THE CONCEPT OF FLASHBACKS IN HISTORICAL PERSPECTIVE

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Abstract: A computer search of the literature for papers indexed under "flashbacks" produced a list of 70 references, many found in publications on the topics of substance abuse and trauma. Several of these were letters or papers written in languages other than English. In all, the author reviewed 55 papers. Although most of these papers contained comments that addressed the subject matter to some extent as recurrences or reminiscences of past happenings, the variability in the use of the term leaves many unresolved questions regarding the veridicality of the imagery. Nothing in the presentations reviewed by the author clearly demonstrates the unidimensional nature of flashbacks nor any recognizable neurophysiological correlate. The content of a flashback appears to be at least as likely to be the product of imagination as it is of memory.

Flashbacks are unbidden, often vivid, images (or a sequence of images) that occur while the patient is awake. The images are usually reported as having a haunting quality, distressing to the patient; they may recur again and again on different days. The patient often relates the origin of the flashback images to an earlier frightening experience.

This review explores the so-called flashback experience. In particular, it asks why flashbacks are often regarded as a historically accurate revisualization or memory even in the absence of appropriate verification. This question is especially pertinent in light of the current debate regarding adult memories of sexual abuse suffered as a child. Such memories often emerge for the first time during the course of therapy, long after the abuse allegedly occurred. The question is this: When such memories have the vivid and intense quality of a full-blown flashback, is their historical accuracy thereby validated?

The phenomenon of the flashback will be examined here from its appearance as metaphor in the substance abuse literature to its reification as fact in the trauma literature. Despite the imprecise nature of the label *flashback*, experienced licensed therapists with a special interest in trauma victims tend to assert that the accuracy of a patient's delayed recall is affirmed by the content of his or her flashbacks. Hearing this

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repeatedly has convinced me of the practical dimensions and seriousness of the problem.

A study of the literature reveals a term probably borrowed from literature and the film industry, adapted to the Haight Ashbury drug scene, and subsequently used to describe experiences of Vietnam veterans with symptoms of post-traumatic stress disorder (PTSD) (Horowitz, personal communication, 1993). With an established place in the literature on adult trauma, the term readily found its way into the literature on trauma in early childhood. Neurophysiological correlates have also been postulated in recent years, with an allusion to fixed stored memories reactivated in a manner resembling the triggering of an epileptic focus (Freedman, 1968; Loewenstein, Hornstein, & Farber, 1988). Were this proven, it might lend considerable credibility to the presumed accuracy of the flashback content. In more recent reports, the contributions of contextual forces on the flashback content and the role of expectancy and imagery have begun to be recognized. These cast considerable doubts on the belief that flashbacks are veridical and acceptable automatically as "true memory" of past events. They strongly suggest that a reported flashback needs to be corroborated by independent means.

The following review of the literature chronicles the development of the concepts explicitly interwoven with the flashback.

Flashbacks as a Consequence of Hallucinogenic Drugs

Although a clear understanding of the term flashback is being sought in this review, the label was initially used to describe altered states of awareness, perceptions, and ideation; these alterations included the presence of hallucinations and/or strong emotional reactions, either under the influence of a recently administered hallucinogen or on a subsequent occasion in the absence of the administration of the drug. The events were interpreted variously as reenactments, revisualizations, reminiscences, or fantasies related to past events.

Cohen and Ditman (1962, 1963) were among the first to review the serious prolonged psychological complications following the use of lysergic acid diethylamide (LSD). Believing the reactions to be infrequent, the authors drew attention to the emotional lability and hysterical or paranoid personalities of those reporting such enduring adverse effects, among which were psychotic reactions reminiscent of the drugged condition. Rosenthal (1964) described a type of prolonged adverse reaction, a persistent hallucination months following the experimental use of the hallucinogenic drugs. The report characterized the persistent image as a hallucination and did not record it as identical to any experienced originally at the time of the hallucinogen use, nor how they were related.

Revisiting a 19th century hypothesis regarding visual hallucinations, Horowitz (1964) postulated that under various conditions of special facilitation or during disinhibition, simple images in the retinal ganglionic network would impinge on higher centers of the central nervous system and then provide a nidus that, through image-work, could be elaborated into illusions, eidetic imagery, or hallucinations. For example, wavy lines might be elaborated into snakes. Horowitz appeared to affirm the view that the content of the hallucinosis, rather than an exact replay of the original event, was related to the momentary wishes and needs of the subject.

Ludwig (1966) cited the contribution of cultural, group, individual, or neurophysiological factors to the content of the perceptual observations in altered states of consciousness, which thus represented wish-fulfillment fantasies, basic fears or conflicts, or simply phenomena of little dynamic import. Horowitz (1964) affirmed the importance of the psychosocial context, and of suggestibility, and avoided the notion of the replay of fixed or indelible impressions.

Robbins, Frosch, and Stern (1967) studied 34 patients who had used LSD previously, and who were admitted to a hospital with phobic reactions and the spontaneous occurrence of perceptual distortions or feelings of depersonalization. These occurred without further use of the drug and were described variously as similar to and recurrences of symptoms experienced with the drug. The degree to which the later experiences matched the earlier ones was not stated.

Smart and Bateman (1967) reviewed the reports in the literature of 225 adverse reactions to LSD, which included psychotic reactions, as well as a successful suicide and a homicide. In 11 cases, symptoms returned at a later date in the absence of the use of the drug; these were described as a recurrence of the drug experience. The degree to which the later experiences matched the earlier ones was not reported.

Freedman (1968), in a report on the use and abuse of LSD, pointed to the dangerous complications, among which were "bad trips," occurring subsequently without the use of the drug. He referred to the sequence of heightened sensations as well as altered perceptions occurring with apparent suddenness weeks after the drug; he alluded to their occurrence as being explained possibly on the basis of traumatic neurosis or hypnotic state. He also drew a comparison with psychomotor epilepsy but stated clearly that this was as yet without a factual foundation. He underscored the suggestibility, despair, and latent disorganization of LSD users as a crucial variable in understanding its use and consequences.

The term flashbacks per se seems first to have appeared in the literature in an article by Horowitz (1969). He was clearly referring to a phenomenon described earlier by others, as noted above. He described flashbacks as returns of imagery, once the immediate effect of the hallucinogens had worn off. He reported the most important variety as

repeated intrusions of frightening images in spite of volitional efforts to avoid them. In addition to some perceptual distortions when the individual is off drugs resembling the experiences when taking the drug, some patients reported that visual imagery generally occupied a greater portion of their thinking than previously, often involving unbidden images. Horowitz commented that the content of the flashbacks was usually derived from frightening imagery during drug intoxication; less commonly new images may be produced.

Shick and Smith (1970) in an analysis of the LSD flashback commented on the wide spectrum of symptoms described by the patients; these ranged from illusions of colors and dots through geometric patterns to frank hallucinations. They questioned whether the minor manifestations were merely states of altered awareness providing a background on which flashbacks may more likely occur. They also drew attention to what they believed to be the dissociative component in the flashback which had been learned during an initial LSD experience and later repeated in time of stress. They viewed the content as being in whole or in part *reminiscent* of the earlier drug experience.

Woody (1970) reported on the hallucinatory experiences of three drug users when off drugs. Two had used large amounts of LSD, and the third considerably less; all had also used other agents including marijuana. They had been off LSD for varying periods prior to experiencing dramatic visual hallucinations while driving. No similar imagery was reported as having occurred previously at the time of drug usage; although not stated specifically in the article, these images were presumably new.

McGlothlin and Arnold (1971) in a 10-year follow-up of the medical use of LSD called for a better definition of flashbacks. They found that the term had been used dramatically in the popular media, and rather loosely in the psychiatric literature, to describe almost any experience which the drug user likened to a hallucinogen effect. Stanton and Bardoni (1972), after analyzing the results of a questionnaire that was aimed at obtaining estimates of flashback occurrences, were in agreement. Juve (1972) concluded that past behavior during the identified hallucinogen-induced trip may or may not be repeated in the flashback; however, in many of the cases studied, the flashback was triggered by an incident that occurred during the original trip, or by an incident similar to one experienced during that trip.

Matefy and Krall (1974) summarized the diversity of theoretical speculations regarding the phenomenon, concluding that the periodic reappearance of the drug reactions was complex, involving an interplay of physiological, personality, psychological (attitude, set, cognitive processes), and social factors. A later report of their studies (Matefy & Krall, 1975) revealed that those who had flashbacks absorbed themselves in imaginative activity more easily than drug users who did not experience flashbacks. The authors concluded that psychedelic drug flashbacks may

represent, in part, imaginative role-playing and not the symptoms of psychotic decompensation often suggested by others.

Heaton (1975) found that subjects experienced many more psychedelic sensations when they expected flashbacks, and Wesson and Smith (1976) drew further attention to the essentially clinical and anecdotal nature of the phenomenon and to the likelihood of multiple etiologies; these could include both psychological and psychodynamic forces as well as physiological factors such as toxic effects.

Saidel and Babineau (1976), presenting a case study of a patient with prolonged LSD flashbacks, supported the hypothesis that flashbacks can be a psychologically determined symptom. Their article referred explicitly to the traumatic nature of the drug experience for the patient. Previous articles (Matefy & Krall, 1975; Stanton & Bardoni, 1972; Wesson & Smith, 1976) as well as that of Naditch and Fenwick (1977) also alluded to the role of trauma, either explicitly or implicitly, as a complicating factor of drug use contributing to flashbacks. (We will find below, when we move into the combat literature of the 1980s, a shifting emphasis from drugs as trauma to trauma without drugs as an etiological agent.)

Matefy, Hayes, and Hirsch (1978) defined flashbacks as transient reminiscences of certain or all aspects of the psychedelic drug effects. An interesting finding in their study of 63 drug users bears further examination. Twenty of the 34 (57%) with flashbacks thought their flashbacks were exact recurrences of their drug experiences, whereas 14 (43%) indicated that they were very similar but not exactly the same. It is important for us in understanding this finding, which runs counter to most published reports, to examine how those whom Matefy et al. refer to as *flashbackers* were defined to the subjects in the initial interview. They were those who responded positively to this question:

> Some people even when they are not taking psychedelics for some time, experience recurrences of the drug, commonly called flashbacks. Let me define flashbacks. They are recurrences of sensations, feelings and thoughts which were previously experienced during the drug trip. These experiences recur at some time after the last ingestion of the psychedelic drug . . . and after a period of relative normalcy.

(It is of interest that although those authors in an earlier definition in the same article referred to flashbacks as *reminiscences* of certain or all aspects of the drug experience, in their interview question they described them as *recurrences*.) This screening device could well have shaped the answers of an unknown number of the 57% of the flashbackers who described the flashbacks as exact recurrences of their drug experiences.

Matefy (1980) reported further findings culled from a series of interviews and tests with the subjects in the previous study (Matefy et al., 1978). Flashbackers consistently showed greater proficiency than non-flashbackers, even in the 1-year follow-up, in losing themselves in various role-playing situations. They became more deeply engrossed in

hypnotic performance and in imagined activities. Matefy acknowledged that as his subjects were paid volunteers, the generality of his findings was limited. However, Alarcon, Dickinson, and Dohn (1982) opined that what the flashbacker experienced was not necessarily hallucinations but illusions, or more appropriately *perceptual distortions*, a term used to describe the effects of hypnosis (Frankel, 1976; Orne, 1959) which are dependent to a considerable degree on suggestibility and imaginal activity. Fischer (1977), in a review of the relationship between flashbacks and hypnotic recall, deemed them to differ only in the ways by which they are induced. He characterized those who experienced flashbacks as displaying variable standard deviations on tasks measuring perception and behavior, operating at higher base levels of arousal, having higher resting heart rates than those who do not experience flashbacks, and having an ability to enter hypnosis easily. Fischer also drew attention to the state-dependent learning, a special case of the more general phenomenon of state boundness, which he believed occurred when responses are learned in a particular state and become retrievable only if the conditions of learning are reinstated.

In 1983, roughly 10 years after McGlothlin and Arnold (1971) and Stanton and Bardoni (1972), Yager, Crumpton, and Rubenstein (1983) again drew attention to the many unresolved questions created by the variable definitions of flashbacks in the literature.

The review up to this point refers to flashbacks as an intense redintegration of an earlier, drug-induced experience. The extent to which the flashback in those reports corresponded to the original drug trip varies from one report to another, but the original experience was itself dominated by fantasy and imagination—perhaps catalyzed by perception and misperception of external events. The material to be reviewed in the next section, however, raises the possibility that historical events (e.g., combat trauma) can later be redintegrated in flashbacks with varying degrees of accuracy leavened by an unknown degree of fantasy and imagination. In a recent article, Hedges (1994) opined that anyone can have flashbacks about anything, and that flashbacks operate like dreams, not like memories. "Flashbacks are unconscious constructions and, as such, have many determinants. . . . I would never assume we were looking at facts or veridical memories" (p. 28).

Flashbacks as a Consequence of Trauma in Combat

The literature covering the psychological effects of the trauma of warfare, exemplified by Kardiner (1941), and reviewed by Horowitz (1976), had included ample reference to the suffering of war veterans because of fixation on the memory of the trauma, and unbidden recurrent images. The label flashback, however, appears to have surfaced in the posttraumatic literature only in the 1980s, and not in time to be included in the *DSM-III* (American Psychiatric Association, 1980). In

that publication, among the criteria for diagnosing PTSD was the "re-experiencing of the trauma as evidenced by at least one of the following: (a) recurrent and intrusive recollections of the event, (b) recurrent dreams of the event, and (c) sudden acting or feeling as if the traumatic event were reoccurring, because of an association with an environmental or ideational stimulus" (p. 238). By 1987 the *DSM-III-R* (American Psychiatric Association, 1987) publication had included the term flashback as a synonym for some aspects of those experiences. In that publication one of the essential criteria for the diagnosis of post-traumatic stress disorder was presented as follows: "sudden acting or feeling as if the traumatic event were recurring (includes a sense of reliving the experience, illusions, hallucinations, and dissociative [flashback] episodes, even those that occur upon awakening or when intoxicated)" (p. 250).

Among the first articles on this topic in the post-traumatic stress literature is one by Kolb and Mutalipassi (1982). In their examination of the phenomenology of PTSD, those authors used the term flashbacks as a synonym for acute dissociative episodes in which the sufferer fantasized or even reenacted the traumatic scene. They make no mention of the veridicality or otherwise of those reenactments, nor of the effects of the demand characteristics and imagination on their results with the use of narco-synthesis to encourage the men to abreact their battle experiences.

Langley (1982) described how one veteran when at work in civilian life began to visualize the long lines of fellow workers behind their textile machines, as the Vietcong soldiers in a helicopter incident which he had previously experienced in Vietnam. He found himself reliving the experience over and over. From the case description it is difficult to sort out illusion or imagination from dissociation, and all three from veridical memory.

Burstein (1983), in his study of 20 civilian patients reporting flashbacks after accidents and assaults, described posttraumatic flashbacks as the revisualization of the trauma scene that occurred with realistic intensity. He claimed that care had been taken to distinguish between revisualizations and other visual imagery, that is, illusions. Confirmation of the events was obtained from a family member or from a treating professional in many of the cases. Without explanation, the author seemed to imply that these were pristine memories uncontaminated by postevent information. The author also conveyed the impression that there had been no evidence of amnesia or repression of the original memory.

Mellman and Davis (1985) studied 25 veterans with PTSD. They had their subjects define their own flashback experience. Those who requested clarification were asked if they had ever suddenly experienced themselves as being back in combat. The authors considered abnormal perceptual experiences during the flashbacks to be distortions or illusions involving more than one sensory modality. They did not include specific comments that the perceptual experiences were true memories,

nor did they address the incidence, or otherwise, of prior amnesia for the events reported.

Kline and Rausch (1985) reported on the importance of smells in evoking specific memories. Here again, there is no reference to these memories being inaccessible prior to the evocative stimulus (the smell of gunpowder or blood), nor is there any mention of amnesia in a study by Peniston (1986) reporting on the favorable use of EMG biofeedback-assisted desensitization in the treatment of PTSD.

Flashbacks as a Consequence of Civilian and Childhood Trauma

The Vietnam trauma literature during the mid 1980s made way for reports on victims of civilian trauma, domestic violence, and childhood abuse, at times well remembered, and in other situations retrieved only through the medium of therapy.

Carmen, Rieker, and Mills (1984) reported on their retroactive examination of patient records, in which they found almost half had histories of physical or sexual abuse; they concluded this had received relatively little attention in routine psychiatric history taking. They also suggested that the large population of Vietnam veterans in prisons and psychiatric hospitals would provide a relevant sample of adult male trauma victims for further study. Their article is among the first enunciations of the notion that the victimization of females within their families is in some way analogous to battle combat trauma. This has been elaborated over the past decade (Herman, 1992). The humane argument favored offering victims help to become survivors. In a later article by Rieker and Carmen (1986), they stressed the importance to the patients of claiming the anger; the rage is to be experienced not as meaningless, but as a response to cruelty. The patient would thus be able to grieve and let go of the trauma and the distortions in memory, which in some way until then could be seen as depicting the patient as guilty or responsible.

As one traces the development of these ideas, the essential element is clearly the remembering of victimization. It thus comes as no surprise to readers that in many subsequent publications and in practice, the emphasis has been on the retrieval or elaboration of traumatic memories even after many years of no memories. To be relevant to the theory, this recall must be viewed as an accurate report or revisualization of the traumatizing past events. In this regard, Herman (1992) and Terr (1990) as well as Briere (1992), all among the foremost authors on the treatment of past trauma, included revisiting the trauma psychologically and working with the memories and the affect. There are two quite separate but intertwined issues here: Is the remembered trauma historically true, and is the recall of historically true trauma necessary for healing? Although both of these questions might be answered affirmatively by many clinicians, there is little or no empirical basis for either conclusion.

Flashbacks, although not clearly defined or fully understood, have been managed in much of the literature and in clinical practice for almost a decade as if they are indeed accurate reports. Although authors such as Burstein (1983, 1985) referred to flashbacks as "revisualizations of a traumatic scene that occur with realistic intensity" (Burnstein, 1985, p. 374), it is not clear from the reports how they distinguished these from illusions, mind's eye images, intrusive daydreams, fantasies, or memory distortions. Opening statements often encouraged the notion of memorial accuracy in mental imagery. Grigsby (1987), for example, reported a single case study in which he instructed the patient to *imagine* a traumatic scene as it had occurred, and to allow himself to experience what had often been an intrusive recollection. Although the product might have been clinically helpful, there is little to persuade one that the details of what was recalled were accurate.

The forcefulness of context and contagion was captured in a report by Maloney (1988) in which she described the posttraumatic stresses on women partners of Vietnam veterans, affected by some of the same catalysts that seemed to trigger flashback responses in their husbands. The author suggested that the women might identify so strongly with their men that they had authentically internalized their partners' stressor imagery.

Rainey et al. (1987) administered infusions of lactate to seven patients with PTSD. This resulted in flashbacks in all seven patients. One saw himself in surgery watching his own operation, another as strapped down in a hospital after passing out and having a seizure, and yet another as repeatedly killing a village woman who would repeatedly get up, only to be killed again. The report was a clear demonstration of the impossibility of the historical accuracy of the flashback content. Similarly, in describing flashbacks after traumatic hand injuries, Grunert, Devine, Matloub, Sanger, and Yousif (1988) reported a category they described as "projected," in which an injury that was more severe than the one that actually occurred was described by the patient. This exaggerated perception occurred in more than 60% of the subjects, even in the presence of continued awareness of a relatively recent traumatic event. Grigsby (1991) elaborated on the disturbance of the sense of reality in the traumatized veteran, already besieged by feelings of depersonalization and derealization. For that author, the fantasies, intrusive recollections, and flashbacks are all grounded in something that was once real, further blurring the distinction between events and images.

Literature Supporting Neurophysiological Correlates

Regardless of the unyielding uncertainty that continued to surround the concept of flashbacks, as the decade of the 1980s moved on, papers appeared, attempting an understanding of the phenomenon in neurophysiological terms. If the analogy could be drawn to an epileptogenic

focus triggered by specific factors, the imagery might be accepted as the reenactment of a fixed memory, and therefore veridical. In other words, the memories could be viewed as pristine rather than affected by psychosocial factors.

Lipper et al. (1986) suggested a kindling model. Based on the positive response to carbamazepine (an anticonvulsant) in patients with PTSD, those authors discussed the possibility that the improvement was due to the antikindling effects of the drug. The obvious attractiveness of such a possibility, were it true, is the suggestive testimony it could provide regarding a fixed image captured in a bioelectric or biochemical change in the limbic system, that could be reevoked in the flashback. We now recognize that carbamazepine is a highly effective medication in a wide variety of psychiatric disorders, in addition to situations of epilepsy or epilepsy-like events.

Brodsky, Doerman, Palmer, Slade, and Munasifi (1987) also reported the effectiveness of carbamazepine in achieving a cessation of flashbacks in three patients with PTSD who also demonstrated a questionable epileptiform discharge emanating from temporal lobe foci. The descriptions of the EEGs, however, were not compelling. No EEG tracings were reproduced in the article; the EEG in Case 1 was described as only highly suggestive; the EEG in Case 2 was described as mildly abnormal with a nonspecific dysrhythmia; and the EEG in Case 3 did not show any evidence of epileptiform activity even on sleep deprivation. Those authors postulated that flashbacks might represent an amalgam of abnormal neuronal firing along with the expression of a dynamically charged event. Here again, a flashback, reified into an apparently well-defined neurophysiological happening, would borrow validity from a measurable neurological event.

Loewenstein et al. (1988) returned to the issue of kindling in their report on an open trial of clonazepam (an anticonvulsant) in the treatment of post-traumatic stress symptoms in multiple personality disorder. Those authors favored the argument that the useful effects of clonazepam might be attributable to its anticonvulsant effect on limbic kindling. Clinical experience has now affirmed the value of clonazepam in the treatment of anxiety. The kindling focus continues to elude those who would see it as the basis of flashbacks.

Pitman (1988), in conceptualizing PTSD as consisting of one or more pathological emotional networks which when activated produce characteristic reexperiencing symptomatology, described the flashback as the best illustration of the unitary nature of network processing. This analogy, borrowing heavily from the mechanistic model, thereby enhances the reification of the flashback concept.

An article by Ross, Ball, Sullivan, and Caroff (1989) reviewed the possibility that the manifestations of PTSD are related to a dysfunctional REM sleep mechanism. Despite raising the possibility of some physi-

ological homology between the dream and the flashback, those authors did not propose any specific commonalities. The article added to the number of articles in which solid neurophysiological mechanisms have been sought as possible factors in the etiology of flashbacks. Were any of these to be true, we would indeed be moving closer to a better understanding of the phenomenon.

It is of interest historically that the work of Penfield and Rasmussen (1950) produced very compelling memories in patients undergoing brain surgery. Although such electrically stimulated imagery was thought to represent literal stored memories, subsequent understanding has indicated that this is not the case.

Conclusion

A summary of the literature on flashbacks demonstrates clearly that

1. flashback as a concept is used in the literature both as a metaphor as well as a report of an event;
2. the event can have several dimensions including varying elements of reconstructed memories, fantasies, affect, perceptual change, and altered awareness;
3. the event described is at least as likely to be the product of imagination as it is of memory.

Of special relevance to this article is the development over time of the idea that the content of flashbacks represents veridical recall even after two or three decades of amnesia. And that in conditions such as PTSD where childhood trauma is suspected, the images and sensory perceptions experienced and described as flashbacks are the consequences of a process that undoes the repression or dissociation.

It is clear that some of the content of a flashback might well be accurate, but in many instances there is no evidence to support that belief. The content might thus be true, false, or confabulated. It is equally clear from the clinical descriptions that the term has been applied to memories that might have been repressed, or dissociated, as well as to memories that have always been remembered.

The case for regarding flashbacks as a manifestation of dissociation is an interesting one. The mechanism of state-dependent learning referred to above (Fischer, 1977) provides a possible explanation. On the basis of this reasoning, many of the symptoms associated with PTSD are reminiscent of dissociation; they include the reexperiencing of the traumatic event through intensive recollections or with feelings of detachment. These reactivated affects and memories, often defensively avoided by the mechanism of dissociation, can be more accurately retrieved when the mood state is congruent in the retrieval process to that in which the material was learned (Spiegel, Hunt, & Dondershine, 1988).

Although the content of flashbacks might well be grounded at times in something that was once real, there is little mention in the literature that the reality for suggestible patients might easily be borrowed from the accounts in the media and from the reports of other patients with whom they associate on inpatient settings and in survivor groups. It is of interest that in the prevailing ambiguity regarding the exact nature of a flashback, an American Psychiatric Association committee consensus in 1987 led to the clear but unsupported assertion that the flashback was a veridical account, a "reliving the experience" (American Psychiatric Association, 1987).

The increasing emphasis on childhood trauma in recent years has led to a purposeful search for a history of such trauma. In attempting to elicit long-delayed recall, the use of imagery has been expanded; dependence on the concept of a flashback to validate such recall is entirely unsupported by any evidence in the literature. Contextual factors such as expectation, in addition to the suggestibility of patients and the social construct of role-playing, influence in a crucial way the creation and content of flashbacks.

In light of the results of this review, and the compelling findings in three of the studies—the Maloney (1988) study of flashback-type responses occurring in partners in Vietnam veterans; the Rainey et al. (1987) study of induction of flashbacks with lactate; and the Grunert et al. (1988) study where 60% of the patients reported a more exaggerated injury in their flashbacks than actually existed—the present author would suggest viewing the content of flashbacks as requiring independent corroboration before assuming that any aspect of the scene is necessarily veridical. The observation of Hedges (1994) that flashbacks operate like dreams is highly relevant here. Indeed, just as hypnotic age regression—no matter how detailed and convincing—cannot be taken as an actual replication of childhood events, so the scenes from a flashback must be viewed with care and taken neither as a return to an earlier experience nor as proof of the existence of a presumed childhood event.

Without further careful empirical study, which, because of the nature of the subject is likely to be particularly challenging, the phrase flashback and its several interpretations continue to confuse our understanding of recall, and especially relevant to this article, long-delayed recall. Furthermore, use of the term has misled the field in creating a false sense of confidence in the accuracy of autobiographical reports.

REFERENCES

Alarcon, R. D., Dickinson, W. A., & Dohn, H. H. (1982). Flashback phenomena: Clinical and diagnostic dilemmas. *Journal of Nervous and Mental Disease, 170*, 217-223.

American Psychiatric Association. (1980). *Diagnostic and statistical manual of mental disorders (DSM-III)* (3rd ed.). Washington, DC: Author.

American Psychiatric Association. (1987). *Diagnostic and statistical manual of mental disorders (DSM-III-R)* (3rd ed. rev.). Washington, DC: Author.

Briere, J. N. (1992). *Child abuse trauma: Theory and treatment of the lasting effects.* Newbury Park, CA: Sage.

Brodsky, L., Doerman, A. L., Palmer, L. S., Slade, G. F., & Munasifi, F. A. (1987). Case report: Post-traumatic stress disorder: A tri-model approach. *Psychiatric Journal University of Ottawa, 12,* 41-46.

Burstein, A. (1983). Risks associated with post-traumatic flashbacks. *Journal of the Medical Society of New Jersey, 81,* 863-864.

Burstein, A. (1985). Posttraumatic flashbacks, dream disturbances, and mental imagery. *Journal of Clinical Psychiatry, 46,* 374-378.

Carmen, E. (H)., Rieker, P. P., & Mills, T. (1984). Victims of violence and psychiatric illness. *American Journal of Psychiatry, 141,* 378-383.

Cohen, S., & Ditman, K. S. (1962). Complications associated with lysergic acid diethylamide (LSD-25). *Journal of the American Medical Association, 181,* 161-162.

Cohen, S., & Ditman, K. S. (1963). Prolonged adverse reactions to lysergic acid diethylamide. *Archives of General Psychiatry, 8,* 475-480.

Fischer, R. (1977). On flashback and hypnotic recall. *International Journal of Clinical and Experimental Hypnosis, 25,* 217-235.

Frankel, F. H. (1976). *Hypnosis: Trance as a coping mechanism.* New York: Plenum.

Freedman, D. X. (1968). On the use and abuse of LSD. *Archives of General Psychiatry, 18,* 330-347.

Grigsby, J. P. (1987). Single case study: The use of imagery in the treatment of posttraumatic stress disorder. *Journal of Nervous and Mental Disease, 175,* 55-59.

Grigsby, J. P. (1991). Combat rush: Phenomenology of central and autonomic arousal among war veterans with PTSD. *Psychotherapy, 28,* 354-363.

Grunert, B. K., Devine, C. A., Matloub, H. S., Sanger, J. R., & Yousif, N. J. (1988). Flashbacks after traumatic hand injuries: Prognostic indicators. *Journal of Hand Surgery, 13A,* 125-127.

Heaton, R. K. (1975). Subject expectancy and environmental factors as determinants of psychedelic flashback experiences. *Journal of Nervous and Mental Disease, 161,* 157-164.

Hedges, L. E. (1994). Taking recovered memories seriously. *Issues in Child Abuse Accusations, 6,* 1-31.

Herman, J. L. (1992). *Trauma and recovery: The aftermath of violence-From domestic abuse to political terror.* New York: Basic Books.

Horowitz, M. J. (1964). The imagery of visual hallucinations. *Journal of Nervous and Mental Disease, 138,* 513-523.

Horowitz, M. J. (1969). Flashbacks: Recurrent intrusive images after the use of LSD. *American Journal of Psychiatry, 126,* 565-569.

Horowitz, M. J. (1976). *Stress response syndromes.* New York: Aronson.

Juve, J. L. (1972). Bad drug trips and flashbacks. *Child Welfare, 51,* 41-50.

Kardiner, A. (1941). *The traumatic neuroses of war: Psychosomatic medical monograph* (pp. 11-111). New York: Paul Hoeber.

Kline, N. A., & Rausch, J. L. (1985). Olfactory precipitants of flashbacks in posttraumatic stress disorder: Case reports. *Journal of Clinical Psychiatry, 46,* 383-384.

Kolb, L. C., & Mutalipassi, L. R. (1982). The conditioned emotional response: A sub-class of the chronic and delayed post-traumatic stress disorder. *Psychiatric Annals, 12,* 979-987.

Langley, M. K. (1982). Post-traumatic stress disorders among Vietnam combat veterans. *Social Casework: Journal of Contemporary Social Work,* 593-598.

Lipper, S., Hammett, E. B., Davidson, J.R.T., Mahorney, S. L., Grady, T. A., Cavenar, J. O., Jr., & Edinger, J. D. (1986). Preliminary study of carbamazepine in post-traumatic stress disorder. *Psychosomatics, 27,* 849-854.

Loewenstein, R. J., Hornstein, N., & Farber, B. (1988). Open trial of clonazepam in the treatment of posttraumatic stress symptoms in MPD. *Dissociation, 1*, 3-12.

Ludwig, A. M. (1966). Altered states of consciousness. *Archives of General Psychiatry, 15*, 225-234.

Maloney, L. J. (1988). Post traumatic stresses on women partners of Vietnam veterans. *Smith College Studies in Social Work, 58*, 122-143.

Matefy, R. E. (1980). Role-play theory of psychedelic drug flashbacks. *Journal of Consulting and Clinical Psychology, 48*, 551-553.

Matefy, R. E., Hayes, C., & Hirsch, J. (1978). Psychedelic drug flashbacks: Subjective reports and biographical data. *Addictive Behaviors, 3*, 165-178.

Matefy, R. E., & Krall, R. G. (1974). An initial investigation of the psychedelic drug flashback phenomena. *Journal of Consulting and Clinical Psychology, 42*, 854-860.

Matefy, R. E., & Krall, R. G. (1975). Psychedelic drug flashbacks: Psychotic manifestations or imaginative role playing? *Journal of Consulting and Clinical Psychology, 43*, 434.

McGlothlin, W. H., & Arnold, D. O. (1971). LSD revisited: A ten year follow-up of medical LSD use. *Archives of General Psychiatry, 24*, 35-49.

Mellman, T. A., & Davis, G. C. (1985). Combat-related flashbacks in posttraumatic stress disorder: Phenomenology and similarity to panic attacks. *Journal of Clinical Psychiatry, 46*, 379-382.

Naditch, M. P., & Fenwick, S. (1977). LSD flashbacks and ego functioning. *Journal of Abnormal Psychology, 86*, 352-359.

Orne, M. T. (1959). The nature of hypnosis: Artifact and essence. *Journal of Abnormal and Social Psychology, 58*, 277-299.

Penfield, W., & Rasmussen, T. (1950). *The cerebral cortex of man: A critical study of localization*. Boston: Little, Brown.

Peniston, E. G. (1986). EMG biofeedback-assisted desensitization treatment for Vietnam combat veterans' post-traumatic stress disorder. *Clinical Biofeedback and Health, 9*, 35-41.

Pitman, R. K. (1988). Post-traumatic stress disorder, conditioning, and network theory. *Psychiatric Annals, 18*, 182-189.

Rainey, J. M., Aleem, A., Ortiz, A., Yeragani, V., Pohl, R., & Berchou, R. (1987). A laboratory procedure for the induction of flashbacks. *American Journal of Psychiatry, 144*, 1317-1319.

Rieker, P. P., & Carmen, E. (H.). (1986). The victim-to-patient process: The disconfirmation and transformation of abuse. *American Journal of Orthopsychiatry, 56*, 360-370.

Robbins, E., Frosch, W. A., & Stern, M. (1967). Further observations on untoward reactions to LSD. *American Journal of Psychiatry, 124*, 393-395.

Rosenthal, S. H. (1964). Persistent hallucinosis following repeated administration of hallucinogenic drugs. *American Journal of Psychiatry, 121*, 238-244.

Ross, R. J., Ball, W. A., Sullivan, K. A., & Caroff, S. N. (1989). Sleep disturbance as the hallmark of posttraumatic stress disorder. *American Journal of Psychiatry, 146*, 697-707.

Saidel, D. R., & Babineau, R. (1976). Single case study: Prolonged LSD flashbacks as conversion reactions. *Journal of Nervous and Mental Disease, 163*, 352-355.

Shick, J.F.E., & Smith, D. E. (1970). Analysis of the LSD flashback. *Journal of Psychedelic Drugs, 3*, 13-19.

Smart, R. G., & Bateman, K. (1967). Unfavorable reactions to LSD: A review and analysis of the available case reports. *Canadian Medical Association Journal, 97*, 1214-1221.

Spiegel, D., Hunt, T., & Dondershine, H. (1988). Dissociation and hypnotizability in post traumatic stress disorder. *American Journal of Psychiatry, 145*, 301-305.

Stanton, M. D., & Bardoni, A. (1972). Drug flashbacks: Reported frequency in a military population. *American Journal of Psychiatry, 129*, 751-755.

Terr, L. (1990). *Too scared to cry*. New York: Basic Books.

Wesson, D. R., & Smith, D. E. (1976). An analysis of psychedelic drug flashbacks. *American Journal of Drug and Alcohol Abuse, 3*, 425-438.

Woody, G. E. (1970). Visual disturbances experienced by hallucinogenic drug abusers while driving. *American Journal of Psychiatry, 127*, 683-686.
Yager, J., Crumpton, E., & Rubenstein, R. (1983). Flashbacks among soldiers discharged as unfit who abused more than one drug. *American Journal of Psychiatry, 140*, 857-861.

Der Begriff der Flashbacks in historischer Perspektive

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Abstrakt: Eine Computersuche der Literatur für Veröffentlichungen unter dem Index "flashbacks" produzierte eine Liste von siebzig Quellenangaben, von denen viele in Veröffentlichungen unter dem Thema Mißbrauch von Chemikalien und Trauma gefunden wurden. Viele von diesen befanden sich in Briefen oder Abhandlungen, die in andern Sprachen als englisch waren. Im ganzen überprüfte der Autor fünfundfünfzig Abhandlungen. Obgleich die meisten dieser Abhandlungen Kommentare enthalten, die die Sache zu einem gewissen Grad als ein Wiederauftreten oder Erinnerungen an Geschehnisse in der Vergangenheit betrachteten, läßt die Unterschiedlichkeit im Gebrauch des Begriffs manche Fragen betreffs Echtheit der Bildvorstellung ungelöst. In den von dem Autor überprüften Präsentationen demonstriert nichts in überzeugender Weise die eindimensionale Natur der flashbacks noch irgendwelche erkennbaren, neurophysiologischen Korrelate. Zumindest scheint der Inhalt eines flashbacks das wahrscheinliche Produkt der Einbildung wie des Gedächtnisses zu sein.

Le concept des épisodes dissociatifs dans une perspective historique

Fred H. Frankel

Résumé: Une récension des écrits avec comme mot clé "épisodes dissociatifs" faite à l'aide d'une base de données informatisées a produit une liste de 70 références, la plupart ayant été trouvées dans les revues spécialisées sur les traumatismes et les substances psychoactives. Plusieurs de ces écrits étaient des lettres à l'éditeur ou des articles écrits dans une langue autre que l'anglais. L'auteur revoit 55 études en tout. Bien que la plupart de celles-ci contiennent des commentaires pertinents à ce sujet tels les récurrences ou réminescences des événements passés, la variabilité dans l'usage des termes utilisés laisse plusieurs questions non résolues quant à la véracité de la scène imaginée. Rien dans les écrits recensés par l'auteur ne démontre clairement la nature unidimensionnelle des épisodes dissociatifs ou un corrélat neurophysiologique reconnaissable. Le contenu des épisodes dissociatifs semble être, du moins, autant un produit de l'imagination que de la mémoire.

El concepto de flashback desde una perspectiva histórica

Fred H. Frankel

Resumen: Una búsqueda en la literatura de trabajos colocados bajo el rubro de flashback llevada a cabo con una computadora, produjo una lista de setenta referencias, muchas encontradas en publicaciones acerca de abuso de sustan-

cias y trauma. Muchos de estos trabajos no estaban escritos en inglés. En total, el autor revisó cincuenta y cinco trabajos. Aunque la mayoría de ellos contenían comentarios que tomaban el problema de alguna manera como recurrencias o reminiscencias de hechos pasados, la variabilidad en el uso del término deja muchas cuestiones sin resolver con respecto a la veracidad de la imaginería. En los artículos revisados por el autor nada demuestra claramente la naturaleza unidimensional del flashback, ni ningún correlato neurofisiológico reconocible. El contenido del flashback aparece ser finalmente algo así como el producto de la imaginación como lo es de la memoria.