

“Back to the Future”: Narrative Treatment for Post-Traumatic, Acute Stress Disorder in the Case of Paramedic Mr. G

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ABSTRACT

This is a case study of the successful treatment of Mr. G. A young paramedic in the Israeli army, Mr. G had recently experienced a severe traumatic event that involved the grisly task of carrying a terrorist's body parts past a dangerous border, while fearing capture or injury. Two days following the event, Mr. G appeared at our Clinic manifesting Acute Stress Disorder (ASD), which included post-traumatic stress symptoms like recurrent, upsetting images of the event; sleep disturbance; dissociation; somatic complaints like vomiting; and difficulty in returning to the military. In assessing and treating Mr. G's problems, we employed a new narrative therapy model that we call "Back to the Future" (named after the American movie), since the approach emphasizes jumping narratively between the past and the future in order to treat the trauma in the present. More specifically, the model is based on the memory's plasticity, first shifting the traumatic event back into a continuation of an individual's past narrative about the occurrence, and then integrating it with a narrative of the future. This is done without making the substantive core of the experience of the traumatic event—called the "traumatic nucleus"—the major focus of treatment, as is done in mainstream, exposure-oriented models of ASD treatment. The contrast between our narrative model and the mainstream exposure model is discussed, including a review of the type of cases for which we believe our narrative model is particularly suited.

Key words: psychological trauma; Acute Stress Disorder (ASD); post-traumatic stress syndrome (PTSD); acute stress; narrative therapy; anchoring points

1. CASE CONTEXT AND METHOD

This case study describes the treatment of Mr. G, a soldier in the Israeli Defense forces who entered a military clinic two days after developing Acute Stress Disorder (ASD) in response to exposure to a severe traumatic event in his role as a soldier. Mr. G. was seen by the first author (YG), who has extensive experience in treating these types of cases. This clinic was Mr. G's home-base medical facility, but it took two days for him to arrive, since the first triage decision was to send him home to rest over the weekend and not to the emergency room, as he

requested. The unit physician who examined him on the day of the event diagnosed him as suffering from Acute Stress Reactions (ASR), a cluster of stress symptoms that is diagnosed as ASD if they persist more than 48 hours. We were informed of his expected arrival on the day of the traumatic event, and thus had time to plan his therapy.

The clinic team's cumulative professional experience has encompassed clinical involvement with over a hundred cases of stress reactions, ASD, and post-traumatic stress syndrome (PTSD) in soldiers. In our clinical experience we have seen that in many cases, repeated discussion of the core traumatic event (also called the "traumatic nucleus" of the event) immediately following the event amplifies the traumatic symptoms, while by-passing the nucleus of the trauma at the beginning of treatment allows the patient some relief. This clinical impression was the motive behind developing an alternative approach for treating ASD. Our basic hypothesis was that it is preferable, during the first few days and weeks following an exposure to a traumatic experience, to enable coping via addressing denial mechanisms and denial coping styles (Ginzburg et al., 2002; Kortte & Wagener, 2004; Palyo & Beck, 2005). This approach involves narrative integration between the anomalous nature of the traumatic event and the patient's former life. Only in cases where intrusive memories are consistently repeated, and denial and repressive mechanisms are not effective, did we find that the mainstream approaches for treating ASD patients effective. These approaches involve overcoming a traumatic event through gradual exposure techniques and cognitive processing of the core traumatic experience (Cohen & Lahad, 2000; Foa et al., 1999; Van Etten & Taylor, 1998). More about this approach can be found in section 3 below, on our Guiding Conception.

We found Mr. G to be an appropriate candidate for this treatment approach since he was a well-adjusted individual prior to the event, and since he had a compliant nature. This compliant nature facilitated his positive response to the therapist's request for him to adopt a new narrative and to retell his traumatic life story.

The method we employed for monitoring and assessing Mr. G's recovery process was through outside supervision during therapy, and through a peer colleague's assessment and Mr. G's commanders' assessment at follow-up. The details of these procedures are described in section 7 below, "Therapy Monitoring and Use of Feedback."

2. THE CLIENT

Mr. G was a young paramedic in the army who entered our clinic two days after exposure to a severe traumatic event. The event occurred within an army operation and included life threatening situations. During the operation, Mr. G carried the body parts of a terrorist, and was afraid of getting captured or hurt when passing the border. He described having good ability to function during the event, but afterwards, he developed severe, debilitating reactions, including many symptoms of Acute Distress Disorder (ASD), which involves similar types of symptoms as Post-Traumatic Stress Disorder (PTSD), but which have not lasted more than 30 days (see more on the ASD-PTSD relationship below).

3. GUIDING CONCEPTION WITH RESEARCH AND CLINICAL EXPERIENCE SUPPORT

The Traumatic Nucleus

In conceptualizing a human reaction to stress, the concept of the “traumatic nucleus” refers to the experience, sensory feeling, and/or memory that comprise the essence of the horror that a victim has undergone. It is the deepest wound that the person feels in relation to the traumatic event. Regarding ASD and PTSD, the content of the traumatic nucleus is the substance of what appears in the intrusive symptoms.

In trauma literature, there is tension between two schools of thought. On the one hand, there is the mainstream approach that sees the therapeutic goal as the process of overcoming the traumatic event with gradual exposure techniques—called by Foa and colleagues “Prolonged Exposure (PE)—and cognitive processing of the traumatic nucleus (Foa et al., 1999; Van Etten & Taylor, 1998). On the other hand, there are several empirical studies that point out the significance and value of denial mechanisms and a repressive coping style while grappling with stressful and traumatic situations (Bonanno, 2004; Coifman, et al., 2007; Ginzburg et al., 2002; Kortte & Wagener, 2004; Palyo & Beck, 2005; Seery et al., 2008). These studies suggest not only that denial and repression coping mechanisms serve as a protective buffer in advance of traumatic and adverse life events, but also serve as a way to direct memories and attention into less negative and more positive events.

Whereas PE has been proven to be efficient treating PTSD patients, some studies have suggested that it may not be the optimal strategy due to the distress it elicits as a result of the exposure (Kilpatrick & Best, 1984; Rosen et al., 2004). Moreover, even though PE and cognitive restructuring were proven as effective in treating chronic PTSD, they are rarely used during the ASD stage (Bryant, et al., 2008). The tension between the exposure technique and the repressive approach is therefore much more salient when treating patients with ASD.

ASD and Its Treatment

ASD is the primary reaction within the first month after exposure to a traumatic event. The difference between ASD and PTSD is based on two parameters, the first of which is length. ASD begins from within two days to one month following the traumatic event, in contrast to PTSD, which can be diagnosed one month after the event. The second difference is the emphasis on dissociative reactions to trauma. In order to be diagnosed with ASD, one must meet at least three out of five dissociative symptoms. ASD is considered a significant predictor of PTSD (Harvey & Bryant, 2002). However, dissociation is not a necessary condition for the diagnosis of PTSD (American Psychiatric Association, 1994).

The first and most common treatment for victims of ASD in the literature is debriefing (McNally, Bryant, & Ehlers, 2003). Treatment of ASD is given to risk groups, usually beginning 24-72 hours following exposure to a traumatic event (Bryant & Harvey, 2000; Mayou, Ehlers, & Hobbs, 2000). There are a few debriefing technique models, most of them consisting of five

stages: (a) an "Introduction" phase, in which the treatment goals are explained; (b) a "Facts" phase, in which the patients describe the facts as they experienced them; (c) a "Thoughts" phase, in which the thoughts of patients during the event are introduced; (d) a "Reactions" phase, in which there is a reconstruction of the trauma narrative along with the integration of emotions; and (e) a "Summary" phase, in which the treatment is concluded (Sijbrandij et al., 2006). Although some studies indicate an advantage for such debriefing models that deal with the traumatic nucleus (Camfield & Hills, 2001; Kaplan, Iancu, & Bodner, 2001), other studies, more complex and more rigorous methodologically, do not find any differences in the traumatic symptoms over time between those who underwent emotional or educational debriefing and a control group (Marchand et al., 2006; Sijbrandij et al., 2006). Furthermore, some studies found that in some cases, there was an exacerbation of the traumatic symptoms among people who underwent debriefing, in comparison to those who did not get any treatment (Hobbs et al., 1996; Mayou, Ehlers, & Hobbs, 2000).

An explanation for these problems in the debriefing treatment could be related to prematurely direct confrontation with the traumatic nucleus. The excessive emotional feelings are overwhelming, difficult to cope with, and hard to assimilate, which exacerbates the situation. Due to these problems with the debriefing technique, some other solutions have been suggested. A period of rest, support, and a decrease in discussing the event has been suggested as more adaptive for most exposed people in the first period. This can enable the continuation of the natural healing process of the individual (Herbert & Segeman, 2004; McNally, Bryant, & Ehlers, 2003; Seery et al., 2008; Ursano et al., 2000).

Today, some large and influential organizations suggest a set of different principles called "psychological first aid" (Parker, Everly, Barnett, & Links, 2006). These are centered mostly on supportive and non-intrusive, "primum non nocere" (do no harm) principles. These principles apply mostly in the first hours and days after the trauma, helping and supporting patients who are victims of a disaster in grappling with their ASR reactions.

Moreover, PE treatment is not limited for treating PTSD patients only. Commonly it has two components. The first is imaginal exposure, which typically occurs during the therapy session and consists of reliving the trauma under safe conditions. The second is in vivo exposure, in which the clinician works with the client to establish a fear and avoidance hierarchy, and typically assigns progressive exposures to the items in the hierarchy as homework. Both components are designed to elicit emotional processing so that the problematic traumatic memories and avoidances habituate, i.e., desensitize (Foa & Rauch, 2004; Foa et al., 2005; Kazi, Freund, & Ironson, 2008). The in vivo exposure techniques usually commence two or three weeks after exposure to the traumatic event (Bryant, et al., 2008; Bryant & Harvey, 2000); and these methods have been found effective in preventing subsequent PTSD (Bryant et al., 1998; Bryant et al., 2008; Foa, Hearst-Ikeda, & Perry, 1995). Even though Bryant et al. (2008) found these methods to be the most efficient up to three weeks after the traumatic event, these researchers found that among ASD patients, in vivo exposure's effectiveness depends on certain selection criteria. About one fourth of the participants in this study were omitted from the research results, since they were not diagnosed as suffering from ASD three weeks after the traumatic event. The therapy started at the end of the ASD period, for those clients who turned to

therapy probably after the traumatic nucleus was almost constructed and became permanently part of their traumatic narrative (e.g., see Seery et al. [2008], for differences between groups due to such selection criteria).

However, active exposure interventions immediately following a trauma and before the consolidation of the traumatic nucleus into one's narrative can be problematic. This is because the first hours and days after a traumatic event are crucial. These techniques, which deal directly with the trauma and review the event in detail, can strengthen the centrality of the event for the victim's identity (See Berntsen & Rubin, 2006), constructing it within the victim's personal traumatic narrative in a manner which might not have occurred spontaneously. This early reconstruction of the traumatic nucleus can be more harmful than beneficial (Gray & Litz, 2005; Herbert & Segeman, 2004).

In other words, early treatment with these techniques prevents the natural forgetting process from taking its course (Loftus, Garry, & Feldman, 1994). For example, studies on victims of sexual trauma have shown that more than a third of the women who were referred to hospitals soon after the time of the assault did not remember the event 17 years later (Williams, 1994). One of the explanations for the lack of remembering, sometimes connected to the lack of traumatic syndrome, is normal forgetting. Since psychological vulnerability increases in the first few hours and days after the trauma, the questions that arise are, "Is there a necessity for treatment at this stage?", and if so, "What are the most efficient treatments?" Despite the necessity for early intervention (Tuval-Mashiach et al., 2004), the published research about treatment at this stage is scarce and has not been investigated sufficiently (Gray & Litz, 2005).

Based on the above, as an alternative to dwelling on the traumatic nucleus in the period immediately following exposure to the traumatic experience, we have developed a narrative approach that we employed in the case of Mr. G. This approach is based on two principles for the effective treatment of ASD: (a) reducing exposure of the patient to experiential content associated with the traumatic nucleus, and (b) focusing instead on pre-event, personal anchoring concepts while incorporating non-traumatic-nucleus-related facts about events into the patient's life narrative in order to elevate resilience. Within this latter process of focusing, the traumatic situation is viewed as an event that the individual was prepared for, even unintentionally. In this way, the individual can see himself as having the tools and the ability to cope with the traumatic event. To help a victim cope with a traumatic experience and to reconstruct a healthier narrative, three principles are interwoven in the narrative model: unique outcomes (White & Epston, 1990), the continuity principle (Omer & Alon, 1994), and meaning (Neimeyer, 1993, 2002, 2006b). These principles, which will be discussed below, are derived from the basic fact that memory is plastic, a phenomenon upon which we will now expand.

Memory Plasticity, Trauma, and Immediacy in Treatment

One of the perspectives through which the exposure to a traumatic event and its implications can be described is distortion, consolidation, and representation of the traumatic memory.

Distorted Memories

Tulving and Graik (2000) point out that there are dozens of memory types. Each type has its own characteristics and impact on the way it is encoded and retrieved. The traumatic event, by definition, consists of components highly resistant to forgetfulness. A traumatic event increases the likelihood of "flashbulb" memories, which are known to be resistant to forgetfulness. In addition, the traumatic event leads to the creation of emotion-related memories with themes of loss and guilt. These emotion-related memories strengthen the recurring components of the trauma, hence increasing memory resistance to forgetting. Some researchers claim that full traumatic amnesia is not possible (Schacter, Verfaellie, & Pradere, 1996).

However, this resistance of the traumatic memory does not contradict other characteristics that are related to the ability to promote distortion of the traumatic experience. Specifically, in psychological trauma, there is a problem of concentration. The problem affects the way memory is encoded, and in turn leads to memory gaps. The semantic (language-based) memory is the long-term memory component in which general knowledge about the world is stored, and it is usually very accurate. But in the case of trauma, due to the traumatic stress reaction, important information is not encoded in semantic memory and therefore it becomes fragmented. The emotional memory then completes the picture. Because of this, there is a greater tendency to remember the traumatic event in a partial and distorted way (Peri, 2002).

Furthermore, information irrelevant to the trauma—such as sounds, sensations, or any other residual details that were in the background of the event—are encoded and remembered, due to dissociative elements, better than the event itself (Eyal, 2004). Cottencin et al. (2006) claim that in post-traumatic conditions, the symptoms of re-experiencing memories from the traumatic event are the results of interference in the autobiographical memory. According to them, during the interference there is a difficulty in inhibition of irrelevant information, that is, the ability to forget irrelevant information, which had been recently processed, and to conserve the relevant information. One of the results is the likelihood of stimuli flooding and the inability to filter it. This condition is an ideal setting for narrative treatment with active guidance to re-select the relevant stimuli and construct a new, healthier narrative.

While the general notion was that memories described by people are, overall, an accurate description of reality, even in traumatic situations (Eyal, 2004), the early studies of Loftus (Loftus, 1979; Loftus, 2003) give us a glimpse into one of the most intriguing conundrums of memory and the way it is encoded. Her findings show that the memory of a movie seen in her laboratory could be altered. Specifically, a change of the linguistic term used by the researcher to describe a collision between two cars ("smash" versus "hit") dramatically affected the memory of the event and the descriptions of its magnitude. When subjects were asked to describe the event using the term "smashed," they described higher velocity and higher impact on collision than when the term "hit" was used.

Other studies suggest that memory distortions occur even during traumatic events. Southwick et al. (1997) reported a study that made two dissimilar assessments at different times about traumatic events that were reported by American soldiers during the first Gulf War. The

first assessment was made a month after the war, and the second was made two years later. They found that 88% of the Gulf War veterans remembered traumatic events differently between the first and the second measurement. Approximately 70% remembered traumatic events at the second measurement that were not reported during the first measurement. Forty-six percent did not mention a traumatic event during the second assessment that was reported in the first assessment. It can be assumed, as claimed earlier, that this variance in reports may indicate, at least partially, the role of natural forgetfulness and memory bias as based on the works of Elizabeth Loftus (1979, 2003). This bias influenced the memory and led to the distortion and deletion of certain memories and the creation of others instead. It is reasonable to assume that the deleted and altered memories are not memories that were forgotten during the natural forgetting process, but rather those that the soldier felt were difficult to bear, while the new memories are those that have been created by giving a new meaning to the event that was probably not considered traumatic during the first interview.

The studies of Loftus (1979, 2003) indicated that a central part of memory distortion results in information flooding that is mixed with distorted information, which in turn influences memory consolidation. It is most likely that in the two years that passed from the first assessment by Southwick et al. (1997) more information was added, which altered and influenced the memories of the American soldiers. Distorted information can lead to altered memories, as based on the linguistic terms that the person uses to shape his/her consciousness, thus burning the distorted event into memory. As in the research of Loftus (1979), the change of linguistic terms affects memory even in traumatic events. It can be assumed that by using terms that are emotionally neutral and not associated with the visual and morbid connotation of the traumatic nucleus, we can create a bearable verbal and visual narrative with which the person can cope. In other words, the contents of the new narrative shift the patient's attention away from the destructive qualities of the traumatic event.

Consolidation of Memories

Recent research in neurobiology raises new questions in relation to the consolidation of memory (Anderson et al., 2004). Animal models show that in contrast to the classical literature on memory, which claims that memories move from short-term to long-term memory and consolidate there in a few seconds, the process is actually much longer and complex than initially thought (Dudai & Morris, 2000).

The research delineates various systems of memory consolidation. The first happens at the neuronal or cellular level, which is termed synaptic consolidation. This consolidation, known as local/cellular consolidation (Dudai & Eisenberg, 2004), can take from several minutes to several hours. This involves several factors that depend on the relay system among the synapses, structural changes in the neuron, and the cell nucleus.

The second consolidation occurs at a system level and it is called system consolidation. This consolidation may take days, weeks, and theoretically even years. In fact, researchers believe that memory consolidation is actually only theoretical. Between the two systems there are dynamic and changing relationships that influence the consolidation process. With regard to

trauma, there is a window of opportunity in the first few days and weeks after the traumatic event that allows for the shaping of the narrative that the person will carry later on. These findings support earlier studies, which indicated that older memories in traumatic context are resistant to change.

Memory Representations

Beyond memory distortions and intervention time, another component that affects the development of traumatic memory is the representation system, which is used for event processing. One of the theories that deals with the question of "What differentiates those who suffer from trauma from those who do not?" is the "dual representation theory," which was introduced by Brewin, Dalgleish, and Joseph (1996). According to this theory, the traumatic information is processed in one of two systems and creates two different representations. The first system is the memory system with access to verbal accessible memory (VAM), a system that processes autobiographical memories of the event, and is connected to trauma verbalization.

Information that does not create enough attention in order to be stored in the VAM is encoded to situational accessible memories (SAM). This system keeps the sensory information and especially visual-spatial information as images. Brewin (2001) suggested a neuropsychological base to this theory and claimed that the VAM of the trauma is necessary in order to block the situational accessible memory images. In the case of trauma, SAM carries the automatic, undesirable images. Therefore, according to the theory, verbal processing of the trauma will narrow the likelihood of intrusive contents. The findings of Holmes, Brewin, and Hennessy (2004) indicated that, similar to Brewin, Dalgleish, and Joseph's (1996) claims, subjects dealing with traumatic events who were not able to describe the traumatic sights verbally experienced more intrusive memories after looking at traumatic pictures. The assumption was that in this case, the VAM system was blocked and the representations were moved to the SAM.

Based on the above, our guiding conception in cases like Mr. G's assumes that people who are exposed to traumatic events need some kind of verbal framework and wording for their experiences in order to allow some blocking of the traumatic representations. Moreover, this wording should be done via indirect narration in order to prevent the involvement of the traumatic nucleus. An indirect narrative would be a narrative that deals with prior coping, which is then linked both to the current traumatic event and the original (past), non-traumatic event that elicited successful prior coping.

Narrative Psychotherapy as a Way of Changing the Traumatic Story

People are "wired" to build coherent narratives that do not contradict their perceptions about their self-narratives (Neimeyer, 2006b). Life events and narratives that are not consistent with the person's life story tend to be abandoned (White & Epston, 1990). This process strengthens the main narrative as the only existing narrative. People need one central narrative as a way to preserve their sense of stable self-identity (even though the post-modern narrative approach believes that there is no absolute truth, and therefore there is no one narrative truth but many [Spence, 1982]). Consequently, in cases where the narrative the patient chooses for himself

represents only one perspective for depicting the way things occurred, the psychotherapy goal is to provide him with different perspectives through which he can move smoothly between narratives of identity. These narratives can, in turn, help the patient cope with and adjust to the situation (Neimeyer, 1993; Spence, 1982; Schafer, 1982).

The basic therapeutic procedure presented in this case study interweaves several known narrative principles—such as unique outcomes, continuity, and meaning—into a model we call “Back to the Future.”

Back to the Future Model

The Back to the Future model is based on a client’s narrative “anchoring points,” which are assessed by the therapist during the intake. Anchoring points are essential pieces of information that contradict the traumatic narrative and present past situations of preparedness to cope with the traumatic events. The anchoring points enhance one’s healthier, non-traumatic narrative. The types of anchors, which contain strengthening and immunizing components, can be found easily within every person who has undergone professional training to be prepared for an upcoming traumatic exposure (such as physicians, soldiers, policemen, rescue personnel, and homicide detectives). This training preparation, which can be achieved via workshops, exercises, professional training and other means, leads to the construction of possible narrative scripts for successfully coping with traumatic events.

The exposure to a traumatic event and confrontation with it comes by surprise and without preparation. The traumatic event is outside the range of an individual’s ordinary life events and his or her adaptive scripts that could enhance the consolidation of the traumatic memory. In such cases, in processing the traumatic experience, it is desirable for the victim to return to past events to draw on past anchors of coping with trauma and then to link these anchors to future times and functioning. This technique is named after the famous movie trilogy “Back to the Future,” directed by Robert Zemeckis. The reason for the wording of the title is because the hero, Marty McFly (Michael J. Fox), leaps between the past and the future in order to fix the present. The current work applies the same line of thinking as a metaphor to a basic model for treating ASD, that is, jumping to the past and the future, in order to treat present reactions to a recent trauma.

As mentioned above, three principles guide the “Back to the Future” model: unique outcomes, the continuity principle, and meaning. Each is discussed below.

Unique Outcomes

The Back to the Future model aims to change the traumatic narrative indirectly by using anchoring points from the personal history of the patient that have an internal coherence and that contradict the patient’s post-traumatic narrative. This in turn should be a competing understanding for the traumatic narrative and may change the meaning of the traumatic nucleus without talking about it directly. The use of contradicting anchoring points resembles the role of the “unique outcome” discussed by White & Epston’s (1990) that serves to shatter an old narrative. By this technique, the therapist can reconstruct a narrative within which the patient had

prepared himself in the past for such an event. The relevant anchoring points are authentic information elements that contradict the traumatic narrative, and thus make a unique outcome available. The therapist can create a sense of control, professional identity, and meaning for the traumatic experience if he can make these information elements part of a new narrative. This narrative should integrate the traumatic event but from a different viewpoint, namely, past experiences from which the patient had prepared himself for this traumatic event.

The Continuity Principle

In post-traumatic cases, the problem is that the stable narratives and life views on the world are shattered (Janoff-Bulman, 1992), along with the "shattered" self (Ulman & Brothers, 1988). For this reason, Omer & Alon (1994) mentioned the continuation principle as a leading concept in the treatment of trauma victims. According to them, the problem in traumatic cases is not the organization and integration of the fragmented traumatic experience, but rather the difficulty in placing the traumatic event in the narrative continuity of one's life story. The new narrative can be successful if it helps the patient feel (a) that his narrative has continuity from the time before the traumatic event to his future, and (b) that the traumatic event is an integral part of his life narrative. The Back to the Future technique is based on this principle. It helps to stretch the borders of the trauma between the first preparatory event that was found during the intake, to months and years ahead where the patient is planning to reach.

Meaning

The anchoring points technique can be related to the work of Neimeyer and his colleagues (e.g., Neimeyer, 2002; 2006b). Using Piaget's concepts, this author posits that in simple cases, a trauma victim tends to automatically *assimilate* a trauma into a "macro narrative;" and in complicated cases, the victim tends to *accommodate* the traumatic event by giving it a new meaning, or even reconstructing his or her personal narrative. In his constructivist theoretical approach, Neimeyer suggests that in the face of traumatic events and their aftermath, people are active agents who reconstruct their inner world by providing meaning to their new, unacceptable lives (Neimeyer, 1993, 2002, 2006b). New narrative meaning can be constructed by means of language, interpersonal conversation, spirituality, and social support, all of which can enhance personal growth toward fulfillment. In the typical narrative therapy for post-trauma, both therapist and patient attempt to turn the traumatic narrative into a coherent, healthier narrative by directly changing the traumatic nucleus (Neimeyer, Herrero, & Botella, 2006; Neimeyer, 2006a). Anchoring points give meaning to the traumatic event since these points can change seemingly peripheral data into important milestones in the patient's new narrative. This gives personal history significance as part of the present coping resources, and it brings in the victim's profession, personal traits, and other aspects of his or her life that were found to be crucial in the person's preparation for the traumatic event.

Based on these ideas, general principles that delineate the Back to the Future technique are summarized below.

Organizing Guidelines for Narrative, Back to the Future Treatment of ASD

Flowing from the three general principles of the Back to the Future model are six, organized guidelines for therapists who conduct this narrative treatment. They can be summarized as a whole as follows: *Challenge* the trauma victim's initial assumptions—although in the process *avoid* excessive repetition of his or her traumatic nucleus—by employing a *directive* approach, establishing a *new narrative*, giving *positive meaning* to the traumatic event, and *linking* the patient's past experience to future experience. Each guideline is described below.

1. Challenge the Patient's Initial Assumptions After the Trauma

This guideline involves challenging the basic assumptions of the patient's background, which relates to the vulnerability of the patient's narrative and the severity of the trauma and its affect on his life. In the first few days following the traumatic event, the consolidation time of the traumatic narrative occurs, and any challenge to the negative basic assumptions of the patient about his personal history and background will increase the patient's chances of developing a newer and healthier narrative that will shape the traumatic memory in an adaptive way. Using anchoring points as a unique outcome can help in this process (White & Epston, 1990).

2. Avoid Excessive Repetition of the Traumatic Nucleus

This guideline involves avoiding repetition of the traumatic nucleus story and avoiding the use of colorful visual language for vivid descriptions in relation to the traumatic event. Another guideline entails using "clean," neutral language that will not affect the reconstruction of the traumatic event. This principle can prevent early, premature consolidation of the traumatic narrative and increase the probability of changing undesirable traumatic scenes (Loftus, Garry, & Feldman, 1994).

Previous studies have raised the question of a victim's excessive preoccupation with severe traumatic content, as reflected in repetition of the event story and traumatic nucleus time after time through debriefing, intake assessment, and exposure treatment. These procedures may lead to the strengthening of the traumatic memory, which in turn makes the traumatic memory more resilient to future changes. Hearing the story from the patient is important in order to be familiar with the patient's life story and trauma perception, so that the therapist can understand what the patient has been going through, and so that the therapist can locate the patient's anchors and identify the vulnerable spots in his narrative. It is most desirable to reduce the patient's exposure to the story of the traumatic event. There is a tendency for patients to narrate from a traumatic point of view, which may be reinforced by the environment and can lead to the consolidation of a traumatic memory.

3. Employ a Directive Approach

This guideline involves using a directive approach and questioning for available past informative preparation anchors. This helps for a new phrasing of the traumatic event narrative, a phrasing which suggests that the patient was ready, and in fact immunized, before the event. This

mental immunity is viewed as existing long before the traumatic event occurred, along with the anchors that were mentioned in the intake, to strengthen this point.

Most of us think about and build scripts for the possibility of coping with a traumatic event. One of the goals at this stage, during the first interview, is to locate those anchors. One way this can be accomplished is by using common knowledge questions such as, "When you watched a terror attack on TV in the past, did you think about what you would have done if you had been there?" As the number of anchors increase and become more diverse and more differentiated from the traumatic narrative (see White & Epston, 1990), it becomes more feasible to help the patient build an alternate narrative that is more substantiated and in which he will come to believe that before the trauma he was preparing himself for the challenge and prevailed. This belief about pre-trauma preparation can help the patient acquire a sense of continuity in his new narrative with respect to the traumatic event he experienced (Omer & Alon, 1994).

4. Establish a New Narrative

This guideline involves the repetition and establishment of a new narrative in order to consolidate it using anchors points and suggestions such as, "Like a physician who witnesses severe injuries and does not become traumatized, you were immunized the same way." These reinforcements are important in order to integrate experiences from the present that correspond with the new narrative. Repetition of the story enables the consolidation of it into permanent perception. We all remember our wedding day. However, sometimes we will find that what we remember are the moments that were captured on camera that we repeatedly watch. Many moments, some even meaningful, are forgotten or twisted over the years, since they were not later evoked and reinforced.

In light of the above, from the first meeting with a trauma victim, the emphasis should be on building an alternate narrative and its consolidation. Using common memory techniques such as repetition and memory anchors can aid the patient in facilitating consolidation of the alternate narrative. Good alternate narratives have been found as related to lower levels of post-traumatic symptoms (Tuval-Mashiach et al., 2004).

5. Give Positive Meaning to the Traumatic Challenge.

This guideline involves strengthening the professional or other personal preparations for such events as well as professional or personal identity. This can help in giving meaning to major questions such as "why me?" and other shattered assumptions. Meaning in life has been found to be associated with better positive outcomes in the aftermath of traumatic events (Steger, Frazier, & Zacchanini, 2008). Through the work with the anchor points a patient raises and through the reconstruction of his or her new narratives, the patient's life story also acquires a new meaning. Personal information that had no special role in patient's past life can become an important component of his or her new identity. Watching the 9/11 events on television might become, all of a sudden, a milestone in a fireman's new narrative after exposure to dead bodies in a fire. Therapy which reveals that the reason for his decision to be a fireman is connected to the television pictures from ground zero might give these moments new meaning and help in developing a new, positive meaning for his identification as a fireman.

6. Link the Past to Planning the Patient's Future

This guideline involves planning the future as a direct extension and continuation of the past narrative. As explained earlier, the traumatic event can be incorporated as another point on a continuous scale of events that shape our future life.

4. ASSESSMENT OF THE CLIENT'S PROBLEMS, GOALS, STRENGTHS AND HISTORY

History

Mr. G was a 19 year-old paramedic in the army. He grew up in a small town in the north of Israel with his biological parents, an older sister, and a younger brother. His father worked as a taxi driver and his mother was a housewife and worked in temporary jobs from time to time. His older sister was married and worked as a book-keeper. During her army service she was injured in a terrorist attack. A terrorist attempted to steal her weapon, and after a short struggle threw her down a staircase. As a result of this event, she suffered an injury to her vertebral column. Mr. G's brother was in the eighth grade and was a well-adjusted child.

Mr. G described his family as a simple, but normal family. He described his parents as good parents but non-liberal and non-modern. Additionally, he claimed that his family members were "victims of terror," referring to his sister's injury and its consequent results. Mr. G described his early development as normal without special problems except for learning difficulties that were improved once he was diagnosed and received some treatment. He attended 10 cognitive-behavior therapy sessions to help him focus and relax during exams, which he deemed sufficient. He progressed to graduate high school with average grades.

As a person Mr. G described himself as a slightly anxious but friendly individual, with a number of close friends and a few short and non-developed relationships with girls. Mr. G described his army enlistment as something he felt unprepared for. Therefore, he was happy when he was sent to a paramedics course, which gave him time to get used to army life and discipline standards. However, when he was sent to his unit he felt tense, due to the risk involved as well as having a new place to adjust to.

The Event

Mr. G entered the clinic two days following an exposure to a severe traumatic event. The event occurred two weeks after joining his unit, during a complicated army operation that included life threatening situations. During that operation, Mr. G had to carry the body parts of a terrorist, and when passing the border he was afraid of being captured and/or harmed. He describes a good level of functioning during the event, and severe reactions afterwards.

Mental Status

When Mr. G arrived at the clinic, he exhibited symptoms of dissociation, reduced functioning, intense image recollections of the traumatic event, sleep disturbances, many somatic

complaints such as vomiting, and difficulty in returning to his unit. He looked young for his age, with an unshaved baby face.

Diagnosis

Initial interviews with Mr. G and his other presenting information yielded the following DSM-IV-TR diagnosis:

Axis I: Acute Stress Disorder (308.3).

Axis II: No diagnosis.

Axis III: No diagnosis.

Axis IV: Occupational problems (adaption to the organization where he worked)

Axis V: GAF= 40 (at admission) GAF=75 (at discharge).

Strengths

Mr. G was a well adapted young man up until the traumatic exposure. He had good social networks and the ability to use these relationships when the need arose. He had exhibited strength in the past to deal with challenges. He liked his job as a paramedic, and foresaw it, as found later in the therapy, as insurance for any physical threat in the future. As mentioned above, he had had positive prior personal experience with cognitive-behavior therapy before presenting himself for treatment, and he was collaborative about participating in therapy. Mr. G's verbal skills were also good. He knew how to express himself generally, to take an insightful stance towards his condition, and to articulate his difficulties.

Initial Goals

As mentioned above, at the beginning of therapy, Mr. G's goal was to overcome his traumatic reaction to being exposed to close physical contact with a dead body on the battlefield, especially under conditions of impending harm. This involved overcoming traumatic stress symptoms such as nightmares, intrusive memories, and general stress and hyperarousal; and his will "to feel better about himself again."

5. FORMULATION AND TREATMENT PLAN

Formulation

Factors Leading to the Development of ASD

Mr. G's history suggests that he had a generally supportive and nurturing family and social environment through high school. However, this was accompanied by unspoken messages of frailty and vulnerability from the family. Although his family members defined themselves as victims of terror in terms of his sister's experience, there was no discussion of this topic beyond

that. In addition, his parents appeared to him as weak and incompetent, which made it harder for him to identify with them. This difficulty identifying with his parents made it difficult for Mr. G to construct a resilient narrative in reaction to traumatic exposure. Moreover, he viewed his parents as primitive and old-fashioned, preventing him from seeking or receiving support from them. In sum, although he had had a normal development, he had insufficient support when it came to dealing with traumatic events, where his parents' past experience with his sister served actually served as an obstacle.

Treatment Plan

In light of the assessment and formulation described, the six therapy guidelines of the Back to the Future therapy model listed above at the end of the Guiding Conception section were applied to address Mr. G's subjective traumatic narrative. The details of how these guidelines played how in Mr. G's case are described in the Course of Therapy section below. These interventions were designed (a) to change Mr. G's basic assumptions and terminology about his trauma, and then (b) to build new, strong cognitive anchors that would assist him in reconstructing a healthier narrative. This new narrative was intended to strengthen Mr. G's professional identity and thereby to elevate his sense of fulfillment and his sense of continuity in his life story

The treatment program originally developed for use with Mr. G included 13 sixty-minute sessions over a seven week period, including three sessions in the first week, two sessions per week for the next four weeks, and one session per week for the remaining two weeks. The initial intensity of sessions was planned with the intention of quickly building the anchors and reconstruction of the new narrative. It was important to begin with close and intensive work since it was believed that during this sensitive time it would be easier to change the traumatic narrative. Moreover, the therapist understood that he must assist Mr. G in returning to his professional functions as soon as possible. The initial intensive session schedule also enabled the quick development of a close and positive therapeutic relationship, which was particularly important in motivating Mr. G to reconstruct a new narrative. The subsequent reduction in session intensity facilitated Mr. G's later developing independence, so that he could return to his old life.

6. COURSE OF THERAPY

Phase I (sessions 1 to 4)

1. Challenging Assumptions

From the first contact, Mr. G exhibited a dependent relationship with the therapist. He tended to be very compliant and dedicated to the therapy. He was not late nor did he miss any sessions for the first 10 meetings. He described good relations with his family. However, in a conversation about his family, he announced that his family members were "victims of terror." In reply to therapist questioning, he explained that his sister was involved in a terrorist attack, and as a result, endures a back injury.

During the first session, Mr. G described and manifested ASD symptoms, such as intense fear, the persistent re-experiencing of sights from the traumatic event, increased arousal causing difficulty sleeping, irritability, poor concentration, feeling jumpy, and exhibiting tense behavior. His language seemed to cover hidden traumatic assumptions that the therapist saw as problematic, including the definition of his family as "victims of terror." In line with this, the first part of Mr. G's therapy consisted of the therapist's efforts to challenge the patient's basic assumptions about his past. For example, inquiries about his sister revealed that she exhibited great bravery, overcame the problem by struggling with a terrorist, raised a family of her own, and now works a steady job. The only vulnerability left, according to Mr. G, was partial physical disability. The therapist suggested that according to his evaluation, she was not a "victim of terror" at all. It seemed that the event had been empowering for her within the context of her life.

2. Avoiding Repetition of the Traumatic Nucleus

At the beginning of Mr. G's treatment, he was told not to watch TV since the event was broadcast every day. He was given a few days off to rest at home, since it was obvious that returning to his unit and the dangerous place where the event took place would awaken the traumatic memories and strengthen the traumatic narrative before a healthier alternate narrative could begin to consolidate.

During this part of the treatment, Mr. G tended to emphasize sensorial, concrete, emotionally vivid terms in describing the burned body parts of the terrorist. Since it was thought to be an essential part of Mr. G's dysfunctional traumatic narrative, the therapist attempted to change Mr. G's traumatic terminology by using relatively "neutral," short phrases instead of the emotionally vivid descriptions Mr. G was employing. For example, the therapist suggested the single phrase, "the event," instead of Mr. G saying, "I still think that during the event when I held the burned leg it started to decompose;" the single phrase, "the smell," instead of Mr. G saying, "The smell of the burned leg is still in my breath;" or the word, "images," instead of Mr. G saying, "I still see the burned body as we did when we first saw it." Consistent with Mr. G's complaint personality, he started to adopt these more neutral terms, and correspondingly, intrusive contents from the nucleus of the trauma began to decrease.

Normalization. During the initial interview, the therapist attempted to normalize Mr. G's experience. As Mr. G unfolded his personal story about the event, the therapist tried to get one step ahead of him and ask him questions about the physical and emotional experiences he had undergone. This process (of pacing and leading) gave Mr. G legitimization and a feeling that his reactions were familiar and normal. Although they seemed odd, his reactions made sense in relation to his personal story. For example, when the therapist reviewed with Mr. G three symptoms that he reported—intrusion, avoidance and hyperarousal—the therapist explained how common they were as a cluster, why and how they appear, and how they are meant to protect against trauma. Specifically, to paraphrase, the therapist said that

Your mind is not able to digest all that traumatic information in a short period of time. This leads to hyper-vigilance because it happened when you were not ready for it. Now your mind puts you on high alert all the time, because it may happen again. And so what was very important in the first few hours is now bothering you.

This phase finished when Mr. G started reframing his own words and actions in the terms used by the therapist:

Mr. G: "I still have difficulty sleeping at night, I wake up all the time with the images..."

Therapist (interrupts him): "Do you think that the difficulty in sleeping is adaptive for you now?"

Mr. G: "It is not adaptive for me. When I am awake, I drink water and think other thoughts as you told me via the relaxation technique, and go back to sleep. It helps."

Therapist: "Helps?"

G: "Yes, as you said, instead of letting it control me, I control it."

3. A Directive Approach

At the end of the first session, the therapist began to establish the *anchors technique*. The therapist developed a narrative concept based on the ideas that were discussed above, in section 3. The Guiding Conception, regarding the ability to shape memory. He explained to Mr. G that his life story, as he told it, showed that he had prepared himself for an event like this, so although he was initially surprised, his mind was ready for the challenge.

At this point, the therapist used information from the intake in order to reconstruct a healthier narrative. He reminded Mr. G of his sister's injury and asked him what he would have done in her place? The therapist suggested that the phrase "victims of terror" might be a misleading way of characterizing his family members and wondered if this had crossed Mr. G's mind at some point. Mr. G confirmed this, and the therapist suggested that the first seeds of preparation for the trauma had sprouted in his mind then and could help him now in coping with this event. Later on, the therapist asked Mr. G if he remembered a terror attack where he heard what people said and saw how they reacted on TV. Mr. G remembered that there were descriptions of horrific sights, yelling, and how the injured were treated. The therapist suggested it was possible that even then, Mr. G's mind was preparing for the challenge he later encountered, and that Mr. G probably felt empathic with the way the people on TV acted and wanted to act like them or to offer a better way to respond.

Phase II -- 4. Establishing a New Narrative (sessions 5 to 9)

Meaning and Unique Outcomes

At this point, the therapist began emphasizing unique outcomes from the past where Mr. G was not reacting as a "victim of terror," but rather as a resilient person. He reminded Mr. G of his choice of military profession as a paramedic, and how he prepared himself during training to take care of injured people. This choice was definitely not a victim-of-terror choice, and therefore served as a good unique outcome. At this point, the therapist felt he had built good anchors for reconstructing an alternate narrative that could shape the patient's memories in such

a way that he would believe he had actually been ready for the event, with all the tools needed for meeting the challenge. For example,

Therapist: "During the paramedics course training for 'mass casualties' events, what did you think then, and how did you imagine yourself acting in a future situation?"

Mr. G: "It was the first time I understood that I could be in a real situation as a paramedic. Up until then it was all theoretical. I remember I was dressing someone's wounds and before I finished, other wounded people called me for help. Then I realized that this profession is very difficult, and thought, I must prepare myself for such events so I will know how to act."

Therapist: "You prepared yourself for that."

Mr. G: "Yes, but in real life it was all different. It was much harder."

After about five sessions (two weeks) Mr. G's anchors—such as his decision to become a paramedic and his reaction to his sister's traumatic event—seemed to be well-established, and the therapist started to help him construct a whole new narrative, one that gave him dignity, control over the situation, and tools to adapt the narrative. The therapist used relaxation and guided imagination techniques in order to return to Mr. G's preparation anchors so as to change his memories. With the relaxation and guided imagination learned, Mr. G was asked to first go to a safe place in his mind. (This is a procedure used in imagination-oriented psychotherapy as well as in hypnotherapy. For more details, see Lynn & Kirsch, 2006). In his imagination, his safe place was a small lake next to his home where he could feel most relaxed. Then he was asked to go to specific anchor places, that is, the events and meaningful points in his life's story where he prepared himself for the event. Then he was instructed to imagine again the anchor event, because now that he knew what was going to happen in the future he could prepare himself better. Although at no time during these suggested instructions was Mr. G. asked to think directly about the event he had experienced, it was easy to see on his face, by his breathing rate, and by his small gestures, when he was getting too anxious; and at those times he was guided to go back to his safe place to relax and recharge himself, before getting going back to the anchor event.

After every session, Mr. G was asked to articulate what he had gone through during the exercise, and then he received assistance in relating it to the new narrative he was building. He described going back to the anchor places to relax and prepare himself to known future events as challenging. Gradually, he described how he is no longer afraid to go to the preparation points and while there to re-encounter memory fragments from the real event he went through "because I can always go back to my safe place, and I am now prepared for the challenge."

Phase III – 5. Giving Positive Meaning to the Traumatic Challenge (sessions 9 to 11)

During this time, Mr. G's therapist helped him transfer to another army unit as a paramedic, in order to strengthen his professional identity while limiting contact with the places that might awaken recollections of the event. It was obvious then that Mr. G had entered a recovery period, and that the new narrative had been well established. Mr. G began to plan a return to his old unit, in order to be transferred to a new one. Despite his meticulous preparation,

when he arrived to his old unit, an emergency drill with explosions and smoke affected him. He described it:

I felt that everything was coming back to me, and I returned to the gate. Then, I remembered my inner power and the preparation I had, and understood that I wanted to meet the unit commander. Suddenly, I came to realize that I was ready for anything and that I could cope.

A week after this event he was driving his car to a party and encountered an accident where a car was turned over. He described it:

At first I was scared. I pulled my car over and waited for a few seconds. Then I thought about the girls in the car. I went and helped to rescue them, treating them myself and waiting until the ambulance came. Suddenly, I felt good about my profession and myself. I understood that I was immune. I am stronger than other people.

These two events were emphasized in the therapy as *unique outcomes* that were different from the behavior of a traumatic victim of terror. The second event was also the beginning development of a *sense of meaning*. Following this event, his profession became an object of pride. Identifying himself as a professional allowed Mr. G to elevate the narrative of a victim of terror to that of a challenged hero. As the treatment progressed, Mr. G began feeling a sense of control over his life and his inner narrative started to consolidate. These unique outcomes, behaviors and imprints of meaning that came from his army profession were the most impressive signs of change at this stage.

Phase IV – 6. Planning the Future (sessions 12 to 13)

Continuity

At this point, the therapist began working with Mr. G on the future. He was asked how he saw his future, based on the past they had discussed. Mr. G repeated the theme of his professional identity as a paramedic. He described how important it was to him to advance in that profession, and that he felt that he was stronger than before. With guided imagination techniques, Mr. G imagined his life a month in the future. He described how he would cope in the clinic he was being transferred to and how he saw his future in helping people. Regarding his future perspective, Mr. G said that he looked at the event he had undergone as one that strengthened him, and he consolidated the event as one which would reflect positively on his future coping abilities. These techniques helped him to strengthen his sense of *continuity*, wherein the original traumatic event became a single event among the continuous stream of events that constitute his new narrative. After a month and a half, Mr. G felt that he did not need to continue the therapy but could manage on his own.

7. THERAPY MONITORING AND USE OF FEEDBACK INFORMATION

During the weekly meetings at our clinic, Mr. G's case was presented and evaluated in order to assess the progress of his condition through the time of therapy and up to three months

following. His case was presented at our meetings, which included some of the therapy he had received, repeated verbatim, as well as reports from his commanders about his functioning and condition. This allowed team members to express their thoughts and inputs about the case, and to provide feedback to the therapist. The therapist was also personally supervised in the therapy. This further helped to broaden the therapist's point of view regarding the case, and encouraged a better assessment, including ongoing external information, about Mr. G's advancement.

8. CONCLUDING EVALUATION OF THE THERAPY'S PROCESS AND OUTCOME

Outcome

Three months after the end of the therapy, the therapist spoke with Mr. G on the phone as planned. Mr. G described positive adjustment in his new unit and no evidence of PTSD symptoms. He mentioned that the intrusive images that he suffered during the first few weeks following the traumatic event did not come back in any form, including his dreams. He described no avoidant symptoms related to the trauma. Although his personality could be described as a bit anxious, this aspect of him seemed unrelated to the traumatic event but rather to his old character structure.

Six months later, Mr. G arrived for a consultation session with the first author (YG) regarding a different professional issue. He was invited for a full intake about the issue but said he felt he could manage by himself. Later on Mr. G was invited for an informal interview to talk about how he was feeling. He reported positive adjustment and mentioned no evidence of problems related to the original traumatic event.

A year later, the therapist met Mr. G again, albeit not in a therapeutic setting, but during an advanced paramedics course. Mr. G recounted an excellent adjustment to the military setting with no symptoms from the original trauma, good social relationships, and success in fulfilling everyday assignments.

Finally, after Mr. G's transfer to a new unit, his commanders were asked to fill out reports on his performance after three months and also after six months. These reports corresponded with Mr. G's description of excellent functioning, with no evidence of intrusive elements, avoidant behavior, or hypervigilance. We consider these reports particularly important since they represent an assessment of Mr. G's follow-up functioning that was independent of the therapist and the rest of the clinical team who were involved in his treatment.

Limitations of the Therapeutic Model

Our proposed, Back to the Future model should be viewed as one that needs to be empirically researched in formal, randomized clinical trials. Although there is a wide spectrum of treatments where it can be used for clinical purposes in ASD victims, there are some limitations. First, this technique will be difficult to implement with people who suffer from a certain level of post-trauma in their past, as the suggestion of an earlier successful preparation will be less effective due to their past failure. In addition,

this method is less suitable for cases where the memory of the traumatic nucleus has already been consolidated. In these patients, the memory appears in the form of intrusive thoughts, which continue for a long period of time. In such conditions, when the memory is already consolidated, there is an obvious advantage to traditional cognitive-behavior therapy, which enables exposure and processing of the emotional response, rather than an approach which avoids addressing the traumatic nucleus. The proposed approach claims that during the first month, it is better not focus on exposure to the traumatic experience, albeit contextualizing the trauma within a larger life story. From that period onward, if traumatic symptoms disrupt normal life routine, it is better to focus on developing a coherent narrative of the trauma, by using exposure techniques.

Also, we have already mentioned the importance of exposure techniques in preventing avoidance of and habituation to traumatic scenes. However, building a new, meaningful, coherent life story that can integrate the traumatic experience with past experiences (past selves) and future experiences (future selves) may still be warranted.

Finally, although there is a compliance component in this technique, our approach presumes that almost everyone is exposed indirectly to traumatic events through television, movies, books, and friends' stories. Therefore it is most likely that in these types of situations, people in the past have started to prepare themselves for the possibility that they might be exposed to a traumatic event in the future. In this context, an effective intake interview with a trauma-exposed patient could explore the personal anchoring that would convince the patient that he or she was prepared for such an event. We are persuaded that human nature is predisposed to develop many scripts about the future because of the evolutionary pressure to prepare for any danger (Cacioppo & Gardner, 1999, Lerner & Miller, 1978). On the other hand, it is true that when bad things happen, we are surprised. This is due to our optimistic nature to think things are going to go well (see Diener & Diener 1996). This point is important because people both prepare themselves ahead of time and are simultaneously still surprised. Moreover, the fact that most people are exposed at least once in their lives to a traumatic event, but only about 10% of them develop PTSD (Ozer et al. 2003), suggests that many of them might have infused the event with positive meaning.

Conclusion

The model and associated techniques illustrated in this case study are based on the assumption that therapist-directed memory shaping after exposure to a traumatic event can significantly increase the chances of recovery from the event and prevent the development of future PTSD reactions to the event. Memory studies presented earlier support this assumption. Contrary to the notion that the memory-consolidating process is short and immediate, memory processes are long and span from a few days to a few weeks, thus enabling a window of opportunity to influence and shape the traumatic narrative in this period (Dudai & Morris, 2000; Dudai & Eisenberg, 2004). This paper illustrates a unique treatment—the Back to the Future model—which can be conducted during that window of opportunity.

According to the Back to the Future model, a traumatic event should be handled in the Acute Stress Disorder (ASD) phase without intervening with the traumatic nucleus. This process is done through directing towards and concentrating on selected anchors, which emphasize and empower the patient's unintentional preparations before for the traumatic event. Three narrative

principles enhanced in this process are: using unique outcomes (White & Epston, 1990), the continuity principle (Omer & Alon, 1994), and giving meaning to the traumatic event (Neimeyer, 1993, 2002, 2006b). Memory distortions help to reconstruct this new competing narrative, so that these distortions assist the processes of denial (Palyo & Beck, 2005; Ginzburg et al., 2002) and normal forgetfulness (Loftus, Garry, & Feldman, 1994) in order to facilitate change of the traumatic nucleus.

The Back to the Future strategies are two-fold. First is the effort to shift the center of attention from the traumatic nucleus to alleged preparation for the traumatic event. Second is an emphasis upon a continuation of the process associated with this earlier preparation as it would have proceeded if the trauma had not occurred. These strategies are contrary to conventional treatment methods, such as those documented by Foa et al. (1999), Van Etten and Taylor (1998), Cohen and Lahad (2000). These latter methods use exposure by many repetitions of the traumatic nucleus, along with the prevention of avoidant and denial responses. The idea behind these treatments is that repetition of the trauma at an early stage after the event can desensitize the patient to the traumatic experience and help him or her to adaptively work through the associated negative emotions. Our Back to the Future model proposes that instead, this type of exposure treatment can consolidate a negative traumatic narrative. As an alternative, our model is designed to enable the patient to integrate the traumatic event into a positive past narrative as well as a positive future narrative, and to transform the traumatic event into an integral part of his or her life story rather than transforming it into a major, Archimedean turning point in that story.

To summarize, this case study can be viewed as an initial idea for more selective inspection and observation in the treatment of ASD patients. The Back to the Future model describes an approach to be used in treatment during the first few days and weeks after a traumatic event. Our model operates on principles that are contrary to mainstream exposure methods that have been proved effective after the consolidation of the traumatic nucleus has taken place. It is our contention that these exposure methods may be less effective soon after the traumatic event. In line with our comments above on the limitations of our therapeutic model, our Back to the Future treatment is best suited to cases where psychological first aid is received almost immediately, before the full diagnosis of PTSD. We believe that in these conditions, our model provides an important treatment alternative for cases presenting with ASD.

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