TRAUMATIC AMNESIA

a dissociative survival mechanism

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I - Presentation

Complete or fragmented traumatic amnesia is a common memory disorder found in victims of violence. Numerous clinical studies have described this well-known phenomenon since the beginning of the twentieth century, when the first systematic studies explored amnesia among traumatized combat soldiers, and later among victims of sexual violence. Studies found almost 40 % complete amnesia among these participants, and 60% partial amnesia when childhood sexual abuse was concerned (Brière 1993, Williams 1994, IVSEA 2015).

These amnesias are psychotraumatic consequences of violence. They are neuro-psychological survival mechanisms based on dissociation (Van der Kolk, 1995, 2001). Since 2015, dissociative traumatic amnesias have been recognized as a defining criterium for Post-Traumatic Stress Disorder (DSM-5, 2015). They can last several decades and lead to amnesia for entire sections of childhood, with almost no retrievable memory, which results in a painful impression of having no past, nor landmarks.

When amnesia fades away, traumatic memories most often return brutally, invasively, as uncontrolled, unintegrated, fragmented traumatic memories (flashbacks, nightmares) and trigger re-experiences of violence with identitical distress and sensations, and a vividness as if the trauma was happening all over again.

Care professionals should be better acquainted with these phenomena in order to improve how they care for the victims, by treating such reminiscences without confusing them with hallucinations, identifying violence, and its psychotraumatic consequences for the victims. Similarly, justice professionals, when faced with sexual violence complaints after recovered memories, should be more aware of the reality of such frequent memory disorder. They should strive to accumulate evidence and corroborate reliable and consistent indications, without questioning the victim's account and without dismissing her complaint. Finally, the legislator should also view traumatic amnesia as an insurmountable obstacle when violence has been revealed only in very late complaints. The current limitation periods of 20 years for rape on adults (18+) and 20 years after the majority age for rape and sexual assault on minors with aggravating circumstances are insufficient to grant their rights to all the victims.

II - Traumatic amnesias are psychotraumatic consequences of violent traumatic events.

Traumatic amnesia is a memory disorder, a psychiatric symptom that characteristically occurs after a victim's exposure to traumatic events and it is part of the post-traumatic stress disorder (PTSD) as defined in the Fifth Edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5, 2015).

Traumatic amnesia is recognized as a key feature in the PTSD defining criteria. It is included in criterion D, which refers to negative alterations in cognitions and mood (the other criteria refer to intrusion symptoms, avoidance, and alterations in arousal and reactivity): traumatic amnesia is an "*inability to recall key features of the trauma (usually dissociative amnesia; not due to head injury, alcohol, or drugs)*" (DSM-5, 2015).

1. Clinical definition of traumatic amnesia.

Traumatic amnesia is thus clinically defined as an inability to remember all or part of important elements of a traumatic event, due to dissociative psycho-traumatic mechanisms, and not to other factors such as head trauma, alcohol and drug use (lacunar amnesia), nor to voluntary or physiological forgetting (studies found that traumatized people with traumatic amnesia did not forget more of the trauma than people who had continuous memories (Geraerts, 2006, McNally, 2010)).

2. The mechanism at the origin of traumatic amnesia.

Psychotraumatic disorders are normal, universal consequences of violence, produced by neuro-biological and psychic survival mechanisms after exposure to extreme stress (McFarlane 2010, Freyd 2010).

The mechanism at the origin of traumatic amnesia is neuropathological, unconsciously linked to the extreme stress triggered by trauma and trauma reactivations. This better and better documented neuro-pathological survival mechanism is viewed by the majority of experts as dissociative (Van der Kolk, 2001, Nijenhuis, 2004, Casey, 2018).

Major traumatic events can have on the victim's psyche a *siderating* effect, which paralyzes her, prevents her from reacting in a suitable way, and prevents her cerebral cortex from managing the intensity of the response to stress and the production of adrenaline and cortisol (Etkin et Wagner, 2007 ; Lanius et al., 2006). Extreme stress, which is a real emotional storm, then invades the body and – because the excess of adrenaline and cortisol constitutes a vital risk for heart and brain (Yehuda, 2007) - it triggers neurobiological survival mechanisms that cause the emotional circuit to cut off and lead to an emotional and physical anesthesia by producing morphine and ketamine-like hard drugs (Lanius, 2010).

This mechanism disrupts the emotional and memory circuits, and leads to dissociative and memory disorders that cause traumatic amnesia and traumatic memory.

3. Clinical aspects of traumatic amnesia

Unquestionable empirical medical and clinical evidence documents the frequency of traumatic amnesias in psychotraumatic disorders. Traumatic amnesias have been reported and very well documented in all the studies with traumatized individuals whose traumatic experiences lead to psychotraumatic disorders, i. e., **direct victims, witnesses or persons close to victims (family members, close friends) faced with death, violent death threat, injury, or serious injury threat (murder, bombings, massacres, war scenes, torture, genocide), sexual assault or rape**.

The more serious and more criminal the traumatic events (murder, attempted murder, rape), the younger the victim (children), the more the perpetartor is a family member, the more traumatic amnesias are frequently found. For example, amnesia for major traumatic experiences, such as the Holocaust, or rape and sexual assault, have been reported by all sources (Loewenstein 1996, Brown 1999, Chu 1999, Van der Hart 2000, Hopper 2015). It has been shown that violence perpetrated by a parent, caregiver, or close person is a very important risk factor for traumatic amnesia (Freyd, 2001, 2010).

Studies of the traumatic event memory run in the general population report that 32% of people face an amnesic period (Eliott, 1997). Studies of more targeted

populations such as survivors of extermination and concentration camps find 46% of partial or total amnesia among such participants (Yehuda, 1998); studies with victims of childhood physical abuse report 44% total or partial amnesia (Chu, 1999); studies with people who experienced childhood sexual abuse find 19-62% total or partial amnesia (Herman 1987, Brière 1993, Williams 1994, Windom 1997, Brown 1999, Salmona 2015).

Amnesia for these traumatic events can be either **total, or partial, and particularly affect major elements of the events.** It can last for months, years, and even decades (over 40-50 years). The memories return first in a non-verbal, fragmented and sensory form, then gradually build up in a narrative.

From the earliest clinical research on traumatic amnesia to the present day, the explanatory mechanisms have mainly involved dissociative processes. Van der Kolk has shown that memories return initially as fragments, in the form of dissociated mental imprints of sensory and affective elements of the traumatic experience, as visual, olfactory, affective, auditory and kinesthetic experiences. Over time, subjects reported a gradual emergence of a personal narrative that can be properly referred to as "explicit memory" (Janet, 1889; Van der Kolk, 1995).

Studies of the recovered memories accuracy show that they are neither more nor less precise than the continuous memories about traumatic events. Research studies on the corroboration of memories recovered after a total traumatic amnesia found a strong corroboration success rate in both physical and sexual violence cases: 93% for physical and 89% for sexual violence in Chu's study (1999); 83% for sexual violence in Herman's study (1987); 69% for sexual violence in Kluft's study of memories retrieved during therapy sessions (1995). In all the studies, traumatic memory recovery generally happens not in therapy, but while people were home, alone.

When sexual violence is concerned, traumatic amnesia is most frequent when the victims were children, especially when they were very young, when there was penetration and therefore rape, when the author of incestuous sexual violence was a family member, and when the abuse was repeated (Williams, 1996, Salmona, 2015).

Childhood sexual abuse is associated with even higher levels of dissociation. The younger age at the onset of abuse correlated with stronger dissociative symptoms and with higher levels of amnesia for both physical and sexual abuse. Repeated and frequent sexual violence correlated with higher levels of dissociation (Terr, 1988, Ross, 1990).

4. Traumatic amnesia: a history of its recognition

Traumatic amnesias were known since since the Antiquity. They became a subject of scientific publications already in the nineteenth century (Janet, 1889) before they became systematically explored and precisely described in the psychiatric literature

about traumatized combat soldiers in World War I (Myers, 1915, Thom, 1920) and World War II (Kubie, 1943, Archibald, 1956).

Later, during the twentieth century, as knowledge of psychotraumatic disorders grew and their clinical definition became more precise, many studies have been conducted, particularly in Israel and to a lesser extent in the USA, with survivors of concentration and extermination camps, and with children who survived the Holocaust (Dewind, 1968, Jaffer, 1968, Mazor, 1990, Krell, 1993, Modai, 1994, Somer, 1994, Yehuda, 1997, 1998). For example, Yehuda found traumatic amnesia in 46% of the camp survivors. Survivors' accounts of the experiments on twins conducted at Auschwitz by Dr. Mengele contained descriptions of traumatic dissociations in which some of the twins had no memory of Auschwitz at all (Lagnado, 1991).

Other studies have been conducted with war veterans following World War II, the Vietnam War (Hendin, 1984, Karon, 1997), the Israeli Wars (Witztum, Margalit & Van der Hart, 2002), and with victims of torture and massacres (Goldfeld 1988, Kinzie 1993).

Since the 1970s, psychotraumatic disorders have been more and more studied among civilian victims and more particularly on women victims of rape and sexual assault. Since the emergence of child protection services, and the awareness of the importance and severity of child abuse, studies have been run with children victims of physical violence and sexual abuse on the severity of the traumatic impact.

In 1980 the Diagnostic and Statistical Manual of Mental Disorders (DSM-3) clinically defined the Posttraumatic Stress Disorder (PTSD), and in 1984 a clinical definition of PTSD was developed for children under 6 years of age.

Since the 1980s, numerous studies have been conducted on the impact of sexual assault and rape on the mental and physical health of assaulted children. All of these studies reported a significant percentage of traumatic amnesia and late memories. These studies were conducted both prospectively and retrospectively, with cohorts of adults under psychiatric care who had experienced childhood sexual abuse, and with cohorts of adults from the general population who responded to victimization surveys.

III - Traumatic amnesia as a psychotraumatic disorder and a consequence of sexual violence.

Traumatic amnesia is very frequent in the context of sexual violence because sexual violence is one of the most serious traumatic events, with the highest psychotraumatic impact, is very widespread (very large numbers of rapes), and is mostly suffered by children, almost always prepetrated by relatives, and in more than half of cases by a close family member. **Sexual violence thus accumulates all of the most important risk factors known as predictors of traumatic amnesia**.

1. Psychotraumatic disorders.

The risk of developing chronic post-traumatic stress disorder coupled with dissociative disorders is very high, found in more than 80% of rape victims, compared to only 24% of all trauma victims (Breslau, 1991). This rate reaches 87% for childhood sexual abuse (Rodriguez, 1997). Nearly 70% of the victims interviewed in our IVSEA study had dissociative disorders.

In France

The Living and Safety Conditions survey conducted by the National Observatory of Delinquency and Criminal Responses (CVS 2010-2015 ONDRP-INSEE) showed that **72% of adult women who are victims of rape or attempted rape reported that these attacks caused significant psychological damage.**

Our "Impact of Sexual Violence from Childhood to Adulthood" survey (IVSEA, 2015) conducted with 1214 victims of sexual violence found that **95% of respondents reported an impact on their mental health, and 69% on their physical health,**

1 out of 2 victims attempted to commit suicide,

1 out of 2 victims suffered from addictive disorders,

1 in 3 of eating disorders,

1 out of 3 victims reported risky behaviour, self-endangerment, and lived through periods of great precariousness.

2. Sexual violence: the numbers

Globally, 120 million girls (one in ten) have been raped (UNICEF, 2014), and a recent report by the World Health Organization (WHO, 2014) notes that around 20% of women and 5 to 10% of men report having experienced sexual violence as children.

In France

The Living and Safety Conditions survey of the National Observatory of Delinquency and Criminal Responses survey (ONDRP-INSEE 2012-2017) showed that in 2016, **93,000 of women aged 18 to 75 (0.4%), reported having been victims of rape and attempted rape in the year before the survey, compared to 15 000 of men (0,1 %).**

Knowing that the exact numbers of rapes suffered by minors still lack, the INSERM-INED survey on the Context of Sexuality in France in 2006 (CSF, published in 2008) counted that **more than 59% of the rapes and attempted rapes are perpetrated against minors, with 130,000 rapes and attempted rapes against girls and 35,000 against boys.**

According to the ONDRP-INSEE 2012-2017 survey, when adult victims are concerned, **90% of rapes are committed by a person known to the victim and in 47% of cases the author is a spouse or former spouse**.

When children are concerned, the Impact of sexual violence from childhood to adulthood survey conducted by the association Traumatic Memory and Victimology with the support of UNICEF (IVSEA, 2015) showed that:

- 81% of victims of sexual violence (rape and sexual assault) suffered the first abuse before the age of 18, 51% before the age of 11, and 23% before the age of 6.

- in 96% of cases the author of sexual abuse was a person known to the child; in 50% of cases the author was a family member.

3. Traumatic amnesia following sexual violence: the numbers

As noted above, rape and sexual assault have been reported in all the studies (Loewenstein 1996, Brown 1999, Van der Hart 2000, Hopper 2015).

To remind only those that are most internationally quoted:

- 59.3% of victims of childhood sexual abuse have periods of total or partial amnesia (Brière, 1993);

- prospective studies were conducted in the United States with victims brought as children to the pediatric hospital emergency room after sexual abuse duly documented in both hospital medical records and research interviews. These studies showed that, when interviewed 17 and 20 years later, a large proportion of these victims, 38% to 40%, did not recall the abuse that they had suffered as children and that had been reported and documented by the hospital (Williams, 1994; Widom & Shepard, 1996).

In France, **the Impact of sexual violence from childhood to adulthood survey conducted by the association Traumatic Memory and Victimology and the UNICEF (IVSEA, 2015) found similar numbers and showed that**:

- more than a third (37%) of the victims who were minors at the time of the abuse report having had a period of traumatic amnesia after the abuse;

- this number rises to almost half of the victims (46%) when the author of sexual abuse was a family member. Such traumatic amnesias can last up to 40 years and even longer in 1% of cases. They lasted between 21 and 40 years for 11% of victims, between 6 and 20 years for 29% of them and less than 1 year to 5 years for 42% of them.

All the studies also showed that the retrieved memories are reliable and comparable in all respects to traumatic memories that were always present (continuous memories) in other victims (cf. corroboration studies mentioned above), and that the retrieval most often occurs brutally and uncontrollably, “like an

atomic bomb”, bringing back many, very precise details, together with major distress, feelings of dread, sideration, and absolutely abominable sensations.

4. The neuro-psychological mechanism of thaumatic amnesia

The mechanism that produces these traumatic amnesias, as we have seen, is above all a dissociative survival mechanism, which the brain triggers to protect itself from the terror and the extreme stress generated by violence and which leads to cortico-limbic hyper-inhibition of the emotional response (Lanius et al, 2006, 2010). This mechanism disrupts the emotional and memory circuits, leads to memory disorders, and causes the victim to experience both phases of dissociative amnesia (traumatic amnesia) and phases of traumatic hypermnesia (traumatic memory) (Desmedt, 2012 ; Daniels et al., 2012).

Such disjunction brings a feeling of strangeness, unreality and depersonalization, as if the victim became a spectator of her own situation, as she perceives it without emotion as if she was indifferent (emotional dissociation) (Spiegel et al., 2013). In parallel to the disconnection in the emotional circuit, a disconnection also occurrs in the memory circuit. As a consequence, the sensory and emotional memory of the event contained in the cerebral amygdala then becomes isolated from the hippocampus (which is the brain structure that processes the temporal-spatial memory, without which no memory can be stored, remembered, nor timed). As the hippocampus’ disconnection prevents the memory of the violent event to be processed, encoded and stored, those memories remain trapped in the amygdala, unprocessed, and unintegrated in the person’s autobiographical memory. Such sensory and emotional memory, trapped in the “black box of violence”, outside of time and consciousness, forms the *traumatic memory* (Ledoux, 1997, Van der Kolk, 2001 ; Shin et al., 2005 ; Salmona, 2012, 2013).

As long as the victim is exposed to violence, to the aggressor or to his accomplices, she is disconnected from her emotions, *dissociated*. Dissociation, a system allowing to survive in a very hostile environment, can then become permanent, giving the victim the impression of becoming an automaton, of being devitalized, confused, like a “living dead”. This dissociation further isolates the victim, explains the abuser’s psychological control over her, and confuses those who come into contact with her (Salmona, 2015).

During dissociation, the amygdala and its trapped traumatic memory are disconnected from the other brain structures. The victim, then, has no emotional and sensory access to the traumatic events. Depending on the intensity of her dissociation, she may be amnesic for all or part of the traumatic events, with only some very fragmented images, fragments of invading emotions, and isolated peripheral details of the event. This phenomenon can last for many years, even decades, as long as the person remains dissociated.

Dissociation is thus a survival mechanism that allows the victim to escape from the permanent feel of extreme stress and terror, which would put her heart and brain at

vital risk, but does not protect her from psychotrauma. On the contrary, psychotrauma becomes chronic and worsens if she undergoes further violence. In a way, her wound remains open, but the "anesthesia" brought by dissociation makes her feel "healed". Such "anesthesia" switches off her emotional alarm and thus exposes the victim to even more dangers, new traumas and situations where she will not be able to defend herself; the cerebral amygdala then takes over more and more traumatic memory. As long as the victim is dissociated, this traumatic memory will invade and colonize her, but in a fragmented way, and without any emotional connotation, nor state of stress. Such absence of emotional connotation makes her somehow indifferent to danger, as if it was unimportant.

When traumatic amnesia is partial, it allows the dissociated and anesthetized traumatic memory fragments that reflect the most serious and terrorizing violent situations, to co-exist with fragments of traumatic memory that are not dissociated, and who do generate stress, discomfort and panic states. This second type of fragments correspond to *less* terrifying situations and to peripheral contextual details of the violence: for example, objects, colors, noises, a special time of the day, details of the place, a special weather (rainy or, on the contrary, sunny), etc. During full traumatic amnesia, such contextual traumatic memory fragments alone are enough to generate incomprehensible sensations and discomfort.

But when dissociation fades, which can happen when the victim is finally protected and secure, that is to say when she no longer permanently faces violence, or the aggressor, or his accomplices, or the violent context, then her traumatic memory can reconnect. More precisely, it can "light up" when activated by cues that recall violence: a place, an object, a smell, a sound, a song, a color, or a texture, hearing or reading a testimony, seeing a documentary, experiencing a stressful or traumatic event (such as other acts of violence), an accident, a medical examination or surgery, the death of a loved one, a natural disaster, etc. (These examples are taken from real situations). The traumatic memory then invades the victim's psychic space, making her reexperience the violence as if a time machine went back in time and imposed abuse on her all over again. And it is then a torture for the victim who will be forced to put in place survival strategies to try to escape such repeated reexperience that keeps coming over again and again: avoidance behaviors towards everything that could turn on her traumatic memory, dissociative behaviours to return to disconnection and anesthesia (drugs, alcohol, risk behaviors, endangerment to re-trigger disjunction, therefore dissociation, by producing extreme stress). The victim will therefore oscillate between periods of dissociation with significant memory disorders with partial or even full amnesia, and periods of activation of her traumatic memory where she reexperiences violence as a hallucination. When the traumatic memory is treated, the traumatic events can become integrated into her autobiographical memory, but unfortunately professionals are not trained in psychotraumatology, and so the vast majority of childhood sexual abuse victims are abandoned to themselves (83% of victims of sexual abuse in our 2015 IVSEA survey were never protected, nor acknowledged as such), unidentified, unprotected, and uncared for.

The return of traumatic memories, while very distressful, is an opportunity for the victim to finally recover her history and her truth, her ability to protect and defend herself, and to search for an appropriate care to treat her trauma. The lack of information and trained professionals, however, can turn her opportunity into a hell, leading her to be viewed or, even view herself, as insane, which sometimes results in an inadequate and very debilitating psychiatric care.

Traumatic amnesia studies found that most of the participants who had reported complete amnesia for physical or sexual abuse experienced their first recovery of abuse memories while they were home, alone. Few reported recovery during therapy sessions. Such recovered memories appeared as flashbacks, nightmares, sensory and kinesthetic reminiscences. Only later a narrative memory began to emerge (Williams, 1994, Chu, 1999, Van der Kolk, 2001).

The lack of knowledge and training about psychotraumatic phenomena, the reality and the frequency of childhood abuse are such that the victims who do have traumatic reminiscences are most often not believed. They are told they have fantasies, hallucinations, psychoses, or false memories.

At the end of the 1990s, in the United States, when complaints began to be filed and considered by the courts after recovered abuse memories, a controversy developed around an association (The False Memory Syndrome Foundation) that denounced such recovered abuse memories as false memories induced by psychotherapists. This association even described an "epidemic" of complaints of childhood sexual abuse allegedly based on a "false memories syndrome". The association challenged the admissibility of testimony regarding recovered abuse memories in the courts based on the argument that such serious trauma could not be forgotten and that overzealous therapists transplanted false memories into their patients (an argument proven false by Williams' (1994), and Widom & Shepard's (1996) studies, as we saw above). Scientists in the United States and Israel mobilized to show that traumatic amnesias did exist, were consistently documented by research data, including in prospective studies such as those mentioned above, and that the recovered memories were very rarely related to recollections during psychotherapies.

A study about recovered memories and the weight of the evidence in science and in the courts published in the Journal of Psychiatry and Law showed that false-memory proponents had made serious logical errors in their arguments and had misused the available scientific evidence (Brown, Sheflin & Whitefeld, 1999). Brown *et al*. reviewed 68 data-based studies specifically conducted on amnesia and later recovery of memories for childhood sexual abuse, each of which presented evidence favoring amnesia and recovered memories for sexual abuse in certain individuals. These studies were conducted using a variety of methodological approaches and progressive improvements in research design that addressed and answered each criticism advanced by false-memory proponents.

An impressive set of scientific studies (Hopper, 2015) invalidated the theory of the "false memory" epidemic, and investigations have shown that the alleged

numbers published by the False Memory Syndrome Foundation to justify the alleged "epidemic" induced by therapies were false.

In the context of this controversy about traumatic amnesia and recovered memories, all studies provide evidence for the onset of amnesia for childhood traumatic experiences and the subsequent recovery of memories. Several studies have independently sought to corroborate recovered memories with external evidence. They found substantial corroboration rates for recovered memories, similar to the rates found for continuous memories, with a corroboration rate that was even higher for the memories unexpectedly recovered outside therapy (Geraerts, Schooler, Merckelbach, Jelicic, Hauer & Ambadar, 2007). When memories were recovered in therapy sessions, the rates were lower and sometimes they were less accurate, with a low percentage of induced memories risk (Hyman, 1999 ; Loftus, 1995). In artificial lab conditions, which by definition did not reproduce the conditions of the real-life traumatic events (a reproduction that would obviously be ethically excluded), experimental protocols showed a malleability of memory when faced with suggestions. Even in these experiments, only 6 to 25% of participants could display pseudo-memories of false events.

In response to such experimental findings on memory malleability, some researchers hypothesized that the memory of real-life traumatic events is different from the memory of everyday life memory and laboratory experiments memory. For example, the researchers suggested (as discussed above) that traumatic memories are separated and stored outside of ordinary narrative memory and therefore they are less subject to change after new experiences (Crabtree, 1992, Van der Kolk 1991, McFarlane, 2010). Unlike narrative memories, which are integrative, malleable, and fit in the individual's cognitive schemata, traumatic memories are said to be inflexible, non-narrative, automatic, triggered, and disconnected from the ordinary experience. This non-integration is considered to be the basis of the fact that behavioral memorization, somatic sensations, and intrusive images are disconnected from the conscious verbal memory. Because traumatic memories are not assimilated, they are "forgotten, therefore unforgettable" and keep their original strength (Van der Kolk, 1991). While the ordinary narrative memory is dynamic, changes and degrades over time, traumatic memory has been described as "indelible" (Ledoux, 19992).

Overall, the studies strongly suggest that therapy sessions are generally not associated with memory recovery, and that recovered abuse memories can often be independently corroborated with external evidence.

This idea was confirmed by recent research that showed that people who report spontaneously recovered memories have a striking tendency to forget past incidences of this memory when those earlier retrievals took place in a different context. This finding suggests that this group, as a whole, may simply not remember their previous thoughts about the actual incidence of childhood sexual abuse (Geraerts *et al*., 2007).

As a reminder, the false allegations of sexual violence among those who file a complaint are rare: they were estimated to less than 6% by a strongly documented study conducted in the US (Lisak, 2010), 3% - 8% in Rumney's study (2006), etc.

Trocmé, who analyzed the false allegations of sexual violence perpetrated against children, measured a 6% rate of false allegations, and noted that such false allegations came not from the children but especially from close neighbors and parents who did not have the custody of the child (Trocmé, 2005).

On the other hand, traumatic amnesias are frequent and the recovered memories must be considered by health, police and justice professionals.

In particular, when memories are fragmentary, clinicians must consider them as psychologically valid, and when the victim's recovered memory begins to take over amnesia, clinicians must allow patients to reconstruct - without suggesting - their personal history compatible with their past and present symptoms.

IV - Medical and psychological care

Health professionals are often the first responders to the victims of sexual abuse, but unfortunately very few of them are trained, whether in initial training or continuing education (ONDRP 2012-2017). Their role, however, is essential to detect the sexual violence and the dangers for the victims (suidicide risk, endangerment, death threats, new abuse and violence), and therefore to protect them and provide them with the specific appropriate care that they need.

Sexual violence is a major public health problem, doctors and other caregivers must systematically detect violence and psychotrauma, they must know how to look for and diagnose a post-traumatic stress disorder, dissociative disorders, traumatic memory. Since witnessing sexual violence as a child is the primary predictor for women to experience violence again, any abuse reported by a woman patient (sexual violence, domestic violence, workplace violence, etc.) should alert the health professional to look for other previous abuses. The mere fact that when victims report abuse, a health professional takes seriously the question of a previous (or other) abuse which they may have suffered, allows the victims to recover from their partial or total traumatic amnesia. (A dissociative process prevents available but dissociated memories from being mobilizable because they are void of emotional connotation; they appear as if they were are lost in a "thick fog"; when the person is secure, when asked to search for memories, she can identify some, but others may remain inaccessible).

Both during periods of total or partial dissociative traumatic amnesia (which is even more frequent, around 60%, and most often concerns memories about the most serious forms of abuse, Breslau, 1991), and during the memory recovery phases, the psychotraumatized victims need specialized care by professionals trained in psychotraumatology. Not offering such care to a traumatized victim of sexual violence is a serious opportunity missed for her mental and physical health. Sexual violence has a neuro-pathological impact on the brain and produces neurological, psychotraumatic disorders (traumatic memory, traumatic dissociation, stress, PTSD, and all their consequences in terms of survival strategies: avoidance, dissociative, risky behaviours). All of them are major risk factors for the victim's

health on the short, medium and long term (Felitti and Anda 2010, Mc Farlane 2010, Hillis 2016). The appropriated care and psychotherapeutic treatment of the victims' traumatic memory make it possible to avoid most of the consequences on the victims' health and to repair their neurological damage.

Victims with partial or total traumatic amnesia are dissociated (survival mechanism) and at high risk of experiencing violence and risky situations again. Because dissociation leads to emotional and somatic anesthesia, it is very difficult for the victim to resist and defend themselves, and they can tolerate many violent or at-risk situations because they have a high tolerance to pain. Unless the victim benefits from appropriate care, her high tolerance to pain is a risk factor for her to develop traumatic and somatic pathologies. Moreover, her dissociation makes her appear to others as indifferent, and the professionals who take care of her can be contaminated by her emotional anesthesia, thus be unalerted to the danger that she runs, the seriousness of her condition, and her suffering. They may and lack empathy (as their mirror neurons that normally inform about the the others' emotional state of are not activated in front of dissociated person, therefore they do not send them any emotional alert; if the professionals are not trained to recognize a dissociative state, they may be unprotective, and even become abusive vis-à-vis the victim).

When the victims recover their memory, they are initially overwhelmed by their traumatic memory, which uncontrollably invades them and makes them reexperience past abuse like a time machine going back in time, with fragments of sensory (images, smells, sounds, words or sentences), cenesthetic (body sensations, pain), kinesthetic (movement sensations) and emotional flashbacks (amazement, terror, panic, distress, despair, anger, revolt, etc.), nightmares. The traumatic memory brings back to the victim and makes her re-experience her own experience mixed with her aggressor's, in unitegrated, unanalysable fragments of what she herself has seen, heard, done and felt, and what her aggressor did, his words, shouts, hatred, contempt, perverse excitement. This may give the victim the feeling of hearing voices and being overwhelmed by a feeling of imminent death or death danger; she can even attack herself, insult herself, feel like a monster, be inhabited by a monster, be invaded by extreme violence, or be excited, while all of this comes from her traumatic memories from the abuser, what he has said, felt and done (Salmona, 2013, 2015).

The sudden explosion of this traumatic memory is extremely stressful, panicking and traumatic for the victim, it can make her feel like crazy; it can be mistaken by health professionals for a delusion or hallucination, and treated as such with hospitalization and neuroleptic treatment. It is essential that victims are reassured, kept safe, informed, that they receive detailed explanations of what happens to them, that appropriate care for their stress and traumatic memory is immediately initiated to modulate stress (with betablockers, securing, breathing exercises) and defuse their traumatic memory (with reassuring words, by providing the victim with the links that enable her to analyze, refer and contextualize the situation in relation to the past violence, to identify and separate between what comes from herself and what, in contrast, comes from the aggressor). All of this allows the victims to regain a

foothold in the present, in her feelings and her perception of herself, while analyzing what has been reexperienced from the past.

Treating the traumatic memory makes it possible for it to be progressively integrated and transformed into autobiographical memory.

It is a matter of "repairing" the initial psychic break-in, the psychic *sideration* that stems from the irrepresentability of violence (Steele, 1990, Van der Kolk, 2001, Salmona, 2012). This is done by "revisiting" the experience of violence so that it can gradually become integrable, because better representable, better understandable, by putting words on each situation, on each behavior, on each emotion, by accurately analyzing the context, the victim's reactions, the aggressor's behavior.

This advanced analysis allows the higher cerebral functions to regain control over the amygdala's reactions, to encode the emotional traumatic memory into a conscious, manageable autobiographical memory (Nijenhuis, 2004), and to produce a narrative account of violence that becomes increasingly fair and consistent (Van der Kolk, 2001). It also decolonises the victim from both the violence and the aggressor, allowing her to become herself again, or finally (Van der Hart, 2010, Salmona, 2013).

Once the traumatic memory has been integrated into the autobiographical memory, then psychotrauma is treated, the victim no longer has the feeling of being in permanent danger, nor the need to be under constant alert; survival strategies become unnecessary (avoidance and control behaviors, dissociative behaviors searched for their anesthetizing power - such as addictive behaviors, risk seeking, endangerment), cognitive disorders fade, and neurological impairments are repaired (Ehling, 2003).

V - The judicial care.

It is clear that dissociative traumatic amnesia creates a major obstacle in respecting the victims' rights to be protected and to file complaints.

When partial amnesia is concerned, complaints often result in no further action (as a reminder, nearly 70% of rape complaints are dismissed, Le Goaziou, 2016) because the victim's account appears to the investigators as insufficiently coherent. Dissociative disorders are then interpreted as elements that challenge the victim's credibility, or, since the victim seems indifferent, as a proof that the alleged violence did not traumatize her (whereas it is the opposite), the prosecutor having the opportunity of the complaints.

When total amnesia and recovered memories are concerned, the recovered memories are often regarded as false memories and thus as false claims (whereas false allegations are very rare, as we saw), based on the misconception that it is impossible to forget an abuse as serious as sexual violence. Without good legal advice and good psychotherapeutic care of her traumatic memory, the victim's

account will be viewed as too fragmented and too incoherent to be used, which results in dismissing her complaint.

During memory recovery, the explosion of traumatic memory may be such that it can be mistaken for a delusion or an entry into a psychosis, and thus treated with heavy neuroleptics; when she files a complaint, the victim will be considered as a psychiatric case, which puts the credibility of her account at significant risk, leading her complaint to be dismissed.

In addition, traumatic amnesia leads to late complaints that are considered difficult to deal with on a judicial level, as they become no more than investigating the victim's word against the abuser's word when the abuser denies the facts, which often results in no further action. This should not be the case, as surveys should collect serious and consistent evidence (*faisceaux d'indices graves et concordants*) sufficient to investigate the complaint (the victim's detailed narrative, her educational and personal experience, health record, typical psychotraumatic disorders, diary, pictures, persons to whom she spoke, witnesses, other victims, evidence of the perpetrator's strategy, etc.).

Given the long time needed for victims of sexual violence to recover their memories, treat their psychotrauma and access a coherent narrative, it is often too late, the limitation periods are exceeded. Currently, the limitation period in France is 20 years after rape and 6 years after sexual abuse; 20 years after the age of majority for rape and sexual assault when the victims were under the age of 15, and when there were aggravating circumstances; and 10 years after the age of majority for sexual abuse on minors over the age of 15 without aggravating circumstances (it is however possible, even if rape or sexual assaults were prescribed, to report the offenses to the public prosecutor, who, if told about your conviction that there are other victims against whom the abuse has not been prescribed, or if she finds other reports about the same perpetrator, may initiate an investigation).

When people with recovered memories file a complaint about sexual abuse with the authorities, then the police, gendarmerie and justice professionals should collect and corroborate serious and consistent evidence as they do for people with continuous memories.

If rape or sexual assault was prescribed at the time when the victim has recovered her memories and has finally become able to produce a coherent account of her experience in order to file a complaint, traumatic amnesia should be recognized as a major obstacle that suspends the prescription, in order to grant the victim her rights to start a public action: Art. 9-3. states that prescription is suspended by "any legal obstacle, as stated by law, or any factual obstacle that is insurmountable and comparable to the force majeure, that makes it impossible to set in motion or to exert public action" (French law n ° 2017-242 of February 27, 2017 on the reform on the prescription of criminal matters).

Dissociative traumatic amnesia can last for 10, 20, 30 and even more than 40 years. It is one of the major reasons for us to require the imprescriptibility of sex crimes and sexual assault with aggravating circumstances, and an extension of the limitation period of 30 or 40 years at least after the age of majority for victims of sexual abuse on minors.

VI - Conclusion

Traumatic amnesias during sexual abuse are frequent and can last for years or even decades, especially when the abuse was perpetrated against children, when it was incestuous, criminal, and when the victims stayed in contact with the abuser or the abusive context. Because of these traumatic amnesias, many victims are unable to reveal the crimes or offenses that they have suffered, threfore they can not be identified, nor protected and cared for.

Traumatic amnesias therefore contribute to the underestimation of sexual abuse and to a loss of opportunity for the victims, by that forming an obstacle that prevents the victim from both being protected and initiating public action, which should be recognized as an insurmountable obstacle that suspends the limitation period to grant the victim's rights. This also justifies an increase in the limitation period. However, the imprescriptibility is necessary, because without the imprescriptibility, any increase in the limitation period is still insufficient to grant the right to file a complaint to all the victims.

It is essential that all the professionals who care for the victims of violence are trained on the psychotraumatic consequences of violence, including traumatic amnesia. They must consider those consequences when detecting violence and treating the victims. It is also essential, when victims recover their memories, that professionals hear what they say and take it seriously. The victims must benefit from protection, adequate care and access to justice.

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Pour en savoir plus sur les violences et les psychotraumatismes :

- Les sites de l'association Mémoire Traumatique et Victimologie avec de nombreuses informations disponibles et des fiches pratiques sur les violences, leurs conséquences sur la santé, leur prise en charge, et des information sur les campagnes et les actions de l'association :
    - http://www.memoiretraumatique.org
    - http://stopaudeni.com
- Les blogs de la Dre Muriel Salmona :
    - http://stopauxviolences.blogspot.fr
    - http://lelivrenoirdesviolencessexuelles.wordpress.com avec une bibliographie générale
- *Le Livre noir des violences sexuelles*, de Muriel Salmona, Paris, Dunod, 2013.
- *Violences sexuelles. Les 40 questions-réponses incontournables*, de Muriel Salmona, Paris, Dunod, 2015.

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STOP À L'IMPUNITÉ DES CRIMINELS SEXUELS

Pétitions à signer :

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