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THE CONTRIBUTION OF COGNITIVE ANALYTIC THERAPY TO THE TREATMENT OF BORDERLINE PERSONALITY DISORDER

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This article describes ways the theory and practice of cognitive analytic therapy (CAT) can contribute to the treatment and management of patients with borderline personality disorder (BPD). CAT, as its name suggests, was derived initially from an integration of conventionally opposed models. From the beginning, it was delivered within a limited timeframe, usually of 16 weekly sessions, extended to 24 in the case of more disturbed patients. Over time, on the basis of clinical experience, conceptual debate, and research, it has evolved into a general theory and has demonstrated itself to be of value over a wide range of conditions and contexts. The evolution of the basic theory and practice of CAT over the past 25 years is summarized, followed by a description of the theoretical developments concerned specifically with BPD. The techniques used in the individual psychotherapy of borderline patients are described in detail and illustrated with case material. The application of methods and understandings derived from individual therapy to staff supervision and the treatment and management of patients in day hospitals, therapeutic communities, and community mental health centers is then considered. A final section describes research contributions to the development and evaluation of CAT with borderline patients.

THE EVOLUTION AND THE BASIC FEATURES OF COGNITIVE ANALYTIC THERAPY: ORIGINS IN OUTCOME RESEARCH

Cognitive analytic therapy (CAT) originated 25 years ago as a by-product of research aiming to develop ways of formulating the goals of dynamic therapy for the purposes of outcome research. Although behavior therapy can define its aims in terms of observable, easily measurable phenomena and cognitive therapy seeks to change relatively accessible beliefs, psychodynamic therapies seek more complex changes concerned with both the content and structure of the mind as manifest in experience and in how lives are lived. I had many reservations about the theoretical constructions of the various psychoanalytic schools and doubts about the effectiveness of the long-term therapies based on their theories but I believed that the wider aims and sometimes the achievements of dynamic therapies were correctly concerned

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with the existential realities and complex difficulties of human life and I regretted the paucity of research into its effectiveness. Such research was, and to an extent still is, hampered by the conceptual contradictions and confusions found within the field and also by the rarity of any serious commitment to evaluation.

To measure the effectiveness of an intervention requires the prior definition of what changes are sought and the availability of some way of measuring the relevant variables. My pursuit of these goals involved two forms of enquiry, the use of repertory grid techniques, and a retrospective study of the records of a series of therapies. First, for some years I had been developing repertory grid techniques, derived from Kelly (1955), to investigate the features of and changes in, the ways in which patients receiving dynamic therapy construed themselves, other people, and the relationships between themselves and others (Ryle, 1975). For outcome research, grid measures linked to clinically important issues could be identified before therapy and the direction of desirable change recorded. Such changes could relate to positive and negative attitudes toward the self or to correlations between constructs selected on the grounds of evident relevance. For example, one would predict a reduction in negative self-attitudes or, in a dyad grid, where the elements are the reciprocal relationships between self and other, one could predict that a high correlation between "depend on" and "give in to," which was likely to be associated with patterns of placation and submission, should diminish.

Second, a separate small-scale study of the case notes of a series of patients whom I had personally treated showed me that, in most therapies, attention had been focused on two or three key issues and that these had usually been evident in the first meetings with the patient. Much of the work of therapy had consisted of trying to understand why it was that patients failed to learn and continued to act in ways that led to negative outcomes. This study identified three patterns underlying this non-revision. First *dilemmas*, where the possible ways of acting or relating were apparently restricted to polarized alternatives, were identified. Some people may alternate between the two poles of a dilemma, whereas others will always choose the same one as being the allowed, safer, or stronger one. Second *traps* were identified where negative assumptions generated ways of acting, the consequences of which evidently confirmed the assumptions. Third, *snags*, were identified where appropriate goals were abandoned as if dangerous or not permitted by others or by the self (Ryle, 1979a).

These studies gave me the experience of thinking about the same patients through the different conceptual systems of object relations theory and cognitive and personal construct theories and demonstrated the value of thinking sequentially about dysfunctional behaviors. They were performed in the 1970s, coinciding with the widening interest in integrative and eclectic approaches, and they heightened my belief that a common language for the psychotherapies was overdue. These factors, combined with the wish to develop economically feasible and hence time-limited models of therapy, contributed to a change in my practice.

THE INFLUENCE OF THE OUTCOME RESEARCH ON PRACTICE

Using methods derived from these studies to describe the aims of therapy for research purposes involved working with patients in the first few sessions to create a clear description of the issues to which both could agree. This collaborative work culminated in a written summary that pointed to the need to consider the beliefs, values, and behaviors serving to cause and maintain problems. Although originating in an attempt to define dynamic goals, the therapeutic impact of that process was so evident that my practice changed and early joint reformulation, recorded in writing, became and remains a key feature of what became CAT.

To help identify the dilemmas, traps, and snags of a patient and to mobilize active participation in the work of therapy, the Psychotherapy File was devised. This explains the three patterns and gives examples of each; patients go through this as a homework assignment identifying those descriptions that apply. These are further explored and modifications considered in the next session. Using this and other material, a written summary of the patterns was prepared. Typical examples are as follows: 1. Dilemmas. One example would be: "In your relationships you see the choice as being either to powerfully care for others or to submissively depend on them." Another example of a dilemma that might affect both relationships and self-management is: "It seems that you feel you must either maintain total control and order or risk falling into total chaos." 2. Traps. One example would be: "Feeling guilty and unconfident in yourself you act as if you are not entitled to ask for what you need and you try to avoid conflict by doing what people want. Often, this ends up by your being taken advantage of and you become resentful and depressed, either passively resisting all demands or having childish tantrums, as a result of which others reject you and reinforce your sense of being a bad person." 3. Snags. One example would be "It seems that when things go well for you, you often spoil or undo them, as if you were not entitled to succeed or to enjoy life." To this might be added possible explanations, for example "perhaps this stems from your having to discount your achievements so as not to upset your disabled brother" or "this could be the result of irrational, magical guilt following your father's death, which occurred at a time when you were on bad terms."

Such descriptions, by allowing patients and therapists to recognize and block or modify the dysfunctional patterns, came to play an important part in the work of therapy.

THEORETICAL ELABORATIONS

Dilemmas, traps, and snags are particular examples of (unsuccessful) aim-directed activity. Influenced by behavioral and cognitive theories, a general model was proposed (Ryle, 1982) that explained the maintenance of both normal and pathological aim-directed activity in terms of repetitions of the following linked sequence: (a) external events (e.g., context, cues, or stimuli); (b) mental phenomena (e.g., implicit and explicit intentions, beliefs, available plans for action, anticipations of consequences); (c) behaviors (more or less effective and appropriate); (d) evaluation (more or less accu-

rate) of the consequences; and (e) confirmation or revision of the aims and means. This procedural sequence (or simply procedure) was adopted as the basic descriptive unit in case formulation, offering a more comprehensive understanding of the persistence of problems than descriptions confined to behaviors, beliefs, or conflicts and constituting an adequate guide to the psychotherapy of less complex cases. The model was called the Procedural Sequence Model (PSM). However, it lacked any developmental understanding and this, and the fact that the procedures of most concern to psychotherapists are those expressed in relationships with others and in self-management, led to the elaboration of the Procedural Sequence Object Relations Model (PSORM). In this, the main emphasis is placed on role procedures (with the term *role* embodying the idea of a consistent pattern of action, experience, expectation, and affect). Role procedures anticipate or elicit the desired or expected response (role) of others. Through this development, the key descriptive building block in CAT became the reciprocal role *procedure* (Ryle, 1985).

A REVISED OBJECT RELATIONS THEORY

Reciprocal role procedures originate in the interactions between each individual child (with individual temperamental characteristics) and his or her caretakers. They are stable, being formed preverbally and maintained largely without reflection, but they are not dynamically repressed. A recent, somewhat belated recognition within psychoanalysis of the importance of such procedures (Stern et al. 1998) is discussed in Ryle (2003). An individual's role procedures determine how others may be perceived and what reciprocations may be expected or sought from them. They are relatively stable, being established pre-verbally and being reinforced by the capacity of the individual to elicit from others actual or apparent confirmatory reciprocations. This understanding points to the primary need of therapists to avoid reciprocating their patients' dysfunctional role procedures.

The concept of reciprocal role procedure allowed a reconceptualization of object relations theories with an emphasis on the importance of actual experience, rather than innate fantasy in early development. Internalization of the child-caretaker interactions creates the individual reciprocal role repertoire, which is manifest subsequently in relationships with others and in the patterns of self-care and self-control. At any time the individual is at one pole and another (or an internal part of the self) is at the other pole of a reciprocal role procedure. It is assumed that there is a hierarchical structure whereby low-level "tactical" procedures are shaped by high-level "strategic" ones. For example, poor dental hygiene, failure to eat a sensible diet, accepting poor working conditions (being neglected) and failing to weed the garden or caring badly for children (being neglectful) could all be examples of enactments of a neglectful to neglected reciprocal role pattern.

INTERNALIZATION AND THE DIALOGIC SELF

The model of development informing the initial integrated theory was largely derived from a cognitive restatement and critical adaptation of psychoana-

lytic object relations theory. The key element of this is concerned with the idea of internalization, first evident in Freud's description of the origin of the superego though the internalization of the father and later elaborated in object relations theories, whereby an individual's "inner world" was seen to contain "objects' derived from (split) aspects of self and other, the relationships between which were manifest in both intra- and intersubjective phenomena. The language and imagery of the psychoanalytic account was increasingly replaced in CAT by the notion of reciprocal role procedures, as described above (Ryle, 1985). Individual relationship patterns and self processes were understood to be the results of the early establishment of an individual reciprocal role repertoire based on infant-caretaker interactions. The particular features described as projective identification in psychoanalytic theory were seen to represent particular examples of role induction, reflecting powerfully applied pressures aimed at eliciting reciprocations to one-dimensional roles, which were the result of developmental failures and of dissociation (splitting) caused by trauma and deprivation (Ryle, 1994). These processes are extreme examples of universal phenomena, whereby either pole of a reciprocal role procedure may be attributed to, sought from, or elicited from, (in psychoanalytic terms, projected into) another person. In CAT these processes are not considered to be necessarily defensive or motivated; an individual's options are limited by his or her repertoire to one or other pole of the established reciprocal patterns, patterns which, in borderline patients, are derived from experiences of abuse and neglect. This differentiation of CAT theory from psychoanalysis was developed through critical studies of a number of psychoanalytic object relations papers (Ryle, 1992, 1993, 1995, 1996).

The introduction of ideas from Vygotsky into CAT offered a new understanding of the process of internalization (Ryle,1991; Leiman, 1992,1994). Vygotsky emphasized how higher mental processes in humans are developed in an interpersonal context ("what the child does with an adult today she will do on her own tomorrow"); development occurs on two planes and what is learned first externally in relation to others is repeated, in a transformed way, internally. Internalization differs from representation in that it involves the mediation of experience by the words and nonverbal signs used in the interactions between the child and caretakers or other more experienced others. In the course of such mediation, the mental mechanisms concerned are themselves modified. The child's sense of physical and social reality and the sense of self and others are therefore profoundly affected by systems of meaning acquired through social experience and many aspects of mind are best understood as echoing or reproducing social interactions.

The crucial importance of the child's early experiences with caretakers has been emphasized and valuably researched by attachment theorists, but CAT theory points to this additional, uniquely human, function of attachment whereby the child's understanding of persons and of physical reality are seen to be grounded in shared, culturally transmitted, sign-mediated experiences. The relevance of this to developmental understandings and to education is clear but it is also important for therapy and supports the use made in CAT of the mediating psychological tools created in the reformulation process. This introduction of Vygotsky's ideas, combined with those of

Bakhtin (Leiman, 1992), led to the current theoretical model that is described in Ryle and Kerr (2002) as a semiotic object relations theory or as a model of the dialogic self.

SYMPTOMS, DEFENSES, AND UNCONSCIOUS CONFLICT

The relation of mood disturbances, somatic symptoms, and defenses to this model of reciprocal role procedures must be briefly explained. They may accompany enactments of, or induction into, child-derived roles such as those involving submission, deprivation, or revenge or, following Freud, they can be seen to replace such feared or forbidden procedures ("primary gain") or may become means of indirectly controlling others ("secondary gain"). These defensive or avoidant strategies tend to leave normal basic emotional needs unmet or met only partially and conditionally. By describing how disturbed moods, symptoms, and dysfunctional behaviors are located within the individual's system of inter- and intrapersonal procedures, CAT reformulation focuses therapy on the revision of these processes rather than on the direct control of particular symptoms, behaviors or beliefs. Direct work on symptoms or behaviors may sometimes be required, especially if they may lead to dropping out or to self harm. In most cases the greater access to memory and feeling and the greater control over behavior and containment of feeling that accompanies the development of the therapy relationship and the use of the reformulation is followed by a fading of symptoms.

These phenomena represent what is attributed in psychoanalysis to unconscious conflict. In CAT theory, most mental processes operate unconsciously but unconscious and conscious processes are seen as continuous rather than as polarized. Significant unconscious processes causing distortions, intrusions, or omissions will be evident in observable or reportable phenomena and in CAT these will be described in terms of procedural restriction or distortion, often explicable in terms of the internalization of harsh or conditional reciprocal role procedures.

DEVELOPMENTS IN PRACTICE AND REFORMULATION

The theoretical developments described above were accompanied by several developments in practice, although the fundamental CAT characteristics remained, namely, the early, collaborative reformulation and the use of this as an important element in the remaining sessions of a time-limited intervention. However, the form in which reformulation was recorded changed in a number of ways.

The Principles of Reformulation. Case formulation is the procedure through which clinicians restate the information gathered from the patient in terms of their particular theoretical framework. In CAT, reformulation is performed with the active collaboration of the patient, focused on dysfunctional procedures, and is recorded in writing, with copies being held by both the clinician and the patient. The framework offered by CAT initially pointed to self-maintaining procedures described as dilemmas, traps, and snags; later these were supplemented or replaced by descriptions of the repertoire of role procedures. These are described in the form of general strategic role

procedures concerned with the familiar dimensions of interpersonal relationships, identifying patterns of control in relation to submission and of care in relation to dependency and also including the more extreme forms of cruelty and neglect in relation to the victimization and deprivation that are encountered in clinical populations. It is important to recognize that what is internalized is a reciprocal role procedure and that the individual may act and perceive others through either the original child-derived role or the parent-derived role, as Ogden (1983), writing from an object relations perspective, proposed. For example, in CAT terms, when conditional, critical parents have evoked a guilty and striving response in childhood, the reciprocal role relationship of critical control in relation to guilty striving may be internalized. The adult individual may respond to internal criticism by being a perfectionist, may ward off criticism from others by placation, or may be critically controlling of others. Describing the reciprocal role pattern identifies a focus of the therapy and predicts what can be expected to be manifest in the therapy relationship.

The Practice of Reformulation. In clinical work, the features of an individual's role procedures can be recognized from the developmental history, from descriptions of current relationships, and from their manifestations in the developing therapy relationship. Provisional descriptions of these features will be further refined by discussion and by patients' self-monitoring. People cannot usually describe all their role procedures but, as these are not dynamically repressed, they can recognize and correct proffered descriptions of them. The therapist's aim is to construct general, high-level strategic descriptions but these will have to be deduced from the detailed tactical examples gathered in the early sessions. If subsequent events cannot be accommodated in the descriptions they will, of course, be changed, but such revisions are not often called for.

The process of reformulation normally occupies the first three or four sessions, during which time patients are given the Psychotherapy File to read as homework. They identify patterns that apply to them and examples of these are discussed. The File may be supplemented by other questionnaires and homework tasks, particularly in the case of borderline patients (see below). However, the greater part of the sessions is spent in exploratory conversation. At the fourth meeting (usually) the therapist presents for discussion what has been concluded from these various sources. This takes the form of a reformulation letter and of descriptions of Target Problems and Target Problem Procedures. The letter (see below for an example) outlines the main themes from the past and suggests how these are related to current difficulties, seeking to clarify what the individual was and was not responsible for. The target problems and the dysfunctional target problem procedures serving to maintain them may be described in the form of traps, dilemmas, and snags but will be replaced or accompanied by a preliminary list of the key reciprocal role repertoire.

Sequential Diagrams. It is difficult to generate verbal descriptions of a procedural system that record in a clear and memorable way the aims, antecedents, features, and consequences of enacting each role procedure. For this reason, in all but the simplest cases, the reciprocal role repertoire is described diagrammatically. The conventional form of Sequential Diagram-

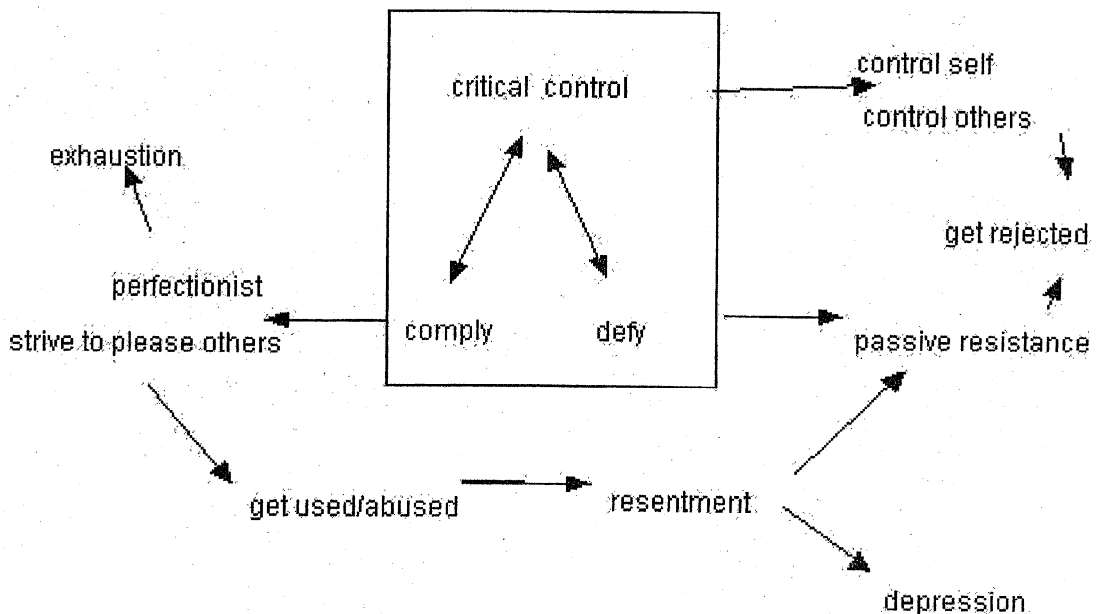

FIGURE 1. Simple Sequential Diagram.

matic Reformulation lists the key reciprocal roles in a box forming the core of the diagram; this is a mnemonic device and not a list of notional schemas. Role enactments are traced as procedural loops from both poles, describing how the roles are manifest in relationships with others and in self-management. These loops indicate the consequences of enactment, which may serve to reinforce the core role or may lead to the mobilization of a different procedure in the patient's system. An example is given in Figure 1.

Sequential diagrams provide accessible and memorable depictions of the processes involved in maintaining dysfunctional procedures, summarizing the role repertoire, the enactments, and the consequences of the enactments of the main clinically relevant procedures. These diagrams are used in homework and in the sessions.

THE THERAPEUTIC PROCESS

The reformulation process involves patients in a collaborative relationship and introduces them to new ways of reflecting on their own procedures; it usually generates an optimistic engagement in the work of therapy. Once discussed and finalized, the reformulation tools (the letter and the written and diagrammatic descriptions of problem procedures) are recorded in writ-

ing and copies are held by both patient and therapist. They constitute a shared agenda for the therapy and provide both parties with useful psychological tools. Patients are encouraged to keep their diagrams with them for consultation and a copy is kept on the table during sessions. For the patient, they shift attention from symptoms and mood changes to their own thoughts, assumptions, and activity, offering a basis for continuing self-monitoring. Only when recognition of the antecedents and manifestations of dysfunctional procedures becomes securely established can alternative perceptions and actions be explored. At the same time, awareness of the sequential diagram and reciprocal role repertoire of the patient alerts therapists to the issues likely to present in the consulting room and make them more able to avoid collusive reciprocations. Therapists will focus on daily life enactments and on transference-countertransference events and relate them to the diagram. This is essential where the patient's procedures disrupt or undermine the work of therapy but, more generally, linking the patient's reactions to therapy and changes in transference-countertransference feelings and enactments to the reformulation can be therapeutically useful in most therapies, assisting the generalization of understandings from the therapy relationship to the day-to-day. It is useful to maintain some kind of rating of progress in the recognizing and replacing of dysfunctional procedures.

THE MULTIPLE SELF-STATES MODEL OF BORDERLINE PERSONALITY DISORDER

The developments described so far took place over some years and were based largely on outpatient psychotherapy in inner city hospitals. The conventional belief that the therapy of borderline patients needs to be intense and prolonged made me initially uncertain about applying CAT to them. However, the fact that I was providing virtually the only psychotherapy service in the part of south London in which I was working and early experiences which showed that the reformulation procedure was powerful and acceptable to many borderline patients made it ethically acceptable to offer time-limited (24-session) CAT to them. In most outpatient psychotherapy services borderline patients tended to stay on the bottom of waiting lists because they were considered dubious prospects and unsuitable for trainee therapists. With more experience I rejected this view. The development of CAT was acclerated by the fact that, for some years, I had no trained therapists in my service and was therefore under pressure to develop a clear model on which to base my supervision of the many excellent but largely inexperienced trainees who came forward from social work, counseling, psychological, and psychiatric backgrounds.

The treatment of these more difficult patients required elaboration of the model and methods. In particular, the construction of sequential diagrams, in which the repertoire of reciprocal roles is normally recorded in the core of the diagram as in Figure 1, proved difficult because of the confusing discontinuity of the patient's procedures. This technical difficulty highlighted a conceptual issue and was solved by the realization that the procedural systems of borderline patients were divided between two or more discrete recip-

rocal role patterns ("self-states"), only one of which was operating at a particular time. For borderline patients, therefore, sequential diagrams had to describe separate reciprocal role patterns operating independently. Once these can be recognized it becomes possible to make sense of confusing switches between them. Examples are given in Figures 2 and 3.

In practice, the early diagrams tended to be split depictions of two self-states, one representing a continuation of the abusing-abused patterns of childhood and the other some version of ideal care-ideally cared for. It was of interest to observe how familiarity with these diagrams markedly enhanced the ability of trainees to recognize discontinuities and fragmentation in their patients. But this convention in turn could restrict observation and later on more complex diagrams describing three or more cores were constructed. These were called self-state sequential diagrams.

This development introduced a new structural element in the theory. Until this point the mobilization of role procedures and the organization of transitions between them had been little considered; it was presumed that it involved a system of metaprocedures developed in the course of the formation of the procedural system. Borderline phenomenology indicated the disruption of this metaprocedural system. This provided a way of making sense of a fundamental but underemphasized characteristic of BPD, namely the fact that, although the majority of the features listed as diagnostic criteria for BPD and figuring in standard diagnostic instruments are intermittent or variable in intensity, no understanding is offered of this inconstancy. Adding a description of a fragmented self structure to the basic CAT model and taking note of the generally accepted account of the antecedents and features of BPD led to the proposal of a formal model of development and structure (Ryle 1997a, b).

THE MULTIPLE SELF-STATES MODEL (MSSM)

This model identifies three aspects of impaired psychological function.

The first aspect is that experience of early trauma and deprivation leads to the internalization of negative reciprocal role patterns of the general form abuse, threat, neglect in relation to victimized, guilty, deprived, or rebellious. This pattern is expressed in the individual's hypervigilance for signs of further abuse, in the seeking or acceptance of such abuse and in the inflicting of abuse on both others and self. The experience, perception, or anticipation of abuse or intolerable deprivation can mobilize the unmanageable emotions of the abused child.

The second aspect is in genetically predisposed individuals exposed to severe abuse, the experience or anticipation of such unmanageable emotions provokes dissociation, the capacity for which, with repetition, becomes established. Some patients describe how this originated in the deliberate absenting of the self from unmanageable experiences of abuse. In time, several alternative states may become elaborated, some mobilized in response to the perception of immediate threat or of associated cues, others serving as relatively stable but dysfunctional ways of coping with a world experienced as essentially unsafe. Switches between states are of different types. First, some may represent shifts between alternative reciprocations to abuse,

threat, or neglect; these may be avoidant, defensive, submissive, symptomatic or revengeful. Particular examples are states of hyperactivity and the emotionally blank zombie states in which feelings for self and others are blunted or absent. Second, some are role reversals, for example, from feeling abused in relation to abusing others to being abusing to abused others. Third, some represent self-state shifts to different reciprocal role patterns , commonly from abusing victim self-states to some version of perfect care in relation to perfectly cared for, which involve unrealistic expectations of finding love and safety from individuals or groups (or therapists) and which are reliably followed by disappointment. Shifts between states are often abrupt and may have no evident provocation; they are confusing to the person and those involved with them experience unnerving disjunctions in how they are treated or seen.

The third aspect is that borderline patients are deficient in self-reflection and often seem unable to learn from experience. It is sometimes attributed to a basic incapacity to understand the intentionality of the acts of others and to reflect on one's own processes. In my view, such an incapacity is usually evident in some but not all states and the deficiency can be seen to reflect two factors: (a) the absence in childhood of any adequately concerned caretaker whose interest might have been internalised; and (b) the fact that self-reflection, in so far as it has been developed, is disrupted by state shifts. Such disruptions are particularly liable to occur when a particular procedure fails to achieve its aim or evokes negative responses, that is to say, at the times when learning would be most valuable.

THE INTERACTION OF BIOLOGICAL AND CULTURAL FACTORS

The role of social and cultural factors in individual development is emphasised in CAT but this does not mean that biological influences are ignored; our patients are organisms and biological understandings must contribute to our treatment of them. The human genome makes possible the full range of human behavior but inherited factors cannot be invoked as the cause of what is manifest in a particular individual; subtle interactions between genes and environment are always involved. Although while genetic influences play a major role in determining the occurrence of some forms of major mental illness, their influence on common psychological and personality disorders is weaker and less clearly established (Rutter, 2002). Some factors of particular significance in BPD, such as the proneness to violence, may be associated with specific genetic factors that increase vulnerability to adverse environmental factors (Moosajee, 2003). It is clear that the levels of aggression, competitiveness, cooperation, and nurturance differ widely between cultures, reflecting contrasting historical and social experiences and beliefs that are transmitted largely by the family. In terms of individual development, it is clear that a child's temperament is expressed from birth in his or her relations with others and hence that infants influence the kind of care they receive from caretakers. It is also the case that all caretakers are committed to encouraging some and restraining other aspects of the child's inborn temperament.

Human physiology is largely indistinguishable from that of our evolutionary ancestors but the physiological accompaniments of emotional disturbance do not necessarily serve us well in the very different, primarily social environments we now occupy. Physiological changes associated with hypervigilance, threat, and anger can be particularly prominent and disabling in borderline patients and in many cases need pharmacological treatment. It is important to note that the presence of demonstrable neuroendocrine abnormalities occurring in psychologically disturbed people may be a result of early adverse environmental factors rather than the cause (Schore, 1994; Eisenberg, 1995) and may be reversible through psychological treatment.

Biological and Social Evolution. Biological evolution made cultural evolution possible. Our ancestors over the past 4 million years lived in social groups and our evolutionary success as physically vulnerable hairless apes was the result of their increasing ability to work and hunt and gather food together. Natural selection can be assumed to have favoured the reproduction of those whose various capacities favored group survival. Along with the skills needed to make the tools and weapons, which extended human physical power, the ability to communicate was essential, aiding group survival by facilitating cooperation. This involved the evolution of an innate repertoire of facial expression and gesture and of the capacity for mimesis and the evolution of the larynx allowing fluent speech, changes accompanied by a great expansion in brain size (Donald, 1991; Tommasello, 1999). These developments were accompanied by the evolution of the specific brain centers which, initially serving to detect biological motion in the environment and to represent states of the self, now form in humans the neural system allowing mentalization, the socially powerful ability to recognize that others act intentionally (Frith & Frith, 1999).

The natural selection of these biological capacities introduced the possibility of cultural evolution, a process uniquely developed in humans whereby new skills and knowledge became transmissible between people and through time, allowing change at a rate incomparably higher than is the case with biological evolution. The biologically evolved changes are reflected in the characteristics of the newborn human child who, to a vastly greater extent than is the case even in the higher apes, is ready from birth to be socially formed. Human infants, from birth, seek intensive intersubjective contact with their caretakers (Stern, 1985; Aitken & Trevathen, 1987) and as a result are open to cultural formation, as Vygotsky argued. This process of formation, whereby each child becomes able to survive in, and make sense of, the particular social environment into which it is born, is the source of the richness and variability of human personality. However, it also explains why individual development is liable to be incomplete or distorted.

Damaging family and cultural pressures or harmful deviations from cultural norms are the main sources of the problems that psychotherapy seeks to remedy. However, they may act in concert with biological damage and deviations and the specific problems of treating borderline patients may reflect this, indicating the need for a combination of psychopharmacology and psychotherapy in some patients. However, many of the difficult features in BPD are secondary to the fragmentation of self processes. Once some integration

is achieved and a more continuous self is established—and this requires psychological help—the threshold to impulsivity and aggression becomes higher and the capacity for self-reflection and for understanding relationships between self and others is strengthened.

THERAPEUTIC CHANGE

The basic therapeutic effect of CAT is seen to depend on the uses of the reformulation tools that increase the patient's ability to self-reflect and support the therapist's provision of a real, noncollusive, professional, respecting human relationship. Therapists are able to provide a corrective emotional relationship because the reformulation enables them to withstand the patient's seductions and assaults and to avoid reinforcing the specific, individual dysfunctional patterns that undermine everyday relationships. Both the person of the therapist, as offering concerned, accurate reflection, and the conceptual tools created during reformulation, can be internalized by the patient.

The relationship evolves through the course of the therapy. After an initial cooperative and sometimes idealizing response, most patients will experience disappointment and will experience mixed or negative feelings echoing past losses and hurts, often accompanied by a return of their usual symptoms and behaviors. The acceptance and nonreciprocation of these, and support as previously avoided memories are accessed, is therapeutically powerful, offering a lived experience of new possibilities.

Within the overall framework described above, particular symptoms and behaviors may be directly addressed using a wide variety of therapeutic techniques such as empty chair conversations, behavioral programs, writing no-send letters to past abusers or to incompletely mourned figures, etc. The meaning of every such intervention must be clearly understood by reference to the reformulation of the whole self structure.

The fact of termination is kept on the agenda and in the last one or two meetings its meanings will be directly considered in a goodbye letter assessing realistically what has been achieved and supporting patients in recognizing their mixed feelings. It is suggested that the various documents produced in the course of the therapy should be retained and consulted.

PARTICULAR FEATURES OF THE TREATMENT OF BPD

The general assumption in CAT is that, in every patient-therapist relationship, the patient is liable to expect, perceive, or elicit responses from the therapist that serve to confirm existing role procedures. Only by building a clear picture of the patient's repertoire can therapists correct misperceptions and avoid unhelpful, collusive responses. In the case of borderline patients, this task is both more essential and more difficult, for there may be shifts between many possible transference-countertransference patterns. The pressures to empathize with the patient's suffering and to reciprocate the patient's narrowly defined, powerfully imposed roles and urgent communications are greater than in work with more integrated patients and the induced confusion and de-skilling of therapists can add to

the fragmentation of the patient. To prevent patients dropping out from treatment and to provide the coherent human presence on which therapeutic effect depends the reformulation of the patient's presenting difficulties needs to be achieved as quickly and as accurately as possible.

The MSSM, by placing fragmentation of self processes at the defining center of the model, makes integration an explicit aim of therapy (for a case example, see Ryle & Beard, 1993). This not only calls for the use of direct methods of encouraging the development of greater self-awareness and control, but it also points to the potential harmfulness of therapeutic interventions that attend to only one aspect or that are wider in scope but are delivered in a piecemeal fashion. Any focused intervention is liable to be interpreted by the patient in terms of one particular reciprocal role pattern. Even if the impact of a particular intervention is positive, it may not be generalized to all states or potentially helpful interventions may be resisted because they are construed as a controlling demand for submission. Not uncommonly, the patient role may become one more area where a coping role procedure is mobilized, expressed in surface compliance but with latent resentment manifest in a failure to change. Resistance in CAT is usually understood as the failure of the therapist to challenge or circumvent one of the patient's dysfunctional procedures. Clinicians treating borderline patients cannot assume that their intentions are read correctly and, faced with evident noncooperation, must seek to understand the source in the patient's procedural system and need to consider how far their own methods and attitudes may contribute to the difficulty.

The Assessment of Borderline Patients for Psychotherapy . Before initiating individual outpatient psychological therapy, some preliminary questions need to be considered. First, is medication is required? If it is already in place, its appropriateness should be assessed. A psychiatrist other than the therapist should take responsibility for this and may also be able to offer brief crisis admissions if needed. Second, does the social context within which the patient lives offer any degree of support to therapy? In real life, patients with minimal supports or damaging partners or social groups may have to be accepted but work with these others may need to precede or accompany therapy. Third, are levels of substance misuse such that prior detoxification needs to be arranged? Complete abstention is a desirable but unrealistic requirement for work with borderline patients. Fourth, are levels of suicidal ideation and violence potential too high? The acceptable level will depend on the context within which therapy will be delivered. Five, are there other treatment facilities available offering more appropriate levels of care and containment, such as therapeutic communities? All too often, the lack of services for personality disorders means that such facilities simply do not exist.

If individual psychotherapy is offered, it may be sensible to offer four assessment sessions and a reformulation, at the end of which, if both patient and therapist agree, a formal contract for a further number of sessions, usually 20, can be made. This describes the form that therapy will follow and clarifies what is expected from the patient in terms of attendance and homework and what is offered by the therapist in terms of reliability. This provides a framework that is containing and gives clear criteria for identifying failures

by either. Therapists do not offer between-session contact because it is impracticable and also because patients can feel intruded on, undermined, or seduced into idealization by unrestricted access. Patients should be made aware of available resources, such as telephone counseling services and accident and emergency departments.

The Reformulation Process with Borderline Patients. As in the basic practice of CAT, the conduct of the early sessions combines exploratory conversation with the use of the Psychotherapy File and other structured tasks. Where therapy-threatening or self-harming procedures are recognized, an immediate preliminary reformulation is worked on, involving a partial diagram of antecedent events and combined with the rehearsal of alternative actions and the identification of available helping resources. Therapists will need to be alert to signs of fragmentation and state shifts. Some borderline patients will appear relatively coherent at interview but this is frequently the coping, emotionally distanced mode they mobilize when vulnerable; they may also conceal their experiences of other states and their inconsistent sense of self, fearing that this represents madness. It is therefore helpful to routinely present a screening questionaire. The Personality Structure Questionaire (PSQ) (Appendix A) is based on the MSSM and was developed for this purpose. It consist of eight pairs of contrasting statements separated by a 5-point rating scale, with one pole indicating a stable, unchanging sense of self and the other pole describing inconstancy. Scores range between 1 for the former and 5 for the latter, giving a possible score range of 8 to 40. It takes a very short time to complete and score and has surprisingly good psychometric properties for so short a scale (Pollock, Broadbent, Clarke, Dorrian, & Ryle, 2001). BPD patients drawn from different samples had mean scores between 30.4 and 31.3, whereas normal population samples scored in the range 19.7 to 23.3. High scores have been shown to rise initially and then fall toward normal levels during the treatment of adult survivors of sexual abuse (Pollock, personal communication). In clinical work, patients' replies on the PSQ contribute to the reformulation, as each high-scoring reply can be discussed and detailed examples sought. PSQ scores over 28 point to the need to construct diagrams that identify partially or completely dissociated self-states with relevant reciprocal role patterns described in separate boxes.

Further work in sessions and patients' homework are needed to characterize the different states. Once this has been done patients become able to identify their states reliably, as was demonstrated by a grid study of 20 borderline patients (Golynkina & Ryle, 1999) that also showed that there is a limited number of typical states. The common ones were labelled as follows: abuser rage, victim rage, passive victim, idealising, coping, and zombie. The patients in this sample had identified and characterized their states by self-monitoring and through clinical interviewing. Building on the grid study, a clinical method of obtaining a more detailed understanding of an individual's states was developed—the States Description Procedure (SDP, Bennett, Pollock, & Ryle, in press). This involves patients in guided self-reflection and generates a systematic characterization of their states. It has two parts. Part 1 lists the commonly used names and brief descriptions of frequently encountered states, derived from the grid study and clinical expe-

rience. Part 2 elicits descriptions of how the patient feels and how others are perceived when in each recognized state. For each state patients are invited to select, from the range of provided descriptions, those that apply; they may add to or modify the provided descriptions. The logic of this process is that it is easier to recognize than to construct descriptions of this sort. In addition, descriptions of the frequency, duration, physical and emotional accompaniments, mode of entry into and exit from the state, and the extent to which other states can be recalled when in the state are obtained. Details of this procedure can be altered as choice and further experience suggest. The full text of the SDP may be obtained by contacting the author of this article.

Making and Using Reformulation Letters and Diagrams with Borderline Patients. The material gathered over the first few sessions, enriched by the work done by the patient through self-monitoring and with the SDP, will be summarized in the reformulation letter—a narrative reconstruction indicating the origins and features of current dysfunctional procedures—and a self-states sequential diagram. These early sessions are critical as it is at this phase that many borderline patients drop out of therapy or submit to it out of (resented) compliance. The CAT therapist will offer a kind of attention and enquiry that many patients find unfamiliar or even unique, involving as it does a constant offering of provisional understandings that the patient is invited to comment on and culminating in the letter and diagram that are based on this collaboration and will be modified to an agreed final form. To work with someone who seeks patiently to understand one's difficulties and who offers ways of thinking about them is a powerful experience and for many patients this induces a strong commitment to the therapy. Either during these sessions or soon after, more problematic reciprocal role procedures are bound to be mobilized, sometimes involving the direct re-experiencing of previously unmanageable memories and emotions. The recognition and containment of these, which enables therapists to avoid or correct collusive reinforcements, is dependent on the early construction and active use of the diagram during the sessions. The therapist must control the pace and must endeavor to "stay off the map"; this strengthens the patient's ability to do the same and supports the creation of an informed observing eye. This phase of therapy may be illustrated by the following case example (altered in a number of details).

CASE EXAMPLE: THE REFORMULATION OF A BORDERLINE PATIENT

Lynne, age 36 years, was a single parent of a married daughter, age 20 years. She was living on income support and had received some help from social sevices and the local psychiatric team for many years. She had been in the care of foster parents from the ages of 12 to 14 following 4 years of being sexually and physically abused by her stepfather. She had a history of several overdoses and of anorexia nervosa during her late teens and twenties but was currently eating less chaotically and was maintaining a low normal weight. She had felt some benefit from a period of counseling 3 years previously and as a result of this and of reading about BPD on the Internet she had requested referral "to find out if there was any cure."

Lynne's adolescence was marked by repeated self-harm, promiscuity, and instability affecting her relationships and her sense of self. Over the past decade she had became less behaviorally disturbed but more depressed and isolated. She suffered from agorophobic and obsessive-compulsive symptoms and depression and was taking medication for these. She was currently unable to leave her house without a companion.

Lynne completed the Psychotherapy File marking ++ the traps described as fear of hurting others, depressed thinking, social isolation, and low self-esteem. In the dilemmas affecting the self she identified the following: keeping feelings bottled up or making a mess; if I must then I won't, and keeping things in perfect order or risking chaos. In dilemmas about relating to others, she marked either involved and likely to get hurt or uninvolved and lonely, adding the comment that she no longer got involved. She marked both the snags.

She completed the PSQ, scoring 33, and worked diligently on the SDP. Her reformulation letter gave a brief summary of her story and included the following conclusions from her completion of the SDP:

> The three most distressing states you describe are victim, rage, and revengeful; these are provoked by your experiencing others as rejecting, critical, threatening, or cruel. The rage and revengeful states come on abruptly and you try to control them by smoking pot or by locking yourself in your room. The victim state comes on more slowly and lasts a longer time; in it, you cry, break things that you value and feel you deserve to be unhappy. Sometimes you go blank for no obvious reason (as you say it is probably a defense). In this zombie state you feel that others are out of reach and you feel emotionally numb and physically as "cold as ice," In the past you would cut yourself when in this state, nowadays you find a hot bath may help. In this state and in the victim, rage, and revenge states, you feel strangely detached and unreal. Much of the time you are in the soldiering on state, still cut off but not absolutely blank and coping with what has to be done, but without any pleasure. The only positive state is the high one; you can sometimes induce it by drinking strong coffee and it enables you to get a lot of things done very efficiently during the few hours that it lasts.

The relation between these states was summarized in a diagram (FIG.2), which was commented on as follows:

> The box contains a summary description of how you recall the main patterns (reciprocal roles) between you and your stepfather. It seems that your mother was unable to protect you or care for you while he was abusing you as she too was experiencing violence at his hands. This pattern still determines how you expect relationships to be and how you feel about yourself. As regards yourself, you repeat your stepfather's negative attitudes—for example in the past you have been abusive towards yourself by self-cutting and by starving yourself and you are still constantly criticizing and blaming yourself. As regards others, you frequently fear or experience criticism or threat and you are constantly confronted by your unmet emotional needs. For some years you attempted to find care through sexual relationships but your unrealistic hopes of perfect care and your fear of abandonment made you accept unloving relationships in which, before long, the experiences of rejection or ill-use were repeated. The symbol X on the diagram represents the point at which you are put back in touch with the powerlessness and unmanage-

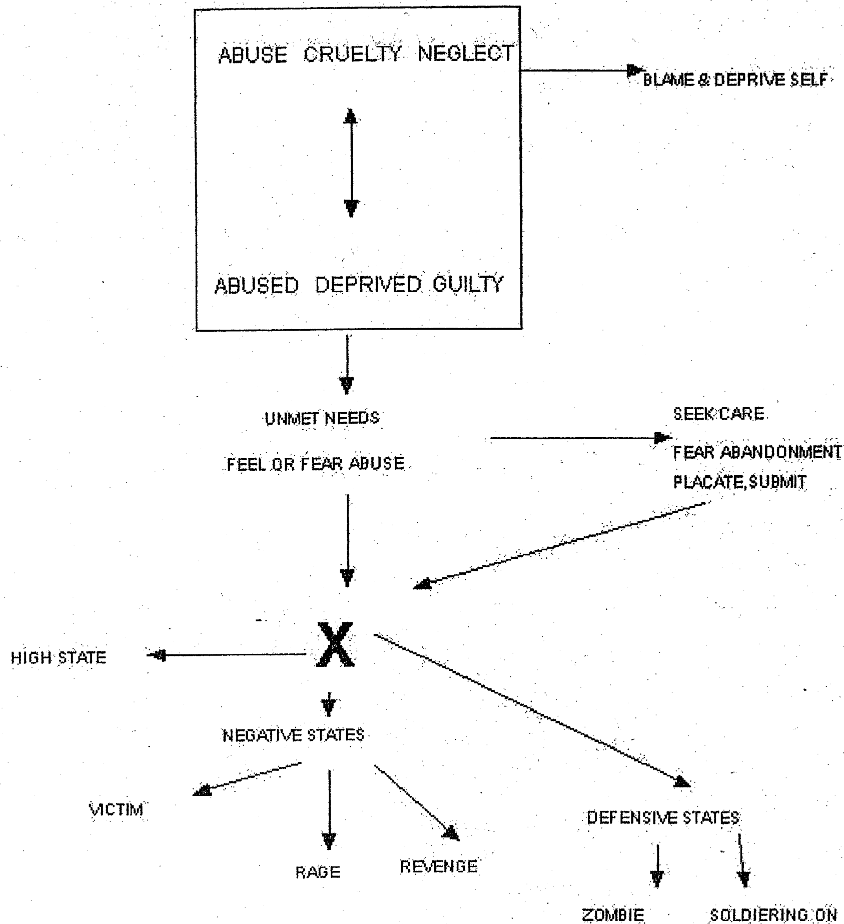

FIGURE 2. Sequential Diagram.

able feelings of your childhood. As a child you learned to switch off emotionally and in due course you developed the six alternative states we have identified. We will work with the diagram; it will help you know where you are and in time will give you more control over negative switches. This will make it possible for you to consider how far the threats of abuse or abandonment to which you react are realistic and how far the result of your exaggerating or misinterpreting what other people do. This will help you learn better ways of dealing with these times.

THE PHASE OF ACTIVE TREATMENT

The joint work involved in the reformulation sessions both establishes a working relationship and initiates change. The construction of the diagrammatic model of the fragmented self initiates the work of integration. Subsequently, the experience of using the map to identify states and state switches reduces the level of confusion and anxiety and frequently enables patients to reflect on past experiences without re-experiencing the overwhelming feelings associated with them. Many patients have consciously avoided such memories and have tended to switch into defensive states if they are mobilized. Severely damaged patients may re-enter states of primitive fear or rage in which there is a danger of violence to self and others, for at

times the memory can take the form of re-living scenes of abuse in which the therapist may be confused with past abusers. After the initial positive response to reformulation, therefore, therapists may operate on a knife edge in which they are seen as either dangerously intrusive or as remote and unconcerned. It is best to discuss this dilemma with the patient, making the boundaries of what can be accepted very explicit and devising ways in which the patient may signal a need to control the level of exposure. Even in less fragile cases therapists should avoid placing any pressure on patients to explore feelings or memories; in most cases these will become available only at the time, and to the point at which, it feels safe.

Exploring the sources of such recollections and affects is not a primary aim in CAT, where the forms of insight sought for are concerned with current modes of thinking, feeling, and acting. This aim will involve the use of the self-states sequential diagram (SSSD) to instill a capacity for continuous self-reflection. Apart from using the diagram to locate the reports and enactments of these in the therapy sessions, patients will be involved in self-monitoring. This may be focused on the occurrence and antecedents of the most distressing or dangerous states, or a daily record may be kept of all powerful or confusing experiences that can then be linked to the SSSD, initially with the help of the therapist but increasingly by the patient independently. To this end, diagrams need to be relatively simple and color coding of states and procedures may be helpful. Even with a good diagram, making these links requires attention to detail and persistance, as the following account (for which I am indebted to my colleague Fierman Bennink Bolt) demonstrates.

Case Example: Using the Diagram. Sarah, a 27-year-old single mother of a 7-year-old son, had quickly identified four states, namely OK, speedy, cloud cuckoo land, and abused. She had an established, noncohabiting relationship with David. At the fourth session she reported a blissfully happy weekend with David but her mood had faded on Monday and left her on Tuesday in her familiar black, mistrustful state. She declared that nothing out of the ordinary had happened to explain this change. Only detailed enquiry established that her son, who had been with his grandmother over the weekend, had been promised that David would take him fishing on Monday. In the event, David could not get away from work to do this and had telephoned to ask Sarah to manage without him, to which she of course said yes. As this sequence of events was reconstructed in the session Sarah changed from giving a detached, cut-off account to becoming upset and on the verge of tears. Only then did she realize that the unreflective cloud cuckoo land state of the weekend had disappeared in the face of being disappointed and let down. This realization alerted her to subsequent occasions on which similar state switches might occur.

This story is typical of many borderline state switches. Familiar changes of mood remain unexamined and are experienced as inexplicable and the emotional state which is an aspect of the new self-state is not connected with the experience which provoked the switch. In most cases establishing the connection demonstrates that the situation had served as a cue linking it to past abuse or abandonment but that its reality or severity were misjudged. Repeated exploration of such sequences can allow the cues to negative

switches to be recognized and evaluated and the dysfunctional, disproportionate reactions to be replaced by acceptance or by appropriate behaviors.

Although much of the work with the diagram will be concentrated on the most damaging procedures it remains important to keep the whole diagram under consideration as otherwise the most difficult states may be kept out of the room and hence the reality of their negative potential can remain untested. The complete diagram also provides a metaphor for the process of integration; one patient described his as showing islands connected only under the sea between which therapy could build bridges.

Supervision. Psychotherapists treating borderline patients need supervision because the impact of the patients' distress and destructiveness is bound to elicit powerful but often unhelpful reactions and accurate transference-countertransference work in the face of rapid state shifting is essential (Ryle, 1998). The clarification of episodes where this occurs, whether or not the therapist is drawn into powerful identifications or unhelpful reciprocations or simply feels pressured to do so, is greatly helped by the use of the patient's diagram in supervision. Not infrequently, painful encounters are avoided or kept at bay by the therapist adopting a detached neutrality modelled on the traditional psychodynamic therapist. This can easily mirror the zombie or the coping, soldiering on procedures of the patient and therapy can become an emotionally muted, unproductive affair. When such stalemate phases occur, it is helpful for therapists to draft a midway letter tracing the evolution of the therapy and linking it with the patient's diagram; not infrequently this exercise makes it clear how the therapist has contributed to the problem. Such letters may or may not be given to the patient but either way they will indicate the need for transference-based work. In some CAT trainings, trainees, in the course of receiving their own CAT-based therapy, will construct their own sequential diagrams and can, if they wish, bring these to supervision in the case of severe or repeated difficulties. As with patients in therapy, making links between the clear but abstract understandings expressed in good diagrams and overcoming a particular difficulty may need repeated reflection with the help of a supervisor.

Termination and Follow Up of Borderline Patients. Most BPD patients are treated within a 24-session therapy, following which follow-up meetings are offered at 1, 2, 3, and 6 months. Predetermined time limits are actually welcomed by many patients because they do not invite suffocating dependency and suggest an optimism about the possibility of change. Following Mann (1973) one could say that the time limit relieves patients of the fantasy of someone making them better and on that basis allows them to take what is offered and to experience the end as a manageable disappointment. But termination remains a difficult experience. Throughout therapy the number of sessions remaining should be noted at each meeting. As termination approaches, patients become aware of the limits of what has been achieved and are fearful or angry about the coming end. Therapists must resist the temptation to relieve their own anxiety by offering more sessions or by busying themselves with arrangements for further treatment, for this deprives patients of the chance to feel the loss and to experience how much they can manage on their own.