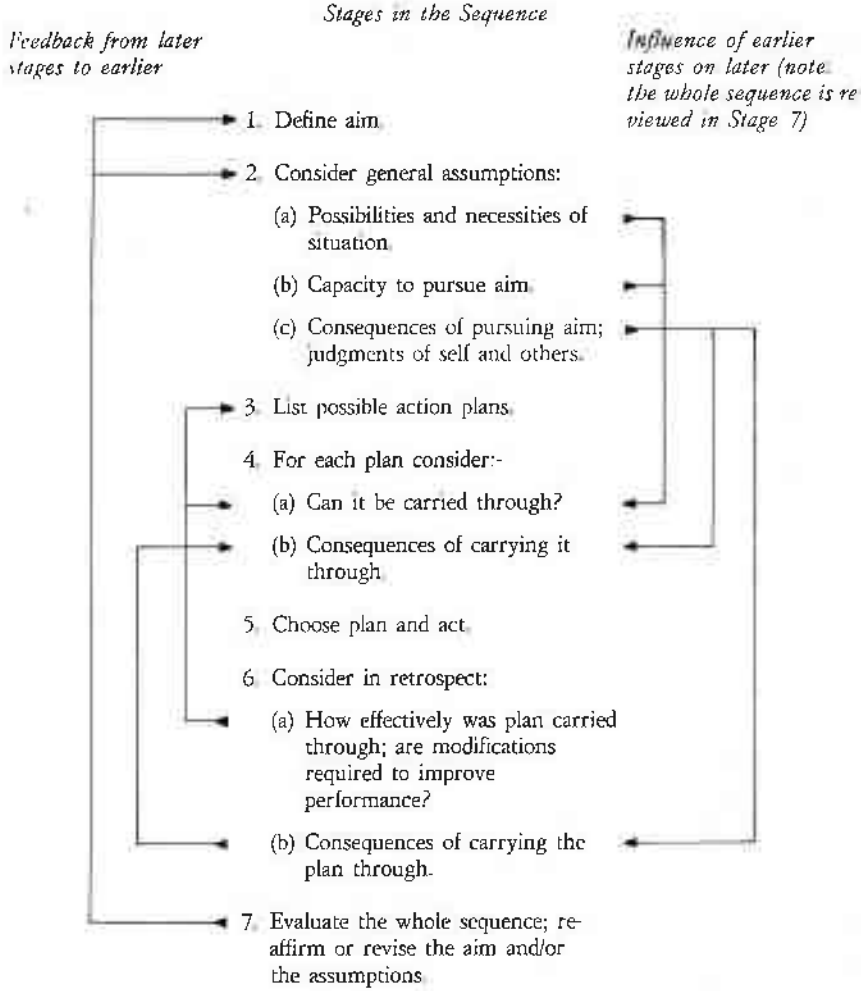

Fig. 2.1 The procedural sequence model

Stage 1

Define the aim or intention.

Stage 2

Consider general assumptions.

(a) The possibilities of the situation must be considered, for an intention can only be followed if circumstances are propitious. People vary in how they see the world as being something they can influence. Some situations necessitate particular acts.

(b) The intention must be considered in relation to one's assumptions about one's capacity (self-efficacy assumptions). People differ in how far they feel responsible for, and able to influence, the course of their lives. Whether accurate or not, this estimation of capacity influences decisions about proceeding with one's intention.

(c) The aim must be related to other intentions and, above all, to those central, salient definitions of self that provide the basis of self-criticism and self-judgement, and that determine the criteria of self-acceptance. Conflict between equivalent intentions, e.g. whether to have a holiday or buy a washing-machine, are not a serious issue in neurosis; conflicts between intentions and these central, judgemental scripts play a large part. The judgements and anticipated responses of others must also be considered.

Stage 3

This stage involves consideration of the available methods. The range of these will depend upon the past history of the individual in terms of his previous pursuit of similar aims under similar circumstances, and upon his ability to extend this repertoire by recognizing appropriate parallels or metaphors from his experience.

Stage 4

(a) For each means considered, an estimate must be made of the likelihood of success. This predictive evaluation of performance will be influenced by the general self-efficacy assumptions.

(b) For each means, similarly, a prediction of the consequences of the means and of the outcome will be made in relation to the anticipated responses of others and to the self-identity criteria. These predictions will be influenced by the general assumptions of Stage 2.

Stage 5

The option with the best chance of success and lowest associated cost will usually be chosen, and the necessary act proceeded with.

Stage 6

The results of applying the chosen means are retrospectively evaluated in terms of (a) performance, and (b) consequences, judged in relation to self-identity criteria and

to the effects on others. These retrospective judgements will be fed back to modify Stage 4, and possibly modify plans (Stage 3).

Stage 7

Finally, the degree to which the script was effectively carried through is evaluated, and where the results are discrepant with the aim, then either the assumptions will be modified or the aim or purpose revised.

At this point, we will return to the two patients whose case-histories were briefly presented earlier, in order to see how their stories may be understood in these terms. We will consider at this stage aims we infer to have been operating before the experiences that led them to consult.

Anne

In the case of Anne, we will consider two self-identity scripts: one serving the aim of preserving self-esteem, and the other the aim of being sane. As regards the first, Anne saw herself as a strong and lovable person and felt capable of sustaining this image. There were two situations relevant to this, and hence two sub-scripts. In the situation of the family, she ensured that she was seen as strong and that she was loved by acting consistently within the terms required by her ascribed role of helpful, thoughful, uncomplaining person. Acting in this way (which she did in most other relationships as well), she felt good about herself and gained the love of others and she had felt no reason to revise the script. In the situation of school, university, and work, Anne saw herself as intelligent, effective and capable of extracting confirmation of this by high achievement. Here, too, her actions were largely successful. The inconsistency of her history of incomplete success in examinations with this aim had not led to any serious questioning of central assumptions or strategies.

Anne also aimed to be sane. She perceived herself as being unusually stable, and she used two main strategies to maintain this view. In the first place, support of her mother and her siblings, and her generally sustaining, helpful, and resourceful role in relation to most others, gave her continuing evidence of her stability. In the second place, in her acts and in her self-descriptions, she maximized the differences between herself and her mother, demonstrating the degree to which she was in control by almost never acknowledging or giving expression to angry or suspicious feelings, and avoiding any dependency on others on terms which might indicate weakness. These strategies had been largely successful and she had not felt any need to reconsider them, although the recent minor compulsive habit and anxieties about her health (which preceded the episode induced by the medication) were discrepant with this aim.

David

David's aim of feeling worthwhile in the world had been pursued in the past on the

basis of negative assumptions about both his capacity and his worth, although he was not entirely aware of this. His strategy in the face of these assumptions was to make sense of his actions in terms of their meaning for others, e.g. in his work with old people, and in his seeing university as being justified by its relevance to his anticipated future with Patricia. In general, these strategies of proving self-worth by being helpful to, or loved by, others had worked well, but they had contributed to the sense of not being in real control of his life, which had prompted him to seek the occupational counsellor's help, and were the basis of the sadness and pointlessness which persisted after his recovery from his mourning for Patricia.

THE ISSUE OF CONSCIOUSNESS

We have no more direct experience of most mental processes than we do of the functioning of our kidneys, lungs, or intestines. The mental operations involved in carrying out a procedural sequence can all occur without our being aware of them. Some processes, such as the way in which we make sense of primary sensory data in the act of perception, can never be made conscious. Other parts of the sequence, however, are accessible. In Bartlett's (1954) words, our schemata can "turn round" upon themselves. While consciousness is neither possible nor necessary for most mental processes, by allowing us to reflect upon our intentions and upon the assumptions and acts involved in carrying them out, it offers another level of experience and a further opportunity for learning. When we can reflect on what we assume, and on how we act, we can modify our assumptions and our actions. The extension of accurate self-awareness is an important aspect of psychotherapy. At any given moment, we are conscious of what is in our short-term memory. This represents only a fraction of what we can consciously know, however, and we can be led by external events, unbidden thoughts or images, or by our own intention, into extensive and intricate systems of memory and knowledge. Most of what we remember is codified and reduced, as Bartlett's (1954) early experiments on memory demonstrated; but some aspects of memory, experienced in the form of images, seem more like direct re-experience. Codified, schematized, "word-thought" memory is organized by reason and inference, while images are linked more by being associated with common personal meanings and emotions. Such images may be of particular interest to the psychotherapist in so far as they give access to systems of personal meaning that may be discrepant with the more logically ordered, verbally mediated communication of the patient. Encouraging associative thinking, using guided imagery or imaginary rehearsal, and the consideration of dreams are examples of the therapeutic use of this mode of thinking.

A great deal of what is stored in memory is inaccessible to us, and much of our action is therefore based upon scripts that we cannot describe to ourselves. One of the functions of a psychotherapist is to infer the nature of such scripts and make them available to the patient. There are two main forms of not knowing. In many cases, the patient can describe quite clearly his tactical scripts, but is unaware of how they are patterned by higher-order strategic or self-identity scripts. This is evident in clinical work, and is also very clearly demonstrated by research with the repertory grid (Ryle, 1975). In completing a grid, patients record in a paper and pencil test their conscious discriminations between people or relationships. Analysis of these ratings often reveals patterns of discrimination and judgement of which they were not aware; that is to say, their tactical judgements prove to be manifestations of strategic assumptions which had not been recognized. The other form of not knowing is the result of defence mechanisms, these will be considered in detail in later chapters. They operate as if, at various points in the script, another script, serving the aim of reducing mental conflict, intervenes with the instruction not to "access" certain perceptions, memories, or plans of action. Psychotherapists need to be interested in making both forms of unconscious mental activity conscious, for only then can poorly functioning scripts be considered, challenged, and altered.

DISCUSSION

The model of the procedural sequence proposed here is based upon current thinking in cognitive psychology. Major sources include the work of Bartlett (1954), of Miller *et al.* (1960), and of Neisser (1967). Keith Oatley, both personally and in his writings (Oatley 1978), persuaded me of the contribution of artificial intelligence and of the value of the computational metaphor as a basis for a theory of human psychology. My acceptance of a basically cognitive approach, and my understanding of how such an approach illuminated rather than denied the role of emotions, owes much to Kelly (1955) and to my work with the repertory grid, a mode of psychological investigation derived from Kelly's theory. Working clinically in a way largely influenced by psychoanalytic theory, and at the same time investigating my patients with the repertory grid, forced me to consider over and over again the connection between the two very discrepant accounts I was giving of the same patients (Ryle, 1975).

Kelly's personal construct theory, however, has remained strangely insulated from the rest of cognitive psychology, and neither Kelly nor his followers have given serious consideration to its relation to behavioural or psychoanalytic approaches. Moreover, personal construct theory, as its title suggests, has been concerned with the understanding and prediction of the world (the second stage of the PSM), but has paid relatively little attention to the organization of action.

The comparison of the PSM with other theories will unfold during subsequent chapters, but at this point some preliminary issues need to be discussed. To relate the model to behavioural/cognitive approaches is relatively simple, as the majority of those can be subsumed directly within it. I see their deficiencies as being those of incompleteness and, in particular of their neglect, in varying degrees, of cognitive processes, of an adequately subtle consideration of the self, of self-evaluation and self judgement, and of conflict between aims and self-judgements. Psychoanalysis, on the other hand, while dealing with these issues, and while taking subtle account

of the problems arising from early stages in cognitive development, does so in a language and a theory that at first sight seem to bear no relation whatever to the model proposed here.

As regards the cognitive/behavioural approaches, I find it hard to take simple behaviourism seriously as an account of man, or even of behaviour therapy; but in recent years the growing attention paid to central cognitive processes (e.g. Lazarus, 1971; Singer, 1974) and the concern with issues such as the sense of efficacy (Bandura, 1977b) and of expectancy (Rotter, 1978) have changed the picture considerably. Such work, and the parallel emergence of cognitive/behavioural methods (Meichenbaum, 1977; Goldfried and Goldfried, 1975; Goldfried, 1979) and of cognitive therapy (Beck, 1977) have produced an array of treatment methods which are clearly effective for a range of problems, and mark the emergence of a more coherent theoretical base. Bower (1978) has argued persuasively that the marriage between social learning theory and cognitive psychology is overdue, seeing social learning theory as "a form of cognitive psychology that has been applied ingeniously to issues of socialisation, to personality development, psychopathology, and behaviour modification." He thinks "it is time for people to see that behaviour modification technology could just as well rest on cognitive psychology as on S–R theory."

In the case of psychoanalysis, it is necessary to offer a brief review of the evolution and nature of the theory. The history of Freud's thought is a vivid illustration of the process of model-building through the use of multiple metaphors chosen from diverse origins (see, for example, Amacher, 1974). The abandoned "project" represented an attempt to base the understanding of mind on a study of brain: if the engineer resorted to the physicist's models of the atom in designing his bridge, he would be a victim of the same fallacy of failing to see that things in combination are governed by laws determined by their combinations, not by the laws governing their constituent parts. Although soon abandoning this attempt, Freud incorporated some metaphors derived from it in his theory, and added to these others drawn from the physical sciences, in particular in his description of mental processes in terms of the distribution, flow, or binding of energy. To these he added a geographical model of the mind in terms of regions separated by frontiers with border guards, later partly replaced by the structural theory which is a social metaphor of competing mental institutions. This latter can be seen to parallel the Judeo-Christian view of man (ego) suspended between demonic forces (id) and a judgemental deity (superego). Meanwhile, Freud was elaborating a developmental psychology which recognized how the bodily and social experience of the infant were inextricably linked, and which explained the heavy symbolic weight carried by bodily experience. This understanding of a particular content of mind became confused with a theory of mind, and these bodily metaphors were incorporated as further theoretical constructs (Schafer, 1975, 1978). Later in life, Freud gave more recognition to the model-building function of the mind in his increasing attention to the activities of the ego in mediating between the inner world and outer reality.

In the subsequent evolution of psychoanalytic theory, different schools have emphasized different metaphors. The primitive concepts of the body and its boundaries, and the distorted perceptions met in psychosis, which are assumed to reproduce some of the characteristics of infantile thinking, are made cornerstones of the Kleinian theory of mental processes. The object-relations school (Fairbairn, 1952; Guntrip, 1961, 1968) extended the structural theory by emphasizing the importance of the child's earliest mental representations of his relationships with others and by studying the effects of these earlier representations on later patterns of relationships. The growth of ego psychology (Hartmann, 1950) and the work of Sandler (Sandler and Joffe, 1970) signified an increased interest in perception and cognitive functions. As a result of these developments, there are few voices left within psychoanalysis wholeheartedly defending the full metaphoric jungle that grew in Freud's fertile mind; but none, it seems, prepared to transform it radically.

In psychoanalytic theory, the source of action is seen to lie in drives originating in the id, whose expression is allowed, modified, or disallowed, according to the ego's appreciation of outer reality, and the opposing forces of the superego. This superego is seen to originate as the internalization of parental authority; its operation is conscious to a varying degree, while the id is seen as more or less synonymous with the unconscious. The equivalent issues are conceived of differently in the proposed PSM. While intentions may include the expression of "drives", such aims are pursued by reference to complex models of the self and of the relationship of the self to others, organized in the personal self theory. Moreover, the exploration of reality and the "drive" to gain cognitive mastery of it are seen as very important sources of action, as suggested by White (1963) but still largely neglected in psychoanalysis. Issues described as id–superego conflicts in psychoanalysis are reconceptualized in terms of dissonance between aims and self-identity scripts.

The distinction between timeless non-logical associative primary process thought, said to be characteristic of the unconscious, and the secondary process thought associated with the conscious ego, is sustained in the cognitive view in the distinction between thinking in imagery and thought-word thinking. This distinction may be related to the different functions of the dominant and non-dominant cerebral hemispheres. Noy (1979) has offered a revision of psychoanalytic thinking, arguing that the two are inextricably related and of equal status. In his view, primary process thought organizes *experience*, with personal meaning incorporated in that which is known and remembered; whereas secondary process thinking organizes *knowledge* through representations of outer reality. In this paper, Noy also provides an example of the unsatisfactory nature of psychoanalytic theory, observing that primary process thought occurs in the unconscious id, ego, and superego, and hence that the primary–secondary distinction bears no relation to the structural theory at all; he says: "I would simply approach the two groups of concepts ... as two different models, describing the mental apparatus from two points of view, and therefore stop bothering about the possible relationship ...".

The differences between psychoanalytic and cognitive descriptions are all aspects

of the fundamental one: psychoanalysis offers a set of compounded metaphors of energy, location and conflicting entities, while cognitive psychology describes the storage, retrieval, organization, and putting into operation of information. The PSM offers a very simple account, but should not be taken to constitute an invitation to accept a naive simplification of human experience. At each stage of the sequence, procedures may be coherent or contradictory, and any aspect of the process may be consciously recognized and under conscious control; consciously recognized but not under control; not consciously recognized but capable of being made so; or unconscious and inaccessible either inevitably or as the result of unconscious, conflict-reducing, cognitive strategies. Each procedure is shaped by the particular past history of the individual, and many will be limited by the persistence of assumptions or strategies rooted in earlier life stages. In the general assumptions of Stage 2, and the range of methods considered in Stage 3, will be found the results of the whole personal and cultural history of the individual. The simple PSM serves to locate these complex influences in relation to the individual's life; any understanding we may have of them, from whatever source, will serve to flesh out the bones of the model.

As regards the cognitive view of unconscious mental processes, Oatley (1981) suggests a six-fold classification, as follows.

(1) The unconsciousness of unconscious inferences. The perceptual processes whereby we make sense of our perceived world may be understood, but we do not have introspective access to them and cannot alter them.

(2) Unconsciousness as confusing inner and outer — as in dreams, hallucinations or misattributions due to using schemata to structure experience inappropriately.

(3) Unconsciousness as being without an appropriate schema.

(4) Unconsciousness as being unaware of the origin of our interpretation, due to the persistence of "implicit theories" based on forgotten (often infantile) learning.

(5) Unconsciousness of other people's meanings, usually due to false assumptions of similarity to one's own.

(6) Unconsciousness as being stuck within some too rigid theory.

3

Defences, Dilemmas, Traps, and Snags

In the ordinary course of life, most of us develop a reasonably accurate view of ourselves and others, a realistic range of purposes, and a repertoire of effective means; but for all of us sometimes, and for some of us always, our means prove ineffective and our aims unattainable in important ways. In order to overcome our failures to solve potentially soluble problems, we need to know about the ways in which our normal problem-solving and aim-fulfilling scripts work and about how the processes can go wrong.

The emphasis on aims in the PSM should not be taken to imply that only conscious logical action is important, or that only deliberate thought and action can produce change. An important part of psychotherapy for some people is that it provides permission for, and the opportunity for, non-logical thought, e.g. through dreams or the exploration of fantasy. Indeed, one aim of therapy may be a richer contact with those aspects of thought and feeling that can be called non-rational, mystical, or creative. In guiding patients through such experiences, however, the therapist needs to have a clear model of what kind of process he is intervening in. Many patients are out of touch with their feelings and confused about the personal meanings of their experience, and are hence unable to recognize and pursue the full range of potential human aims. Their state represents one of the end results of restrictions imposed on the self by the self, or by the terms of relationships with others. In this and ensuing chapters we shall be considering common ways in which personal meanings become confused and intentional scripts "go wrong".

The procedural sequence is a sequence of mental operations, each one of which must be completed satisfactorily if the aim is to be achieved. Abandonment of an aim may take place appropriately if it is seen to be incompatible with other aims or if it is judged correctly to be beyond one's powers to attain, or if the situation is recognized accurately as being unpropitious. In the same way, the absence of an available means or plan of action, or the correct evaluation that the proposed means would be — or, after execution, have been — ineffective, undesirable, or costly, will