

# Eye Movement Desensitisation: Past Research, Complexities, and Future Directions

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## Brief extract from original article

### Eye Movement Desensitisation and Reprocessing

Shapiro (1989) first published details and preliminary results of a procedure she described as *eye movement desensitisation* (EMD). In her initial study, which involved 22 subjects with histories of trauma, she reported that a single session of EMD was successful in decreasing reported arousal associated with traumatic memories and in altering the cognitive appraisal of the traumatic incident, and that these effects were maintained at three months follow-up.

This procedure was later reconceptualized and renamed *eye movement desensitisation and reprocessing* (EMDR) by Shapiro (1991). This procedure requires the client to (a) focus on an image of a traumatic incident that evokes distress, (b) concentrate on a cognitive statement that best matches the traumatic image, (c) identify a preferred cognition and rate its validity (VOC), (d) describe the type of emotional distress and rate its severity using a Subjective Units of Disturbance Scale (SUDS), and (e) locate any physical sensations that accompany the distress. Components (a), (b), (d), and (e) become the initial target on which the client is instructed to focus. The client is then assisted to develop rhythmic saccadic eye movements by following the therapist's finger across his or her field of vision. Subsequent targets are chosen depending on the client's responses to each set of eye movements (Shapiro, 1989, 1991).

### Theoretical Mechanisms Involved in EMDR

It seems that information-processing theory, provided as an explanation for the development and maintenance of PTSD may be able to explain the mechanisms involved in EMDR. According to the information-processing model proposed by Foa and Kozac (1986), trauma is encoded in the memory via three channels: information about the stimulus; information about the verbal, physical, and overt responses to the stimulus; and the cognitive interpretation of the event. Foa and Kozac (1986) argued that in order to reduce fear two conditions are required. Firstly, the fear relevant information must be accessed in a manner that activates the fear memory. This is best done when a federal individual is presented with fear information that matches the structure of the memory (Lang, 1977). This information may be about the situation, the person's responses, or the assessment she or he has made of the feared situation. Lang suggested that, in accessing a fear memory, a critical number of information units must be matched for the entire fear memory to be activated, and that some information elements may be especially important in evoking the fear structure.

A number of studies have provided support for Lang's (1977) hypothesis. For example, Lang, Melamed, and Hart (1970) and Borkovec and Sides (1979) found that physiological arousal was an important factor in activating the fear structure. These studies showed that phobic

subjects who gained most benefit from systematic desensitization were those who showed the greatest increases in heart rate when confronted with the feared image, whereas those who experienced less physiological arousal did not do as well.

As further support for the model, Lang, Levin, Miller, and Kozak (1983) found that training subjects to focus on response information that matches the fear memory increased the likelihood of evoking the fear.

Snake phobic and social phobic subjects were trained to focus either on their physiological responses or on the stimulus. Later, when they were presented with the feared images, those who had been trained to focus on their responses demonstrated greater physiological arousal. Lang et al. (1983) suggested that, by focusing on the affective responses, the match between the information given and that stored in memory may have been enhanced, thereby evoking the fear structure more fully.

Lang, Kozak, Miller, Levin, and McLean (1980) found that training people to include response descriptions helped them to access the feared memory structure. The researchers trained subjects to form fearful fantasies through scripts that had descriptions of either just a stimulus (e.g., "a green snake on a rock") or those of both a stimulus and a physiological response (e.g., "your heart is pounding"). Subjects given the latter script experienced greater physiological arousal and reported greater fear when tested than those with just the stimulus script. These studies supported the importance of activating an appropriate negative cognition, affect label, and physiological representation.

The second condition which Foa and Kozak (1986) specified as necessary for fear reduction is the provision to the individual of information incompatible with that which exists in the fear structure. This new information, which has cognitive and emotional components, has to be integrated into the evoked information structure for change to occur Foa and Kozak (1986)

commented that an essential aspect of therapy for fear reduction is exposure not only to the stimulus-response configuration but also to the meaning that the individual makes about the feared situation, In order for therapy to be successful, exposure to propositions that are incompatible with some elements of the original fear structure is required. They argued that it is likely that any therapy which does not include the critical element' will not be successful.

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