This paper uses insights from contemporary neuroscience and attachment theory to explore the profound dissociative defences associated with trauma. I discuss the effects of trauma on the emotional, intellectual and imaginative life of the individual and on the development of the self. Based on work with three patients with very different experiences of trauma, the paper offers clinical illustration of ‘right brain to right brain’ Jungian analysis. I argue that through repeated transference and countertransference experiences dissociative defences may be undone and change brought about.

Introduction

I aim to bring insights from the neurosciences into relation with contemporary thought about trauma to examine the dissociative defences used by traumatized patients and their significance for psychoanalytic technique, looking particularly at the transference and countertransference in the consulting room.

First, for clarity, I turn to neurologists for brief definitions of the relationship of brain, mind, body and environmental challenges, such as trauma. Greenfield comments, ‘the brain consists of brain cell connections. It is your personal configuration of these which gives you your mind’ (Greenfield 2001). Damasio reminds us that ‘processes of the mind … are based on brain activity’ and that ‘the brain is part of a whole organism with which it interacts continuously’ (Damasio 1999, p. 85). LeDoux, in his work The Emotional Brain, recognizes the interdependence of brain and body, and therefore of the bodily expressions of emotion (LeDoux 1996).

Lastly, Panksepp argues that the underlying emotional circuits of the brain ‘initiate, synchronize and energize sets of coherent physiological, behavioural and psychological changes that are primal instinctive solutions to various archetypal life-challenging situations’ (Panksepp 1998, p. 123).
Charcot in Paris towards the end of the 19th century was the first to suggest that some patients previously thought of as hysterical were actually victims of trauma. Janet went on to study dissociation and proposed that traumatic memories may become split off. Both Freud and Jung studied in Paris and embraced the trauma theory and both wrote convincingly in support of it. Jung wrote:

As a result of some psychic upheaval whole tracts of our being can plunge back into the unconscious and vanish from the surface for years and decades … disturbances caused by affects are known technically as phenomena of dissociation, and are indicative of a psychic split.

(Jung 1934a, para. 286)

And

A traumatic complex brings about the dissociation of the psyche. The complex is not under the control of the will and for this reason it possesses the quality of psychic autonomy.

(Jung 1928, para. 266)

Earlier on Freud had renounced his view of the reality of much of the childhood sexual trauma reported by his patients and in 1925 he commented,

I was at last obliged to recognize that these scenes of seduction had never taken place, and that they were only phantasies which my patients had made up…. (thus) neurotic symptoms were not related to actual events but to wishful phantasies. [Freud concluded that] seduction during childhood retained a certain share, though a humbler one, in the aetiology of neuroses.

(Freud 1925/1959, p. 34)

However Kardiner’s work with soldiers from World War I brought renewed interest in trauma, which was later fuelled by work with Vietnam veterans, and those who had been sexually abused in childhood. Alongside this Bowlby’s ground-breaking work on attachment theory rejected ‘excessive Kleinian emphasis on fantasy’ and offered a further ‘reminder that real traumatic events… happen to children and that these real events exert a strong developmental influence’ on the way children experience the world and relate to others in the future (Eagle 2000, p. 126).

Today neuropsychologists are pushing forward the frontiers of our understanding of the effects of trauma on the human brain and mind. Modern research techniques, such as brain imaging studies of patients, provide evidence about which brain structures are affected by traumatic experience, and detailed study of the hormonal response in posttraumatic stress disorder shows that even minor reminders of the trauma may precipitate a full-blown neuroendocrine stress reaction (Yehuda 1998).

The work of Allan Schore (1994) and Daniel Siegel (1999) has emphasized that in the case of the newborn brain healthy development is stimulated by good experiences in the relationship with the primary caregiver but that early
brain development is adversely affected by traumatic experiences in this first relationship. Schore (2002b, pp. 67-77) has brought together evidence from a substantial body of research, including research using EEG and neuro-imaging (fMRI) data and positron emission topography (PET) that demonstrates that unconscious processing of emotion is associated with the right and not left hemisphere. He cites further research that indicates that the right hemisphere is densely interconnected with limbic regions and therefore contains the major circuitry of emotion regulation.

In a large-scale study Teicher has linked sexual abuse to disturbances of the limbic system (similar to that experienced by patients with temporal lobe epilepsy), and also to disturbances of left hemisphere function, and of the corpus callosum (the main information highway between the right and left hemispheres) (Teicher 2000, pp. 50-67). Van der Kolk notes that trauma research has ‘opened up entirely new insights in how extreme experiences throughout the life cycle can have profound effects on memory, affect regulation, biological stress modulation, and interpersonal relatedness’ (van der Kolk 2000, p. 19).

My focus here will be to examine insights from neuroscience in relation to specific aspects of work with traumatized patients in the consulting room. I want to emphasize that trauma covers a continuum of experience that may bring patients to us. The patients whose childhood experience is most damaging are those where the traumatic experience was related to the primary caregiver, was sustained over time and involved intrusion into bodily integrity. Whether the trauma is physical, psychological or sexual it sets off a ripple of hormonal changes that organize the brain to cope in a hostile world. Absence of a good enough attachment to the primary caretaker and/or layer upon layer of trauma makes the development of dissociated states and post-traumatic stress disorder more likely. Reviere cites a substantial amount of research to support the view that once neuronal pathways have been activated by severe stress, subsequent stress of lesser intensity or even associated states or contextual cues will activate these pathways and the memories laid down previously, causing the intrusive reliving of the trauma in flashbacks or nightmares. Conversely, at exceedingly high levels of stress-related neuro-chemical activity, memory consolidation may be inhibited, leading to amnesias (Reviere 1996).

I wish to refer briefly to the work of the attachment theorists with its emphasis on the importance of the quality of the early mother-child relationship in determining a child's ability to establish a secure base from which to explore the world in a confident manner. Eagle comments that it is this on which ‘lives are made or broken’. Traumatic experience inevitably determines the nature of the internal working models that a child builds up for understanding the world.

Knox points out that these internal working models become ‘the basis for conscious imagination, for dreams and for unconscious fantasy’. She suggests that ‘a child who is subject to random and unpredictable violence from a parent will feel not only pain and terror but also a sense of complete helplessness, with no power to influence the parent's behaviour or to have any control over
the situation’. She continues ‘I think that for any child to feel this is unbearable and that it might feel preferable in that situation for the child to construct a belief or fantasy that (s)he has done something to cause the parent to behave in this sadistic way; such an imaginative belief would allow the child to retain some sense of cause and effect’ (Knox 2001, p. 626). Such a defensive belief will unconsciously influence an individual's way of relating both as a child and later as an adult that is in the replaying of the sadomasochistic way of relating that is born of such trauma.

In order to facilitate a discussion of technique when working with these patients, I will include brief vignettes from three patients who presented with the very particular characteristics associated with trauma. Each came complaining of generalized anxiety and in each the underlying trauma was hidden by a coping, adaptive identity with which the patient had come to manage in their world. Each patient had also become a caring and successful professional, for whom helping troubled children had become a major part of his or her work.

**Theoretical discussion**

I am going to look at three aspects of work in the consulting room: the nature of traumatic memory and the traumatized self, dissociation as a defence and the undoing of it, and the transference/countertransference experiences that underpin the whole process.

**Traumatic memory**

First, what of the actual abusive experience and the patient's memory of it? The experience of danger permitted by or even at the hands of the primary caregiver brings into play all the most basic mechanisms we have in order to survive. As danger threatens, the brain's initial response is ‘acted upon in the brain stem, midbrain and thalamus milliseconds before it gets to the cortex’ where it can be thought about (Perry 1999, p. 18). This response includes the release of epinephrine and norepinephrine that enable the hypothalamus to activate the most basic defence mechanisms to ensure the survival of the individual and the species, that is flight or fight. As the sympathetic nervous system comes into play, energy promoting arousal occurs, bringing increases in blood sugar, heart and breathing rate, as well as pupil dilation and increases in muscle tone and mental activity. However if the frantic distress associated with trauma takes its toll, and fight or flight is perceived to be impossible, hopelessness and helplessness supervenes and the limbic system commands the freeze reaction. The parasympathetic nervous system takes over and inhibits activity, slows heart and breathing rates, lowers blood pressure, relaxes muscles, and constricts pupils (in spite of the increases in adrenaline circulating as a result of the earlier phase of hyperarousal. It is
then that disengagement and dissociation of both mind and body occur. Such traumatic experience becomes encoded in implicit memory, unavailable to the conscious mind.

While autobiographical memory is usually ‘verbally accessible and under conscious control unless dynamically repressed’ (Knox 2002), the return of trauma-induced memory may be evoked rather differently. The phenomenon of flashbacks experienced by those who suffer from post-traumatic stress disorder (PTSD) has been studied widely. There are divergent views in contemporary neuroscience as to the exact nature of the emotional circuits within the brain and the way in which trauma-induced memory loss occurs and the way in which recovery may become possible. Much of the debate has centred on the exact nature and extent of the limbic system within the brain and the centrality of its role in the regulation of emotion. For example, Schore observes, ‘In these flashback moments, a right subcortically-driven re-enactment, encoded in implicit memory would occur in the form of a strong physiological autonomic dysregulation and highly aversive motivational state of terror and helplessness’ (Schore 2002, p. 29). He emphasizes how ‘even subliminally processed low-intensity interpersonal stressors could activate unmodulated terrifying and painful emotional experiences of an individual’s early history that are imprinted into amygdalar-hypothalamic circuits. These fear-freeze responses would be intense, because they are totally unregulated by the orbital frontal areas’ (Schore 2001a, p. 227). He concludes that dissociation reflects ‘a severe dysfunction of the right brain's vertically organized systems that perform attachment, affect regulating, and stress modulating functions, which in turn impair the capacity to maintain a coherent, continuous and unified sense of self’ (Schore 2002, p. 32).

LeDoux also questions the dominance of the limbic system in the functioning of the emotional brain (LeDoux 2002, p. 210). He offers an account of PTSD which is based on direct projections from the subcortical sensory-processing regions that ‘turn the on amygdala and start emotional reactions before the cortex has a chance to figure out what it is that is being reacted to’ (LeDoux 1998, p. 257). He emphasizes the effect of trauma on the functioning of the hippocampus and suggests that in some instances at least this may be the cause of memory loss (LeDoux 2002). Bremner's observations of the loss of 8 % of hippocampal cell volume in Vietnam veterans suffering from post-traumatic stress disorder would support this view (Bremner 1995). However it is not known for certain that the reduced hippocampal cell volume is an outcome of trauma, or merely a pre-existent state that predisposed the subjects to a chronic reaction to stressors. LeDoux emphasizes the importance of the connections between the hippocampus and the amygdala in the contextual processing of fear (LeDoux 2002, p. 216) and suggests that ‘if the degree of emotional arousal is moderate during memory formation, memory is strengthened. But if the arousal is strong, especially if it is highly stressful then memory is often impaired’ (LeDoux 2002, p. 222).
Henry (1993) and Teicher (2000) emphasize the failure in transfer of information between the two hemispheres of the brain caused by the release of the stress response hormones in trauma-related amnesia. Joseph (1996) suggests that trauma inactivates the left, or thinking, hemisphere. Pally comments:

Hyper-arousal of trauma functionally inactivates the left hemisphere of the brain, leaving memory to be encoded primarily on the right … if the left side does not have the information, the person acts as if they don't know the information. Subsequently, if an environmental stimulus triggers reactivation of the right sided memory, the left processes it and the information is verbally recalled, [thus making possible the recovery of traumatic memory].

(Pally 2000, p. 123)

In extreme situations the brain seeks to avoid overload and so it starts to separate off different elements. Peter Levine has described how feeling, sensation, behaviour, image and meaning become dissociated from one another (Levine 1992 cited in Rothschild 2000, p. 67). The earlier in life and the more sustained the traumatic experience, the more likely this is to happen.

From an information-processing perspective, Brewin, Dalgleish and Joseph (1996) present a dual representation theory of the effect of trauma on memory, one being explicit and verbally accessible, and the other implicit and situationally accessible, automatically triggered by situational clues. Brewin and Andrews describe dissociated memories as ‘modular, informationally encapsulated processes that are spontaneously triggered by internal or external stimuli’. They note, ‘both limited encoding and subsequent inhibition of the stored representation are involved’ in their production. They suggest that flashbacks may be conceptualized as ‘memorial representations of trauma’, as such they are understood to be situationally accessible, rather than verbally accessible, memories, ‘but through repeated activation and entry into working memory their content can become integrated with regular biographical memories’ (Brewin & Andrews 1998, pp. 964-5).

Knox reminds us of the phenomenon of state-dependent retrieval of memory, that is, ‘we are more likely to remember an event which occurred under certain specific conditions if those conditions are reproduced at the time we try to recall the event’ (Knox 2001, p. 620). One patient I go on to describe had just such an experience when pears hanging on a tree outside the consulting-room window replicated the view that she saw from her bedroom at the time she was first abused. Knox notes that at any time a patient may ‘suddenly find him/herself vividly re-living the abuse in the most painful and terrifying way if something happens to trigger state-dependent retrieval’ (Knox 2001, p. 620).

Jung describes how the traumatic complex ‘forces itself tyrannically upon the conscious mind. The explosion of affect is a complete invasion of the individual. It pounces upon him like an enemy or a wild animal’ (Jung 1928, para. 267). He describes such complexes as autonomous ‘splinter psyches’, fragments, which became split off because of traumatic experience (Jung 1934, para. 203).
Kalsched points out that ‘the analytic situation itself, with its invitation to trust the therapist with intimate self-revelations, can replicate the felt experience of the original betrayal situation’ and adds, ‘the earlier dissociated memories can only be recovered in the ego state in which they occurred, and the therapy ironically reconstellates this’ (Kalsched 1999, p. 468).

The traumatized self

Davies and Frawley (1994) stress the importance of working with traumatic memories for the adult patient who has experienced childhood sexual abuse. They emphasize the patient's ability to ‘painstakingly erect the semblance of a functioning, adaptive interpersonally related self around the screaming core of a wounded and abandoned child’. They describe this child aspect of the patient as a ‘fully developed, dissociated, rather primitively organized alternative self’ (Davies & Frawley 1994, p. 67). They suggest the analyst must be aware of both the coping adult self and the hidden abused child in the patient who presents for therapy.

Kalsched (1996) has also described a similar process; he suggests that part of the patient grows up too soon and develops into a coping false self, much as Winnicott suggested, and part of the patient remains too young; experienced as ‘the child,’ the true self remains hidden deep within the personality. He argues that recall of actual abuse stimulates archetypal images and notes that a powerful protector/persecutor figure (much like a harsh super-ego) is often encountered within the structure of the personality who actively seeks to guard the ‘imperishable spirit’, the true self, from annihilation, even long after the danger is past. I understand these images as attempts of the mind to represent those experiences that have remained encapsulated in the emotional brain.

Solomon argues that in such circumstances the young self can only define itself by identification rather than being able to develop a true sense of identity. What then emerges is a highly vigilant and intense self-creation born of a profound lack of what Lacanian analysts have described as mutually enhancing ‘regard’ in the nursing couple and in the interactions between mother and child (Solomon 2001).

I suggest there is a further way of understanding what happened to the traumatized adults whom I describe here. Each had a mother who tended to project her own split off, bad aspects of herself into her child. Each developed a very particular kind of false, or ‘as if’ self, which I have termed a ‘cloned’ self, for this is what each mother really required of her child. It seems to have been this cloning of the negative that made the abuse possible; for each mother it was an attack on her own hated self in the cloned other. Affeld-Niemeyer describes the loss of instinctual experience and reality sense in the victim of incestuous abuse as ‘an extreme regression to a primary undifferentiated stage of development: that of “ambiguity” and “identity”’ (Affeld-Niemeyer 1995, p. 38).
A patient described this kind of experience to me as that of ‘being in one skin’ with his mother (Wilkinson 2001, p. 268).

Affeld-Niemeyer observes of such patients, ‘It is as if the soul stopped breathing’ (Affeld-Niemeyer 1995, p. 37). Deep inside each of these patients was a frozen wasteland, a disintegrative state of frozen self, inhabited by both terrorist and terrorized, abuser and abused. This inner being was masked by an adaptive outer self where deintegrative and reintegrative processes still held sway through which the coping self developed that enabled the patient to manage. As therapy progresses, so slowly and painfully the thaw begins.

The first patient, whom I will call Harriet, suffered prolonged sexual abuse at the hands of her father and mother from about three years of age to about nine years when the G.P. became aware of what was happening and was able to put a stop to it and to monitor her future safety. James comments:

The child abused by a primary attachment figure suffers in multiple and complex ways. There is the pain, confusion and fear of the abuse itself; there is the mind-boggling experience of having the source of danger and the source of protection residing in one person. Most terrifying of all is the fear of loss of the attachment relationship.

(James 1994, p. 8)

Harriet had dissociated from the abusive experiences that occurred in her bedroom. In analysis it became clear that, in order to cope with such an intolerable experience, in fantasy she left the hurting child on the bed and escaped through an imaginary hole in the top left hand corner of her room, just above the window, to play with other children whom she could hear laughing and playing outside. When she moved to a new house she could no longer see the window from her bed. Instead she slipped out through her dolls’ house into a new friend's dolls’ house; there she played happily. At other times she managed by counting silently, frantically to herself, probably her own heart beat. These and other dissociative defences came into play in analysis when the analyst was experienced as the abuser and Harriet became again in fantasy the victim.

Bound by the trauma bond, Harriet had lived fearfully, in a numbed state, longing for, yet unconsciously avoiding, intimacy, as if the threat of abuse were ever present even though the original abusive experiences had disappeared almost entirely from her mind for twenty years. Harriet's mind had refused to retain such traumatic experience but her body had found ways of encoding it as did the other patients whom I will discuss. The effect of the dissociative response to trauma is felt in the entire psyche-soma entity. The release of hormones and the reaction of the skeletal muscles mean that brain changes engender body changes that can bring about the onset of psychosomatic illness. Ware has described such body memories as ‘preverbal and averbal memory traces’ (Ware 1995, p. 5). The body is the theatre (McDougall 1989), the body speaks (Sidoli 2000), the body remembers (Rothschild 2000) and the body keeps the score (van der Kolk 1996).
When her mother lay dying she said to her daughter, ‘I should have left your father, you didn't know what was happening to you’. At the time Harriet thought she was speaking of her father's unremitting hostility, but soon after her mother's death she began to suffer generalized anxiety so intensely that she sought analysis. As soon as the analysis was securely established a series of dreams heralded the return into memory of the experience of abuse. Through fragments and flashbacks, triggered by cues that might be verbal, visual or locational, always accompanied by strong emotion, somatic sensation and a sense of a happening that was happening ‘now’, knowledge of the abuse, so much of which had been long put out of mind, returned. A key moment and crucial experience for Harriet was when she had an experience of the child part of her, aged about four years, becoming able to emerge in the consulting room and to stand tall and clear eyed, looking into the analyst's face. The experience with the analyst had become one where there was sufficient sense of regard for the true self to emerge in this symbolic way.

**Undoing dissociation**

Moulds suggests that the suffering, and the uncried tears of the trauma patient are like a huge weight of water, pent up behind a dam. The dam is like the dissociative barrier, which protects against the overwhelming stimulus. She cautions the analyst: ‘Don't try to break the dam down, that would lead to destruction and devastation because of the sudden overwhelming flood of emotion. What is necessary is a tap in the dam wall that can be turned on just a little so the water can trickle away, a little at a time. That way the patient's grief and distress can be managed safely’ (Moulds 2001).

Now I would like to introduce the second patient whom I will call Philip. Philip was a first child and his father was away abroad for most of the pregnancy and the first six months of his son's life. Philip felt that he never liked him. His mother was an anxious woman, given to illness, who found it difficult to meet the needs of her newborn son. Her own experience of mothering had been inadequate. Philip's mother resorted to a strict schedule of care for her son in order to 'get it right' and to avoid the intense ambivalence she actually felt towards this child. In response to a request from her daughter-in-law about how best to care for her first child, she told her of ‘sitting on the stairs, listening to Philip crying more and more desperately, looking at my watch and waiting for it to be the correct time to pick him up for his feed’. In the sessions I soon became aware of how frightened Philip was of any sense of being controlled, how difficult sticking to time and the analytic frame was for him, how difficult it was to lie down on the couch (he felt he would not be able to breathe properly and preferred to half lie, half sit). Soon I met his cold, internal controlling mother, hidden behind a seemingly compliant and adaptive self. Philip, who
felt he could not bear to be controlled, sought to control me by arriving late and by constant requests to change the time or the day of sessions.

Philip felt that he had become a solitary child who was treated as an object to be cared for rather than a person. He was sent away to strangers at three years of age when his sister was to be born and to boarding school at ten years old when his brother arrived. Philip remembers that his father told him ‘it’s because you’re so difficult’ and his mother warned him that the other boys would bully him when he started at boarding school but that he must not make a fuss as it always happened. When Philip had been in therapy for sometime his mother died. Philip returned to his old home for the funeral and bumped into an old classmate who said, ‘How are you? I had to have counselling because of the cruel way we bullied you at school’. Philip felt sick and thought he would faint as with a rush the memory of the bullying began to return. He felt that until that moment he had managed to keep it almost entirely out of mind; however it soon became clear how accurately his body had always remembered. This will become clear in the process recording that follows.

The incident that Philip focused on most and which became the most frightening for him took place in the dormitory that he shared with fifteen other 10 to 12 year old boys. His mattress was put on the floor and he was forced to lie down on it. Another mattress was put on top of him. His memory is that the bully in charge made him do this and then made all the other children climb on top of the other mattress and jump up and down. Philip felt the bell rescued him just when another bigger bully had come into the room and asked, ‘What's HE done now?’ His earliest experience of lying on his back, helpless and experiencing an acute level of distress, then encountering a mother who arrived in much the same way as the bully is echoed poignantly in his account of the school experience. Without the confirming memory of the schoolmate who brought this back to mind for my patient, such a memory might have been regarded as ‘false’, and the patient in danger of being abused yet again on the couch.

In the following extract Philip describes the beginnings of his dissociation of this incident and then in the session the dissociation begins to dissolve and together we try to become more in touch in a bearable amount with the terror and pain of his ten year old child self.

P: (speaking in a child-like voice, very different from that of the cultured middle aged man who is my patient). You had to do what they said. You couldn't not. (Philip was looking frightened, his eyes became restless and his hands began to clench and unclench convulsively, he rubbed his upper arms).

M: How did that feel?

P: It was an awful feeling, and you know that other boy, well he was a bully too and he said, ‘What's HE done?’

M: That must have been very frightening, if he was a bully too and he was a bigger boy.
P: (suddenly talking brightly now but in a rather clipped way) Yes and the bell and you had to wipe your face, wipe it all off and go to lessons.

I was caught in the feeling of the child who was trying desperately to dissociate, to change from one world to another and the sheer effort that would require emotionally. I was shifting with him to remain in the empathic dance. The need here was for that fine balance that retains the empathy but nevertheless begins to undo the dissociation. This process becomes possible because in the therapist both experiences are held together.

M: That must have been really difficult?

P: (cheerily) Oh no, I liked the lessons, asking questions and all that.

I was quiet, still emotionally aware of the child who had suffered in the dormitory.

P: (began to speak quietly and in a wondering sort of way, turning to look into my eyes as he spoke) Do you know I think I just split it all off, while we had lessons I just forgot and enjoyed them.

M: And after? (My tone sought to express the empathic, right brain limbic way of working we all use so frequently, while the question sought to continue the undoing of the dissociation).

P: I used to try and hide. You know one of the worst things was you couldn't tell anyone at school. There was no one to tell and if you had you would get bullied worse.

M: And you couldn't tell at home because your mother had warned you to expect to be bullied at school.

Philip told the bullying incident again but with less fear, keeping eye contact with me the whole time he was telling it.

M: How did it feel?

P: (speaking very quietly after a long pause) Like unimaginable pain.

We were both silent for a while holding in mind the boy, his sadness and his pain.

P: I could have died.

M: (thinking of Philip's fear of not being able to breathe) You mean you might have suffocated?

P: (Seeming not to hear what I said) I could have died. I could have. People die from crush injuries.

Suddenly there was a look of absolute horror on his face and I felt as if we were both back there for a moment with the mattress on top of us, and numerous children bouncing up and down on it.

P: People die from crush injuries.

Philip looked down at his body and his arms as if he were seeing them anew. It came to mind that this patient had suffered from arthritis at a much earlier age
than is usual. I said quietly, ‘Your body remembers’. Somehow the moment moved on and Philip began to speak of his work with vulnerable children. He suddenly recalled a judge saying to him, ‘Some abuse would be impossible for a child to imagine’. There was a chill in the room. Philip recalled it was someone else being unable to forget how he, Philip, had been abused that had enabled him to remember.

When the different elements of an unbearable experience get dissociated or split off from one another there can be no proper memory of the event. It will not be processed by the hippocampus, which tags time and place to memories, and so it cannot be stored as ordinary or narrative memory. It cannot be recalled in the ordinary way because it has not been remembered in the ordinary way. Instead it will be encoded in the emotional brain and in the body.

The last patient I will call Amanda. Amanda only remembers a difficult relationship with her mother. She was one of three. She felt the other two children were special, in that her sister was pretty and was her mother's favourite girl, and her brother was special as the only boy. Her mother gave her a nickname which made her feel ugly and which was in strong contrast to the pet name given to her sister which implied beauty. She loved her father and felt closest to him. One night when she was six years old, in bed in the room she shared with her sister, she heard her parents quarrelling violently downstairs as they often did. Her father came up the stairs, which she could partly see through the open door of the bedroom. As he came into her line of vision he fell forward, making a horrible noise and collapsed on the landing. Amanda realized that she was sobbing and crept into bed with her elder sister. Her mother rushed upstairs, called out to the children to stop crying and slammed the girls' door shut. Amanda was certain her father was dead and indeed he had died immediately. Her mother admitted later that, in an attempt to keep the children away from the bedroom where his body lay, she had told them he was not dead. They were sent to school the next day as if nothing had happened. Amanda felt totally confused; she was sure he was dead. Later in the day she heard from children in the street that her father had died.

Her mother sent all three children away to boarding school soon after, telling them she had arranged this because she was going to kill herself. It was a school where every child had lost at least one parent, some two. Amanda was frightened about what her mother might do and desperately unhappy at school. She suffered constantly from eyes that were stuck together with infection, as she would pull her lashes out as if she wanted to stop herself from seeing the plight she was in and to stop herself from beginning to cry. She was also plagued by itchy skin, something her father had complained of in the weeks before his death. She was unable to learn and left school with no qualifications.

She married young, had children and later with the help of therapy was able to embark on higher education and a career. She never forgot the noise her father made; her brother had found out that the sound frightened her and made it frequently to tease her, and no doubt to act out his own feelings in
relation to it. She forgot much else from childhood and had no visual knowledge of what she had seen of her father's death. As she settled into therapy and began to have flashbacks and to work with them with her therapist, the therapist died suddenly and totally unexpectedly. Amanda said ‘Goodbye’ to her before a fortnight's break and then never saw her again. Some months later Amanda arrived in my consulting-room in a state of numbness, confusion and terror. It took many months for this to ease. On one occasion when I had a bout of coughing she became terrified I would die there and then. We worked with her feelings about my vulnerability for many months, especially over the breaks and the anniversaries of the loss and death of the therapist. Slowly but surely first the numbness and then the confusion eased, she became more able to think and was able to return to the dissertation for a higher degree that she had put to one side.

Patients who have been traumatized are hypervigilant and subject to flashbacks that may be triggered by a stimulus that in some way matches past bad experience and because the brain pattern matches to protect from a repetition of trauma, the patient becomes overwhelmed by an experience that has a ‘here-and-now’ rather than a ‘there-and-then’ quality to it. Eighteen months later Amanda felt able to tell me about a particularly frightening flashback that had occurred three years previously but which she had only just begun to be able to think about. She had been happily seated on a chair lift with her husband beside her, the two children ahead of them, going up a mountain. She remembered the loveliness of the day and the other happy families going up and down on the lift also with children, picnic baskets and pets on their knees. Suddenly she had become acutely aware of the angle of the slope of the mountain in relation to the chair lift and the scene took on a nightmare quality for her as she ‘saw’ picnic baskets, pets and even children slide off the knees of the travellers, followed by the travellers themselves. Her husband became aware that she was white and shaking, with difficulty she was helped from the chair lift at the top where she tried to explain something of what had happened to her anxious family. As she reflected on the incident with me Amanda wondered whether it could be that the chair lift passing over the angle of the slope had somehow replicated the angles she had seen of the stairs and of her father's falling body at the moment of his death. Until that moment, while she could remember the noise her father had made because of her brother's attempts to keep it in mind, she had not been able to remember what she had seen through the open door.

In the following weeks after recounting this and experiencing the feelings associated with it and with both deaths, my patient seemed much more able to engage with life. Two months later she reported that the feeling she had had of being dead herself had vanished with the telling of the incident and had not returned.

Levin and Modell, cited in Pally, have drawn attention to the role of metaphor in facilitating the emergence of memory because of its power to re-establish
the integrated working together of the two hemispheres of the brain after trauma. Pally comments, ‘By containing within them sensory, imagistic, emotional and verbal elements, metaphors are believed to activate multiple brain centres simultaneously’ (Pally 2000, p. 132). Amanda's vivid, visual metaphorical experience heralded the recovery of emotional memory of a dissociated event, the visual component of which was stored in the memory bank of the right hemisphere of the brain. The telling enabled something of the original experience to become available to the left. Metaphor was also a notable feature of the work with Harriet. Harriet's returning memories had been heralded by a series of vivid dreams over several months that more and more explicitly indicated her experience of abuse. Affeld-Niemeyer suggests that it is ‘not the recall of actual abuse that promotes therapeutic progress but the evolving symbolizations’ (Affeld-Niemeyer 1995, p. 38). One would expect this to be the case if metaphor has such a radical capacity to promote change within the brain.

The transference/countertransference relationship

‘The remarkable capacity of the brain to take a specific event and to generalize, particularly with regard to threatening stimuli, makes humans vulnerable to the development of false associations, and false generalizations from a specific traumatic event to other non-threatening situations’ (Perry 1999, p. 17). Through the transference the patient is able to explore these generalizations and the analyst is able first to live them with the patient and through the countertransference, and then to examine them with the patient. Schore points out that the prefrontal limbic cortex retains the plastic capacities of early development and that the right hemisphere cycles into growth phases throughout the lifespan thus making possible therapeutic change (Schore 2001c, p. 73). He stresses the need for affectively focused treatment which can ‘literally alter the orbito-frontal system’ of the brain and suggests that ‘non-verbal transference-countertransference interactions that take place at preconscious-unconscious levels represent right hemisphere to right hemisphere communications of fast-acting, automatic, regulated and dysregulated emotional states between patient and therapist’ (Schore 2001b, p. 315).

Howes suggests that as the experience that the patient is reliving emanates from what has been termed the emotional brain so the analyst must remain ‘right brain, limbic’ to achieve this empathy, while also remaining able to think (Howes 2000). Schore comments: ‘In the light of the central role of the limbic system in both attachments and in ‘the organization of new learning’, the corrective emotional experience of psychotherapy, which can alter attachment patterns, must involve unconscious right brain limbic learning (Schore 2001b, p. 317).

As the analyst seeks to work in this right brain limbic way, (s)he is creating a dyadic experience that mirrors early infant-mother interaction. Intensity of gaze may be an integral part of such an analytic encounter, and the arrangement of chair and couch, or chair and chair, must permit both this and the ‘gaze-away’
sequence that follows in normal mother-infant interaction. As a patient experiences the extreme distress engendered by a vivid revisiting of trauma, such moments of intense gaze may be used by the patient first to convey the intensity of her distress, and then by the analyst through subtle change of facial expression to modify and regulate the affect, before either become able to access the left brain and to begin to put words to such pain-filled experience. Analytic ‘holding’ through such moments is perhaps the most potent vehicle for healing, but such holding must be symbolic, whatever the pressure may be for actual holding, for such a patient needs to know that early boundary violations that gave rise to so much trauma will not recur in analysis, while at the same time being impelled from within to test this to the limit.

Patients, traumatized once by inadequate early mothering and again by life events, may have huge difficulties in holding on to any notion of the analyst as good. In the ‘dance of empathy’ all too often the analyst is experienced as the abusive other and the patient struggles with overwhelming fear. Schore points out that early trauma may result in severe pruning or sculpting of neural networks in the orbito-frontal cortex, the ‘senior executive’ of the emotional brain (Schore 2001a, p. 224). The weaker orbito-frontal connections and stronger amygdala connections that result from this make such fear difficult to escape. LeDoux suggests that psychoanalysis involves strengthening cortical control over the amygdala ‘by explicit knowledge through the temporal lobe memory system and other cortical areas involved in conscious awareness’ (1998, p. 265). Brewin and Andrews argue that content of dissociated memories may ‘through repeated activation and entry into working memory … become integrated with regular autobiographical memories’ (Brewin & Andrews 1998, p. 964). Here they describe a process that may take place in the analytic setting.

McCann and Colletti have described the relationship of the analyst and the patient who has experienced early childhood abuse as a ‘dance of empathy’, choreographed and ‘guided by the quality and consistency of the empathic responses, as determined by the therapist’s counter transferences’ (McCann & Colletti 1994, p. 119). In the analytic ‘dance’ the patient may experience his or herself as the victim, perhaps as the result of too penetrative a transference interpretation that is then experienced as an attack. The patient will then experience the analyst as the persecutor; the analyst may sense this and attempt to step back. The patient then experiences this as a loss of empathy and the analyst becomes more like the mother who fails to protect. When the patient is in a dissociated state, often as a defence against the imagined abuser, then the analyst may feel like the victim child left alone in the room. Experiencing the analyst like this may provoke the abuser in the patient. Realization of this brings horror and shame and anger. Often the anger can only be experienced in projection and once again the analyst is experienced as the abuser, indeed the unwary may become just that under such intense transferential provocation. At times the sense of the patient’s shame and humiliation might mean that the analyst wishes to rescue the patient … and so the dance moves on.
Brown, describing her work with a patient who had been abused, emphasizes her own awareness of ‘the abuse as a terrifying force, with the power to wreak appalling destruction’ and of her patient’s ‘exhausting struggle to maintain a defensive position in the face of that kind of energy’ (Brown in Formaini, 2001). Both analyst and patient will experience the force of the abuse and the defensive struggle as the transference/countertransference experience oscillates between abuser and abused.

McCann and Colletti warn that ‘numbing, dissociation, fascination, revulsion, rescuing and blaming experienced in the countertransference can cause empathic strain and accompanying feelings of helplessness, rage, rescue and sadism in the analyst (1994, p. 90). Trowell describes her countertransference with one young patient: ‘My reactions were very powerful and at times difficult to cope with: despair, fear, guilt, anger, the seduction of being the good, idealized, abandoning mother - the ease with which I could have been the cruel, sadistic foster-mother’ (Trowell 1998, p. 162). Everest warns of the need for the analyst to be aware of his or her ‘own mechanisms of dissociation’ in order to work successfully with dissociated patients (Everest 1999, p. 459). Clark warns, ‘The persecuting soma often gets defensively projected or injected into the analyst …(who) feels physically attacked from within as well as from without’ (Clark in Formaini 2001, p. 107). Davies and Frawley describe the analyst's countertransference responses as ‘the map guiding the clinician through the hidden shoals of the transference’ (Davies & Frawley 1994, p. 152).

**Conclusion**

**Trauma needs to be undone in the brain**

What then of ways of working with traumatized patients? The neurosciences have made us more aware of the effects of trauma on the brain, of the science of loss and recovery of memory, of the need for right brain engagement of the therapist with right brain aspects of the patient in therapy if profound dissociative defences are to be undone in those for whom poor early experience with the primary caregiver has resulted in trauma. Only alongside such affective encounters does it become possible for the left brain to fully process traumatic experience.

Each of these patients received the projection of the mother's split off hated aspects of herself and as a result each patient struggled to a greater or lesser degree with what might be termed a ‘cloned’ self. Each demonstrated considerable resilience in the face of huge difficulties and proved able to engage in right brain to right brain analysis, which enabled the losses inflicted by early trauma to be mourned and the constellations in the internal world to be made anew through the transference experience so that the true self might emerge and thrive in a truly creative way.
References


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