

Dissociation of the Personality in Complex Trauma-Related Disorders and EMDR: Theoretical Considerations

Onno van der Hart

Department of Clinical and Health Psychology, Utrecht University, Utrecht, The Netherlands

Ellert R. S. Nijenhuis

Top Referent Trauma Center,

Mental Health Care Drenthe, Assen, The Netherlands

Roger Solomon

Buffalo Center for Trauma and Loss, Buffalo, New York

As eye movement desensitization and reprocessing (EMDR) has been increasingly applied in complex trauma-related disorders, including complex dissociative disorders, and trauma-related borderline personality disorder, EMDR practice may benefit from theories developed to account for the dissociative nature of these disorders, such as the theory of structural dissociation of the personality (TSDP). TSDP postulates that the personality of traumatized individuals is unduly divided in two basic types of dissociative subsystems or parts. One type involves dissociative parts primarily mediated by daily life action systems or motivational systems. The other type involves dissociative parts, fixated in traumatic memories, primarily mediated by the defense action system. The more severe and chronic the traumatization, the more dissociative parts can be expected to exist. This article presents the basics of TSDP, and a second article will provide guidelines for the treatment of complex trauma-related disorders based on this theory.

Keywords: dissociation; structural dissociation of the personality; dissociative disorders; EMDR (eye movement desensitization and reprocessing); integration; phase-oriented treatment

Eye movement desensitization and reprocessing (EMDR) is an effective and empirically supported integrative psychotherapeutic approach for treatment of posttraumatic stress disorder (PTSD) and thus of traumatic memories (Bisson & Andrew, 2007; Foa, Keane, Friedman, & Cohen, 2009; Shapiro, 1995, 2001). Traumatic memories are sensorimotor, emotional experiences that relate to traumatizing events that survivors have not or not sufficiently integrated in their personality, that is, the dynamic biopsychosocial system that determines their characteristic mental and behavioral actions (cf., Allport, 1961; Van der Hart, Nijenhuis, & Steele, 2006).

EMDR is guided by the Adaptive Information Processing (AIP) model, which is highly applicable in the treatment of a wide range of disorders (Shapiro, 1995, 2001; Solomon & Shapiro, 2008). Initially steered by a Dissociative Disorders Task Force (Fine et al., 1995), EMDR is increasingly included in the treatment

of complex trauma-related disorders. Such disorders include complex PTSD, trauma-related borderline personality disorder, dissociative identity disorder (DID), and dissociative disorder not otherwise specified (DDNOS)-type 1 (clinical presentations similar to DID that fail to meet the full criteria for this disorder; American Psychiatric Association [APA], 1994, p. 490), that is, the most common form of dissociative disorder encountered in clinical practice (e.g., Johnson, Cohen, Kasen, & Brook, 2006; Şar, Akyüz, & Doğan, 2007). EMDR can be used in these patient populations in advancing coping skills and integrating traumatic memories (e.g., Forgash & Knipe, 2007; Gelinas, 2003; Lazrove & Fine, 1996; Oppenheim, Ten Broeke, & De Jongh, 2008; Paulsen, 1995, 2007; Twombly, 2005; Young, 1994). However, clinical experience with such often chronically traumatized patients has taught therapists that modifications of the EMDR standard treatment protocol should be included when the goal

is to integrate their traumatic memories, or else these patients are at risk of decompensation (e.g., Forgas & Copeley, 2007; Gelinas, 2003).

Theories of psychopathology and psychotherapy are tools to guide clinical practice and research. They are, as any theory, intersubjective constructions of reality, built to serve particular purposes. Thus, the understanding and treatment of mental disorders such as DDNOS, DID, dissociative psychosis (Van der Hart & Witztum, 2008), as well as mixtures of these disorders and personality disorders, may benefit from a perspective that suggests a variety of clinical tools specifically designed for these populations. We present here the theory of structural dissociation of the personality (TSDP) and a related psychology of action (Nijenhuis, Van der Hart, & Steele, 2002; Steele, Van der Hart, & Nijenhuis, 2001, 2005, 2009; Van der Hart et al., 2006) as providing a comprehensive framework for understanding trauma, including complex traumatization as manifested in patients with the complex disorders mentioned above. The associated psychology of action describes and explains the maladaptive or otherwise inefficient actions trauma survivors tend to engage in, and the more adaptive and efficient actions required to overcome the traumatic past.

In the EMDR literature, some brief excursions have been made to TSDP (Bergmann, 2007; Forgas & Knipe, 2007; Oppenheim et al., 2008), but a systematic introduction of the theory has not been presented. In this article, we introduce TSDP and the related psychology of action for EMDR practitioners. TSDP's basic tenet is that each traumatized individual is characterized by some degree of structural dissociation. It is a theory that accounts for the whole range of traumatization and related degrees of dissociation of the personality. This implies, among other things, that not only the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.; APA, 1994) dissociative disorders but all trauma-related disorders, including posttraumatic stress-disorder (PTSD) as the most simple one, are recognized as being dissociative in nature. TSDP, then, describes a continuum of complexity of disorders in terms of structural dissociation of the personality. Although this article aims at helping EMDR clinicians to understand the complex *DSM-IV* dissociative disorders and related complex trauma-related disorders, for didactic reasons we start explaining the theory at the most simple prototype on a dimension of complexity of dissociation. This prototype is called primary structural dissociation, which we consider as characterizing simple PTSD. More complex prototypes, that is, secondary and tertiary dissociation of

personality, are also introduced. In a second article, the focus will be on how the principles explained in the current part can help guide the practice of EMDR with patients with complex trauma-related disorders, that is, at the levels of secondary and tertiary structural dissociation, to be explained below.

The Theory of Structural Dissociation of the Personality

Following exposure to a potentially traumatizing event, some individuals manage to integrate the experience in their personality. This integration preserves their mental health and includes different mental actions. As will be detailed later, they first synthesize the different components of the experience. That is, they—largely unconsciously—bind sensations, visual and auditory perceptions, emotional feelings, thoughts, fantasies, and bodily movements to create a coherent experience. Second, they realize that the event happened to them, a mental action known as personification (Janet, 1929; Van der Hart et al., 2006). And third, they realize the event happened in the past, that their present is thus more real, and that their present is embedded in their past and anticipated future. Following Janet, this action can be referred to as presentification (Janet, 1928; Van der Hart et al., 2006). Taken together, personification and presentification constitute the mental action of realization. Traumatized individuals, by definition, have not integrated their traumatic memories. They are characterized by some degree of nonrealization of their traumatization (Janet, 1919, 1935, 1945; Laub & Auerhahn, 1993; Van der Hart, Steele, Boon, & Brown, 2003; Van der Hart et al., 2006). They are, in Janet's (1919) terms, unable to give these experiences their proper place in their "autobiography." The more or less complete lack of synthesis, personification, and presentification constitute the essence of trauma, and are at the heart of all psychological, psychobiological, and psychosocial trauma-related symptoms. To mend their trauma, that is, their "injury," traumatized individuals thus need to engage in these integrative actions that they were hitherto unable or were too scared to execute. In terms of TSDP, successful processing in EMDR involves the patient's integrative actions of synthesis and realization, with its components of personification and presentification.

This lack of integration manifests in survivors in basically two ways: in symptoms of "too little" and in symptoms of "too much" (Janet, 1904). On the one hand, their traumatic experiences are "too little"

real to them if at all. For example, they may be able to refer to them but in ways as if these experiences pertain to somebody else (lack of personification; see below); they may have limited awareness of their traumatization (low level of consciousness; retracted field of consciousness; partial dissociative amnesia; bodily anesthesia; analgesia; emotional numbing) and cannot bear to put the traumatic experiences and memories in words (phobia of traumatic memories, causing positive symptoms described below), or they may never refer to the traumatizing events because they have amnesia for them: complete nonrealization. Then, “for them, the event ... seems never to have occurred” (Janet, 1945, p. 184). In short, survivors may have incomplete or even no narrative memories of their traumatization; and when they have such memories, the autobiographical nature of them is seriously compromised.

On the other hand, survivors may have flashbacks or dreams of the traumatizing events or reexperience these events as if they are taking place right here and now. Then they once again live in “trauma time.” Such experiences take place especially when they are confronted with conditioned stimuli (“triggers”): stimuli or events that, in their perception, signal that horrible events are about to happen again or that have a salient resemblance to significant components of the originally traumatizing events, and that therefore tend to reactivate memories of these events. Flashbacks and re-enactments of traumatic experiences are called traumatic memories: hallucinatory, solitary, and involuntary experiences that consist of mental actions and the mental content these actions generate in the form of visual images, sensations, and sometimes also of physical acts which may occupy the entire perceptual field, and are terrifying to the individual (Janet, 1904, 1928; Van der Hart et al., 2006). In terms of his action psychology, Janet (1919) stated that:

[s]uch patients ... are continuing the action, or rather the attempt at action, which began when the [traumatizing event] happened; and they exhaust themselves in these everlasting recommencements. (p. 663)

Janet meant that patients, when re-engaged in the mental and behavioral actions they were performing while being traumatized, are unable to bring such events to a closure, that is, to realize them; hence these “everlasting recommencements.” With traumatic memories, survivors are insufficiently able to create a personal narrative of their traumatic experiences and share it verbally. When survivors are

reenacting traumatic memories, they are more or less unable to engage in the action of recalling other past experiences or facts, and to perform the action of being aware of the present. Survivors then often seem unaware of much, if anything, about the present, as well as of nontraumatizing events in their lives.

Thus, trauma survivors seem to be characterized basically by two insufficiently integrated sets of action tendencies. (We use the concept of *action tendencies* not only to indicate the propensity to act in certain ways but also to denote the complete cycle of action, including latency, readiness, initiation, execution, and completion [Van der Hart et al., 2006].) One set involves recurrent reenactments of traumatic experiences, and another set pertains to functioning in daily life. Both sets of action tendencies are rooted in evolutionary prepared psychobiological action systems that guide mental and behavioral actions (Lang, 1995; Nijenhuis & Den Boer, 2009; Panksepp, 1998; Van der Hart et al., 2006). One major action system is defensive in nature and involves a variety of efforts to survive imminent threat to the integrity of the body and life (Fanselow & Lester, 1988). The mammalian defense action system is geared toward escape from and avoidance of physical and associated psychological threat, and includes subsystems such as flight, freeze, fight, and total submission (Porges, 2003). Other action systems are concerned with interests and implied functions in daily life (Panksepp, 1998). These systems include energy regulation, attachment and care-taking, exploration, social engagement (Porges, 2003), play, and sexuality/reproduction, and involve approaching attractive stimuli (Lang, 1995).

Each action system thus involves its own functions, values, and action tendencies. The functions and values that each action system involves guide this system’s specific bias toward its dominant clusters of perceptions, sensations, emotional feelings, cognitions, decisions, and behaviors. Thus, clusters of action tendencies will be very different when exploring the inner or outer world, being hungry, or being attacked.

According to TSDP, these different sets of action tendencies and the action systems from which they flow characterize two basic types of psychobiological subsystems of the personality. A distinctive feature of these subsystems is that each involves its own, at least rudimentary, first-person perspective (Nijenhuis, in press; Nijenhuis & Van der Hart, in press). That is, these subsystems of the personality construct phenomenal (i.e., subjective and conscious) models of who they are, what the world is like, and how they

relate to the world. The first-person perspective thus results from ongoing integrative actions, that is, the recurrent actions of generating phenomenal models of self, world, and self as related to that world. What individuals or dissociative parts of an individual do not integrate in their first-person perspective will, by definition, not be part of their phenomenal models of self, world, and self-in-world, and will, as a consequence, be unavailable for the control of their actions. To be clear, there can be insufficiently integrated subsystems of personality as a whole system that lack consciousness and self-consciousness. However, including these subsystems in the domain of dissociation would create a category that is too wide to be clinically and scientifically useful (Nijenhuis, in press; Nijenhuis & Van der Hart, in press).

Dissociative Parts and Their First-Person Perspective

Following Janet, others have also contended that dissociative parts involve their own first-person perspective. For instance, Mitchell (1922) stated that whatever is dissociated cannot exist as isolated mental material. That which is dissociated “forms an integral part of *some* [part of the] personality which may or may not be wider than that which manifests in waking life” (Mitchell, 1922, p. 113). Likewise, McDougall (1926) argued that this involves the “self-conscious purposive thinking of a [part of the] personality” (p. 544). These early views indicate that mental and behavioral actions involved in traumatic memories belong to some conscious and self-conscious dissociative part of the personality. Many other constructs are used to denote these dissociative subsystems of the personality, for example, ego states, dissociative or dissociated states, dissociated self-states, identity states, dissociative personality states, dissociative or dissociated selves, alter personalities or alters, and dissociative identities (see Van der Hart et al., 2006, for a discussion of these terms).

Auschwitz survivor Charlotte Delbo (as cited in Langer, 1991) illustrates the existence of two such dissociative parts of personality, each with its own, qualitatively different and partially overlapping, set of memories of Auschwitz, in the following testimony:

In a dream, the will is powerless. And in these dreams, there I see myself again, *me*, yes *me*, just as I know I was: scarcely able to stand ... pierced with cold, filthy, gaunt, and the pain is so unbearable, so exactly the pain I suffered there, that I feel it again physically, I feel it

again through my whole body, which becomes a block of pain, and I feel death seizing me, I feel myself die.

Fortunately, in my anguish, I cry out. The cry awakens me, and I emerge from the nightmare, exhausted. It takes days for everything to return to normal, for memory to be “refilled,” and for the skin of memory to mend itself. I become myself again, the one you know, who can speak to you of Auschwitz without showing any sign of distress or emotion.

I have the feeling that the “self” who was in the camp isn’t me, isn’t the person who is here, opposite you. No, it’s too unbelievable. And everything that happened to this other “self,” the one from Auschwitz, doesn’t touch me now, *me*, doesn’t concern me, so distinct are deep memory and common memory. (Langer, 1991, pp. 5–7)

Emotional Parts and Apparently Normal Parts of the Personality

TSDP thus postulates that in trauma the patient’s personality, defined above as the dynamic biopsychosocial system as a whole that determines his or her characteristic mental and behavioral actions, is unduly but not completely divided among two or more such dissociative subsystems or parts. These dissociative parts are dysfunctionally stable (rigid) in their functions and actions, and too closed to each other, resulting in adaptive compromise. One prototypical personality subsystem is metaphorically called the *Emotional Part of the Personality* (EP; Myers, 1940; Van der Hart et al., 2006). As EP, the patient is fixated in sensorimotor and highly emotionally charged reenactments of traumatic experiences. In other words, the patient as EP is strongly associated with traumatic memories. Primarily mediated by the mammalian action systems of defense and attachment cry, EP’s reenactments include action tendencies of defense against perceived or actual threat to the integrity of the body or to life itself, as well as action tendencies regarding the need for attachment and the fear of attachment loss (Liotti, 1999). That is, EP is basically fixated in traumatic memories that frequently involve (particular combinations of) childhood emotional, physical, and sexual abuse, emotional neglect, and otherwise frightening and frightened parental or alloparental (i.e., from individuals who replace a child’s biological parents or significantly assist the biological parents in childrearing; Hrdy, 2009) care-taking and attachment.

The other prototype is called the *Apparently Normal Part of the Personality* (ANP; Myers, 1940; Van der Hart et al., 2006). As ANP, the survivor experiences EP and at least some of EP's actions and contents as ego-dystonic and is fixated in avoidance of traumatic memories and often of inner experience in general. Mediated by action systems for functioning in daily life, ANP focuses on the functions of these systems and in this context commonly seeks the approval of caretakers to gain acceptance, protection, and love. To the degree that such attachment-related goals are realized at all, the painful result is that ANP's appeasement and apparent normality are reinforced, not the survivor's authenticity. As ANP, the patient may be aware of having a mental disorder but attempts to appear "normal." The fact that this normality is only apparent manifests in negative symptoms of detachment, numbing, and partial or, in rather exceptional cases, complete amnesia for the traumatic experience. Apparent normality also shows in recurrent re-experiencing of traumatic memories from EP and other intrusions, such as ANP hearing EP's voice, or EP hearing ANP's voice.

Thus, when Charlotte Delbo as ANP lectured about her experiences in Auschwitz, she recalled too little of her traumatization. She did not sufficiently engage in two intimately related actions. One action that she as ANP lacked was realizing Auschwitz's horrors ("it is too unbelievable"), and the other missing action was including "the one from Auschwitz" in her autobiography. In other words, as ANP, she did not sufficiently integrate "Auschwitz" in her phenomenal model of the world, and she did not integrate her Auschwitz existence in her phenomenal model of self. These missing actions left her as this part of her personality with an unduly restricted first-person perspective (Metzinger, 2003; Nijenhuis, in press).

As EP, Delbo's first-person perspective was very different. As this part, she reexperienced Auschwitz at night. Her reexperiencing involved the actions of perceiving the camp and the camp life as a current reality, of sensing her dreadful physical condition at the time, of experiencing her fear, other aversive emotions, needs and interests, and of moving in ways that fit these perceptions, sensations, emotions, and cognitions. This particular integrated cluster of different but intimately related actions involves her first-person perspective as EP and includes the linked perceptions, sensations, emotions, cognitions, and movements, but excludes pertinent other actions. Thus as EP she did not perceive, sense, feel, recall, and so on, her subsequent and present existence. That is, as EP, she did not integrate and realize her

first-person perspective as ANP. This limitation left "the one from Auschwitz" fixated in a past reality as if it were the present. The implication of this analysis is that, if feasible, to overcome their undue fixations on the present and the past, each of the two dissociative parts of the personality must (learn to) engage in particular new actions: ANP must integrate the traumatic past—EP's first-person perspective—and EP must integrate the subsequent and current life—ANP's first-person perspective.

Primary Structural Dissociation

The division of the personality into a single ANP and a single EP involves *primary structural dissociation*, and characterizes simple posttraumatic dissociative disorders, including PTSD. Dissociation between ANP and EP may serve adaptation to some degree when the capacity or necessary social support to integrate traumatic experiences and memories is lacking. However, this division of personality implies the emergence of negative dissociative symptoms such as depersonalization and, sometimes, a degree of dissociative amnesia and anesthesia, as well as positive dissociative symptoms such as recurrent intrusions of traumatic memories (although these intrusions may only start after a latency period).

As mentioned above, structural dissociation is not random, but likely develops along evolutionary prepared psychobiological action systems that guide mental and behavioral actions. EP is predominantly mediated by the mammalian defensive system in fixated action tendencies in the face of perceived or actual threat (Nijenhuis, 2004; Van der Hart et al., 2006). EPs tend to have a rigid and extreme narrowed attentional focus, primarily concentrated on perceived threat that is over-interpreted and thus over-reacted to in light of the traumatic past. EP develops a rudimentary (e.g., as seen in acute and simple PTSD) or more elaborated and autonomous phenomenal model of self (e.g., as seen in Complex PTSD, DDNOS, and, particularly, DID). Each ANP and EP is also typically fixated in a particular insecure attachment pattern that involves either approach or defense in relationships (Steele, Van der Hart, & Nijenhuis, 2001). It is hypothesized that, in complex trauma-related disorders, the resulting alternation or competition between relational approach and defense among these parts is a substrate of what has been called a disorganized/disoriented attachment style (Liotti, 1999). The resolution of traumatic memories, by definition, involves (a degree of) resolution of this insecure attachment.

Secondary Structural Dissociation

When traumatizing events start earlier in life, are increasingly overwhelming, and/or prolonged or chronic, structural dissociation tends to be more complex. In *secondary structural dissociation* there is also a single ANP, but more than one EP. This division of EPs may be based on the failed integration among relatively discrete subsystems of the action system of defense, for example, fight, flight, freeze, collapse, also described as tonic immobility or total submission (Nijenhuis & Den Boer, 2009; Porges, Doussard-Roosevelt, & Maiti, 1994). These different subsystems seem to be related to different components of the central nervous system (Porges, 2007): Flight, freeze, and fight are foremost mediated by the sympathetic nervous system, and total submission by the dorsal vagal branch of the parasympathetic nervous system. We consider secondary structural dissociation to be mainly relegated to Complex PTSD, trauma-related BPD, and DDNOS-subtype 1.

Tertiary Structural Dissociation

Finally, tertiary dissociation involves not only more than one EP, but also more than one ANP. Division of ANP may occur as certain inescapable aspects of daily life become saliently associated with traumatizing events such that they tend to reactivate traumatic memories. The patient's personality becomes increasingly divided in an attempt to maintain functioning while avoiding traumatic memories, or has never included an integration of action systems for functioning in daily life as well as for defense. This division of ANP thus tends to occur along different action systems of daily life. For example, a little girl who is early in the morning sexually abused by her father, which is experienced by several EPs, subsequently has to face the perpetrator at the breakfast table. When this confrontation reactivates these EPs, which subsequently intrude in the ANP, this ANP may be unable to eat and drink in her father's presence. She may then develop another ANP who manages to resist intrusions by the EPs, and who can therefore eat and drink in her father's company. Tertiary structural dissociation refers only to patients with DID. In a few DID patients who have an extremely low integrative capacity and in whom dissociation of the personality has become strongly habituated, new ANPs may also evolve to cope with the minor frustrations of life. Dissociation of the personality in these patients has become a lifestyle, and their prognosis is generally poor (cf., Horevitz & Loewenstein, 1994).

In secondary and tertiary structural dissociation, different (groups of) EPs may be related to different types of traumatization, while some of them may have been involved in more than one type, such as sexual abuse by the father and emotional and physical abuse by the mother. During a single traumatizing event more than one EP can simultaneously experience the same moment, but may contain different aspects of it. Take, for instance, Sally, a 32-year-old woman with secondary structural dissociation and a history of sexual abuse by her father. One of Sally's EPs experienced her father's sexual abuse, but without hearing associated unpleasant noises, while a second EP experienced the noises in the same moments of such traumatizing events. We call this phenomenon *parallel dissociation* (Van der Hart et al., 1993, 2006). Different EPs may also experience successive episodes of a traumatizing event over time, as when the first two of Sally's EPs experienced her father's advances, but a third one experienced the next event that occurred, that is, the actual rape. We call this *sequential dissociation* (Van der Hart et al., 1993, 2006). For instance, following the actions from a flight and a subsequent fight EP, eventually a submissive EP, characterized by hypo-arousal and anesthesia, may take over. Both parallel and sequential dissociation may involve *pathogenic kernels*, that is, the subjectively most unbearable aspects of traumatic experiences.

In short, the complex levels of structural dissociation stemming especially from chronic and varied early childhood traumatization, involve the formation of more complex traumatic memories, as recalled by different EPs, apart from the memories of the single or multiple ANPs. Each of these dissociative parts includes a set of action tendencies as basically mediated by particular action systems or constellations of action systems. These action tendencies include different ways of remembering the past, comprehending the present, and imagining the future. EPs typically reenact traumatic memories, whereas ANPs (re)construct the past in different ways. Within and across traumatic memories more than one or even many EPs can be involved. Clinicians who fail to use instruments measuring dissociative phenomena and disorders and to take a detailed trauma history may be unaware that such complexities can exist. When, in these cases, EMDR is applied in a manner appropriate for simple PTSD (in terms of TSDP, symptoms relating to one, possibly rudimentary EP and the traumatic memory associated with this part), a veritable Pandora's box may be opened and therapeutic and adaptive disaster may ensue. For instance, working with a particular

traumatic memory and a particular EP can reactivate other known or unknown EPs involved in this traumatic memory. These different EPs can start to respond to each other's reactivated components of the traumatic memory and the associated emotions and sensorimotor reactions. This reactivity can rapidly lead to ANP being overwhelmed and, more generally, to hyper-arousal or hypo-arousal of the personality system as a whole. Or, worse, the target traumatic memory reactivates chains of the EPs' other traumatic memories, involving a major crisis, including parts' attempts at self-harm or suicide or rapid, uncontrollable switching among parts.

Maintenance of Structural Dissociation

Ongoing dissociation of the personality prevents the integration of traumatic memories, including the transformation of these aversive sensorimotor and highly emotional reenactments of traumatic experiences into narrative autobiographical memories, and the continued existence of different first-person perspectives. It is hypothesized that structural dissociation of the personality is predominantly maintained by a series of phobias that characterize trauma survivors and by a lack of social support (Nijenhuis et al., 2002; Steele et al., 2001, 2005; Van der Hart et al., 2006). Janet (1904) described the core phobia as the *phobia of traumatic memories*, the essence of which seems to be an avoidance of full realization of the trauma and its effects on one's life. As Holocaust survivor and author Aharon Appelfeld (1994) testified: "The moment any [Holocaust] memory or a shred of a memory was about to float upwards, we would fight against it as though against evil spirits" (p. 18).

The division among the different dissociative parts is generally far from perfect. Unbidden, frightening intrusions are common, that is, positive dissociative symptoms (Dell, 2009). In terms of TSDP, mental trauma-related contents and actions of EP (e.g., a brutal voice of an EP who imitates a perpetrator's voice and words) may intrude ANP's domain, that is, ANP becomes consciously aware of EP's mental contents and behaviors. When this happens, ANP may become afraid of these memories and associated EPs. In this context, classical conditioning regarding these intrusions can occur, implying that cues that signal the likely occurrence of a (massive) intrusion from EP—such as "a shred of a memory"—may become a conditioned stimulus for ANP. ANP, then, may learn to mentally avoid such intrusions, with full deactivation of ANP and switching to a different dissociative part as an extreme. In a similar manner, different EPs

can become phobic of each other. For example, an EP who tends to freeze can become afraid of an EP who imitates a perpetrator. These EPs are not replicas ("introjects") of the perpetrator but are commonly angry, fearful isolated parts that imitate the perpetrator's behaviors to achieve particular goals such as prevention of the perpetrator's abuse and of dependency and false hope of acceptance and love that other parts may desperately seek. Therefore, these EPs are in TSDP described as perpetrator-imitating EPs rather than as "perpetrator introjects." Different dissociative parts can also learn to dislike each other, due to evaluative conditioning (Van der Hart et al., 2006). Thus, an EP who imitates a perpetrator to have a sense of control may learn to dislike the "weakness" of a fearful EP. The fear, dislike, and avoidance that different dissociative parts tend to have regarding each other are common clinical observations. As discussed above, some evidence suggests that ANP may manage to avoid threat cues at a preconscious level.

Increasing behavioral and mental avoidance involved in the maintenance of dissociation of the personality is needed to prevent what ANPs perceive as particularly unbearable realizations about self, others, and the world. Subsequently, ever-encompassing phobias seem to ensue from this fundamental phobia: phobia of attachment and attachment loss (in particular with regard to the therapist; phobia of trauma-derived mental actions; phobia of dissociative parts; phobia of normal life; phobia of healthy risk-taking and change; and phobia of intimacy (emotional and sexual).

Phobias can be maintained by prereflective beliefs, that is, uncritically accepted verbal formulas based on feelings, prejudice, suggestion, and restricted view of self and others, such as: "I will go crazy if I start to feel"; or "The abuse did not happen to me"; "It was my fault"; "It was no big deal." Phobias are also maintained by avoidant behavioral actions. For example, some patients use alcohol, drugs, or medication, lower their level of consciousness to avoid painful bodily and emotional trauma-related feelings or memories, and some hurt themselves to cover them up. These phobic mental and behavioral actions can be seen as *substitute actions*, that is, less adaptive actions that substitute for the more efficient but also (much) more difficult actions such as personification and presentification.

Substitute actions may develop in a variety of ways. When their stress levels are high and efficient emotion regulation skills underdeveloped, individuals as ANP or EP may tend to engage in developmentally more primitive kinds of actions. For example, unable

to symbolize their experiences, they may tend to re-enact these experiences. And when reflective actions are beyond their reach, they will be inclined to engage in prereflective beliefs (i.e., prereflective symbolic action tendencies) such as “All men are bad” and “No one will ever love me, I am worthless,” or engage in impulsive (i.e., prereflective) behaviors such as drinking or self-mutilation. For instance, some EPs may engage in self-mutilation as a form of punishment of other EPs who manifest too much distress or may seek refuge in suicide attempts. Sometimes the patient cannot express himself or herself in words, and may even be unable to maintain a social relationship, as can happen during reenactments of traumatic experiences. These psychological features may relate to particular biological phenomena. For example, deactivation of the prefrontal cortex, a lack of activation of the hippocampus and parahippocampal gyrus, and a related overactivation of brain structures such as the amygdala, insula, and caudate marked EP when exposed to a personal trauma script, as discussed below (Reinders et al., 2003, 2006, 2008). While ANP (“host”) had more prefrontal activation than EP when listening to a trauma script, ANP in a restful state had less frontal activation than healthy controls (Şar, Unal, & Öztürk, 2007). This finding suggests that ANP may also have difficulties with actions that require major frontal activation, such as paying attention, orienting in time, planning, and engaging long-term memory.

In sum, different dissociative parts can fear, dislike, and avoid each other in the context of intrusions. Less than perfect dissociation thus causes tendencies to maintain dissociation. Dissociative parts engage in substitute actions when the challenges exceed their integrative capacity. Gradually overcoming this complex of phobias and other ways of raising the survivor’s qualitative level of mental functioning or mental efficiency, that is, the capacity to use mental energy for adaptive, effective actions without loss or waste, and his or her level of mental and physical energy are essential to successful treatment, in particular the treatment of traumatic memories in Phase 2.

Dissociative Symptoms

Phenomenologically, the division of the personality in one or more ANPs and EPs manifests in dissociative symptoms. These psychobiological symptoms can be conveniently categorized as negative (functional losses such as aphonia and paralysis) or positive (intrusions such as flashbacks or voices), and as psychoform (symptoms such as amnesia, hearing voices) or somatoform

(symptoms such as anesthesia, tics; Nijenhuis, 2004; Van der Hart et al., 2006). Negative symptoms pertain to actions that are missing and to actions that substitute for integration. For example, the patient may as ANP not engage in the action of recalling particular events or having certain sensations, which may involve conscious and unconscious actions of mental and behavioral avoidance. This lack of engagement is manifested as dissociative amnesia and dissociative analgesia (insensitivity to pain) and anesthesia (loss of sensation), respectively. Positive symptoms pertain to actions that involve the generation of experiences that should not be generated anymore and the lack of integrative actions. For instance, as EP the patient may generate a flashback of traumatic experiences or particular trauma-related sensations that should not be reenacted but rather symbolized in language. Actions that are dominant for one dissociative part are often absent for another dissociative part. Thus, EP may reenact a traumatic experience, whereas ANP does not recall or incompletely recalls this traumatic experience. Upon intrusions, both parts fail to integrate the traumatic memory and to transform it in a symbolized form that is relegated to its proper place in the patient’s autobiography.

The general literature on dissociation usually emphasizes the *negative dissociative symptoms* that indicate more or less permanent functional losses in ANP(s), such as amnesia, depersonalization, anesthesia, analgesia, and paralysis. However, as is the case with amnesia and re-enactments of traumatic experiences mentioned above, dissociative disorders including PTSD are also characterized by *positive dissociative symptoms*. These symptoms are typically acute, transient phenomena, often intrusions (i.e., ANP has awareness of EP’s influence) or dominance (i.e., executive control) of EPs including reenacted traumatic memories. Positive symptoms thus include particular observable or reported actions of one dissociative part that intrude on another dissociative part’s experiential domain. This means that negative and positive dissociative symptoms are often opposite sides of one coin: What one parts experiences too little, another part may experience too much. For example, one of the symptoms Marie, a young woman with DID, suffered from was a contracture of her right hand following a suicide attempt. As ANP, Marie experienced anesthesia of her right pulse and hand. However, when the therapist invited the EP responsible for keeping the hand in this position, it became immediately clear that this part felt the physical pain involved in keeping the hand contracted. This was the part that had attempted suicide. The reason she

kept the contracture was “because then something is already dead, and the physical pain is more bearable than the emotional pain of loneliness.”

Scientific Evidence for TSDP

Apart from consistent clinical evidence, there is emerging research showing that ANP's and EP's first-person perspectives regarding (reminders of) traumatic experiences involve specific psychological as well as biological features that cannot be explained as results of role-playing and suggestion (Hermans, Nijenhuis, Van Honk, Huntjens, & Van der Hart, 2006; Nijenhuis & Den Boer, 2008; Reinders et al., 2003, 2006, 2008). This research is inspired by TSDP's contention that human experience and behavior can be analyzed at different but intrinsically related levels of analyses, that is, biological, psychological, and psychosocial levels, neither of which explains the others, at least not completely. In TSDP, it is emphasized that human (dys)functioning requires an analysis of individuals as a whole biopsychosocial system, that is embedded in a material, social, and cultural environment.

Against this background, Reinders et al. (2003, 2006) assessed sensorimotor, emotional, psychophysiological, and neural reactions of women with DID as ANP and as EP to descriptions of neutral and traumatic memories. For ANP and EP, the neutral memory was autobiographical, but only EP recognized the traumatic memory as a personal memory. In our terms, ANP had not (yet) personified the traumatic memory, and EP had not (yet) presentified it. It was documented that the patients as EP had strong sensorimotor and emotional reactions when they listened to the trauma-script that was recorded in neutral tone of voice and that only included a description of the recollected event, and not descriptions of the patient's reactions to the event. As EP but not as ANP, the patients saw visual images, heard sounds, had the feeling that they were touched, had pain, etc., and only as EP had they experienced fear, sadness, anger, disgust, and shame, and felt depressed in response to the trauma script but not the neutral script. Similarly, as EP but not as ANP, the patients had higher heart rate, systolic blood pressure, and lower heart rate variability when they listened to the trauma script. There were no psychophysiological differences between ANP and EP for the neutral script. Controlling for the possible influences of these subjective and physiological reactions, it was found that ANP and EP had very different patterns of neural

activation when these different dissociative parts had listened to the trauma script, but not when they had listened to the neutral memory script. Generally speaking, ANP had more neocortical (prefrontal, frontal, parietal, occipital) activation. EP had more activation in insula, amygdala, caudate, and somatosensory cortex, going along with reduced activity of the prefrontal cortex, anterior cingulate, hippocampus, and parahippocampal gyrus. A conjunction analysis demonstrated that ANP and EP were associated with completely different neural activation patterns. ANP's neural activation pattern had features of the pattern found for patients with depersonalization disorder, and EP's neutral pattern shared many features of patients with PTSD who reexperience traumatizing events. The collective subjective, psychophysiological, and neural findings of the Reinders et al. (2003, 2006) studies are fully consonant with TSDP (detailed in Nijenhuis & Den Boer, 2009).

To examine the possible influences of fantasy proneness, suggestion, and role-playing, high and low fantasy prone, mentally healthy women were instructed to simulate ANP and EP, and were invited to practice these two roles (Reinders et al., 2008). The women, all highly motivated to perform the tasks to their best ability, listened to a description of a neutral and painful autobiographical memory. As expected, the controls as EP reported more emotional reactions than the controls as ANP when they were listening to the painful memory. However, no differences were found for sensorimotor and psychophysiological reactions of these simulated dissociative parts. Comparisons between DID patients (ANP/EP) and controls (ANP/EP; high and low fantasy prone) regarding regional cerebral blood flow in response to the trauma script documented large and widespread differences for patients and controls while controlling for the influence of subjective and psychophysiological reactions. These findings demonstrate for the first time that healthy women instructed and motivated to simulate ANP and EP, whether high or low fantasy prone, were unable to generate the reactions of the authentic ANPs and EPs in women with DID. In a different study, it was found that ANP and EP also have different reactions to subliminally presented pictures of individuals with angry facial expressions, and that these reactions are different from ANP and EP-simulating controls (Hermans et al., 2006). According to Nijenhuis and Den Boer (2009), the evidence is consistent with TSDP's hypothesis that ANP tend to mentally avoid threat cues, whereas EP is fixated on them.

According to the TSDP, dissociation relates to a lack of integrative capacity. There are several lines of (additional) evidence for this contention. For example, it has been documented that the mental level of patients with serious dissociative symptoms is lower than the mental level of patients with few dissociative symptoms (Haaland & Landrø, 2009), and that in a resting state “hosts” (i.e., ANPs) of DID patients have patterns of brain activity that are deviant from those of healthy control subjects (Şar, Unal, & Öztürk, 2007). These findings are consistent with our hypothesis that ANP’s level of mental functioning is lower than this level in mentally healthy controls.

It has furthermore been established that the volume of the bilateral hippocampi and the bilateral parahippocampal gyrus—two brain structures related to the capacity for autobiographical memories—are considerably smaller in patients with DDNOS, and even smaller in patients with DID, as compared with mentally healthy control subjects (Ehling, Nijenhuis, & Krikke, 2008; Vermetten, Schmahl, Lindner, Loewenstein, & Bremner, 2006). Controlled studies with PTSD patients have also documented a smaller hippocampal volume for these patients (for a review, see Karl et al., 2006). Comparing the hippocampal volume of mentally healthy subjects and patients with PTSD, DDNOS, and DID, thus patients with increasing levels of dissociation, an increasingly smaller volume is observed: PTSD (primary structural dissociation), approximately –10%; DDNOS (secondary structural dissociation), approximately –15%; and DID (tertiary structural dissociation), approximately –20%. These findings are characterized by a remarkable relationship: the more severe the structural dissociation of the personality, the smaller the hippocampal volume. Furthermore, Ehling et al. (2008) found high correlations between the volume of these brain structures and psychoform and somatoform symptoms, as well as with the severity of the reported potentially traumatizing events. Correlations between the volume of these brain structures and the degree of general psychopathology and fantasy-proneness were lower or statistically nonsignificant.

Whereas it is currently unknown what factor or factors cause smaller hippocampal and parahippocampal gyrus volume in humans, exposure to experimental chronic restraint stress caused smaller hippocampal volume in rats (Lee, Jarome, Li, Kim, & Helmstetter, 2009). Consistent with a traumatogenetic explanation of smaller hippocampal volume, women with acute DID had smaller hippocampal volume than women

who fully recovered from this severe mental disorder (Nijenhuis, Ehling, & Krikke, 2002). Furthermore, in a prospective single case study, Nijenhuis et al. (2002) found that full recovery from DID following psychotherapy was associated with an increase of bilateral hippocampal volume of 19% (left) and 20% (right). This increase was upheld at a 1.5-year follow-up. This finding is consistent with an increase of bilateral hippocampal volume following successful treatment with EMDR in a male patient with chronic PTSD related to his mother’s suicide (Letizia, Andrea, & Paolo, 2007). However, in another study, successful psychotherapy of patients with PTSD, most of them survivors of sexual abuse or war, was not associated with an increase of the relatively small hippocampal volume in these patients (Lindauer et al., 2005).

TSDP includes the idea that there are links among the degree of exposure to adverse events, harmful effects on integrative brain structures in relation to the survivor’s developmental stage, the degree of dissociative symptoms, and the complexity of the structural dissociation of the personality. Whereas the discussed volumetric studies did not involve direct tests of these hypotheses, the findings are certainly consistent with this idea.

A relation of lack of integrative capacity and dissociation is also revealed in peritraumatic reactions described as dissociative, impaired affect regulation, and persistent avoidance of traumatic memories. Environmental factors include characteristics of present and prior adverse, potentially traumatizing events, caretaker dysfunction and unavailability, and lack of social support to integrate adverse experiences (e.g., Brewin, Andrews, & Valentine, 2000; Briere, Scott, & Weathers, 2005; Ogawa, Sroufe, Weinfield, Carlson, & Egeland, 1997; Ozer, Best, Lipsey, & Weiss, 2003; Van der Hart et al., 2006). For example, longitudinal findings suggest that dissociative symptoms are related to parental unavailability and exposure to traumatic stressors in early childhood (Diseth, 2006; Dutra, Bureau, Holmes, Lyubchik, & Lyons-Ruth, 2009; Lyons-Ruth, Dutra, Schuder, & Bianchi, 2006). A major task of (allo)parents is to assist the child in regulating emotional states, and early positive affective communications relate to adaptive brain maturation and the child’s evolving capacity for empathy, attention, and coping with stressors (Schore, 2003a). As was detailed above, according to TSDP, dissociation of the personality relates to a lack of integration of different action systems. The integration of these action systems would be strongly fostered by regulative affective parent–child communications. When

these exchanges are lacking (as in emotional neglect), and/or replaced by disruptive emotional communications (as in abuse), dissociation of the personality may result.

Integration: Synthesis and Realization

Trauma-related disorders are syndromes of nonrealization, as we stated above. They are integrative failures, developed in the face of overwhelming threat. Especially when faced with reenacted traumatic memories or other sources of intense stress, survivors usually respond prereflectively and do not resort to higher-order integrative, more efficient actions. The more severe the traumatization and the more complex the dissociation of the personality, the more survivors need to develop skills with regard to functioning in daily life before facing the most difficult challenge of integrating their traumatic memories, for example, using EMDR to promote the integration of traumatic memories, and the further integration of their personality. These skills can pertain to a wide variety of domains, such as emotion regulation, self-care, energy management, planning, and organized execution as well as completion of daily life activities, social interaction, assertiveness, reflection, examination and change of prereflective beliefs, and communication and deliberation among different dissociative parts. Furthermore, clinicians must consider that regardless of the degree of structural dissociation, some trauma-survivors are endowed with a lower integrative capacity than others (cf., Boon, 1997; Horevitz & Loewenstein, 1994). These patients need (far) more preparation before attempts to integrate traumatic memories are undertaken (if ever), and tend to have a less favorable prognosis.

Integration and Mental Health

Integration is much more than the integration of traumatic memories and includes the eventual “fusion” of dissociative parts of the individual into a more cohesive and coherent personality (e.g., Kluft, 1993). An integrated personality encompasses a single first-person perspective on self, others, and the world, as well as ongoing integrative mental and behavioral actions that support adaptive/efficient functioning in everyday life, including regulatory and reflective skills that are not based on habituated dysfunctional patterns. This is what mental health is about. As Janet (1889) stated, mental health is characterized by “a high capacity for integration, which unites a broad range of psychological phenomena within one personality”

(p. 460). Integration of traumatic memories and dissociative parts fosters mental health.

Integration of Action Systems

Personality seems to be intimately related to action systems, and their integration is a developmental task (Nijenhuis & Den Boer, 2008, 2009; Van der Hart et al., 2006). The challenge to integrate different action systems in the personality as a whole system seems to increase to the degree with which the interests of the action systems diverge. Thus, integrating different action systems for functioning in daily life is less complicated and challenging than integrating the action systems of defense and the action systems of daily life. The integration of the action systems for defense and for functioning in daily life is particularly demanding when the action system of defense is strongly and recurrently activated because of chronic abuse, and when the survivor’s integrative capacity is limited. In short, in this context, the action systems for avoidance of aversive stimuli and approach of attractive stimuli may remain or become sequestered and organized within alternating and competing subsystems of the survivor’s personality, each with its own first-person perspective, that is, ANP and EP.

The implication of increased integration among different dissociative parts is that the involved parts will become influenced by more and more action systems, and will start to have at their disposal ever more action tendencies that formerly were only available to one or some dissociative parts. In virtue of increased integration, the different parts also need to invest ever less energy and time in phobic actions, and waste ever less energy and time in recurrent intrusions. Thus, the more they integrate, the better they are able to meet the ever-changing demands of daily life in flexible ways rather than in the often abrupt and stereotyped ways in which dissociative parts deal with these challenges. In a word, their mental and behavioral actions become more efficient.

Synthesis and Realization

As briefly introduced above, integration involves series and levels of mental and behavior actions to link or rather to bind, to use the technical construct, together experiences and phenomena that belong together, and to differentiate those that differ (Van der Hart et al., 2006). We distinguish two main levels of integration: *Realization* consists of higher-order integrative actions, which are based on lower-order integrative actions, called *synthesis* (Van der Hart et

al., 2006). *Synthesis* pertains to those basic integrative mental and behavioral actions through which experiences, such as sensory perceptions, movements, thoughts, affects, memories, and a sense of self, are bound together (linked) and differentiated (distinguished from each other). For example, when put into words, a synthesized traumatic experience might include: “My father is very angry (visual perception) at me because I (phenomenal self model, mostly limited to the immediate situation) do not understand my homework (thought), he says I am stupid (auditory perception), I am sad and scared (emotional feelings), he beats me (visual perception, bodily sensations), and I try to ward him off to no avail (motor actions), it really hurts (bodily sensations), he puts a plastic bag over my head (visual, auditory and kinesthetic perceptions), I cannot breathe (bodily perceptions), and become really afraid (more emotional feelings), he wants to kill me (thought).

For clarity’s sake, it should be added that such traumatic experiences and the EPs that undergo them, by definition, are not or are insufficiently synthesized (integrated) with the rest of the personality. When survivors as EP reenact and thus reexperience a traumatic memory, they are often unable to differentiate past and present. Thus, the survivor who believes that she experiences her father’s physical abuse may sometimes hardly be aware that she in fact *reexperiences* the traumatization: She lives in what we call *trauma time*. Synthesis in psychotherapy would pertain to ANP synthesizing EP’s traumatic memory. When two or more different EPs are associated with different components of a particular traumatic experience, and when ANP still lacks the capacity to synthesize the traumatic memory, it may be indicated to foster synthesis among the EPs first. This synthesis may reduce the emotionality of the involved EPs, for example, because they start to grasp the context of their limited experiences more. Due to this reduction of EPs’ emotionality, it may be somewhat less demanding for ANP to synthesize the traumatic memory.

For example, Inge, an ANP of a 35-year-old patient with DID, was very afraid of experiencing and showing emotional feelings, including sadness. This avoidance was part of her phobia to realize her chronic traumatization. Some of her EPs, however, were very sad and felt an deep urge to cry. A male EP’s function was to act tough, and he despised “the weakness of these silly girls.” Once he and the therapist had developed an understanding of his function (i.e., showing great courage in interaction with perpetrators), they developed a good working relationship. This male

EP then admitted that he also felt very afraid and sad because of particular traumatizing events in which he and “the girls” had been involved. With the therapist’s help, he learned that showing his tears was safe, and that “the girls” liked him more when he shared the tears with them. All involved EPs felt relieved after the joint crying. Inge as ANP had not been part of this experience, because “she was not in favor of crying.” However, she noticed that the involved EPs had calmed down. More of such sessions with EPs lessened their emotional load, increased their mental level, and reduced Inge’s phobia of them, so that her mental level also increased. Eventually, Inge learned to share sadness and other intense emotional feelings with the EPs, and learned to cry herself. It should be added that EMDR can be very helpful in enabling dissociative parts to overcome their phobia of each other (Forgash & Knipe, 2007).

Realization, involving higher levels of integration, is defined as developing a high degree of personal awareness of reality as it is, accepting it, and reflectively and creatively adapting to it. Ownership, that is, personal awareness and acceptance of experience as one’s own, is defined as *personification* (Janet, 1929; Van der Hart et al., 2006): “That happened to *me* and I am aware of how it helped shape who I am”; “These are *my* feelings and *my* actions.” Dissociative individuals do not sufficiently own or *personify* their inner and outer experiences, that is, they do not sufficiently integrate them in the context of one cohesive and coherent phenomenal self-model.

Full realization is achieved not just through personal ownership, but also through *presentification* (Janet, 1928; Van der Hart et al., 2006), defined as being in the present with a synthesis of all one’s personified experiences—past, present, and anticipated future—at the ready to support reflective decision making and adaptive action. Well-integrated individuals remain grounded in the present when they remember traumatizing events, and experience the recall as an autobiographical narrative memory rather than a reliving of the past.

Fostering Integrative Action

Structural dissociation may be adaptive when the integrative level is not sufficient to integrate traumatic experiences and evolved different dissociative parts of the personality. However, continued structural dissociation is maladaptive when integration of traumatic experiences would be feasible. The integration of traumatic memories implies integrating divided subsystems of the personality, that is, ANPs and EPs.

These subsystems involve different psychobiological features. For example, exposed to trauma-related events, EP has strong emotional reactions that can also be found at the level of neural activity. For example, EP has more insular and amygdalar activation than ANP in this context. The amygdala orchestrates a range of unconditioned and conditioned reactions to threat, including sympathetic and parasympathetic nervous system activity, analgesia, defensive motor reaction patterns, subjective emotional feelings such as fear, and retraction of the field of consciousness to threat cues in the immediate, subjective present. In neural terms, these reactions seem to lack modulation by the prefrontal and other integrative brain structures. However, when the psychobiological systems that involve daily life functioning—that is, ANP—are dominant, threat cues are avoided (gaze aversion, mental inhibition), and attention is directed to cues that have a bearing on daily life. The depersonalization and negative somatoform dissociative symptoms that characterize ANP may be related to disturbed metabolism in the somatosensory association areas.

Following these lines of analysis, neither dissociative subsystem can mend the integrative problem. Rather, the integration of traumatic memories requires the joint, coordinated activation of EP and ANP. Cast in psychological terms, together, ANP and EP can integrate (synthesize, personify, and presentify) the traumatic past and the safe present. Together they can experience and realize what happened, that it happened in the past, that the past had its consequences, and that the present is safe and more real.

These difficult actions are supported by a solid therapeutic working alliance and, related to this, a firm grounding in the present. Part of emotion regulation is interpersonal regulation (Hrды, 2009; Nijenhuis & Den Boer, 2009; Porges, 2007; Schore, 2003a, 2003b). In terms of Porges' (2007) polyvagal theory, EPs seem to be mediated by the sympathetic nervous system (EPs engaging in flight, freeze, fight) or the dorsal vagal branch of the parasympathetic nervous system (EPs engaging in total submission [playing dead]) when exposed to trauma-related events (Nijenhuis & Den Boer, 2009). When ANPs feel relatively safe, they may be mediated more by the ventral branch of the parasympathetic nervous system, that allows for more interpersonal emotion regulation, including integration and coordination of different action systems (Nijenhuis & Den Boer, 2009). However, when exposed to real or perceived threat cues such as EPs and traumatic memories associated with EPs, ANPs may become dominated more by the

other components of the central nervous system, losing their regulatory capacity and reengaging in their conditioned mental avoidance. They thus may avoid EP, traumatic memories, and disconnect from social cues that would support integrative action tendencies, particularly contact with the therapist and the present more generally. Lack of interpersonal integrative support and loss of the present hampers or fully blocks the integration of EP-related traumatic memories. These deficiencies are, moreover, influenced by the phobias of attachment and attachment loss that are so common and strong in survivors of chronic childhood emotional neglect and maltreatment abuse, leaving ANPs as lone warriors fighting traumatic memories and the associated EPs as if they were "evil spirits." ANPs are thus haunted by a dreadful past that becomes far too real when it resurfaces, overshadowing their sense of safety in the present.

TSDP and the Practice of EMDR

TSDP suggests several facts and principles that clinicians using EMDR must appreciate, some of which are briefly listed below for orientation. It is important to realize that:

- Successful EMDR requires sufficient integrative capacity, that is, sufficient mental and physical energy and mental efficiency. When the patient's integrative capacity is too low, the clinician must assist the patient in gaining energy and efficiency before it is attempted to integrate traumatic memories. Premature exposure to traumatic memories with EMDR (and any other intervention involving exposure to these memories) is ineffective at best and causes severe decompensation of the patient at worst.
- Patients with complex trauma-related disorders tend to encompass two or more different parts of their personality, each with their specific reactions to trauma-related stimuli. Clinicians must examine to what degree the patient's personality is divided, and need to be aware that some parts may be manifest (i.e., activated) or others latent. These latent parts tend to become reactivated under particular circumstances, notably exposure to trauma-related stimuli such as during EMDR sessions.
- As ANP patients may show an apparently adaptive reaction to EMDR interventions, but respond as one or more EPs, with intense fear, anger, shame, despair, or still other vehement emotions during or briefly after the session. These emotions may involve or relate to substitute actions such as panic, self-mutilation, substance abuse, and feelings of

intense anger. These substitute actions can be (re)elicited by the application of the EMDR standard protocol, that is, without any modifications for use with patients with complex trauma-related disorders.

- Some dissociative parts may be motivated to integrate traumatic memories, whereas other parts may resist the actions involved. Sooner or later all dissociative parts need to be willing and able to engage in EMDR as a therapeutic intervention. The clinician must be active in fostering such motivation and the actions needed for the integration of traumatic memories (e.g., affect regulation skills and other higher-level action tendencies).
- Some patients create new dissociative parts to cope with EMDR sessions. This creation may be due to premature efforts to integrate traumatic memories, or to the patient's felt need to mentally avoid these memories or current inability to integrate these memories.
- Conflicts among different parts need to be resolved, so that these parts can collaborate in EMDR sessions, rather than interfere with each other's actions.
- Building collaboration among different dissociative parts and cooperation between these parts and the therapist may involve laborious and lengthy work. Setting up collaboration is greatly supported by the clinician's understanding of the different types of dissociative parts that can exist and of their different, often conflicting first-person perspectives, goals, and functions, as well as their phobias of particular actions. The clinician's understanding of the action systems that mediate the different parts is particularly helpful in fostering cooperation with these parts and in promoting the positive attachment that is often so mandatory for therapeutic success. While some of this work can be supported by EMDR, other interventions will commonly be needed in the treatment of complex trauma-related disorders.
- Integration of traumatic memories requires the involvement and collaboration among different dissociative parts. This involvement and this collaboration must often be fostered. Commonly phobias of trauma-derived mental and behavioral actions, of dissociative parts, and of trusting and attaching to the therapist within limits must be overcome before the phobia of traumatic memories can be addressed.
- The integrative capacity of the different parts and the patient as a whole system can be raised by sharing resources (e.g., efficient mental and physical actions/skills or even action systems) among different dissociative parts. EMDR may be used

to foster such sharing (Forgash & Copeley, 2007; Korn & Leeds, 2002).

- The integration of traumatic memories can only be reached through gradual synthesis and realization in complex cases, given limited integrative capacity and severity and chronicity of the traumatization. This implies that the clinician may need to assist patients in using their dissociative capacity to delimit the degree of synthesis and realization; for example, using imagery that only a portion of the to be integrated traumatic memory is synthesized and realized in a particular session.
- This gradual synthesis and realization also demands careful attention and agreement between patient and therapist as to which EPs will share their (aspect or dimension of a) traumatic memory, which other parts will be involved in the integration, and which other parts need to be excluded for the time being and have to remain in their own inner safe places.

In a second article, it will be detailed how TSDP can guide the application of EMDR as an intervention in the treatment of complex dissociative disorders that commonly includes a host of other interventions.

Discussion and Conclusion

This article presents a synopsis of the TSDP, together with the related psychology of action, and provides a nonexhaustive set of findings from research studies that support the theory. A more detailed discussion of the theory can be found in Van der Hart et al. (2006). This theory may help EMDR therapists to understand the complex inner world of survivors of chronic traumatization, as manifested in complex trauma-related disorders, including complex dissociative disorders. As such, the theory may constitute a map for the rational application of phase-oriented treatment of these survivors, indicating what the successive problems are that need to be resolved, including the major challenge of the integration of traumatic memories. Thus, the theory may also provide an integrative framework for understanding other existing therapeutic approaches focused on the resolution of complex traumatization with which EMDR can be integrated, such as Ego State Therapy (cf., Forgash & Copeley, 2007; Phillips & Frederick, 1995) and traditional approaches geared at the treatment of DID (e.g., Kluff & Fine, 1993; Putnam, 1989; Ross, 1997). It should be noted that TSDP is an open theory, that is, in continuous development and incorporating new insights and research findings.

This article is not the place for a comparison between TSDP and EMDR's main explanatory model, that is, the AIP model. Therefore, one observation

needs to suffice: According to TSDP and the associated psychology of action, “information processing” involves particular mental actions; thus, “processing traumatic memories” pertains to the mental actions of synthesis as well as realization (i.e., personification and presentification); these actions will have a neurobiological and psychological description neither of which explains the other. They rather involve different levels of description of the same phenomena.

Another article will detail the goals for each treatment phase, many of them formulated in terms of overcoming specific phobias that are posited to have maintained the dissociation of the personality and, inherently, the continuous existence of traumatic memories. Using an extensive case example, some of the treatment techniques for each treatment phase will also be described. This article has not explained why EMDR works in terms of TSDP and its related psychology of action. However, we have described which mental actions are involved in successful EMDR treatment aiming at the integration of traumatic memories as well as the unification of dissociative parts.

References

- Allport, G. W. (1961). *Pattern and growth in personality*. New York: Holt, Rinehart, and Winston.
- American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.
- Appelfeld, A. (1994). *Beyond despair*. New York: Fromm International.
- Bergmann, U. (2007). She’s come undone: A neurobiological exploration of dissociative disorders. In C. Forgash & M. Copeley (Eds.), *Healing the heart of trauma and dissociation with EMDR and ego state therapy* (pp. 61–89). New York: Springer Publishing.
- Bisson, J., & Andrew, M. (2007). Psychological treatment of post-traumatic stress disorder (PTSD). *Cochrane Database of Systematic Reviews* 2007, Issue 3. Art. No.: CD003388. DOI: [10.1002/14651858.CD003388.pub3](https://doi.org/10.1002/14651858.CD003388.pub3).
- Boon, S. (1997). The treatment of traumatic memories in DID: Indications and contra-indications. *Dissociation*, 10, 65–79.
- Brewin, C. R., Andrews, B., & Valentine, J. D. (2000). Meta-analysis of risk factors for posttraumatic stress disorder in trauma-exposed adults. *Journal of Consulting and Clinical Psychology*, 68, 748–766.
- Briere, J., Scott, C., & Weathers, F. (2005). Peritraumatic and persistent dissociation in the presumed etiology of PTSD. *American Journal of Psychiatry*, 162, 2295–2301.
- Dell, P. F. (2009). The phenomena of pathological dissociation. In P. F. Dell & J. A. O’Neil (Eds.), *Dissociation and the dissociative disorders: DSM-IV and beyond* (pp. 667–692). New York: Routledge.
- Diseth, T. H. (2006). Dissociation following traumatic medical treatment procedures in childhood: A longitudinal follow-up. *Development and Psychopathology*, 18, 233–251.
- Dutra, L., Bureau, J. F., Holmes, B., Lyubchik, A., & Lyons-Ruth, K. (2009). Quality of early care and childhood trauma: A prospective study of developmental pathways to dissociation. *Journal of Nervous and Mental Disease*, 197, 383–390.
- Ehling, T., Nijenhuis, E. R., & Krikke, A. P. (2008). Volume of discrete brain structures in complex dissociative disorders: Preliminary findings. *Progress in Brain Research*, 167, 307–310.
- Fanselow, M. S., & Lester, L. S. (1988). A functional behavioristic approach to aversively motivated behavior: Predatory imminence as a determinant of the topography of defensive behavior. In R. C. Bolles & M. D. Beecher (Eds.), *Evolution and learning* (pp. 185–212). Hillsdale, NJ: Lawrence Erlbaum.
- Fine, C., Paulsen, S., Rouanzoin, C., Luber, M., Puk, G., & Young, W. (1995). A general guide to the use of EMDR in the dissociative disorders. *EMDR Weekend One Training Manual*, 2009.
- Foa, E. B., Keane, T. M., Friedman, M. J., & Cohen, J. A. (Eds.). (2009). *Effective treatments for PTSD: Practice guidelines from the International Society for Traumatic Stress Studies*. New York: Guilford.
- Forgash, C., & Copeley, M. (Eds.). (2007). *Healing the heart of trauma and dissociation with EMDR and ego state therapy*. New York: Springer Publishing.
- Forgash, C., & Knipe, J. (2007). Integrating EMDR and ego state treatment for clients with trauma disorders. In C. Forgash & M. Copeley (Eds.), *Healing the heart of trauma and dissociation with EMDR and ego state therapy* (pp. 1–59). New York: Springer Publishing.
- Gelinas, D. J. (2003). Integrating EMDR into phase-oriented treatment for trauma. *Journal of Trauma & Dissociation*, 4(3), 91–135.
- Haaland, V. O., & Landrø, N. I. (2009). Pathological dissociation and neuropsychological functioning in borderline personality disorder. *Acta Psychiatrica Scandinavica*, 119, 383–392.
- Hermans, E. J., Nijenhuis, E. R. S., Van Honk, J., Huntjens, R., & Van der Hart, O. (2006). State dependent attentional bias for facial threat in dissociative identity disorder. *Psychiatry Research*, 141, 233–236.
- Horevitz, R., & Loewenstein, R. J. (1994). The rational treatment of multiple personality disorder. In S. J. Lynn & J. W. Rhue (Eds.), *Dissociation: Clinical and theoretical perspectives* (pp. 289–316). New York: Guilford.
- Hrdy, S. B. (2009). *Mothers and others: The evolutionary origins of mutual understanding*. Cambridge, MA: The Belknap Press of Harvard University Press.
- Janet, P. (1889). *L’automatisme psychologique*. Paris: Félix Alcan.
- Janet, P. (1904). L’amnésie et la dissociation des souvenirs par l’émotion. *Journal de Psychologie*, 1, 417–453.

- Janet, P. (1919). *Les médications psychologiques*. Paris: Félix Alcan.
- Janet, P. (1928). *L'évolution de la mémoire et de la notion du temps*. Paris: A. Chahine.
- Janet, P. (1929). *L'évolution de personnalité*. Paris: A. Chahine.
- Janet, P. (1935). Réalisation et interprétation. *Annales Médico-Psychologiques*, 93, 329–366.
- Janet, P. (1945). La croyance délirante. *Schweizerische Zeitschrift für Psychologie*, 4, 173–187.
- Johnson, J. G., Cohen, P., Kasen, S., & Brook, J. S. (2006). Dissociative disorders among adults in the community, impaired functioning, and axis I and II comorbidity. *Journal Psychiatric Research*, 40, 131–140.
- Karl, A., Schaefer, M., Malta, L. S., Dorfel, D., Rohleder, N., & Werner, A. (2006). A meta-analysis of structural brain abnormalities in PTSD. *Neuroscience and Biobehavioral Reviews*, 30, 1004–1031.
- Kluft, R. P. (1993). Clinical approaches to the integration of personalities. In R. P. Kluft & C. G. Fine (Eds.), *Clinical perspectives on multiple personality disorder* (pp. 101–133). Washington, DC: American Psychiatric Press.
- Kluft, R. P., & Fine, C.G. (Eds.). (1993). *Clinical perspectives on multiple personality disorder*. Washington, DC: American Psychiatric Press.
- Korn, D. L., & Leeds, A. M. (2002). Preliminary evidence of efficacy for EMDR resource development and installation in the stabilization phase of treatment of complex posttraumatic stress disorder. *Journal of Clinical Psychology*, 58, 1465–1487.
- Lang, P. J. (1995). The emotion probe: Studies of motivation and attention. *American Psychologist*, 50, 372–385.
- Langer, L. L. (1991). *Holocaust testimonies: The ruins of memory*. New Haven: Yale University Press.
- Laub, D., & Auerhahn, N. C. (1993). Knowing and not knowing massive psychic trauma: Forms of traumatic memory. *International Journal of Psycho-Analysis*, 74, 287–302.
- Lazrove, S., & Fine, C. G. (1996). The use of EMDR in patients with dissociative identity disorder. *Dissociation*, 9, 289–299.
- Lee, T., Jarome, T., Li, S. J., Kim, J. J., & Helmstetter, F. J. (2009). Chronic stress selectively reduces hippocampal volume in rats: A longitudinal magnetic resonance imaging study. *Neuroreport*, 20, 1554–1558.
- Letizia, B., Andrea, F., & Paolo, C. (2007). Neuroanatomical changes after eye movement desensitization and reprocessing (EMDR) treatment in posttraumatic stress disorder. *Journal of Neuropsychiatry and Clinical Neurosciences*, 19, 475–476.
- Lindauer, R. J., Vlioger, E. J., Jalink, M., Olf, M., Carlier, I. V., Majoie, C. B., et al. (2005). Effects of psychotherapy on hippocampal volume in out-patients with post-traumatic stress disorder: An MRI investigation. *Psychological Medicine*, 35, 1421–1431.
- Liotti, G. (1999). Disorganization of attachment as a model for understanding dissociative psychopathology. In J. Solomon & C. George (Eds.), *Attachment disorganization* (pp. 297–317). New York: Guilford.
- Lyons-Ruth, K., Dutra, L., Schuder, M. R., & Bianchi, I. (2006). From infant attachment disorganization to adult dissociation: Relational adaptations or traumatic experiences? *Psychiatric Clinical of North America*, 29, 63–86.
- McDougall, W. (1926). *An outline of abnormal psychology*. London: Methuen.
- Metzinger, T. (2003). *Being no one: The self-model theory of subjectivity*. Cambridge, MA: MIT Press.
- Mitchell, T. W. (1922). *Medical psychology and psychical research*. London: Society of Psychical Research.
- Myers, C. S. (1940). *Shell shock in France 1914–1918*. Cambridge: Cambridge University Press.
- Nijenhuis, E. R. S. (2004). *Somatoform dissociation: Phenomena, measurement, and theoretical issues*. New York: Norton & Co.
- Nijenhuis, E. R. S. (in press). Consciousness and self-consciousness in dissociative disorders. In V. Sinason (Ed.), *Trauma and dissociation: Conceptual, clinical and theoretical issues*. London: Routledge.
- Nijenhuis, E. R. S., & Den Boer, J. A. (2008). Psychobiology of traumatization and trauma-related structural dissociation of the personality. In E. Vermetten, M. J. Dorahy, & D. Spiegel (Eds.), *Traumatic dissociation: Neurobiology and treatment* (pp. 219–236). Washington, DC: American Psychiatric Publishing.
- Nijenhuis, E. R. S., & Den Boer, J. A. (2009). Psychobiology of traumatization and trauma-related structural dissociation of the personality. In P. F. Dell & J. A. O'Neil (Eds.), *Dissociation and the dissociative disorders: DSM-V and beyond* (pp. 337–367). New York: Routledge.
- Nijenhuis, E. R. S., Ehling, T., & Krikke, A. (2002, November 9–12). *Hippocampal volume in florid and recovered cases of DID, DDNOS, and healthy controls: Three MRI studies* (p. 43). Proceedings of the 19th International Fall Conference of the International Society for the Study of Dissociation, Baltimore.
- Nijenhuis, E. R. S., Van der Hart, O., & Steele, K. (2002). The emerging psychobiology of trauma-related dissociation and dissociative disorders. In H. D'Haenen, J. A. den Boer, & P. Willner (Eds.), *Biological psychiatry* (pp. 1079–1098). London: Wiley.
- Nijenhuis, E. R. S., & Van der Hart, O. (in press). Dissociation in trauma: A new definition and comparison with previous formulations. *Journal of Trauma & Dissociation*.
- Ogawa, J. R., Sroufe, L. A., Weinfield, N. S., Carlson, E. A., & Egeland, B. (1997). Development and the fragmented self: Longitudinal study of dissociative symptomatology in a nonclinical sample. *Developmental Psychopathology*, 9, 855–879.
- Oppenheim, H.-J., Ten Broeke, E., & De Jongh, A. (2008). EMDR bij dissociatieve stoornissen [EMDR with dissociative disorders]. In E. ten Broeke, A. de Jongh, & H.-J. Oppenheim (Eds.), *Praktijkboek EMDR*

- (pp. 175–198). Amsterdam, Netherlands: Harcourt Assessment.
- Ozer, E. J., Best, S. R., Lipsey, T. L., & Weiss, D. S. (2003). Predictors of posttraumatic stress disorder and symptoms in adults: A meta-analysis. *Psychological Bulletin*, *129*, 52–73.
- Panksepp, J. (1998). *Affective neuroscience: The foundations of human and animal emotions*. New York/Oxford: Oxford University Press.
- Paulsen, S. (1995). Eye movement desensitization and reprocessing: Its cautious use in the dissociative disorders. *Dissociation*, *8*, 32–44.
- Paulsen, S. (2007). Treating dissociative identity disorder with EMDR, ego state therapy, and adjunct approaches. In C. Forgash & M. Copeley (Eds.), *Healing the heart of trauma and dissociation with EMDR and ego state therapy* (pp. 141–179). New York: Springer Publishing.
- Phillips, M., & Frederick, C. (1995). *Healing the divided self*. New York: W. W. Norton.
- Porges, S. W. (2003). The polyvagal theory: Phylogenetic contributions to social behavior. *Physiology and Behavior*, *79*, 503–513.
- Porges, S. W. (2007). The polyvagal perspective. *Biological Psychology*, *74*, 116–143.
- Porges, S. W., Doussard-Roosevelt, J. A., & Maiti, A. K. (1994). Vagal tone and the physiological regulation of emotion. *Monographs of the Society for Research in Child Development*, *59*, 167–186.
- Putnam, F. W. (1989). *Diagnosis and treatment of multiple personality disorder*. New York: Guilford.
- Reinders, A. A. T. S., Nijenhuis, E. R. S., Paans, A. M., Korf, J., Willemsen, A. T., & Den Boer, J. A. (2003). One brain, two selves. *NeuroImage*, *20*, 2119–2125.
- Reinders, A. A. T. S., Nijenhuis, E. R. S., Quak, J., Korf, J., Haaksma, J., Paans, A. M., et al. (2006). Psychobiological characteristics of dissociative identity disorder: A symptom provocation study. *Biological Psychiatry*, *60*, 730–740.
- Reinders, A. A. T. S., Van Eekeren, M., Vos, H., Haaksma, J., Willemsen, A., Den Boer, J., et al. (2008, April 17–19). *The dissociative brain: Feature or ruled by fantasy?* Paper presented at the First International Conference of the European Society of Trauma and Dissociation, Amsterdam, The Netherlands.
- Ross, C. A. (1997). *Dissociative identity disorder: Diagnosis, clinical features, and treatment of multiple personality*. New York: Wiley.
- Şar, V., Akyüz, G., & Doğan, O. (2007). Prevalence of dissociative disorders among women in the general population. *Psychiatry Research*, *149*, 169–176.
- Şar, V., Unal, S. N., & Öztürk, E. (2007). Frontal and occipital perfusion changes in dissociative identity disorder. *Psychiatry Research*, *156*, 217–223.
- Schore, A. N. (2003a). *Affect dysregulation and disorders of the self*. New York: W. W. Norton.
- Schore, A. N. (2003b). *Affect regulation and the repair of the self*. New York: W. W. Norton.
- Shapiro, F. (1995). *Eye movement desensitization and reprocessing: Basic principles, protocols, and procedures*. New York: Guilford.
- Shapiro, F. (2001). *Eye movement desensitization and reprocessing: Basic principles, protocols, and procedures* (2nd ed.). New York: Guilford.
- Solomon, R. M., & Shapiro, F. (2008). EMDR and the adaptive information processing model: Potential mechanisms of change. *Journal of EMDR Practice and Research*, *2*, 315–325.
- Steele, K., Van der Hart, O., & Nijenhuis, E. R. S. (2001). Dependency in the treatment of complex posttraumatic stress disorder and dissociative disorders. *Journal of Trauma and Dissociation*, *2*(4), 79–116.
- Steele, K., Van der Hart, O., & Nijenhuis, E. R. S. (2005). Phase-oriented treatment of structural dissociation in complex traumatization: Overcoming trauma-related phobias. *Journal of Trauma and Dissociation*, *6*(3), 11–53.
- Steele, K., Van der Hart, O., & Nijenhuis, E. R. S. (2009). The theory of trauma-related structural dissociation of the personality. In P. F. Dell & J. A. O’Neil (Eds.), *Dissociation and the dissociative disorders: DSM-V and beyond* (pp. 239–258). New York/London: Routledge.
- Twombly, J. H. (2005). EMDR for clients with dissociative identity disorder, DDNOS, and ego states. In R. Shapiro (Ed.), *EMDR solutions: Pathways to healing* (pp. 88–120). New York: W. W. Norton.
- Van der Hart, O., Steele, K., Boon, S., & Brown, P. (1993). The treatment of traumatic memories: Synthesis, realization and integration. *Dissociation*, *6*, 162–180.
- Van der Hart, O., Nijenhuis, E. R. S., & Steele, K. (2006). *The haunted self: Structural dissociation and the treatment of chronic traumatization*. New York: W. W. Norton.
- Van der Hart, O., & Witztum, E. (2008). Dissociative psychosis: Clinical and theoretical aspects. In A. Moskowitz, I. Schäfer, & M. Dorahy (Eds.), *Dissociation and psychosis: Multiple perspectives on a complex relationship* (pp. 257–269). London: John Wiley.
- Vermetten, E., Schmahl, C., Lindner, S., Loewenstein, R. J., & Bremner, J. D. (2006). Hippocampal and amygdalar volumes in dissociative identity disorder. *American Journal of Psychiatry*, *163*, 630–636.
- Young, W. C. (1994). EMDR treatment of phobic symptoms in multiple personality disorder. *Dissociation*, *7*, 129–133.

Correspondence regarding this article should be directed to Onno van der Hart, Sinai Center for Mental Health, Laan van de Helende Meesters 2, 1186 AM Amstelveen, The Netherlands. E-mail: o.vanderhart@uu.nl