

# **EMDR IS BASED ON A TRAUMA-DISSOCIATION MODEL OF MENTAL DISORDERS**

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**Abstract.** The author presents a series of arguments as to why eye movement desensitization and reprocessing (EMDR) is based on a trauma-dissociation model of mental disorders. The EMDR model is consistent with the trauma-dissociation theories of Pierre Janet, Braun's BASK model of dissociation and the theory of structural dissociation, which is a recent elaboration of Janet's thinking. The therapeutic procedures of EMDR are consistent with three-stage trauma psychotherapy models and EMDR can be used in the treatment of complex dissociative disorders without significant modifications. The author suggests that the EMDR treatment outcome literature can be viewed as a literature on the treatment of trauma-induced dissociation.

Eye movement desensitization and reprocessing (EMDR) was developed by Francine Shapiro (2001). EMDR is widely used and is approved as an evidence-based treatment for posttraumatic stress disorder (PTSD; see American Psychiatric Association, 2004; Bisson & Andrew, 2007)).

The professional association for EMDR in North America is the EMDR International Association ([www.emdria.org](http://www.emdria.org)) and the primary training institute is the EMDR Institute ([www.emdr.com](http://www.emdr.com)). Other EMDR organizations include EMDR Europe ([www.emdr-europe.org](http://www.emdr-europe.org)) and EMDR Iberoamerica ([www.emdriberoamerica.org](http://www.emdriberoamerica.org)). The purpose of the present paper is to argue that EMDR is based on a trauma-dissociation model of mental disorders. EMDR is useful for a broad range of mental disorders (Solomon & Shapiro, 2008) because, from the perspective of its model, many different behaviors and symptoms are suitable targets for treatment. Shapiro (2001, page 11-13) says that, “positive therapeutic results with EMDR have been reported with a wide range of populations, as documented in the following case and controlled studies.” She then references studies on PTSD, phobias, panic disorder, grief, chemical dependency and gambling addictions, performance anxiety, somatoform disorders and personality disorders.

What is being treated in EMDR is un-metabolized trauma, in the form of dissociated affect, memories and other psychic content, as Shapiro (2001, page 3) states: “According to the Adaptive Information Processing model that guides EMDR practice, we would say that this event has been insufficiently processed and these automatically arising thoughts, emotions, and physical reactions may be inappropriately coloring our perceptions and actions.” EMDR, in my view, is consistent with the trauma-dissociation theory of Pierre Janet (1965; 1977), with the BASK model of dissociation (Braun, 1988a; 1988b) and with contemporary Janet-based models like the theory of structural dissociation (Van der Hart, Nijenhuis, and Steele, 2006).

According to Janet, trauma results in intolerable feelings and memories that are then disconnected – dissociated - from the adult executive self and stored in separate compartments, where they remain un-processed and un-metabolized. Symptoms arise because the dissociation is incomplete and imperfect; feelings, memories and sensations intrude into the executive self from the dissociated compartment resulting in flashbacks, psychosomatic symptoms, terror states, hyper-arousal and a wide range of symptoms from many sections of the DSM or ICD. Treatment involves reintegrating the dissociated material so that it can be processed and mastered. Once that is achieved, the intrusion symptoms no longer occur. Janet's model is basically the same as the EMDR model stated by Shapiro (2001). Here I am discussing the model of mental disorders inherent in EMDR, not the specific treatment techniques.

### **A Brief Description of EMDR Procedures**

EMDR is an eight-phase treatment protocol, of which Phases 4-6 involve eye movements or other forms of bilateral stimulation. The phases of EMDR are:

One: Client History and Treatment Planning

Two: Preparation

Three: Assessment

Four: Desensitization

Five: Installation

Six: Body Scan

Seven: Closure

## Eight: Reevaluation

In terms of a three-stage trauma psychotherapy (Courtois and Ford, 2009), EMDR Phases 1-2 correspond to Stage 1 (forming a treatment alliance, grounding, safety, skill building, education in the therapy model), EMDR Phases 3-6 correspond to Stage 2 (active trauma processing), and EMDR Phases 7-8 correspond to Stage 3 (consolidation, resolution). EMDR Phase 3 involves technical procedures specific to EMDR to determine the components of the target memory and established baseline measures for the client's reactions to the process during phases 4 to 6. More general history taking and assessment is done in Phase 1. Phase 1 also includes identification of EMDR targets for future phases of treatment.

The EMDR treatment protocol involves a blend of principles and techniques from various schools of therapy including, most prominently, cognitive-behavioral therapies, exposure protocols, systems theory, psychodynamic principles, mindfulness and experiential therapies (Shapiro and Forest, 1997; Shapiro, Kaslow, and Maxfield, 2007). The EMDR procedures for *installation* employed in Phase 5 result in the replacement of inaccurate, trauma-driven negative cognitions and beliefs with more accurate, adaptive and positive cognitions. The outcome of installation is the same as that in cognitive therapy but the therapeutic procedure is different. In cognitive therapy, there is a logical and philosophical analysis of the negative beliefs, and the evidence for and against them, and an extended conversation with the therapist.

In EMDR, in comparison, positive cognitions are installed by strengthening connections to positive memory networks and increasing generalization effects within the associated network, which may be done through eye movements, tapping or dichotic listening. There is less verbal therapy during EMDR *installation* than there is in cognitive therapy.

As Shapiro (2001, page 73) states, “The installation phase starts once the client’s level of emotion about the target event has dropped to 0 on the SUD scale. At this point the clinician asks the client to hold the most appropriate positive cognitions in mind along with the target memory. Then the clinician continues the eye movement sets until the client’s rating of the positive cognition reaches a 7 on the VOC [Validity of Cognition] Scale.”

Similarly, the desensitization done in Phase 4 of EMDR resembles classical exposure treatments for PTSD to some degree but is different in others. Classical exposure involves flooding the person with trauma memories until habituation and desensitization occur. In EMDR, the degree of exposure is less and the theory is different: classical exposure is based on learning theory whereas desensitization in EMDR is based on an *adaptive information processing model*. As Shapiro (2001, page 23) describes it in comparing EMDR to direct therapeutic exposure, “EMDR offers an alternative method for the treatment that does not necessitate prolonged exposure to high-anxiety-producing stimuli and yet desensitizes the traumatic event rapidly. . . attention to the incident is not maintained, as in standard therapies, and the amount of exposure needed in EMDR appears to be much less.”

According to this model, EMDR works by reconnecting the neural circuits holding the trauma (and its attendant negative cognitions) with more widely distributed adaptive and flexible neural networks in the brain. Shapiro (2001, page 30) describes the Adaptive Information Processing model by saying, “there appears to be a neurological balance in a distinct physiological system that allows information to be processed to an “adaptive resolution.”

By adaptive resolution I mean that the connections to appropriate associations are made and the experience is used constructively by the individual and is integrated into a positive emotional and cognitive schema.”

The basic analogy is with cleaning out a wound so that the body’s natural healing processes can take over. EMDR removes the block that prevents natural healing in the brain from doing its work. There is less active effort at healing by the therapist because the natural healing processes of the brain take over and do the job. Also, procedurally, classical exposure does not involve bilateral stimulation. Shapiro’s description of adaptive information processing is that it results in the integration of material through the forming of healthy connections and associations. This implies that prior to the EMDR the material was disconnected and dissociated (not associated), which is why I argue that EMDR is fundamentally based on a trauma-dissociation model.

EMDR is based on a comprehensive model of mental disorders and addictions. It is a three-stage trauma recovery model (although it is divided into 8 Phases ) and in that regard resembles most mainstream trauma treatment models (Courtois and Ford, 2009). Additionally, EMDR involves a “three-pronged protocol” that focuses on past, present and future. EMDR is explicitly a trauma model throughout and therefore resembles standard treatments for complex dissociative disorders (Ross, 1997; Ross and Halpern, 2009; Nijenhuis and Van der Hart, 2011a; 2011b; Steele, Van der Hart, and Nijenhuis, 2009; Van der Hart, Nijenhuis, and Steele, 2006). In EMDR, traumatic events are divided into “big T” and “small t” categories; big T events resemble those required in the DSM-IV criterion A for PTSD (American Psychiatric Association, 1994), while small t events involve less catastrophic life events that are nevertheless still traumatic for

the child: as Shapiro (2001, page 55) says, “although designated “small t” trauma to denote the ubiquitous nature of these types of experiences, the events do not feel “small” to the child. Indeed, childhood humiliation can be seen as the evolutionary equivalent of being cut out of the herd.” The definition of a traumatic event is thus broader in EMDR than it is in DSM-IV PTSD, but is consistent with the definitions of trauma in the dissociative disorders literature (Ross, 1997; Ross and Halpern, 2009). Both big T and small t traumas can result in the dissociation of components of the trauma, and both can be the targets of EMDR procedures.

### **The Trauma-Dissociation Model Underlying EMDR.**

Like trauma-dissociation theory in general, EMDR is explicitly based on a big T/small t trauma model: “clinical experience indicates that many pathologies, including certain forms of depression, are forged by earlier experiences. . . which may range from easily identified critical incidents such as rapes and assaults, through the more innocuous-seeming negative interactions with family, peers, strangers, or others that have left a lasting negative effect.” (Shapiro, 2001, p. 5).

Like Janet’s (1965; 1977) model of psychopathology, EMDR is based on a structural dissociation in which traumatic affect, cognition, and memory are stored in a dissociated compartment of the psyche. In Van der Hart, Nijenhuis and Steele’s (2006) elaboration of Janet’s theory, the dissociated compartment is required to contain a part-self or ego state with a subjective sense of its own separate identity. This requirement is not present in EMDR’s adaptive information processing model, but can be accommodated within it quite easily. Indeed, the presence of a wounded inner child is often noted by EMDR clinicians: “trauma. . . is posited to be dysfunctionally stored in the wrong form of memory (ie., in implicit/motoric rather than



explicit/narrative memory. . . The dysfunctionally stored memory still has within it some of the sensory perceptions and thoughts that were there at the time of the event. Essentially, the childhood perspective is locked in place and causes the person to perceive the present from a similar vantage point of defectiveness. . . Clients. . . may slip into the intonation of childhood when speaking of earlier experiences.” Shapiro, 2001, p. 4).

Within the theory of structural dissociation (Van der Hart, Nijenhuis, and Steele, 2006), “slipping into the intonation of childhood” would be described as switching from the adult executive self – the *apparently normal personality* (ANP) – to the wounded inner child or *emotional personality* (EP). Within the theory of structural dissociation, PTSD is due to intrusions of dissociated feelings, memories, sensations, arousal, and cognitions from an EP into an ANP. The intrusions alternate in an oscillating, recurrent fashion with the opposite: withdrawal of affect, memory, arousal, sensation and cognition out of the ANP into an EP. Withdrawal results in the amnesia/numbing constellation of symptoms in the DSM-IV criteria for PTSD (American Psychiatric Association, 1994), while intrusion results in the flashbacks, nightmares, startle, and arousal symptoms. In EMDR, the same thing is thought to be occurring; but it isn’t called *structural dissociation* and the compartments are not called the ANP and EP.

The vocabulary of structural dissociation theory and EMDR differ somewhat, but the fundamental model is the same in both. The only significant difference is that structural dissociation, as enunciated by Van der Hart, Nijenhuis and Steele (2006) requires the presence of an EP, whereas EMDR allows it, but does not require it. EMDR recognizes the EP implicitly, whereas in structural dissociation, the EP and ANP are explicit hallmarks of the model.

In my opinion the requirement for an EP limits the range of applications of the theory of structural dissociation unnecessarily. It seems to me that, as in EMDR, intrusions of dissociated trauma (big T and small t) can occur from a compartment that does not house an EP. This still seems like structural dissociation to me, if we do not require an EP as part of the definition of structural dissociation.

EMDR is also consistent with Braun's (1988a; 1988b) BASK model of dissociation, in which dissociated components of trauma can consist of behavior, affect, sensation or knowledge (cognition). The BASK model was designed to organize thinking and treatment of dissociative identity disorder/multiple personality disorder (DID/MPD), but also the full spectrum of trauma-related and dissociative disorders. Like EMDR, the BASK model allows and accommodates the presence of an EP but does not require it. Shapiro (2001, p. 321) agrees with this viewpoint: "The therapeutic alignment of target components in EMDR appears consistent with the BASK (behavior, affect, sensation, knowledge) model of dissociation posited by Braun. It has been conjectured that insufficiently processed traumatic memory is stored in fragments. If so, it is possible that EMDR procedures serve to forge the appropriate connections among the various bits of traumatic material and facilitate the storage of information in narrative (or explicit) memory."

"Forging appropriate connections among the various bits of traumatic material" is the same thing as integrating dissociated ego states, part-selves, identity states, alter personalities or EPs. Things need to be reconnected only if they are disconnected or dissociated. In EMDR, according to the hypothesis I am presenting in this paper, the "various bits" can be EPs, but they can also be elements of the BASK model that do not have a subjective sense of self.

## **EMDR Treatment Guidelines for Dissociative Disorders.**

There are no EMDR treatment guidelines for cancer, osteoarthritis or pneumonia. Why? EMDR is not a sensible or effective treatment for those problems. This is an assumption I am making; I am not aware of anyone ever claiming that EMDR can be used to treat cancer, osteoarthritis or pneumonia. There are, however, EMDR treatment guidelines for dissociative disorders. Why?; because EMDR is a sensible and effective treatment for dissociative disorders, in the experience of skilled clinicians. True, there are no controlled or prospective EMDR treatment outcome studies for dissociative disorders. I hope that such studies are conducted in the future, but in the meantime I have no doubt that EMDR is effective for dissociative disorders. Why?

There are several reasons why I hold this opinion. First, EMDR is consistent with three-stage treatment guidelines in the general trauma literature and in the dissociative disorders literature. It is therefore consistent with the trauma component of any trauma-dissociation model. Second, and most importantly, the purpose of EMDR is to integrative dissociated elements of trauma so that the cycle of intrusion and withdrawal is resolved. EMDR is a healing-recovery model that aims at resolution and long-term remission. Thus, no matter what the diagnosis, EMDR is focused on healing a dissociated psychological structure. EMDR treatment is always the treatment of dissociation, even when a dissociative disorder has not been diagnosed.

In this regard, EMDR is similar to Braun's (1988a; 1988b) BASK model. The BASK model applies to someone with a diagnosed dissociative disorder (amnesia – a dissociation of knowledge), but also to someone with a conversion disorder (conversion paralysis – a dissociation of behavior; conversion anesthesia – a dissociation of sensation). The BASK model also applies to someone with an impulse control disorder like intermittent explosive disorder, in which there is a sudden intrusion of dissociated affect (rage). Both EMDR and the BASK model can be applied to a wide range of DSM or ICD disorders when all are conceptualized as being based on an underlying dissociation of behavior, affect, sensation or knowledge.

This is similar to the logic of Van der Hart, Nijenhuis and Steele's (2006) structural model of dissociation. Within the theory of structural dissociation, PTSD is just as much an example of structural dissociation as dissociative identity disorder. Many different DSM or ICD disorders can be based on structural dissociation, even if they are classified as anxiety, psychotic or personality disorders. For example, in my opinion, subgroups of individuals who meet DSM-IV criteria for schizophrenia have a dissociative subtype of schizophrenia consistent with the theory of structural dissociation (Ross, 2004). In such cases, the auditory hallucinations arise from EPs just as they do in dissociative identity disorder (DID), and the schizophrenia is just as much a trauma response as are PTSD and DID.

A third reason that I consider EMDR to be based on a trauma-dissociation model is the fact that there are EMDR guidelines for dissociative disorders (Shapiro, 2001). The purpose of the EMDR guidelines is primarily to recommend a thorough assessment with standardized measures of dissociation; to recommend that the therapist be experienced in treatment of both dissociative disorders and EMDR; and to caution against entering EMDR phase 4 too early or

too aggressively. Minus the EMDR aspect, these guidelines are the same as those in the dissociative disorders literature. Other than these cautions, the basic work of EMDR is the same in people with DID as it is in people without DID. Prior to active desensitization and reprocessing, work must be done on system communication, cooperation and co-consciousness, but once this is achieved, the EMDR proceeds much the same as it does in non-DID cases.

This is so for a fundamental reason: EMDR is based on a trauma-dissociation model. That is why it can be used so readily in treatment of DID, once the necessary Phases 1-3 work has been done. No fundamental modifications are required because EMDR is inherently suitable for treatment of structural dissociation; that is what it was designed for.

I think this way of looking at EMDR and trauma-dissociation models could be very beneficial for the dissociative disorders field for two reasons; it broadens the therapeutic tools for treatment of DID; and it makes the treatment outcome literature for EMDR a treatment outcome literature for trauma and dissociation. Since there is a paucity of treatment outcome studies for dissociative disorders (Brand, Classen, McNary, & Parin, 2009; Ross, 2005) being able to cite the EMDR literature as evidence for effective treatment of trauma and dissociation would be most helpful. Of course, there still remains a need for EMDR treatment outcome studies with diagnosed dissociative disorders.

## **Conclusions**

In this paper, arguments are presented that EMDR is based on a trauma-dissociation model of mental disorders. The EMDR model is compared and contrasted with the BASK model,

the theory of structural dissociation, and three-stage trauma psychotherapy protocols. The author points out the need for EMDR treatment outcome studies for diagnosed dissociative disorders.

## References

American Psychiatric Association. (2004). *Practice guidelines for the treatment of patients with acute stress disorder and posttraumatic stress disorder*. Arlington, VA: Author.

American Psychiatric Association (1994). *Diagnostic and statistical manual of mental disorders, 4<sup>th</sup> ed.* Washington, DC: American Psychiatric Association.

Bisson, J., & Andrew, M. (2007). Psychological treatment of post-traumatic stress disorder (PTSD). *Cochrane Database of Systematic Reviews*, 18(3): CD003388.

<http://dx.doi.org/10.1002/14651858.CD003388.pub3>

Brand, B.L., Classen, C.C., McNary, S.W., & Parin, Z. (2009). A review of dissociative disorder treatment studies. *Journal of Nervous and Mental Disease*, 197, 646-654.

Braun, B.G. (1988a). The BASK (behavior, affect, sensation, knowledge) model of dissociation. *Dissociation*, 1(1), 4-23.

Braun, B.G. (1988b). The BASK model of dissociation, Clinical applications. *Dissociation*, 1(2), 16-23.

Courtois, C., & Ford, J.D. (2009). *Treating complex traumatic stress disorders. An evidence-based guide*. New York: Guilford Press.

Janet, P. (1965). *The major symptoms of hysteria*. New York: Hafner (Original work published 1907).

Janet, P. (1977). *The mental state of hysterical*. Washington, DC: University Publications of America (Original work published in 1901).

Nijenhuis, E.R.S., & Van der Hart, O. (2011a). Dissociation in trauma: A new definition and comparison with previous formulations. *Journal of Trauma and Dissociation*, 12, 416-445.

Nijenhuis, E.R.S., & Van der Hart, O. (2011b). Defining dissociation in trauma. *Journal of Trauma and Dissociation*, 12, 469-473.

Ross, C.A. (1997). *Dissociative identity disorder. Diagnosis, clinical features, and treatment of multiple personality* (2<sup>nd</sup> ed.). New York: John Wiley.

Ross, C.A. (2004). *Schizophrenia. Innovations in diagnosis and treatment*. New York: Haworth Press.

Ross, C.A. (2005). A proposed treatment outcome study of trauma model therapy and dialectical behavior therapy.

Ross, C.A., & Halpern, N. (2009). *Trauma model therapy. A treatment approach for trauma, dissociation, and complex comorbidity*. Richardson, TX: Manitou Communications.

Shapiro, F. (2001). *Eye movement desensitization and reprocessing. Basic principles, protocols, and procedures. Second edition*. New York: Guilford Press.

Shapiro, F., & Forrest, M. (1997). *EMDR. The breakthrough therapy for overcoming anxiety, stress and trauma*. New York: Basic Books.

Shapiro, F., Kaslow, F.W., & Maxfield, L. (2007). *Handbook of EMDR and family therapy processes*. New York: John Wiley.

Solomon, R. M., & Shapiro, F. (2008). EMDR and the adaptive information processing model: Potential mechanism of change. *Journal of EMDR Practice and Research*, 2(4), 315–325.



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: Routledge.

Van der Hart, O., Nijenhuis, E.R.S., & Steele, K. (2006). *The haunted self: Chronic traumatization and the theory of structural dissociation of the personality*. New York: Norton.