



## RECOVERED OR IMPLANTED? MEMORIES OF NON-EXISTENT CHILDHOOD TRAUMA

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### Abstract

The aim of this paper is to discuss the concept of false memories of traumatic events from childhood and explain what mechanisms may underlay their formation. It also focuses on the effects of the recovered memory therapy.

In the 1980s and 1990s, as a result of using the so-called memory work techniques, hundreds or even thousands of people were made to believe that in the past they had become victims of various forms of sexual abuse by people from their immediate environment. After “recovering” false memories, adult children were taking their parents, uncles, former teachers and neighbours to court, which often resulted in convictions and the awarding of high damages. The creation of such false memories could have been caused by: reconstruction of a false event in accordance with existing schemes and autobiographical knowledge, error in monitoring the source of information and social pressure.

The popularity of recovered memory therapy and the epidemic of the diagnosis of repressed memories resulted in breaking the family ties, wrongful convictions, sentencing innocent people for hurting their own children, and immense suffering of people who were convinced that they had been abused in the past.

### Keywords

False memory; Recovered memory therapy; Repression; Trauma.

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The history of research on recovered memories of trauma goes back to 1980s, and their boom was in the nineties. At this time courts, mainly in the USA, but also in Great Britain or New Zealand, were flooded with suits (Gudjonsson, 1997; Goodyear-Smith, Laidlaw, Large, 1997). Among the accusers there were mainly well-educated women between 20 and 40, who, during psychotherapy, “recollected” that in childhood they had become victims of sexual abuse, and they indicated persons from their closest environment as perpetrators. Memories usually concerned events that had occurred when they were less than 8 years old, but there happened to be events that were to occur when a victim was a 6-month old infant (Jagodzińska, 2008). Credibility assessment of those accusations was not easy, especially because the recov-

ered memories were vivid and full of details, and they were not different in their quality from other memories of the person that had experienced them (Gulla, 2017). A sequence of events in numerous cases had many common elements: a client (usually a woman) contacted a therapist, reporting problems of various nature, e.g. depression. During a therapy s/he remembered that years ago s/he had become a victim of sexual abuse, took part in Satanic rituals, or witnessed drastic events, e.g. murders, animal tortures, that were performed by someone close. According to the therapist those memories, because of their traumatic content, had been repressed from memory for many years. The case went to trial that often would finish with a verdict of guilty, although the defendants did not plead guilty and there was no incriminating evidence. After the tri-

al, the psychological condition of the alleged victim often worsened and s/he re-attended therapy. This time during therapy it turned out that the earlier “recollected” event had never occurred. The victim sued the therapist, claiming that the techniques s/he had used resulted in deformation of his/her memories or in confabulation (Lief, Fetkewicz, 1995). It resulted in convictions and awarding high damages (the highest damages – 10.6 million of dollars – were paid to Patricia Burgus and her family; Loftus, 2004). This problem was subjected to debate that focused on the issue of truthfulness of the recovered memories (Pope, 1996). Organisations defending those unjustly accused were created, e.g. *The False Memory Syndrome Foundation* in the USA and *British False Memory Society* in the Great Britain.

Although at present reports on recovered memories concerning an experienced trauma are not that frequent (Polczyk, Szpitalak, 2015), the difference between supporters and adversaries of the concept that one may “recollect” a traumatic event that had never occurred still exists (Patihis, Ho, Tingen, Lilienfeld, Loftus, 2014).

### Social factors of epidemic diagnosis of repressed memories

According to Witkowski (2009) in the 1980s about one million people believed that they were molested in childhood. Loftus (1993) indicates three social factors that might have contributed to the epidemic of revealing repressed memories. The first are articles published in popular magazines, such as *the Washington Post* or *Glamour*, where the histories of persons who after many years recovered memories of being a victim of molestation in childhood were described.

The second factor constitute books dedicated to victims of incest, where one suggested existence of characteristics proving sexual abuse (so called *sexual abuse syndrome* or *post-incest syndrome*)<sup>1</sup>. Among them there were anxiety and chronic muscle tension (Briere, 1984), alcohol dependence and suicidal thoughts (Bass, Davis, 1988). There was even elaborated a self-report questionnaire still used in the 1990s as a “useful guide for the therapist” (Stocks, 1998, p. 425), that enabled diagnosis of being a victim of incest (Blume, 1990). The universality of the symptoms it embraced, such as gynaecological problems

or low self-esteem caused that they might indicate almost any psychological or physical problem, and on the other hand – they might concern anyone (Howe, Knott, 2015).

Publications for incest victims are connected by the assumption that some present problems of an individual indicate a trauma s/he experienced in childhood. The most popular of them, *The Courage to Heal* (Bass, Davis, 1988), described as “the Bible” among publications on childhood trauma, has been written by a poet and a creative writing teacher, Ellen Bass, and a journalist, Laura Davis (Loftus, 1993). One may read there that even if one has no memories concerning molestation, but a feeling that one was abused in some way, then most probably it happened (p. 21). Moreover, when apart from a feeling one has symptoms, among them the authors enumerated e.g. low self-esteem, then according to Bass and Davis molestation occurred (Loftus, 1993).

A third cause of the epidemic of diagnoses of repressed memories was repressed memory therapy. There is no formal school of therapy oriented on memory recovery. One rather talks about “memory work techniques” which, used during therapy, are supposed to help recover memories (Ulatowska, Sawicka, 2017). A key role during therapeutic work is attributed to the repression process, an unconscious defence mechanism which removes negative experiences from consciousness. It is supposed to remain uncontrolled, which means that the client does not know what content was repressed and when (Witkowski, 2009). According to supporters of this therapy, an experienced psychoanalyst is able to reach the repressed memories. The therapy assumes that a wide spectrum of present client problems – from depression, through sexual dysfunctions to fear of darkness is caused by repressed memories of childhood trauma. Psychological recovery depends on the realisation of existence of harmful memories. Hence, the therapist’s task is to convince the client that s/he was abused in childhood, but repressed this fact from consciousness.

### Techniques used in repressed memory therapy

One may indicate a number of techniques used in repressed memory therapy. According to research (Poole, Lindsay, Memon, Bull, 1995) from 29 to 34% American therapists used hypnosis despite the lack of evidence that it improves accurate recall (Lynn, Lock,

<sup>1</sup> It should be mentioned that both in DSM-IV (APA, 2013) as well as in ICD-10 (WHO, 1992) there is no such a term as “sexual abuse syndrome” or “incest syndrome”.

Myers, Payne, 1997)<sup>2</sup>. One used also age regression (Niedźwieńska, 2004) where they asked the person to react to hypnotic indications that made him/her think or behave as a child in a given age. Seldom (if at all) is such a recollection a reproduction of childhood experiences, regardless of how convincing it seems to observers (Lynn et al., 1997). Also applied was the directed imagination technique that consists in relaxing and imagining a scenario suggested by the therapist. An exercise consisting in a client writing down fragments of recovered molestation memories, and then reading them out loud “to make them more real” was also used (Bass, Davis, 1988, p. 28). As many as 37 to 44% therapists in the USA and 25% in Great Britain admitted they used interpretation of dreams, despite the lack of any proof that dreams may be reliably interpreted as accurate memories of forgotten childhood experiences (Poole et al., 1995). On the contrary – Mazzoni, Lombardo, Malvagia and Loftus (1999) proved that in over 80% of examined persons, who were told that their dreams indicate they had been lost in a mall before they were three years old, or that they were abandoned by the parents for a longer period of time, their belief in this event grew. Another suggestive technique was body memory, based on the assumption that sexual abuse is in some way remembered by the body, and somatic manifestations are a form of communication of traumatic memory (Polczyk, Szpitalak, 2015). Such an unconscious memory of abuse may reflect in numerous physical symptoms, such as mouth dryness or a rash. According to Frederickson (1992, p. 43; in: Lindsay, Read, 1994) “Extraordinary fear of dental visits is quite often a signal of oral sexual abuse”. Also, the technique of working on emotions has been used, assuming that re-experiencing strong emotions may help in the recovery of memories. To recover some memories therapists used psychoactive substances. A popular substance is the barbiturate Sodium Amytal, which causes a sense of sleepiness, relaxation and an increased will to speak. Under its influence a person does not pay attention to his/her environment, is susceptible to suggestion, has a diminished ability to think critically and an increased readiness to follow instructions (Stocks, 1998). According to Piber (1993, p. 465; in: Stocks, 1998) using barbiturates to recover molestation memories is probably “may be worse than useless, because they may encourage patients’ beliefs in completely mythical events”.

<sup>2</sup> Although the number of recollected pieces of information may be high, a lot of them may be wrongful (Siuta, Wójcikiewicz, 1999) what is explained with, among others, diminished criteria of decision which pieces of information are reported ad recollections (Lindsay, Read, 1994).

## Popularity of repressed memory therapy

A simplified (and wrongful) understanding of Freud’s conception contributed to the genesis and popularity of repressed memory therapy. Witkowski (2009) as well as Polczyk and Szpitalak (2015) indicate that repressed memory therapy was based on false theoretical and ideological assumptions: in Freud’s theory, which is referred to by supporters of this therapy, it is said that the present problems of an individual are caused by repression, and overcoming it has a healing effect. Yet in Freud’s conception one does not repress real trauma that was experienced in childhood, but represses drives, especially sexual, which an individual experiences at present and which remain unaccepted by one’s *Superego*. The scientific basis of the therapy is also questioned by LeDoux (2005; in: Witkowski, 2009), who indicates the impossibility of falsifying the neurobiological basis of unconscious memories of a traumatic event in persons who are unaware of experiencing such an event. An explanation of the lack of continuity of traumatic experiences memory from childhood may be, rather than an automatic defence mechanism such as repression, a conscious wish to avoid traumatic memories, so a phenomenon of suppression (Ulatowska, Sawicka, 2017).

## Experimental research: is it possible to create memories

A number of experiments have shown that it is very easy to change, or even implant autobiographical memories (Loftus, 2005). For example, Hyman, Husband and Billings (1995) asked participants to recollect experiences from childhood following an indication, e.g. “clown party”. The parents of the subjects earlier indicated which events given on a list examined persons experienced in childhood. Among real events one false was added, and the examined persons were also asked to recollect this one (it concerned either an overnight stay in a hospital or a clown party). The subjects were told that this event happened when they were five years old and that their parents confirmed it. During the first interview, the examined persons remembered about 84% real events, and during the second – 88%. None of participants recollected the false event during the first interview, but as many as 20% of them “remembered” it during the second one (Hyman et al., 1995).

Memory of events is deformed also by pieces of information coming after an event. This is called the misinformation effect, which occurs when a witness

includes in his/her statement information that is not in accord with the course of this event, and that originates from sources other than the event itself (Polczyk, 2007). Typical experimental procedure when researching this effect consists in three stages (Loftus, Miller, Burns, 1978). In the first one – participants are presented with original material, e.g. a series of slides (Loftus, 1979). Then they are presented with consequent material, which in the experimental group is misinforming e.g. through suggestive questions (Loftus, 1975). In the final stage there is an original material recollection test. A number of studies with various modifications of this procedure have shown that misinformed persons achieve significantly worse results in the final test than persons from the control group (Polczyk, 2007). This means that pieces of information reported by misinformed participants may be absent or changed when compared to the original material. It has been shown that as a result of misinformation one may both erroneously recollect small details – a “stop” sign instead of a “give way” sign, or a hammer instead of a screwdriver, but one can also erroneously assume that one saw a big barn, which in the original material – an idyllic scene with a car passing by – was absent (Loftus, 2005).

Some specific conditions influencing the attitudes of examined persons favour the induction of false memories. In research by Loftus (1996) participants completed a fictional test, allegedly revealing their high perceptive and cognitive skills. Afterwards it was suggested to them that those skills were connected with a stimulation of perception that occurred to children who had hanging, moving objects above their heads that stimulated eyes movement and visual exploration. At the end an age regression to first days of their lives (or first days in nursery) was applied to the examined persons. As a result, 60% of participants “recollected” objects hanging above their beds, and 25% books hanging in nursery.

### **Mechanisms of raising false memories**

Three main mechanisms are responsible for the creation of false recollections, including those concerning molestation: reconstruction of the false event according to a possessed schema and autobiographical knowledge, a source-monitoring error, and social pressure (Niedźwieńska, 2001).

The process of false memory creation depends on the possession of some information connected with the event or autobiographical recollection of other events, on the basis of which one can create new recollections

(Hyman et al., 1995). As previously mentioned, in the period of the “epidemic” of diagnoses of recovered memories, journals published case studies of persons who recovered memories of molestation, and books which reading resulted in an easy autodiagnosis of trauma experienced in childhood. It was so easy because books and journals popularised the belief that memories could have been repressed, and present problems, e.g. in interpersonal relations, were symptoms indicating that one was a victim of molestation. Using the abovementioned techniques during therapy, e.g. writing down memories, imagining a given event or dreams interpretation increases the possibility of building a recollection from a shred of information. It is also not without meaning that some experiences from childhood, e.g. being kissed or seen naked during bath are popular and may help in constructing false memories (Niedźwieńska, 2000).

The second mechanism is connected with source-monitoring theory (Mitchell, Johnson, 2000), so attribution of a certain source to a recollection, e.g. recognising it as a real event or a dream (Jagodzińska, 2008, Mitchell, Johnson, 2000). In the case of creation of false memories on sexual abuse in childhood an erroneous attribution occurs when a person assumes that a false event is a real recollection and s/he attributes it to a personal experience (Niedźwieńska, 2001). The possibility of source-monitoring errors increases during psychotherapy sessions that aim at recovery of memories. Creation of visualisations can be dangerous (describing events, imagining them), which is shown by the results of an experiment by Garry, Manning, Loftus and Sherman (1996). Its participants imagined an event from childhood and assessed the degree of its possibility. It was shown that imagining an event increases an individual’s belief that s/he really experienced it. This phenomenon was called imagination inflation, and subsequent research showed that false memories can develop even without a suggestion, but only through imagination (Mazzoni, Memon, 2003). Visualisations also facilitate creation of false recollections. It was shown that examining photographs from childhood – both fabricated (Wade, Garry, Read, Lindsay, 2002), and original (Lindsay, Hagen, Read, Wade, Garry, 2004) may result in source attribution errors and lead to the creation of false autobiographical memories. The risk of their creation is increased by a multiple reconstruction of an event (Hyman, 1999), which is often an element of repressed memory therapy. As Niedźwieńska summarises (2001, p. 61) – “all those elements, imagined, heard, observed, but in another context, may compose into a recollection of a false event”.



An important role in the creation of false memories is played by a social mechanism. During repressed memory therapy the client might have felt pressure to recollect a trauma s/he experienced in childhood. This was induced by suggestive expressions: "You sound to me like a person who must have been sexually abused. Tell me what this bastard did to you" (Davis, 1991, p. 82; in: Loftus, 1993). When explaining social influence, it is worthwhile referring to Festinger's social comparison theory (1954) that says that a person is more susceptible to social influence when s/he is unsure of his/her own assessment of a situation. Hence, a client who heard about cases of recollection of sexual abuse memories, who read books that allowed him/her to autodiagnose symptoms of abuse, and a therapist who suggested that s/he was sexually abused in childhood, was vulnerable to the creation of false memories. Additionally, in a situation, when a person urgently searching for explanation of present problems had been participating in a therapy for weeks, and the therapist was an authority for him/her, s/he became much more susceptible to such suggestions. Moreover, an explanation that present symptoms are caused by a childhood trauma, and recovering of memories is going to help recover, might become a fulfilment of the client's expectations towards the therapist. Thanks to the recovered memories s/he found the source of their own problems.

Group psychotherapy, the so-called self-help groups for incest victims (survivors' groups; Stocks, 1998) were dangerous. Participation in such a group might stimulate recovery of memories, creating a kind of "chain" of experiences (Stocks, 1998). According to Witkowski (2009) the more cases of recovered memories occurred, the more normal it became, which resulted in the development of a "victim culture". As the author writes: "Now those women who were not able to recollect their own bad experiences felt worse in some way, which favoured 'memory recovery'" (Witkowski, 2009, p. 141). The effects of such a mnemonic conformism is illustrated by a study by Gabbert, Memon and Allan (2003), in which pairs of examined persons watched various movies concerning the same event, and each of the movies had unique details which were not present in the movie watched by their partner. Afterwards the participants discussed the event they had watched, and then completed individual memory tests. In the control group participants did not discuss the movie. Over 70% of the participants who discussed the event erroneously recollected details of the movie they had not observed, but which they were told about by their interlocutor.

## Individual differences

In research on individual susceptibility to the creation of false memories the Deese list of words paradigm is often used (1959), as modified by Roediger and McDermott (1995), in which examined persons learn a list of semantically related words and also related to another word (a keyword) that is absent in the set they are to memorise. For example, a set of words is: threads, sewing, prick, thimble, injection, and the critical (absent) word is "needle". Afterwards they complete a memory test. It was proven that during memory test participants recollect not only the words they were memorising, but also the absent, critical word that is semantically related. This error is called a "false recollection". And the error that occurs when participants claim that they were memorising a word that was not presented, is called "false recognition". In the study by Clancy, Schacter, McNally and Pitman (2000) women who claimed that they have recovered memories on sexual abuse in childhood, obtained a higher number of false recognitions in a memory test when compared to women who did not experience sexual abuse, women who were molested and remember those events and women who claimed that they were abused but did not remember this. A weak point of this study is the impossibility of determining if this group's susceptibility to distortion of memory is a result of impairment of cognitive functions connected with the experience of abuse, or other cognitive characteristics make this group susceptible to the creation of false memories. In another study, also using the list of words paradigm (Clancy, McNally, Schacter, Lenzenweger, Pitman, 2002), the examined persons were classified into three groups: the first, which included persons claiming that they had recovered memories on alien abduction, the second, consisting of persons who believed that they had experienced alien abduction, but they did not remember this fact, and the third, control, in which the examined persons denied being abducted by aliens. In the group of those having "recovered" memories of alien abduction one observed a higher number of false recognitions and false recollections when compared to the control group. The differences in the number of correct recognitions and recollections between groups were not stated. Hence, it seems that persons who are more susceptible to the creation of false memories in an experimental situation are more susceptible to the development of false memories concerning events that were only suggested or imagined (e.g. watching a movie where a character was abducted by aliens). Such results suggest that persons who report recovered memories may be in general vulnerable to "remember-

ing” events which they have never experienced, which is concordant with the hypothesis that some recovered memories are false recollections caused by suggestive therapeutic methods.

### Results of false memories “recovery”

Between 1991 and 1994 in Washington, 682 court cases connected with repressed memories were registered, and in 325 cases damages were awarded (Loftus, 1997). Among persons who had undergone repressed memory therapy, the majority experienced relapse during the therapy (Lief, Fetkewicz, 1995) and attended therapy for several years after (Parr, 1996; in: Stocks, 1998).

One of the victims was Nadean Cool (Loftus, 1997). In 1986 she started therapy to deal with her reaction to her daughter’s trauma. Using, among other techniques, hypnosis, the therapist convinced her that she had repressed memories of her participation in Satanic rituals, eating children, being raped, having sex with animals and being forced to watch a murder. The woman believed she had over 120 personalities – children, adults, angels, and even a duck. The psychiatrist exorcised Cool. When the woman understood that the therapist had implanted her false memories, she sued them. In 1997 she was awarded 2.4 million dollars of compensation.

A similar situation happened to Laura Pasley (Pasley, 1993; in: Ceci, Loftus, 1994). During therapy, it turned out that apart from bulimia she had one more problem – being a victim of incest, of which she had no recollection. This emerged as a result of hypnosis, participation in group therapy, a lecture on the *Courage to Heal* (Bass, Davis, 1988) and dream interpretation. Pasley “recalled” that in the past she had been sexually abused by family members, had sex with animals and participated in orgies. The woman broke off relations with relatives. For four years she was tormented by the “recovered”, drastic memories. When she realised that they were false, she sued her former therapist and was awarded compensation. She also started working with another therapist. She summarised her harmful experiences saying: “This therapy has snatched something from me that I can never get back: years off my life; years where I was emotionally distant from my family and my daughter” (Pasley, 1993, p. 361; in: Ceci, Loftus, 1994).

### Discussion

The article presents examples and evidence that one can create false memories of events which never took place. Yet one should remember that the problem of sexual abuse of children is real and serious. This is confirmed, *inter alia*, by statistics collected by the Polish Sexological Society in 1991, indicating that “35% of women and 29% of men were sexually abused in childhood, almost 17% women and 9% of men had those contacts with the closest members of the family, over 10% of examined women and 3% of men were raped in childhood (Witkowski, 2009, p. 140). A similar situation is in the USA, where, according to the APA (1998) about 20% of women and 5 to 10% of men experienced some form of sexual abuse in childhood.

The majority of victims have constant memories of the experienced molestation. In many cases they are vivid, continuously come back, produce strong emotions and are impossible to forget (Loftus, Polonsky, Fullilove, 1994; Ulatowska, Sawicka, 2017), but there are cases when a victim claimed that s/he had forgotten or repressed the traumatic memory, and then “recovered” it as an adult person (Porter, Yuille, Lehman, 1999). For example, Williams (1994) interviewed 129 women on their sexual life. During the study, those women were between 18 and 32 years of age and had a documented history of being sexually abused between 10 months and 12 years of age, and the incident was reported to the police. Research proved that 38% of those women did not mention molestation during the interview, especially those who were younger when the abuse occurred, or when the offender was someone close. Twelve percent of women denied that they had been sexually abused. According to Williams (1994), long periods when one does not remember about abuse should not be treated as proof that the abuse did not occur. Documented cases of recovering real memories were described by Cheit (1998). They concerned various events, among others an experience of being sexually abused and being a witness to a murder, and their recovery occurred in different circumstances, including therapy. Cases of recovering memories of trauma after many years are possible (Howe, Knott, 2015; Niedźwieńska, 2001). Critics of publications connected with the recovery of memory, e.g. Loftus or Lindsay, emphasise that there are no scientific evidences of a special mechanism of repression, and using techniques aiming at recovery of memory may lead to the creation of false recollections (of course this does not mean that all therapeutic techniques lead to the creation of false memories, Howe, Knott, 2015.

A number of studies have shown that “recollections, no matter whether they are recollections of traumatic or everyday events and if they occur in childhood, adolescence or in adulthood, undergo processes of fading, forgetting, interference and other memory mechanisms that inevitably result in distortions of memory” (Howe, Knott, 2015, p. 645). Referring to childhood recollections, it was shown that they are fragmentary, include amnesic gaps, speculations and incorrect details, and are not chronologically organised (Howe, Knott, 2015). Moreover, memories originating from before the 4th or 5th year of age are poorly remembered, and a more mature system of autobiographic memory develops after 5–7 years of age (Howe, 2013).

Several practical methods and tools have been developed that are supposed to help in the prevention of occurrence of false memories and helping in recovery of accurate recollections during an interview. Among these tools is the Cognitive Interview (CI; Fisher, Geiselman, 1992), a method efficient in improving the process of recollection, which has been confirmed in laboratory and field research (Dukała, 2014). Cognitive interview is a procedure composed of mnemonic techniques and techniques improving communication between an interviewer and a witness. During the interview the interviewer concentrates his/her attention on witness, does not interrupt and actively listens to his/her utterances. The witness receives instructions to recollect the context of an event – both external and internal (feelings, thoughts) circumstances and then s/he “describes everything”, so reports any remembered detail of the event, afterwards reproduces the event with a changed chronology, and at the end describes it applying another perspective, e.g. of another participant. Cognitive interview protects from the misinformation effect, facilitates the process of recollection of details from memory and increases the accuracy of recollections (Dukała, 2014). Another method for reducing false memory creation is informing the witness that some pieces of information s/he received after the event might have been false. As results of metanalysis show – 25 studies on effectiveness of a warning given to participants after providing them with false information – reduces the misinformation effect in 43% (Blank, Launay, 2014). With respect to the line-up procedure, it is worthwhile to mention the so-called “double blind line-up”, so when the person conducting the procedure does not know who the suspect is. It prevents purposeful or unintentional providing suggestive indications to the witness by the person conducting the line-up (Wang, Otgaar, Merckelbach, 2018).

In cases of sexual abuse that occurred many years ago, recovered memories are often the only evidence, and administration of justice has the task of finding if they are real or if they were implanted during therapy or interview. Ross and Newby (1996) emphasise that when attempting to assess the credibility of recovered memories one should be especially cautious, because observers and persons who recollect the event use various criteria of truthfulness of the recovered memories and they are not always correct. A person who recollects an event, and does not have confirmative, external evidence, bases on other criteria, e.g. on a context of the recovery, which, on the other hand, for observers may be a basis of questioning the reality of the recollection (Ross, Newby, 1996).

Davies and Follette (2001) advise asking the witness about the source of memories and determining whether s/he underwent suggestive techniques of work with memory, e.g. was persuaded to recollect the crime numerous times. Using this technique, among others, contributed to one of the most well-known cases of false self-accusation. It concerned Paul Ingram, a clergyman and vice sheriff, accused by his daughters of rape and leading Satanist rituals, during which, among others, newborns were killed and eaten. At first the man was sure of his innocence. As a result of interviews conducted by officers, a priest and a therapist, using imaginative technique and suggestion, he started to report visions of the allegedly committed crimes which he was accused of. Finally, not only did he plead guilty, but he also believed he was the offender. Despite the fact that he withdrew his guilty plea afterwards, he was sentenced to 20 years of imprisonment (Davies, Follette, 2001; Howe, Knott, 2015).

According to Bernstein and Loftus (2009) when assessing the credibility of statements, a measurement of individual variables that may indicate if an interviewee is susceptible to creation of false beliefs and memories can be useful. These researchers enumerate among them e.g. susceptibility to suggestion, need for social acceptance and inclination to dissociation.

A useful tool for assessing witness statements is a criteria-based content analysis (CBCA, Vrij, 2005). The conception assumes that false statements differ in quality from real ones. This assumption refers both to lies, as well as to false beliefs and recollections. Criteria-Based Content Analysis consists in assessment of a statement according to 19 cognitive and motivational criteria, which are present or absent in the statement (e.g. logical structure, superfluous details, spontaneous corrections). Vrij (2005) indicates that this method seems to be the most useful in formulation of preliminary conclusions concerning the credibility of witness

statements. There is also a content analysis procedure based on 12 criteria for assessment of statements concerning emotional and stressful events, e.g. sexual abuse (MAP; *Memory Assessment Procedure*; Porter et al., 1999).

Unfortunately, there are no indicators that let real and false recollections be unanimously differentiated (Bernstein, Loftus, 2009). As Polczyk and Szpitalak write (2015, p. 21), every case of recovered memories that goes to court should be “treated individually, one should try and establish as wide a context as possible, and make a decision only on all the knowledge and evidence material, and not only on the basis of the content of the recovered memory itself, treated as unquestionable evidence”.

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