Amnesia for Traumatic Experiences

ONNO VAN DER HART, Ph.D., is a professor at the Department of Clinical and Health Psychology, Utrecht University, and Chief, Dissociation Team, Regional Institute for Ambulatory Mental Health Care (Riagg) -ire.Amsterdam South/New West, Netherlands. He is a former President of the Dutch Society of Hypnotherapy (Nvvh) and currently Vice President of the International Society for the Study of Multiple Personality & Dissociation .

ELLERT NIJENHUIS, Ph.D.Cand., lives and works in Assen, Netherlands. He is a psychologist/psychotherapist, with a background in behavioural therapy, hypnotherapy and directive therapy. He is affiliated with the psychiatric hospital Drenthe, Assen, and the department of psychiatry, Free University, Amsterdam, Netherlands. He specialized in the treatment of patients with dissociative disorders; he frequently presents workshops on this and related subjects in the Netherlands and as well as other European countries. He wrote (in Dutch) a book called, "Dissociative disorders and psychic trauma". His research for his Ph.D. thesis is on somatoform dissociation.

ABSTRACT

There is a heated clinical, legal and public discussion going on "recovered memories" of childhood sexual abuse: are these memories false or accurate ones? One of the arguments made by some false memory advocates is that total amnesia for traumatic events, often started in terms of repressed memories" does not exist. Based on a review of the research and clinical literature on the matter, the authors conclude that this argument is untenable. They criticize the use of terms such as repression and suppression in this regard, and propose the use of the concept of dissociation instead. They describe the reproductive qualities of traumatic memory, as opposed to narrative memory which is reconstructive in nature. Finally, they present some clinical guidelines for the prevention of inducing false beliefs in psychotherapy.

Since the early 1990s, there appears an increasing number of publications, both in the mass media and the scientific literature, attacking the validity of claims of psychotherapy patients or clients that they have been sexually abused by relatives. These attacks are particularly strong when such claims involve traumatic memories of childhood sexual abuse which were "recovered" in the course of therapy. One of the arguments used by critics is that psychogenic amnesia simply does not exist and that recovered traumatic memories are false or pseudo-memories. However, how valid are such arguments?

In this paper we intend to show that the claim that psychogenic amnesia does not exist is scientifically untenable. We further argue that available empirical data gathered thus far indicate that when dissociative amnesia is overcome, the majority of cases reveal veritable traumatic memories. There is also evidence, however. that inept psychotherapy may in some individuals induce false beliefs. Finally, we present some guidelines which may help to prevent substandard therapy concerning the identification of events that are thought to be causally related to current complaints and disorders of amnesic patients.

Dissociative amnesia

According to the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition,* the DSM-IV (APA,1994), dissociative amnesia is an inability in a non medical condition to recall important personal information, usually of a traumatic or stressful nature, that is too extensive to be explained by normal forgetfulness. It involves a reversible memory impairment in which memories of personal experience cannot be retrieved in a verbal form, or, if temporarily retrieved, cannot be wholly retained in consciousness. As a symptom, it also characterizes *dissociative fugue, dissociative disorder not otherwise specified,* DDNOS (Ross et al., 1992; Coons & Milstein, 1992), and especially *dissociative identity disorder*, DID (Putnam et al., 1986; Boon & Draijer, 1993; Steinberg et al., 1993). In sharp contrast to this inclusion of dissociative amnesias a psychiatric disturbance and symptom in an important classificatory system, some authors claim that involuntary amnesia actually is non-existent. and concerns intentional suppression of disturbing memories (Loftus,1993; Ofshe & Waiters, 1993). These critics generally argue that experimental manipulations are unsuccessful in demonstrating involuntary memory-loss, and that singular trauma does not produce amnesia but, on the

contrary, sharp memories with regard to "central" details of the event. and loss of "peripheral" information. They believe that traumatic memories cannot fall prey to inadvertent amnesia. and therefore they strongly doubt the validity of memories that are recovered in due course of psychotherapy in particular when these memories pertain to childhood sexual abuse. They consider such memories as artefacts due to autosuggestion or suggestions made by therapists. These critics often show a hostile attitude to the treatment-in particular when hypnosis is used and traumatic memories are discovered of traumatized clients or patients.

Total amnesia for other traumatic events than sexual abuse

There have been many clinical studies which report total amnesia for a wide range of traumatic incidents, occurring in members of different cultures. For example, they include combat-trauma (e.g., Archibald & Tuddenham, 1965; Fisher, 1945; Grinker & Spiegel, 1945; Hendin et al., 1984; Myers, 1940; Sonnenberg et al., 1985); extreme experiences in nazi-concentration camps (Jaffe, 1968; Niederland, 1968), torture (Goldfield et al., 1988), traumatic loss (Janet, 1904; Coons & Milstein, 1992; Van der Hart & Van der Velden,1995), and robbery (Senguta et al,1993). Other studies are cited by Kihlstrom et al. (1993). Coons and Milstein (1992) report dissociative, amnesia induced by physical abuse, marital discord, committed crime, and suicide-attempts (cf. Takahashi, 1988). All of these converging studies confirm the existence of acute or chronic total amnesia for actual traumatic experiences.

It could be objected that most of these studies suffer methodological weaknesses, especially when regarded from an experimental point of view. However, phenomena are not solely dependent upon experimental replication. In Janet's classic example of total amnesia for traumatic grief, that phenomenologically parallels other reported cases, external validation of the overwhelming experience is supplied (Janet, 1904, 1919; cf. Van der Kolk & Van der Hart, 1991). It concerns Irene, a young woman who experienced the tragic death of her mother. whom she intensely nursed during her terminal illness, as extremely traumatic. Irene witnessed the death of her mother, attended the funeral: experiences followed by total amnesia. Such types of events are clearly easier to externally verify than childhood sexual abuse. Irene's dissociative disorder, becoming manifest a few months after her mother's death, was characterized by an alteration between episodes in which amnesia dominated and episodes characterized by minute re-experiences-usually reactivated by the perception of a bed-of the scene of her mother's death. During amnestic episodes, Irene was unable to realize that her mother had died: "If mother were actually dead, than she had to have been dead in her room at a particular day and then 1. who unremittingly accompanied her and took care of her very well, should have noticed it. If she were dead, than they would have buried her and they would have taken me to the funeral. Well, there has been no burial. Why do you want her to be dead?" This resistance against realization of traumatic facts, this subjective inability of shorter or longer duration. characterizes all patients with trauma-induced amnesia, including victims of childhood sexual abuse. At least, this is the impression of therapists treating such patients (Janet, 1919; Van der Hart et al., 1993).

The outcomes of a few systematic studies support these clinical observations. For example, using the SCID-D *(Structured Interview for DSM-IV Dissociative Disorders;* Steinberg et al, 1993), Bremner et al. (1993b) found that amnesia was the symptom area which best differentiated 40 Vietnam combat veterans with and 15 without posttraumatic stress disorder (PTSD). Degree of amnesia in the veterans with PTSD was severe, and included gaps in memory lasting hours to days, with blocks of missing time that could not be accounted for, the forgetting of personal information, such as names and addresses, and finding oneself in new places, not knowing who they were or how they got there. Also, using standardized tests, deficits in short term memory in Korean POW 30 years after trauma. and Vietnam veterans with PTSD compared to veterans without PTSD have been found (Sutker et al., 1991; Bremner et al., 1992, 1993a). Non-sexual traumatic events may induce far-reaching memory impairments that not only pertain to traumatic events but also to general or more specific autobiographical knowledge related to past as well as recent events.

Interestingly, Layton and Wardi-Zonna (1995) reported on two PTSD patients whose explicit memories (reflective knowledge) of traffic accidents had been erased by head injuries. These patients nevertheless responded to trauma-associated stimuli with intrusive images of the accidents and other PTSD-symptoms. showing that the traumatic events had been stored in implicit memory (unreflective knowledge). probably as a result of classical conditioning. Loss of explicit memory thus does not preclude somatosensory responsiveness to reminders of trauma, as has been observed by others (cf. Van der Kolk, 1994). McCaffrey et al. (1993) found that trauma-related odors differentially affected EEG, self report and PTSD-like reactions of Vietnam veterans with

PTSD, in contrast to non-PTSD veterans with adjustment related problems. Incidentally, these findings may suggest a possibility to develop measures for differentiating with some degree of accuracy between true and false traumatic memories, by: (1) further studying EEG and other CNS responses to salient trauma-associated stimuli (so-called "triggers"): and (2) studying the effects of mere exposure of the implicit memory system to such stimuli, e.g. through subliminal perception.

Underreporting of and amnesia for juvenile trauma

Based on a number of clinical studies and observations, Terr (1991) concluded that single traumas generally are remembered very clearly, whereas repeated trauma of long duration (among which incest) are more likely to result in amnesia for traumatic events. Although it has also been stated elsewhere that amnesia for single trauma is generally absent (Christianson, 1992), there are several reports in which total amnesia was observed (e.g., Christianson & Nilsson,1984; Janet, 1904,1928; Nijenhuis, 1994; Van der Hart & Van der Velden, 1995). Sexual abuse of children by relatives may be restricted to one incident. but therapists of incest victims are very often confronted with patients indicating abuse of long duration and repeated for years on end. For example, mean total duration of sexual abuse reported by 102 patients with DID amounted to 11.7 years, and physical abuse to 14 years (Ross et al.,1991). What does research have to say about the degree of amnesia for such severe and chronic abuse?

Retrospective studies: Herman and Schatzow (1987) report that 28% of 53 female patients that took part in incest-group therapy suffered severe lacunae in their memories of the sexual abuse; 64 reported a restricted degree of amnesia. The authors found relationships between on the one hand amnesia, and on the other hand age at onset of abuse, its duration, and the degree of violence that accompanied it. 74% of the total group succeeded in validating the abuse, using as sources offenders, other members of the family, and diaries. In 9% of the cases, abuse was considered very likely to have happened, but independent confirmation could not be gathered.

Using a large representative sample of the general female population in the Netherlands, Draijer (1990) noted underreporting of more severe abuse among the incestuously abused. She found evidence that this underreporting related to amnesia as well as intentional avoidance to discuss abuse, due to the emotional stress involved (Donaldson & Gardner,1985; Olio, 1989). Briere and Conte (1993) studied 450 men and women who were treated for sexual abuse, and found that 59% of them reported to have been amnesic for this abuse before age 18 for shorter or longer duration. These studies confirm Terr's conclusion that amnesia is strongly related to repetitive abuse of longer duration.

In a study with 100 incestuously abused women, Albach (1993) found that 29% of them had, for some time, completely forgotten the abuse. This was particularly true for those women who attained high scores on the DES (Dissociative Experiences Scale; Bernstein & Putnam,1986).The average duration of amnesia for the incest was 15 years; 59% of the group experienced difficulty remembering details of the abuse. Albach mentioned the following reactivating incidents that had caused a return of the incest memories: watching a TV-program on incest, the realization that one's own child had been abused, a rape, illness or death of the perpetrator, visiting the place where abuse had occurred. According to Albach, psychotherapeutic interventions had played only a relatively minor role.

Feldman-Summers and Pope (1994) asked a national sample of psychologists in the United States whether they as children had been sexually molested, and if so. whether they ever partly or totally had forgotten it. Of 23.9% (n=79) of the respondents who reported such abuse, 40% indicated that they had completely or partially forgotten the abuse for a significant period of time. Out of these respondents that reported the once forgotten facts, 46.9% stated to have external validation of the abuse at their disposal.

Loftus et al. (1994) studied women in outpatient treatment for substance abuse and examined their recollections of childhood sexual abuse. Of the 105 women who reported such abuse, 19% reported they had forgotten it for a period of time. Women who always remembered the abuse their whole lives did not differ from others in terms of the violence of the abuse or whether the abuse was incestuous.

Although these studies differ with regard to the percentage of people reporting amnesia for their abuse, they all support clinical observations that some people may loose memories of childhood sexual abuse for considerable amounts of time. However, if only external verification of reported abuse is provided, it merely concerns the subject's statement on the matter. Generally, duration of abuse and its relationship to reported (temporary) amnesia are insufficiently documented.

Amnesia in dissociative disorders: Psychogenic amnesia is by definition the core

symptom in dissociative amnesia (Coons & Milstein,1992). It is also prominent in dissociative fugue, dissociative disor der not otherwise specified (DDNOS) (Ross, 1992). dissociative identity disorder (DID; formerly multiple personality disorder). With regard to DID, severe dissociative amnesia was found to be present in 94,9% of 236 (Ross et al., 1989), 98% of 100 (Putnam et al., 1986). and 100% of 102 (Ross et al., 1990) and 100% of 71 patients with DID (Boon & Draijer, 1993). Amnesia is also a symptom of somatization disorder. It has been generally established that this dissociative symptom correlates strongly with severity, duration and repetition of trauma, and age at onset of trauma (frequently pertaining to childhood sexual abuse; e.g., Boon & Draijer, 1993). Compared with other traumatized patients. patients reporting sexual abuse were best discriminated by scores on the amnesia-subscale of the DIS-Q *(Dissociation Questionnaire;* Vanderlinden, 1993).

It should be noted that amnesic episodes of DID/DDNOS patients may also concern pleasurable events, well-done tasks, and neutral experiences; a phenomenon which is already apparent in children with DID (Hornstein & Putnam,1992). As with dissociative amnesia and PTSD patients, the amnesias of these severely dissociative patients relate to past and recent events.

There is experimental evidence indicating presence of interstate explicit and some degree of implicit memory dissociation in patients with DID (Nissen et al., 1988; Weingartner, 1991). Explicit memory relates to autobiographical memory and knowledge of facts (semantic memory). Implicit memory relates to non-reflective knowledge, and for example concerns skills, effects of classical conditioning, and priming effects. These data support clinical observations concerning lack of transfer of explicit memory, and occasionally of implicit memory between dissociated states. Implicit memory dissociation could not be created in individuals with amnesia due to Korsakoff syndrome, with drug induced, or with hypnotically induced amnesia (Weingartner, 1991), which challenges the hypothesis that amnesia in DID-patients is of auto- or hetero-suggested origins.

Validation of reported abuse by children and adolescents with dissociative disorders: Scarcity of research and obvious validation problems with respect to memories of secretive traumatic events that were subject to amnesia for years preclude simple answers to their truth. However, the available evidence suggests that the chance that reported traumas of dissociative patients relate to facts outweighs the chance that they concern total distortions or sheer fantasies. Many patients who are confronted with traumatic memories desperately wish that they were distortions or fantasies. Some of these patients even deny validated truths. Coons and Milstein (1986) found that of 20 DID patients, 85% were able to gather validation of traumatic memories through documentation and declaration of third parties. Two studies on validity involved children and adolescents with dissociative disorders. Using younger subjects is of importance considering the relative proximity in age to the reported child abuse. Hornstein and Putnam (1992) studied 44 children with DID, and 20 with DDNOS. In 95.3% of these cases, documentation of sexual and physical abuse, emotional neglect, abandonment, and witnessed domestic violence could be traced. Amnesia was among the major dissociative and posttraumatic symptoms. Coons (1994) retrospectively studied charts of nine patients with DID, and 12 with DDNOS. In all but one case, he was able to collect corroboration of reported abuse by means of official documentation and testimonies of witnesses of severe traumatic events. Patients had also reported the abuse to third persons, the police, and child protective services. Interestingly, hypnosis as an aid to memory-retrieval was only used in one case. All studies cited so far suffer the disadvantage of being retrospective.

Prospective (longitudinal) research

As yet, very few prospective studies have been performed. Moreover, two out of three studies concerned juvenile physical abuse instead of sexual abuse. In line with the findings of Robins (1966), Della Femina, Yeager and Lewis (1990) found nine years after original documentation of severe physical abuse that 18 subjects from a group of 69 adolescent former delinquents denied or belittled these experiences. Eight others only mentioned other, not documented abuse. This non-reporting appeared on further study not to be a result of amnesia but of voluntary resistance to discuss painful memories, a wish to protect parents, a conviction to have deserved the abuse, a lack of sympathy for the interviewer, and an explicit wish to forget the past. Della Femina et al. (1990) concluded that the observed inexactitudes related to *underreporting.*

In contrast, underreporting of childhood sexual abuse seems to relate at least partly to amnesia. Williams (1992, 1994) performed follow-up research with 129 women whose abuse 17 years before had amongst others been verified through medical examination in a particular hospital. They were asked to participate in an important follow up study that sought to assess

quality of life and health of women who as children had received medical care in this hospital. The women were not informed about the documented abuse. Some subjects spontaneously related their hospital visit to former sexual trauma. All were extensively asked after juvenile experiences with sex and possible sexual abuse. Williams remarked that some women may have decided not to talk about the abuse. Yet, there were clear indications that the majority of this subgroup of 38% did not remember it. Further, 16% of the women who reported the documented abuse stated that there had been a time when they did not recollect it.

An important finding in the Williams study was that non-reporting could not be considered a consequence of infantile amnesia: 55% of the women whose abuse occurred before age four failed to report the abuse, against 62% of the subjects *who* at the time were *4-6* years of age. Five out of I 1 women who were abused before age 4 were able to recall it. These data show that other factors than cognitive maturation and language acquisition processes are considered to relate to so called infantile amnesia-directed forgetting. Williams (1994) mentioned the example of a woman who was abused at the age of two years and nine months, and who still remembered the "itchy beard". She felt haunted by this memory, that disturbed her in sexual contacts with men who were not well-shaven. Williams concluded that abuse of very young children by persons with whom they have a close relationship, run a big chance not to be discovered in retrospective studies. Her data indicate that non-recall of child sexual abuse is a frequent phenomenon that can not merely be regarded a function of age at the time of occurrence.

In conclusion: both prospective studies discussed above point at underreporting of physical and sexual abuse. Underreporting of physical maltreatment seems to relate to other factors (unwillingness. amongst others) than amnesia. Williams' study of reporting sexual child abuse indicates that people may lose their memories of it. However, her study leaves possible relationships between amnesia and duration and repetition of abuse undetermined.

Other studies: In the only study so far of this kind, Vardi (1994) experimentally studied memory performance of sexually traumatized and non traumatized groups. Incest (n=40) and rape (n=40) groups had acute PTSD-symptoms, and the incest group also had chronic PTSD symptoms. Only the latter group displayed impairments in autobiographical memory as measured by standardized tests. Moreover, these deficits, non-specific to the incest, occurred especially for the period of life associated with the incest. Using a large sample of non clinical individuals from the general population (n=466) of whom 23% reported sexual abuse, Vardi found that recovery of previously lost (22%) and reduced (21 %) traumatic memories was accompanied by significant symptoms of posttraumatic stress (Elliott &. Briere, 1995). If their recovered memories applied to fantasy, it is quite unclear what caused the concomitant PTSD-symptoms of these individuals.

Published cases of false accusations of abuse done by children (Bernet, 1993) and memories of childhood trauma that turned out to be a veritable , fantasy or false belief appear to be remarkably scarce (Good, 1992). As yet, there are to the best of our knowledge no empirical studies available that substantiate the conviction of Loftus (1993), Ofshe and Waiters (1993), and others that "recovered" memories of incest by definition concern "false" or incorrect memories: self-created fantasies of patients that credulous therapists uncritically accept, or suggestions wittingly or unwittingly induced by therapists into the minds of suggestible patients (cf. Schacter, 1995). Upon detailed inspection, what is supplied as proof rather concerns incompletely documented and selective observations with respect to very few cases that did not involve suggestive efforts by therapists (Van der Hart, 1994). Further. the suggestion hypothesis in our view does not explain the fact that these patients, even when highly suggestible, show usually high selectivity of responsiveness to suggestions. For example, they may resist often and forcefully repeated positive therapeutic suggestions. According to Brown (1995). the false memory debate as of yet is largely based on hypotheses untested for the very population which it addresses. The available controlled studies show that only a minority of healthy children and adults are prone to producing extensive false memories (cf. Schacter. 1995). Moreover, they generally concern trivial stimulus event details that are quite peripheral to memorable personal events or memory for trauma. and generally false beliefs are of short duration (cf. Brown, 1995). Further. false memory production concerning single, not chronic, mildly upsetting experiences has experimentally only been demonstrated with children (Brown. 1995). Especially preschool children may under severe adult pressure be persuaded to report that they take suggested statements for facts. Whether they really distort their perceptions of reality, or simply report the suggested remains to be determined. These findings in themselves do not demonstrate that lifted dissociative amnesia in psychotherapy has a high chance of showing fantasies, or essential diversions of facts, or the gist of events. In the

same vein, demonstrated suggestibility of patients with dissociative disorders does not prove that their psychiatric symptoms (amongst others dissociative amnesia) and regained memories actually are the fruit of suggestion. Summarizing the literature, Lindsay and Read (1994) state that "there is little reason to fear that people are likely to develop illusory memories of false beliefs regarding childhood traumas solely in response to a few suggestive questions, but there are solid grounds for concern that prolonged and multifaceted suggestive influences may indeed lead some people to develop illusory memories or beliefs" (p. 4). According to Brown (1995) there are no scientific data available on the influence of interrogatory suggestion in psychotherapy. However, he believes that the hypothesis holds merit that this kind of extensive and repeated suggestion in psychotherapy can cause false beliefs.

Suppression, repression, dissociation and the nature of traumatic memories

Several theoretical concepts have been advanced as explanations of psychogenic amnesia. In our mind, some are inadequate, and the cause of confusion. Others show promise. Further, the debate on "recovered" memories is confused by a failure to distinguish between narrative and traumatic memories. We will discuss the matters of concern briefly.

Suppression: Merckelbach and Van den Hout (1993) hypothesize that the Von Restorf effect (high memory encoding of salient events and loss of memory for preceding and subsequent non salient events), in combination with intentional suppression of aversive thoughts and images of the salient events might explain psychogenic amnesia. This explanation falls short of explaining inadvertent amnesia for central details of an event, and for neutral or positive events/knowledge (e.g. information with respect to identity). It also does not seem to explain memory deficits of traumatized subjects on standardized tests, responses to reminders of trauma in absence of explicit memory, and lack of transfer of explicit and implicit memory between diverging psycho physiological (dissociated) states. Further, PTSD and dissociative patients subjectively discriminate between employing intentional behavioural and cognitive avoidance strategies with respect to known traumatic memory-reactivating stimuli, and involuntary loss of memory.

Repression: Application of the concept of "repression" elicits confusion. According to psychoanalytic theory, repression in essence was to refer to active, but unconscious suppression of threatening, conflictuous (sexual or aggressive) impulses into the unconsciousness (Van Dyck,1990). These repressed unconscious mental contents are thought to be subjected to some revision, by consequence of which they only can invade consciousness in a modified form. In contrast, Terr (1994) speaks of repressed rather than dissociated traumatic memories, precisely when they are recovered intact. The concept of repression has been used in a myriad of other ways, making it a fuzzy concept which, even in the minds of some psychoanalytical authors (Giora, 1989; Shapiro, 1965), would be better abolished. It is interesting that skeptics of recovered traumatic memories usually focus their attacks precisely on this concept (e.g., Loftus, 1993), thereby ignoring the - vast literature on total amnesia for traumatic events as a phenomenon.

Dissociation: Traumatic events pertain to overwhelming experiences that surpass an organism's (normal) coping capacities (Van der Kolk, 1994; Van der Kolk & Van der Hart, 1989). As Janet (1909, p. 1558) already observed, traumas produce their disintegrating effect relative to the degree of their intensity, duration and repetition (cf. Van der Kolk & Van der Hart, 1989). This traumatic disintegration is expressed in a dissociation of the personality: accompanied by their own sense of self, systems of ideas and functions such as traumatic memory states start to lead a kind of life of their own, outside the control and, in the more extreme cases, the consciousness of the habitual personality (Janet,1907; Kihlstrom et al., 1993; Van der Hart & Op den Velde,1991; Van der Kolk, 1994). This **primary dissociation**, which to greater or lesser degree is present in all cases of posttraumatic stress, becomes more complex if the individuals involved manage to mentally escape from the overwhelming experience. We call this mental flight secondary dissociation, and other authors speak of **peritraumatic dissociation** (Marmar et al., 1994). The reports from traumatized patients suggest that this *secondary dissociation* may take two forms: "out of the body" experiences" and "disappearance." Regarding the former, patients report that during or directly after the trauma they observed themselves from a distance. In this partial dissociation they mentally distanced themselves from painful bodily sensations and emotional reactions. At the same time, however, there was at least one other part of the personality that was subjected to the traumatic event. Fromm (1965) spoke of a dissociation between observing and experiencing ego. This phenomenon has been reported by victims of traffic-accidents (Noyes et al., 1977) and victims of incest (Gelinas, 1983), among others.

In the case of "disappearance" during trauma, complete dissociation is involved. There is then at least one dissociated part (or ego state) of the personality which is completely absent during the trauma. while one or more other parts of the personality experience the traumatic event. The "amnesia" the absent part later has for the trauma refers to "state-dependent memory." (cf. Putnam, 1988). As this part has not experienced the trauma, it cannot have forgotten the event. As Crabtree (1992) stated: "The experience of a secondary ego centre is not and never was available to the primary ego centre or ordinary consciousness. And since you cannot forget what you never knew, there is no forgetting in dissociation of this type¨ (p. 151).

An intermediate form of dissociative amnesia concerns amnesia for particular aspects of a traumatic experience, often the most threatening part of it. The most threatening aspects then are fully dissociated. Janet (1889,1907; argued that exposure to trauma tends to cause a *restriction of the field of consciousness,* that sets the stage for dissociative processes to occur. Clinical and experimental studies of traumatic and other stressful events have shown that hyperarousal generally results in constriction of attention, while "central" information (information of prime relevance with respect to threat) is processed elaborately and "peripheral" information (information that is of little relevance) is hardly processed (Christianson, 1992). Consequently, amnesia for peripheral information may occur.

A firm but unfounded belief that only peripheral details of a traumatic event may be subject to amnesia invites circular reasoning, as is shown in a study by Wessel et al., (1995,) Clinical observations indicate that: (I) traumatized and amnestic individuals may display amnesia for central details (often the most threatening aspects) of traumatic events, with peripheral information intact, and (2) patients with dissociative disorders generally have ego states that retain central details of traumas but suffer loss of peripheral information. Other ego states within the same patient, however, may or may not be able to retrieve peripheral information with respect to these traumas. Van der Hart and Op den Velde (1991) label the most threatening aspects of traumatic memories, for which amnesia may exist, *pathogenic kernels.* This notion refers to the fact that when these aspects are not properly processed in the treatment of traumatic memories, complete healing from posttraumatic stress is prevented.

It must be remarked that the concept of dissociation is primarily descriptive in nature. In what way the clinically observed dissociations are established, and what variables define the divergent forms they take. deserves further study.

Flashbacks and related phenomena

Reactivated traumatic memories, or parts of them, manifest themselves as intrusive images, ie., flashbacks, complete dissociative episodes of reliving or re-enacting the trauma (followed by amnesia); they may also emerge as somatoform "memories," such as otherwise unexplainable pain and dissociative disorders of movement and sensation.

Traumatic memories (which on ethical grounds can not be experimentally induced) should be distinguished from ordinary, narrative memories (Van der Kolk & Van der Hart, 1991): a distinction which is usually not done by skeptics of recovered memories (e.g., Loftus, 1993). Traumatic memories are not memories in the usual sense, but are, once reactivated, emotionally highly charged experiential states, that encompass frightening representations of the event as reproduced through some or all perceptual modalities, and concomitant emotional, cognitive, and behavioural responses (Brett & Ostroff, 1985; Janet, 1904, 1907; Van der Hart et al., 1993; Van der Kolk & Van der Hart, 1991). Behaviour therapists describe such memories in terms of "fear memory structures" (Lang, 1979; Nijenhuis, 1992).

Traumatic memories appear as "re-experiences" of traumatic events or parts of them. As mentioned above, reliving the trauma may concern a fully dissociated episode (as it was in Janet's patient Irene) or a partial dissociated episode. Here, the patient remains to some degree aware of his present situation re-experiences the trauma or an aspect of it. This double experience may induce in some traumatized individuals the idea that they become crazy. Partial re-experiences of trauma may also pertain to one or a few perceptual modalities, the other components of the experience remaining more implicit, e.g., re-experienced at a subconscious level. Examples are auditory pseudo-hallucinations such as "hearing" screams or a voice commanding "keep your mouth shut!" or vehement emotions such as intense fear or rage, which leave the patient incapable of understanding their proper meaning.

Traumatic memories characteristically present as rigid, automatic repetitions of ever identical events, that contain historical correct information (Van der Kolk & Van der Hart, 1991) but may also encompass incorrect perceptions, thoughts as well as fantasies. During these repetitions, posttraumatic stress patients are in states of extreme arousal, which is now the subject of modem psycho physiological research

(cf. Shalev & Rogel-Fuchs, 1993; Van der Kolk, 1994).

Reconstructive memory

Even though traumatic memories are in essence *reproductive* in nature, distortions may occur. The processing of these traumatic memories, for instance in the context of psychotherapy, includes the transformation of these traumatic memories into narrative memories of traumas (Janet, 1904, 1919, 1928; Van der Hart et al., 1993). During this process, apparently unrelated ¨scraps" of traumatic memories may come to the front. This entails the risk that patient and therapist may fill in the missing pieces and construct a story that does not correspond with historical truth. This distortion in itself does not have to be overly problematic, but it may have disastrous consequences if a story of incest is constructed which in reality did not occur.

It is most important to realize that narrative memory is reconstructive in nature, as memory specialists since Janet (1919, 1928) have demonstrated. Narrative memory involves summaries or reconstructions of events that we, adjusted to listener and circumstances, ever again recount in somewhat different versions. In other words, narrative memory has a social function. Traumatic memory is very different. It does not have a social component; in essence, its reactivatinn is a solitary activity, even though another person may represent the reactivating stimulus Janet, 1928; Van der Kolk & Van der Hart, 1991).*

*Note: *) It is outside the present scope to pay further attention to the interesting role of implicit memory for traumatic memories. See on this matter: Kihlstrom, 1994: Kihlstrom et al., 1993).*

Clinical guidelines

The creation of false beliefs (or false reports) in interpersonal situations appears to be possible when an interaction of five primary risk factors are present (Brown,1995; Lindsay &Read, 1994). They include high hypnotizability, uncertainty about past events, prolonged and multifaceted forms of interrogatory suggestive influence, extra therapeutic social influences, and available socio-cultural beliefs, and highly stressful conditions at interview.

For the prevention of the creation of these false believes/reports in the context of psychotherapy, several guidelines for sound clinical practice have been formulated (Brown, 1995; Spiegel & Scheflin, 1994; Van der Hart & Van der Velden, 1995). The major ones include the following:

(1) Careful and thorough diagnostic assessment is obligatory. It should include assessment of dissociative phenomena. Constellations of complaints and symptoms should be carefully mapped, out of which
complexity no single element-possibly with the exception of remarkable and demonstrable dissociative amnesias in the present-suffices to assume that the patient has been traumatized, let alone in a specific way. Mere presence of one or few symptoms indicates a low probability that the patient has been abused.

(2) Therapists should treat the disorder they have assessed, not disorders they additionally may suspect.

(3) In clinical practice, the theory of traumatic dissociation may serve as a useful expedient that supplies hypotheses about the symptoms and complaints a therapist observes.

(4) Therapists should be aware of the role of suggestion in psychotherapy (cf. Lynn & Nash, 1994). Not much the use of hypnotic procedures per se, but giving suggestions to highly suggestible subjects (cf. Brown, 1995) may provide an elevation of true and false memory information, with concomitant difficulty to distinguish the one from the other. Therefore, the use of suggestive or persuasive hypnotic and non-hypnotic techniques with suggestible patients to find the "underlying truth" should be avoided. There are indications that interrogatory suggestibility is to be distinguished from hypnotic suggestibility (Gudjohnsson, 1984) with the former being more apt to mediate false reports. It thus may be wise to assess both kinds of suggestibility.

(5) Therapists should avoid reinforcing statements of amnestic patients that early abuse did or did not occur. This guideline may be difficult to follow, since therapists may be unaware that they can give such reinforcements subconsciously in a nonverbal way.

(6) Patients should be informed that memories recovered in therapy may be true or false, and that
a therapist, or anyone else in absence of independent corroboration is not able to judge their status (Spiegel & Scheflin, 1994). This state of affairs should not preclude therapists from creating an atmosphere of support, trust, and faith in the patients' own ability to adopt a critical attitude in separating fact from fantasy. It is wise to continuously check and recheck hypotheses about what happened, while resisting premature closure.

(7) Therapists should be well informed of memory research, as summarized by Spiegel

(1994), showing that with respect to memory amount and richness of detail, clarity and vividness, emotional involvement, consistency over time, self confidence in accuracy, and known reliability, as well as good memory of the reporter are no guarantee of its accuracy. However, Spiegel and Scheflin (1994) also warn that it is illogical to conclude, on the basis of the fact that a memory has incorrect details (as authors such as Ofshe [1992] and Wright [1993] do), that there is no real incident from which this incorrect memory is derived.

(8) Therapists treating patients with posttraumatic stress disorder and dissociative disorders should follow the phase-oriented treatment model (Janet. 1919, Brown & Fromm, 1986: Herman, 1992: Horevitz & Loewenstein, 1994: Kluft. 1993; Van der Hart et al.. 1989). that may be regarded as the present standard of care (Brown, 1995). This model consists of the following three phases: (1) stabilization and symptom reduction, (2) treatment of traumatic memories, and (3) reintegration and rehabilitation. If at all indicated, the exploration and treatment of traumatic memories should only follow sufficient stabilization.

(9) Therapists should be aware that uncritically accepting statements that trauma did not occur is as much substandard practice as light-heartedly taking reports of trauma for facts. Human history displays the misery of failure to assess traumatic backgrounds of psychiatric disorders now known to relate to posttraumatic stress, to give credence to people who tell or stumble upon traumatic truths, and to question denial of trauma by patients and alleged perpetrators.

C O N C L U S I O N

Although the presented clinical observations and studies may be criticized from a methodological point of view, they clearly demonstrate the existence of total amnesia for traumatic events. Experimental data showing that patients with PTSD and dissociative disorders suffer memory disturbances, support this conclusion. There is evidence that traumatic memories of dissociative patients in many cases relate to historical facts, although distortions may occur. As yet, there are no systematic studies demonstrating the degree to which psychiatric, and especially dissociative patients report auto- or heteroinduced pseudo-memories.

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