# Combat-Induced Dissociative Amnesia: Review and Case Example of Generalized Dissociative Amnesia

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**ABSTRACT.** Dissociative amnesia following combat trauma in various wars has been extensively documented. In this article, we describe theoretical constructs related to dissociative amnesia, and integrate them with clinical practice through the presentation of a case. Although there is ample documentation of this condition in combat soldiers, in actual clinical practice such dissociative amnesia is probably underdiagnosed and undertreated. This may be detrimental to therapeutic progress, given the fact that ongoing memory deficits constitute one of the core symptoms of chronic PTSD in combat veterans. As illustrated in our case example of combat-induced generalized dissociative amnesia, combat-induced amnesia may also reflect previously existing dissociated traumatic memories that become reactivated during trauma. In this case, intensive treatment using hypnosis within a larger therapeutic milieu involved both the uncovering and processing of recent dissociated trau-

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matic experiences, and, by necessity, other traumas of the past. [Article copies available for a fee from The Haworth Document Delivery Service: 1-800-HAWORTH. E-mail address: <getinfo@haworthpressinc.com> Website: <http://www.HaworthPress.com> 2002 by The Haworth Press, Inc. All rights reserved.]

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There is an extensive recorded history of trauma-related dissociative amnesia in combat soldiers, including reports from World War I (Brown, 1919; McCurdy, 1918; McDougall, 1926; cf. Van der Hart, Brown, & Graafland, 1999), World War II (Fisher, 1945; Grinker & Spiegel, 1945; Karon & Widener, 1997; Sargent & Slater, 1941), the Yom Kippur War in the Middle East (Kalman, 1977), and the Vietnam War (Hendin et al., 1984; Silver & Kelly, 1985; Spiegel, 1981). Bremner et al. (1992) reported that among Vietnam combat veterans, "PTSD patients frequently reported experiences of amnesia at the time of traumatic events" (p. 331). Apart from such trauma-related amnesias, Bremner and colleagues found that these patients reported high levels of ongoing dissociative amnesia (Bremner et al., 1993a), and also had ongoing short-term memory deficits that reflect problems of information processing (Bremner et al., 1993b). Currently, with armed forces from many nations involved in peace-keeping missions, such amnesias and other memory deficits may be more widespread than is commonly assumed. Therapeutic inquiries to determine the origins and meanings of often undetected trauma-related memory deficits, and subsequent specific treatment of these deficits may be important and necessary in the full resolution of PTSD.

This paper examines theoretical aspects of combat-related dissociative amnesia and presents a case example of treatment of an unusually pervasive form of amnesia–generalized dissociative amnesia–in an Israeli soldier following combat action in the Lebanon War of 1982.

## DISSOCIATIVE AMNESIA

The DSM-IV refers to dissociation as "a disruption in the usually integrated functions of consciousness, memory, identity, or perception of the environment" (APA, 1994; Cardeña & Spiegel, 1996). Dissociative amnesia, termed "psychogenic amnesia" in DSM-III (APA, 1980), is a specific form of the general construct of dissociation. Studies of amnesia for combat experiences have provided extensive data on this form of dissociation. During WWI, Brown (1919) reported having treated two series of 1000 acutely traumatized soldiers:

173 (7.3%) in the first series and 132 (13.2%) in the second series showed hysterical (i.e., dissociative) symptoms including memory loss (thus not indicating the exact percentage of amnesic cases). In 1,000 consecutive cases of WWII war neuroses, Sargent and Slater (1941) found that 144 (14.4%) had significant amnesia for war experiences. Only about 10% of the amnestic soldiers had a severe head injury that was related to the development of symptoms. Reporting on 1,000 cases of war neuroses during the North African campaign, Torrie (1944) reported amnesia and/or fugue in 86 (8.6%). Henderson and Moore (1944) found amnesia in 5% of soldiers in the South Pacific. These and other descriptions of amnesia in WWI and WWII have been further studied and discussed by contemporary clinicians interested in the phenomenon (Karon & Widener, 1997; Van der Hart et al., 1999). In a recent randomized survey of the general population in the United States, Elliott (1997) found that 16% of war veterans reported a period during which they had completely forgotten significant war experiences (i.e., witnessing or experiencing combat injuries) and that another 22% reported partial amnesia for such experiences. See Brown, Scheflin and Hammond (1998) for a more detailed overview of combat-related amnesia.

In spite of the extensive documentation of combat related dissociative amnesia, there has been insufficient study of the considerably varied forms of amnesia. As noted by Culpin (1931) regarding traumatized WWI combat soldiers: "[T]here was every gradation between a short period of 'unconsciousness' after a shell-burst and the loss of memory for a lifetime, but the mental processes were identical throughout" (p. 26). Although the psychophysiological process may be identical, for treatment purposes it is still useful to distinguish among types of dissociative amnesia. Adopting Pierre Janet's description of dissociative amnesia categories (1901), the DSM-IV (APA, 1994) distinguishes the following types: (1) localized amnesia-inability to recall all events that occurred during a circumscribed period of time, (2) selective amnesia-inability to recall some, but not all, of the events during a circumscribed period of time, (3) continuous amnesia-inability to recall events subsequent to a specific time to and including the present, (4) systematized amnesia-loss of memory for certain categories of information, and (5) generalized amnesia-failure to recall encompasses the person's entire life. Generalized dissociative amnesia may not only pertain to loss of episodic memory (directly concerned with one's personal life) but also to semantic (factual and conceptual knowledge) and procedural memory (how to perform procedures and actions) (Tulving, 1983; Van der Hart & Nijenhuis, in press).

# DISSOCIATIVE AMNESIA AND COMPLEXITY OF DISSOCIATION

Reflecting on his observations of acutely traumatized WWI combat soldiers manifesting amnesia, Myers (1940; cf. Van der Hart et al., 2000) described the dissociative foundation of this amnesia as follows:

[Initially] the recent emotional [i.e., traumatic] experiences have the upper hand and determine his conduct: the normal has been replaced by what we may call the "emotional" personality. Gradually or suddenly an "apparent normal" personality returns–normal save for the lack of all memory of events directly connected with the shock [i.e., trauma], normal save for the manifestation of other ('somatic') hysterical disorders indicative of mental dissociation. (p. 67)

Myers implied here that the traumatic memories are sensory-motor phenomena rather than autobiographical narrative memories when reactivated (Janet, 1928; Van der Kolk & Van der Hart, 1991). They are part of what he called an "emotional" personality (state) with its own sense of self. The biphasic nature of PTSD, i.e., intrusion and numbing/avoidance/denial can be translated in terms of the alteration of this "emotional" personality (EP) and the "apparently normal" personality (ANP) (Nijenhuis & Van der Hart, 1999; Van der Hart et al., 2000). The EP is directed primarily by evolutionary-prepared psychobiological defense system geared toward survival under threat, and to some degree by attachment systems. The ANP is directed by psychobiological systems that are geared to the functions of daily life, including attachment (Panksepp, 1998). The ANP will experience functional losses or negative symptoms of dissociation, such as the aforementioned amnesia, but also depersonalization, detachment, anesthesias, analgesias, and loss of motor functions. In the intrusion phase, positive dissociative symptoms are experienced, including nightmares, re-experiences, and changes in physiological functions and reactions related to "passive influence" experiences from the EP (Nijenhuis & Van der Hart, 1999; Van der Hart et al., 2000). Many authors in the trauma-field have not recognized that intrusion phenomena are positive dissociative symptoms and thus misunderstand the dissociative nature of acute stress disorder, PTSD and related disorders (e.g., Marshall, Spitzer & Liebowitz, 1999).

Within the emerging theory of structural dissociation of the personality, this basic split between EP and ANP has been called *primary structural dissociation* (Nijenhuis & Van der Hart, 1999; Van der Hart, Van der Kolk, & Boon, 1998). Apart from simple PTSD, localized dissociative amnesia would be an example of primary structural dissociation. Once an individual is dissociated during trauma, further disintegration of elements of the traumatic experience can occur, i.e., fragmentation of the EP takes place. This is referred to as *sec-ondary structural dissociation*. EPs may represent various defensive subsystems, such as fight, flight, freezing, and submission (Nijenhuis & Van der Hart, 1999; Nijenhuis, Spinhoven, Vanderlinden, Van Dyck, & Van der Hart, 1998a). Complex PTSD, generalized dissociative amnesia, and in our opinion, DDNOS, can be seen as examples of this secondary structural dissociation. *Tertiary structural dissociation* pertains to further fragmentation of the ANP, and is exemplified by the most complex dissociative disorder, dissociative identity disorder (DID). At all structural levels of dissociation the alternation between ANP(s) and EP(s) is manifested in numbing/avoidance (negative dissociative symptoms) and intrusion (positive dissociative symptoms) phenomena mentioned above.

For diagnostic and treatment purposes it is important to assess whether dissociative amnesia is a disorder in itself or a part of a more complex dissociative disorder such as DID (APA, 1994). Trauma tends to produce its disintegrative (i.e., dissociative) effects in proportion to its intensity, duration, and repetition (Janet, 1909; Nijenhuis, Spinhoven, Van Dyck, Van der Hart, & Vanderlinden, 1998b; Van der Kolk & Van der Hart, 1989), as well as age of onset (Draijer & Boon, 1993; Putnam, 1997). Therefore, the clinician should be aware of the possibility of previous traumatization in combat veterans who exhibit complex forms of amnesia. For example, in reviewing the current research literature on Vietnam War veterans with PTSD, Loewenstein (1996) concluded that, although intensity of combat exposure was the critical factor in the development of posttraumatic stress and dissociative amnesia, there was a group of individuals with a childhood history of trauma or of a dissociative disorder who appeared to have a lower threshold for the development of overt dissociative or PTSD symptoms when traumatized during combat (cf. Bremner et al., 1993c). These individuals also may have a more severe and chronic course with PTSD after return to civilian life.

In terms of the theory of structural dissociation, in these traumatized individuals the current trauma does not pertain only to primary structural dissociation, but at least to secondary structural dissociation. In such cases, the current traumatic experience not only evokes vehement emotions that lead to dissociation, but may also reactivate existing traumatic memories (Van der Hart, Witztum, & Friedman, 1993a): a phenomenon which Janet (1928) described as "double émotion." Thus the current traumatic experience can be mixed with elements of reactived traumatic memories, not only giving rise to confusion but also to intense emotional and dissociative responses. The case presented below is illustrative of secondary dissociation and of the phenomenon of "double émotion," which De Graaf and Van der Molen (1996) recently discussed in terms of a "personal sensitization factor."

# TREATMENT PROCESS

Although there have been adherents in the military of the therapeutic approach not to attend to amnesia in patients, as reported by Culpin (1931) and Rivers (1920), there seems to be some ongoing consensus that a primary goal

of treatment should be relief of the dissociative amnesia, followed by realization, and further integration of the trauma. Utilizing a trauma-dissociation model, Myers (1940) conceptualized this essential treatment goal as follows:

[to] deprive the "emotional" personality of its pathological, distracted, uncontrolled character, and [to] effect its union with the "apparently normal" personality hitherto ignorant of the emotional experiences in question. When this re-integration has taken place, it becomes immediately obvious that the "apparently normal" personality differed widely in physical appearance and behavior, as well as mentally, from the completely normal personality thus at last obtained. (p. 69)

This (re)integration should take place in the framework of the treatment of trauma disorders in general (Loewenstein, 1996), consisting of phase-oriented treatment (Brown et al., 1998; Cardeña, Maldonado, Van der Hart & Spiegel, 2000; Courtois, 1999; Herman, 1992; Van der Hart, Brown, & Van der Kolk, 1989). The first phase is oriented toward stability, symptom reduction, and safety. Establishing these goals serves as a basis for the second phase of treatment–the processing and integration of traumatic memories. The third treatment phase is personality reintegration and reconnection to ordinary life.

Patients with dissociative amnesia for their trauma are usually characterized by a "phobia of the traumatic memory" (Janet, 1904), as these memories contain extremely painful and often conflictual emotions such as helplessness, despair, terror, rage, guilt, shame, and self-hatred (Loewenstein, 1991, 1996). Therefore, premature exploration (e.g., by forcefully applying exploratory hypnosis) and treatment of these dissociated traumatic memories may yield undue regression, self-destructive behavior, uncontrolled rages, psychotic decompensation, and suicidal behavior. When sufficient stabilization has been established, traumatic memories should be approached gradually, within a window of the patient's integrative capacity (Siegel, 1999), with or without use of hypnosis as an exploratory technique (Brown & Fromm, 1986; Cardeña et al., 2000; Van der Hart, Steele, Boon, & Brown, 1993b). Proper attention should be given to dealing with the patient's existing conflicts regarding such exploration, i.e., to overcoming the ANP's phobia of both the traumatic memories and the EP who holds the memories (Nijenhuis & Van der Hart, 1999).

In cases of acute stress disorder and simple cases of PTSD and dissociative amnesia, treatment of the dissociative symptoms can be limited to resolving primary dissociation only. The phase-oriented treatment model of psychological trauma can be applied in a rather straight-forward manner in the course of short-term, event-oriented treatment. However, in more complex dissociative disorders involving secondary and tertiary structural dissociation, treatment geared toward stabilization (Phase 1) takes considerably longer. Application of the phase-oriented treatment model then takes the form of a spiral, in which previous phases will be revisited more than once (Courtois, 1999). When the integrative capacity of the patient remains low, stabilization may be the only viable treatment option (Van der Kolk, McFarlane, & Van der Hart, 1996).

In the case of trauma-related generalized dissociative amnesia in an acutely traumatized Israeli combat soldier described below, treatment was directed toward stabilization, relief of dissociative amnesia and processing of traumatic memories, and rehabilitation. The case demonstrates that acute trauma may reactivate already existing traumatic memories, thereby making the person even more overwhelmed and thus more susceptible to a profound dissociative reaction. Because there exist almost no explicit clinical descriptions of generalized dissociative amnesia and its recovery, we present this case and the treatment process in detail.

#### CASE REPORT

## **Treatment Setting**

The treatment took place in a psychiatric unit of the Israeli Army for short-term treatment and rehabilitation of severe combat stress reaction, i.e., the Combat Fitness Retraining Unit (Margalit et al., 1986). The Unit's multidimensional treatment program consisted of the following activities: military drills and skills that maintain discipline and soldiering proficiency; activities that maintain combat physical fitness, including target practice, as most of the admitted patients showed severe phobic reactions to shooting (Wozner et al., 1986); individual and group sport activities; informal group activities and entertainment in the evenings; individual and group psychotherapy; behavioral therapy; couples counseling; and military and civilian community interventions. During the treatment program, each soldier was assigned a therapist, i.e., a ranking mental health officer who took an active part in the various elements of the therapeutic milieu, including military exercises. This created an unusual kind of rapport between the two men and reinforced the military atmosphere of the therapeutic setting (Margalit, Segal, & Goren, 1986; Wozner et al., 1986).

Generally, the two-stage goal-directed treatment consisted of two weeks devoted to intensive working through of traumatic experiences and two weeks devoted to rehabilitation and reintegration in the military and civilian communities. Given the severe dissociative condition of the patient presented below, an exception was made for a stay of eight weeks.

# **Initial Presentation**

Israel (not his real name), a single, 24-year-old tank driver in reserve duty in the Israeli armored forces was admitted to a rear medical army center for treat-

ment of his combat stress reaction and global retrograde amnesia during the Lebanon war in 1982.

During combat, his tank had been hit by a rocket and he had been thrown out by the blast. He was first evacuated from the front to a rear general hospital. Upon admission he was completely disoriented in place and time; he did not remember any detail of the incident, nor the general events of his life in the past. He showed a speech disorder, with his voice being thin and highly pitched. He underwent comprehensive medical examinations for suspected brain injury, but head x-rays and brain CT-scan showed no evidence of trauma or brain damage. Neurological examinations ruled out any organic basis for his symptoms, of which the outstanding feature was his generalized amnesia; all he remembered were his name and the place where he lived. During the five days of his hospitalization there was no improvement in his recollection, while his speech disorder deteriorated into total aphonia. The psychiatric diagnosis was "combat stress reaction" with hysterical features (which we now consider somatoform dissociative symptoms; cf. Nijenhuis, 2000; Van der Hart et al., 2000). He was referred to another general hospital where, after additional examinations, the amnesia (a negative dissociative symptoms of ANP) was regarded as a symptom of combat stress reaction. From there he was transferred to the Combat Fitness Retraining Unit.

In this treatment unit Israel soon established contact with the other patients and staff. Appearing depressed, he complained of nightmares and insomnia, and he suffered from nocturnal enuresis. He became extremely upset and he cried when he heard that both his tank commander and his company commander had been killed in combat. Thus, in spite of amnesia for the traumatic event itself, Israel retained memory of these men. They had been good friends whom he had known since basic army training and with whom he regularly fulfilled his reserve duty. "How can I start enjoying life when they are both dead? . . . I should have died." However, he appeared strongly motivated to recover his memory, and he fit well in the therapeutic setting. In the report below, his individual psychotherapy is highlighted.

# The First Treatment Round

Israel's first therapist had a cognitive-behavioral orientation. Their first session started five days after his admission to the Unit. The therapist made, among others, the following entries to the file:

*First session*. Israel did not remember what had happened to him . . . no recollection of his past . . . related the details of his falling off the tank as he was told by others . . . strong desire to remember . . . felt there is a "blank" in his life . . . vomited twice after the session. Said that part of his crew had been killed, but related this as a matter-of-fact report, without affect.

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*Second session.* Israel refused to shoot at the range [where the therapist gradually exposed him to a gun]. Israel expressed the wish to kill the enemy in cold blood. He remembered suddenly that he overran civilians, including a woman, with his tank: the civilians were forced by enemy soldiers to stand and block the tank with their bodies. Talked about this without showing any affect, said he did not care. "My late commander knew what he was saying." Then he expressed rage at the enemies who had made him do what he did.

*Third session.* Israel was asked to recall what had happened during the war, especially with regards to the incident in which the woman was overrun by the tank. He then reported sudden stomach pains, felt tense, heat in his chest; his head fell back. He began to re-experience a war incident. He described himself as being in a pit, without a weapon; enemy soldiers standing outside, ready to kill him. Frightened to death, he covered his head; in a thin, high voice, he called for his commander. This dissociative episode lasted about two hours. During the meal, later that day, he looked and acted like a automaton, totally detached, performing orders mechanically. Feeling exhausted, he then went to bed. He later reported in group that he had slept well for the first time that night after this session.

*Fourth session*. Israel began to feel less detached but was still disoriented, and thus needed to be accompanied wherever he went. He stated that he was beginning to remember that he had been rescued from the pit by Israeli forces-they were not enemy soldiers.

*Fifth session*. Israel began to recall memories of his family and related them in the session. He reported that his father was a detective in the police force, and until age nine he thought him to be a criminal, feeling both afraid and ashamed of him. He also said his father was a violent person who used to beat his wife and stayed away from home for long periods. At age ten he took his father's service gun and pointed it at the cleaning woman, a Christian Arab, who screamed in panic. He shot twice but missed her. His father came running and hit him hard.

*Eighth session*. Israel reported that he had no contact with his parents since the war started, and he felt that they were not his parents at all. The suggestion was made that he was probably angry with them, which he vehemently denied. Then the interpretation was offered that, because Israel lost a "family" (i.e., his tank crew) in war, he had also disconnected from his real family: thus he could not bear another loss. Israel did not see the connection.

*Eleventh session.* Israel asked for a walk, because of his "headaches." While walking, he spontaneously entered into a dissociative state when he noticed cleaning women of oriental origin coming his way. He did not answer a question regarding what he was reminded of. He continued walking and stated, "I won't shoot, because I hate the gun: it betrayed me, it's treacherous like a woman, that's what we were taught. Had you caught your wife cheating on you, wouldn't you file for divorce?" The therapist responded: "We should check this matter of betrayal: how did the gun betray you? Maybe you could have saved your friends and did not do it?" Israel became enraged: "Why are you making up stories about me?" He then stated, "I'll tell you exactly what happened." Then he told about the explosion near the tank, although he did not mention running over the woman. He was angry, blaming the therapist: "You have made me feel guilty!"

*Fourteenth session*. The therapist, who was about to return home from his reserve duties, initiated a discussion about termination, which occurred four sessions later.

*Eighteenth session*. The therapist "forced" Israel to shoot at the range. Israel fired two shots and shouted: "I didn't hit, I didn't hit!" The presumption was again offered that he could had saved his friends, but failed to do so. Again he rejected this assumption, and the therapy ended at this point.

### The Second Treatment Round

Prior to this treatment, Israel was sent for a second neuropsychological examination due to his unusual memory disturbances, and organic factors were again ruled out. Israel's second therapist (HM) chose short-term psychodynamic hypnotherapy as the treatment of choice. He received the diagnosis of "neurotic combat reaction."

*First session*. Israel expressed his wish to return to his regiment. His friends were still fighting. He felt badly that he was not with them, and he was sure that he could join them and fight. On two occasions he had already taken his belongings and tried to leave, but was stopped by the medical staff. He commented that he wanted to return to the battlefield in order to expose himself to enemy fire and die, in other words, to commit suicide.

Second session. Israel spontaneously described a dream, which marked the beginning of the dynamic therapy: "I heard that my mother was murdered. They put her in my duffel bag. I told them it couldn't be true. I ran to the morgue. There were many trolleys. The bag lay on a trolley. I opened it and saw my mother dead, burned." He remembered having cried in his dream, but in the session he was slightly aroused. Subsequently, he became very anxious, wanting to call home to make sure that his mother was still alive. He said that that he was very attached to his mother, but that he had a conflictual relationship with his father who did not understand him. (Apparently, some memories with regard to his parents had returned.) A while later, he described the event of the explosion that threw him out of the tank and killed all the other crewmen, including his commander. He related another war experience, one which he had also previously mentioned in a completely detached manner during the first treatment round: the enemy soldiers had placed civilians as a road-block,

stalling the Israeli tanks which could then be hit. Israel said his commander ordered him to drive on, and he heard subsequently shouting and crying. While narrating this, he was very upset, claiming to be haunted by the look of the woman he ran over: he imagined that he was running over his mother and his little brother. The therapist responded empathically. Later in the session he asked Israel if he could remember details of his childhood. Israel claimed he could only vaguely remember some friends from basic army training.

*Third session.* Israel related another dream. He was in a large room, with many frightening, devil-like people around him, who were torturing him. He was scared and tried to escape. Just as in the previous session, he continued recovering some autobiographical memories. He began to share details about his family. He was more attached to his mother than to his father, of whom he has always been scared. His father was very tough, and "interrogates people." Israel still refused to see his parents. He felt that he was running away from them, and that he felt like a Martian. He did not remember who or what he was, or what his habits had been. He wanted to know where he was born and raised. He admitted being afraid of driving because he might lose control. Suddenly he became very irritated, stating, "She was like my mother, that woman!", referring to the woman he had run over with the tank.

*Fourth session*. Israel related another vivid dream about being in the same house as he described before. It turned out to be church, in which he was lying on some sort of altar, with people torturing him by *pinching* him, while an organ was playing. He then returned to the memories of his family. Again he mentioned his attachment to his mother. While during the last session he had indicated that he refused to see his parents, now he complained that she had not yet visited him since his evacuation from the battlefield. He described his father as being indifferent, having done the minimum by only checking with the liaison officer that his son was alive. With regard to the dreams, the therapist felt that Israel was haunted by guilt feelings about what he had done, i.e., running over the woman. He chose to make this interpretation to Israel in a permissive and non-threatening manner: "I can sense something of your feelings of guilt and pain about something that has happened to you." Israel seemed to accept this interpretation. Following this session, Israel's parents were invited in order to facilitate the recovery of his memories.

*Fifth session*. During this session the parents were present. They described a strong bond between Israel and his mother, and they reported background information. Israel was born after an uneventful pregnancy, and his development was normal. He was a creative, imaginative boy who read a lot. At the end of elementary school his teacher advised that he would stay for another year, because of his childishness and bed wetting, and he received several counseling sessions with a psychologist. Later he attended vocational school, where he remained until his enlistment in the army. Near the end of the session, Israel

stated that he suspected that his parents were eager to know what had happened to him during the combat incident. In a sudden rage, he screamed at them: "You'll never understand what happened to me!" At end of the session Israel remarked: "You are telling me that they are my parents. What I see is a couple of fifty-year-old strangers, for whom I have no feelings at all."

*Sixth session.* Israel related another dream, which took place in the same church, with the altar now resembling a bed. In the dream, the therapist, dressed in white civilian clothes, helped him to tie his shoelaces, after which Israel stepped from the bed and walked. Israel reported that he was eager to be helped but explained he was frightened of what was lying in store for him in his unconscious.

Eighth session. At this stage, two-and-a-half months after Israel's combat trauma, the therapist noted that Israel still suffered from generalized dissociative amnesia, with only some fragments having been recovered. Probably related to this, Israel continued to spontaneously present dreams with guilt as the dominant theme. In order to facilitate the process of recovery and to further explore the roots of his guilt feelings, the therapist proposed the use of hypnosis as a means of gradually uncovering and working through Israel's traumatic memories. Israel accepted this proposal. After hypnotic induction the therapist suggested that he imagine a clock running backwards: the clock could stop at any point that he (Israel) chose. He chose to stop at the time of the farewell party before his enlistment in the army. He described friends attending the party, as well as the room where it took place, mentioning specific details of pictures on the wall and the wallpaper. Then a spontaneous visual hallucination occurred: in the therapy room he saw the face of a big, bald and scary man. His voice became thin and high, and he told the therapist, "I have been a priest, an elderly priest, and I did something wrong, very wrong, so I was tried and tortured." He burst into tears, crying, "I betrayed the people in the church, good people; I wanted to be head of the church and I betrayed them for money." He entered a state of confusion, not being sure who he really was. He said, "I am Israel, I want to stop being a priest," adding, "I am very tired, parts are moving inside my head."

*Ninth through eleventh sessions.* During these sessions, Israel spontaneously managed to reconstruct many details from his past, mainly from the time before his enlistment. The motif of the "bald head" kept returning in his descriptions.

*Twelfth session*. After the therapist induced hypnosis, Israel recalled an incident during elementary school. He was on his way to class, entered the classroom, and then "something terrible" happened. He emerged from hypnosis without being able to describe the event. After reassuring him and re-inducing hypnosis, the therapist guided Israel more directly, and he was then was able to recall another upsetting event which occurred at home when he was ten. He

had taken his father's gun and had twice shot at the cleaning woman, a Christian Arab, barely missing her. The woman was frightened to death, and his terrified father came running to him and hit him hard. Israel related this while appearing frightened and shocked. The therapist pointed out that the woman he had overrun during battle was a Christian Arab, too. This provoked a re-experience of the incident, which Israel vividly described: "A narrow path, I drive the tank and see through the telescope the terrified eyes of the woman about to be run over." He re-experienced his acceleration of the tank and running over the woman, and shouted, "She is like my mother!" After a while, Israel returned to the waking state. He looked surprisingly happy, crying with joy, "I was given a command by him [the company commander, who was killed afterwards], he ordered me to do it! I am not guilty. I now feel that they are my parents, I want to call them now." In the hours following this session, Israel experienced a dramatic and quick unfolding of past memories.

*Thirteenth session.* In hypnosis, Israel was able to return to the memory of the "terrible event" at elementary school, which he had not remembered during the previous session. While feeling terrified, he described the headmaster at his elementary school, an awesome figure with a huge bald head whom he regarded as a demonic monster that terrified children. Israel once broke a window and the headmaster came and "tortured" him by *pinching* him in front of the class. The therapist assumed that this was Israel's primary trauma–a trauma, since Israel had very strong emotions and found it a subjectively traumatic experience. He had related it earlier symbolically, through his dream of the big, bald priest pinching him in church in front of the whole congregation. After Israel emerged from his trance, the therapist shared this interpretation with him. They related this to other traumatic experiences (the shooting incident with the cleaning woman, and the recent traumatic war event). Israel was able to discuss, and relate to these events with appropriate affect.

Several other sessions were conducted. Israel reported no other traumas in hypnosis. During one of these sessions Israel said that he loved his mother very much, but that he also felt frustrated by her. He explained he could not have hurt his parents because he loved them too much. At the end of this treatment, Israel had completely recovered from his generalized amnesia. He returned to his combat unit in the war theater where he participated again in the fighting.

#### Follow Up

Two-and-a-half years after treatment Israel was invited for a follow-up session. Israel reported that after returning to his unit, he was involved in several combat actions. He had been exposed to extremely dangerous situations without becoming symptomatic. Subsequently, he continued his active combat service as a reservist. Working as a security officer in civilian life, he appeared to function normally in all respects. Follow up at eight years indicated that he was working in a senior executive position, and that he was married and had four children. He functioned well as a father and husband, suffering no emotional or functional problems. He still fulfilled his army reserve duty in combat units.

### **DISCUSSION**

*Organic versus non-organic etiology*. In the soldier described in this case, comprehensive medical and neurological examinations ruled out any organic basis for his amnesia. However, these examinations do not completely rule out an organic basis for amnesia. We believe that organic and functional (psychological) factors should not be seen as mutually exclusive (Van der Hart et al., 1999). Organic factors may potentiate or contribute to the development of dissociative amnesia, including generalized dissociative amnesia (Markowitsch et al., 1997).

Alterations between an "apparently normal" personality (ANP) and "emo*tional" (traumatized) personality state (EP).* The soldier described in this case manifested many dissociative phenomena. At minimum, he exhibited alternations between an ANP and an EP. Remaining as ANP, he experienced negative dissociative symptoms of numbing, depersonalization, derealization, detachment, amnesia, and loss of motor function (aphonia, in this case). The presence of anesthesia, analgesia, and other somatoform dissociative symptoms apparently was not assessed, so it is not possible to ascertain if these symptoms were present. During periods of traumatic memory reactivation, this patient experienced positive dissociative symptoms: intrusions of nightmares and flashbacks, bed-wetting, and altered voice tone. His EP clearly was dissociated from his ANP, and held components not only of the current trauma, but also historical traumas. It is possible that secondary structural dissociation had occurred during his childhood traumas, so that there were several EPs. Thus, the experience of being stuck in guilt feelings after having overrun a Christian Arab woman with his tank, could belong to one EP; lying in a pit at the battlefield with soldiers, mistakenly seen as enemy soldiers around him, to a second EP; and the experience at age ten of shooting at his parents' cleaning woman, to vet another EP.

*Double émotion.* The most recent traumatic events leading to this patient's breakdown and the development of his dissociative amnesia were complex. His tank was hit by a rocket, killing both his troupe and tank commanders. He mistakenly perceived the rescue troops as enemy soldiers about to kill him. Apparently, these traumas not only reactivated the traumatic memory of running over the woman with his tank, but also evoked older unresolved memo-

ries such as his shooting at the cleaning woman at age ten, his punishment for it, and the severe punishment at age eight (experienced as torture) by the headmaster. This is an illustration of Janet's phenomenon of "double émotion," which has been observed before in traumatized combat soldiers (e.g., Rows, 1916; cf. Shephard, 2000, pp. 81-2). Our case report also provides an example of an apparently innocuous event acting as a reactivating stimulus, i.e., the sight of an oriental cleaning woman during the 11th session of the first treatment course. Probably, this sight not only reactivated traumatic memories of running over the Arab woman with his tank but also the memories of the shooting incident at age ten with his parents' Arab cleaning woman. Also, firing two shots at the target range and shouting "I didn't hit, I didn't hit!" seems reminiscent of the incident at age ten, rather than of missing while shooting in combat.

*From structural dissociation toward integration*. During the first course of treatment, and most of the second course, the patient was unable to give a clear account of his trauma. Instead, he re-experienced trauma in dissociative EPs, with return in a fragmentary, nonsequential, and initially incoherent manner. At the completion of treatment, he was able to discuss the traumas with his therapist, making a meaningful spatiotemporal map of his self in the past, present and future (Siegel, 1999), indicating integration.

Integration of the formerly dissociated past requires the execution of complex mental actions, which have been described above in terms of synthesis and realization (Van der Hart et al., 1993b). We see many degrees of realization present in this case of generalized amnesia. Patients amnestic for trauma or for even more encompassing life events (as was the case with our patient) may, at certain stages prior to integration, manifest a particular dissociative quality of simultaneously knowing and not knowing (cf. Laub & Auerhahn, 1993). For instance, in the eighth session of the first treatment, the patient reported that he felt his parents were not his parents at all. This is an example of a particular type of derealization: lack of personification. The patient realized that he has parents (knowing), but he did not have an accompanying sense of personal ownership (not knowing), i.e., they are his parents. In the twelfth session of the second treatment he achieved this personification, saying "I feel they are my parents." Another example knowing and not knowing occurred during the 18th session of the first treatment round, where the patient shouted at the shooting range, "I didn't hit, I didn't hit." This is possibly a reference to missing twice at age ten when shooting at the cleaning woman. A third example occurred in the second session of the second treatment round, where the patient referred to his mother and little brother, but also stated he couldn't remember anything apart from some friends from basic training. Varying degrees of realization imply that there is a dynamic interplay of avoidance ("the phobia of the traumatic memory") and approach tendencies.

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*Phase-oriented treatment*. Although the treatment program in the Combat Fitness Retraining Unit was formulated originally in terms of a two-stage goal-directed treatment, we believe that it can be easily translated in the currently dominant three-phase treatment model of posttraumatic stress. According to Margalit et al. (1986), the first phase consisted of trauma treatment, and the second phase of rehabilitation and reintegration in the military and civilian communities. However, trauma treatment took place within the context of a very structured therapeutic milieu geared toward stabilization, symptom reduction, and safety. From the beginning, phase 1 and phase 2 treatment alternated on a daily basis. The stable and safe environment of the military therapeutic milieu for the patient allowed for gradual approach to the dissociative amnesia especially during the second treatment round. However, assignments such as target practice interfered, because they acted as triggers that reactivated combat trauma as well as childhood trauma (the shooting incident). We believe that such target practice should be an essential part of combat-related treatment aimed at stabilization and symptom reduction, as one of the treatment goals for this phase is to neutralize potential triggers. Shooting constitutes a major trigger in combat-related trauma.

In analyzing the two treatments, it is evident that some episodes of insufficient pacing occurred during the first treatment round. In the third session the patient experienced a dissociative episode lasting two hours, and afterwards was extremely depersonalized. In addition, relief of dissociation did not occur as a result of this session. Increased dissociative symptoms often indicate that the patient has become too overwhelmed in the session. It is useful for the therapist to carefully monitor the patient's arousal level during sessions, so that an optimal mid-level of arousal can be maintained to facilitate integration and prevent decompensation.

Premature or perhaps incorrect interpretations also increased the hyperarousal of the patient, and possibly created a rupture in the therapeutic alliance in the first treatment round. The therapist made interpretations regarding the existence guilt feelings which-correctly or not-were met with great anger by the patient. These interpretations occurred in the 8th, 11th, and 18th session of the first treatment.

A more permissive therapeutic approach, as utilized during the second round, would probably have been more beneficial. We believe that the main condition for the unfolding of the patient's memories was providing sufficient safety together with a therapeutic holding environment for them. During the second therapy round, the permissive use of hypnosis, dream work and non-threatening interpretations served this purpose.

Clearly, not all of this patient's intrapsychic conflicts were dealt with in this short, intensive psychotherapy; in particular his strong ambivalence toward his parents, as indicated by his statement at the end of the 13th session during the

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second treatment round, that he could not have hurt his parents because he loved them too much (indicative of reaction-formation). The shooting incident at age ten may have involved displacement of aggression from his mother onto the cleaning woman. His mother was overprotective and symbiotic, and the patient as child had envied her deep love for his younger brother. His fantasy in combat was running over his mother and brother. The patient admired his father's power (e.g., as a police officer with a gun) and, at the same time was terrified of him and hated him. Thus, his vehement emotions about the headmaster's "torture," at age eight, may have evoked existing fear and hate of his father.

With all its limitations, the therapy still may be regarded as successful. We believe that, within the specific context of the Combat Fitness Retraining Unit and the positive therapeutic relationship, working through of most traumatic conflicts and corrective emotional experiences have been main factors in this patient's achievement of full recovery. Follow-up meetings seemed to suggest that the patient was able to move beyond the trauma, taking on new developmental tasks such as getting married, raising a family, and professional success.

The importance of recognizing dissociative amnesia. It is important to recognize dissociative amnesia in the absence of organic factors following trauma. The development of generalized amnesia in response to a traumatic experience denotes a severe peritraumatic dissociative reaction, and as such should be regarded as a major predictor of chronic posttraumatic stress. In this case, however, early intervention successfully interrupted the course toward chronicity. Such severe dissociation should also alert the clinician to the possible existence of previous traumas. This was the case with our patient, and our report seems to indicate that the resolution of not only the acute trauma but also of pre-existing traumatic memories may be necessary for full recovery to occur.

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