

Post-Traumatic Stress and Elephants in Captivity

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Like people, Elephants can also become victims of past traumas and exhibit symptoms of PTSD years after the experience

Post-traumatic stress disorder (PTSD) is a condition that describes anxiety-based responses to life-threatening events. Traumatic stress is different from other types of stress because the individual's existence is physically and emotionally threatened and s/he is unable to escape. While environmental threats such as hurricanes can be terrifying, in many cases they appear to cause less ill effects than do human-caused traumas. Victims are usually able to anticipate natural disasters and make attempts to avoid harm. Events or "stressors" that underlie the development of PTSD include threat of death; physical abuse; deprivation; torture; isolation; forced incarceration (captivity); and witnessing the loss, death or threat of death to a loved one. All elephants in captivity have experienced most, if not all, of these events.

ELEPHANTS AND PTSD

Given the social and neurobiological similarities between species, it is no surprise that both humans and elephants experience PTSD. Indeed, much of our understanding of trauma has been based on studies of animals as well as humans. Animals are routinely used in experiments as models to study stress and trauma effects in humans. Many experiments on animals have been designed specifically to study the effects of torture, maternal deprivation, and incarceration that humans endure during war and other violence. These conditions are very similar to those that elephants experience under conditions of closed confinement captivity. We now understand that the qualities that have made animals consistent models for understanding humans are the same qualities that make animals equally vulnerable to similar pain and suffering.

Unlike natural disturbances elephants may experience in the wild, captivity disallows any hope of escape. Importantly, elephants in most captive situations lack the cohesive communities in which they live and interact naturally which help them cope with, and recover from, trauma. Most elephants in captivity have sustained not one, but successive traumatic stressors.

Wild caught young elephants taken for captive use are forcefully separated from their mothers and families. Often they witness the family's deaths in the process of capture. The young elephants are prematurely weaned and transported to conditions that differ dramatically from those in which they are ecologically and evolutionarily adapted. Elephants in zoos and circuses are often moved to different locales and therefore are unable to maintain the bonds and relationship fidelity with other elephants that is central to elephant life and trauma recovery.

Once in captive situations elephants also endure severe physical and psychological hardship. Many zoos and entertainment programs use physical force, pain, and deprivation to control elephants: methods that have been condemned by Amnesty International and other organizations as torture. Elephants are subjected for the purposes of control to food and water

deprivation, isolation, chaining, ankuses (bull hooks), and highly restricted movement.

Food deprivation is one method that has deep ramifications. Being able to eat what, when, and how much one wants is part of being a self-governing individual. Like humans undergoing severe stress, abuse or trauma, many animals in captivity develop eating disorders—some so severe that they become life-threatening. Such trauma and deprivation, made particularly vulnerable because of captive animals' dependence on humans for survival, leaves indelible psychophysiological scars. Trauma actually changes how the brain develops and functions.

FLASHBACKS : RE-LIVING THE TERROR

The presence of debilitating physical ailments (foot disease, digestive malfunctions) are well-documented symptoms of captivity because they are readily visible. The immediate effects of trauma, however, may initially escape detection. Nonetheless, they are etched into our brains, nervous system, and behaviour. Alterations to normal brain and behavior development are particularly significant when trauma occurs during infancy and childhood. Premature or forced maternal separation, insufficient socialization, and shock trauma all can severely undermine psychological, neurobiological, and behavioural well-being through adulthood. Research shows that while much can be done to help in their recovery, traumatized individuals remain vulnerable to disease and psychological and behavioural dysfunction throughout their lives.

Not every individual reacts in the same way and symptoms vary. Responses to severe and sustained trauma often recur-- sometimes many years after the incident. Some symptoms persist to such an extent that they cause personality changes. There can be memory alterations, sleep disorders, a lack of interest in social interactions, an inability to feel happiness or joy, a loss of purpose in life, paranoia, hyper-vigilance, an exaggerated startle response, and sudden outbursts of anger. One of the most common and dramatic legacies of trauma expresses in what are called "flashbacks" or "psychological intrusions."

An individual, human or elephant, may appear to be physically strong, form healthy relationships, create families, and even behave emotionally stable. However, one day, seemingly out of the blue, triggered by a smell, a sound, or some visual cue, the victim is suddenly transported back to the traumatic event. Flashback episodes are often violent because trauma victims tend to misperceive benign situations as threatening. This causes them to respond in a self-defensive and aggressive manner out of proportion to the perceived threat. During the flashback, the trauma victim re-lives the past and reacts to the terror of what they understand to be the present reality. For them, they are reacting appropriately to the reality they perceive—the threat of annihilation. Equally as quickly as when they flash into the past, trauma victims return back to normal. Often, there is a feeling of deep remorse or depression when they become aware of happened particularly if they have injured another during the flashback episode.

Now that we understand the susceptibility of all animals to PTSD and severe trauma, the behaviour of elephants in captivity takes on a whole new meaning. Symptoms not uncommonly observed in captive elephants such as stereotypy (head-bobbing, pacing, repeated trunk weaving), infanticide, aggression, and self-mutilation as well as "dangerous behaviour" can be

understood as part of the bigger picture of trauma and psychobiological compromise. These symptoms are the “body memory” of past traumas that may have occurred decades before.

THE BRAIN AND TRAUMA

Trauma researchers explain the way flashbacks occur by how the brain works. In both humans and animals, stress has long-term effects on the regions of the brain involved with memory, emotionality, and the fear response, involving core functions in the brain. These mechanisms help us understand how a terrifying flashback might occur.

Trauma changes the way our memory works and how we store information. For example, when someone experiences overwhelming fear, the mind and body dissociate, or turn off, for protection. When this occurs, memory fragments of a traumatic experience can remain hidden until many years later when stress or an experience unearths this past pain. With PTSD, there are deficits in the structure and function of core areas of the brain which creates a kind of temporary amnesia – the losing of a memory’s orientation to space and time- so that one may actually experience an old memory like it is happening right in the moment. PTSD is a haunting voice from the past.

PTSD can also be described as an overly conditioned fear response to stimuli that threaten death. For example, any sound resembling gun fire brings back memories of a battle in Viet Nam causing a victim to overreact at a fireworks display, diving into what is perceived as a foxhole, or reacting violently to a friend because they suddenly appear transformed into an enemy. In the same way, one of the causes of a flare-up in symptoms for elephants can be reminders of the initial trauma such as the sound of circus music or seeing a pole that resembles an electric prod. Even a smell, taste, or fleeting image can trigger the memories and past horror. Acute and chronic health problems can make one more reactive to stress as well. Exceptional memory capacity, like elephants and humans share, unfortunately stores the good and the bad.

SANCTUARY ELEPHANT RECOVERY AND THE TREATMENT OF PTSD

There are no cures for PTSD. But in numerous cases, with the right kinds of care, trauma victims are able to move from the past and function comfortably. Other individuals carry the burden of their trauma the rest of their lives. Many things can be done to help support PTSD victims that prevent future flashbacks and decrease their difficult symptoms. PTSD is a chronic condition but with the proper treatment and education of caregivers, its symptoms can be successfully managed in both humans and elephants.

The core philosophy and practices of The Elephant Sanctuary in Tennessee embody key features of trauma recovery that have been identified by trauma researchers, psychologists, and psychiatrists (Table I). For example, central to the philosophy at The Elephant Sanctuary is the restoration of an elephants’ sense of *agency*. Agency is being able to exercise our own free will: to feel that we can be an instrument of change within our life. It is the quality that makes us each unique. When someone is taken hostage, made captive, and forced to act under the control of another, their agency has been taken away. This happens in concentration camps where victims succumb not only because of

terrible physical duress but because of the hopelessness they endure over their helplessness.

At The Elephant Sanctuary, restoring agency means supporting elephants so that they can be elephants when, how, and where they want. Sanctuary elephants are able to go in and out of their barn and wander up through the woods and pond when they wish. Simply being able to choose their own food, to eat when they want, to visit with friends when they wish or not, and to be able to roam at will is psychologically restorative. This freedom encourages confidence and competence. Not only is the physical environment designed to meet the natural needs of elephants—fresh flowing water for drinking and bathing, ample and optional social exchange with other elephants, clean open air, shelter, trees—but to provide critical psychological and emotional support. The expansive room that The Sanctuary creates is therefore essential for both physical and psychological reasons. The Sanctuary creates what psychotherapists call a “safe container”—a place where the victim knows they are secure and can say and do what they want without fear of reprisal.

In many zoos and circuses, elephants are punished for taking an initiative. In contrast, at The Elephant Sanctuary, the structures and living routines are organized to promote self-empowerment. At The Elephant Sanctuary, the elephants are not forced to do anything that they do not consent to do or in which they do not wish to participate. Human-Elephant interactions are considered a dialogue involving the mutual consent of both elephants and humans with no enforced power differential. Even when a certain medical treatment is needed as part of their recuperative therapy, such as a foot bath to help heal the years of injury living on concrete floors, the elephants are invited to come and receive treatment. Only when an elephant is in danger in a medical emergency, do Sanctuary staff require an elephant resident to be treated.

The path of trauma recovery is often neither straight nor constant. Elephants at The Sanctuary, like human trauma survivors, can go through different phases of personality change, moods, and needs. To be able to respond to these changes, Sanctuary staff monitor each elephant’s attitude, health, and behavior in detail and adjust routines to accommodate these needs and avoid stress.

WINKIE, JOANNA, AND ELEPHANT RECOVERY

Trauma recovery is demanding for both the victim and the caregiver because recovery can entail dramatic changes. Trauma survivors are learning how to live again. Trauma survivors are faced with re-building who they are and how to find meaning after having it taken away. But, as decades of PTSD research on victims of violence, genocide, and wars attests, the past cannot be undone and trauma will haunt some individuals for the rest of their lives. The tragedy of Winkie and Joanna bring this lesson to heart.

Winkie’s history is sadly consistent with those of victims of multiple traumas sustained over decades. She experienced nearly all of the precipitating traumas that lead toward a diagnosis of PTSD. Winkie was taken from the wild at a young age from her family, and lived many years under the duress of closed confinement with all of its concomitant stressors. Happily, like all the elephants who have come to The Elephant Sanctuary, her physical and psychological health improved tremendously. However, again consistent with PTSD

survivorship, her symptoms appeared to recur in what is described as a PTSD flashback. Just prior to the accident, Winkie was undergoing some reaction to ant bites. It is very possible that this could have caused her to be in some pain and distress lowering her threshold for managing her own stress. Heightened reactivity to stress coupled with compromised affect regulation often leads to impulsive behaviors, particularly in those suffering from PTSD. After the incident, Winkie expressed remorse and depression, both symptomatic and consistent with post-flashback experience.

Nonetheless, Winkie’s remarkable recovery relative to her troubled past reminds us of how much can be done to help victims of trauma. Given the multiple, severe traumas that all Sanctuary resident elephants have sustained in their past, the absence of other incidents is a testimony to the remarkable success of The Elephant Sanctuary in supporting effective trauma recovery. Research on elephant trauma recovery continues at The Elephant Sanctuary to deepen our understanding of how we can help elephant, and human, trauma survivors heal.

Violence leaves a terrible legacy—a burden of the past that the present and future must bear. We may never know the exact stimulus that triggered Winkie’s traumatic memory and caused her to suddenly act violently. But what we do know, and what Joanna and Winkie’s tragedy compels, is that the traumatic circumstances that lead to PTSD need to be prevented.

Table I: PTSD Restoration and Treatment Goals Supported at The Elephant Sanctuary for Elephant Recovery
1-agency, self-efficacy, mastery, perceived control
2- self-esteem, hope, and optimism
3-relaxation, competence, and assertiveness
4- telling your story ("developing a coherent narrative"), participatory listening
5- elephant social bonding
6-human social bonding
7-health and wellbeing
8-avoidance of isolation or marginalization
9-no threats or domination (passive control)
10-healthy, safe living environment
11-personal change in mood, diet, behaviour, and social alliance changes

Further Reading

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Authors' Biographical Sketches

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