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Minding *the* Animal Psyche

Freud and the Family Horse: Exploration into Equine Psychotherapy

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> *In the course of the development of civilization, man acquired a dominating position over his fellow-creatures in the animal kingdom. Not content with this supremacy, however, he began to place a gulf between his nature and theirs. He denied the possession of reason to them, and to himself he attributed an immortal soul.*
>
> —Sigmund Freud[1]

From the grandfather of modern psychology, the field developed to study the wounds and journeys of the human mind, this statement is surprisingly perspicacious. In a few simple lines, Freud describes what scholars spend many a page decrying: how

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western cultural images have structured disciplines along taxonomic lines with imperious righteousness. Much like 19th century empires that divvied the continents and oceans into territorial possessions, western knowledge has been parceled into separate fields, each with its own methods, goals, and assumptions. As a consequence, psychologists and doctors contend with human concerns, and animal behaviorists and veterinarians are left with issues relating to the rest of the animal kingdom.

This separatist framework assumes that higher-order mental and spiritual functions are uniquely associated with a human "veneer" covering a shared, animal core of brain and behavior.[2] Conventionally, when complex cognitive and affective behaviors such as tool-use and grief are identified in animals, they have been largely reported as ethological isolates with no theoretical link to psychobiology. The entire spectrum of subjective states that an individual dog or horse can experience and what we humans so dearly covet as our own—joy, love, curiosity, a sense of self, and aesthetics—are relegated to anecdote. Relationships between behavior, psychological state, and neural substrates are ignored: this, despite the fact that human-animal comparability forms the basis for using animals as "models" of human neurobiological and psychological processes and states.[3] Animals are routinely employed as first subjects in diverse experiments designed to treat humans diagnosed with psychiatric conditions ranging from schizophrenia, Obsessive Compulsive Disorder (OCD), depression, autism, and attachment disorders. Inferring responses from a rat, chimpanzee, or cat to those anticipated in humans is considered scientifically valid because structures and functions of the brain and their associated mental and emotional processes are shared across species. Nonetheless, animals continue to be denied a psyche.

Of late, however, there are efforts to bridge studies of human and other animals' minds. Animal science literature has begun to regard animals as "whole" beings with "expressive 'behaviors' rather than assembled strings of 'behaviour.'"[4] From the other direction, psychology now includes other species in its formerly humans-only club.[5] On a third front, neuroscience's two-tiered architecture has collapsed into a unitary, species-common model of brain, mind, and behavior. Discoveries from the "Decade of the Brain", married with

ethological data amassed since Charles Darwin, have birthed a vertebrate-common representation of the mind.[6]

All of a sudden, ethologists and psychologists find themselves shoulder to shoulder under a common conceptual umbrella. Not only are animals psychological beings with human capacities and "immortal souls",[7] but they are vulnerable to psychological wounding. This, and given that psychopathology in animals is thought largely to be human-caused,[8] it is not unreasonable to consider psychotherapy for other species. Psychotherapy involving other species has been discussed elsewhere, for example, in the rehabilitation of elephants, chimpanzees, and parrots.[9] However, past work emphasizes the commonalities in concepts and approaches used by sanctuary professionals and those used by psychotherapists. Using a case study for illustration, we will explore the assumptions, questions, and ethics involved in the application of a specific technique, Eye Movement Desensitization and Reprocessing (EMDR) developed to treat Post-Traumatic Stress Disorder (PTSD) in humans,[10] to horses.

The choice of trauma as our etiological subject is intentional. PTSD is one of the few psychiatric disorders that includes symptom etiology in its diagnosis.[11] Relative to other psychological conditions, underlying mechanisms involved in trauma are fairly well understood across species. Because developmental and traumatic neuropsychological mechanisms are shared across altricial species (those species whose young have an extended dependence on adults), we are provided with conservative, inferential rigor when drawing parallels between species' psychologies.[12]

Further, because the study and treatment of trauma is dyadic (engaging both cause [perpetrator] and effect [victim] and therapist [human] and client [horse/human]), we have the potential to gain insights into the multiple facets of human-animal relationships that figure centrally in domesticated animals. As animal protection advocates argue, domestication is a form of slavery as the psychological evolution of today's cows, horses, and chickens has been manipulated and tailored by human perceptions and purposes. Subsequently, extending the practice of psychotherapy to other species necessarily raises questions that arise at the tangled interface of animal psyche and human projections. We discuss how ethical and psychological aspects

of equine domestication influence how horse wellbeing is framed and its implications for equine psychotherapy.

Such an undertaking requires care. There is danger in using approaches that derive from the same culture and episteme that caused the anguish we seek to address. Trans-cultural workers have made this point: that by applying western concepts and methods universally without consideration of other cultural ontologies and beliefs, psychiatry is not only misused but violates ethics.[13] Similarly, in attempts to help animals, we run the risk of causing re-traumatization or reinforcing animal exploitation in the guise of beneficence. Dolphin swim programs, equine therapy, and other Animal Assisted Therapies (AAT) are designed to improve human health often at the expense of the animals forcibly recruited.[14] It is critical to distinguish whether therapy involving nonhuman animals is truly for their benefit or humans.

Nonetheless, the impetus to investigate possible benefits of psychotherapy is compelled by the very real suffering that billions of horses, cats, turkeys, bears, and others endure. It is also true that human domination has made the wellbeing and survival of many species dependent on humans. Human environmental policies dictate how wildlife is permitted to live and the fates of animals in captivity are literally in human hands. We are faced with the disturbing thought that animal suffering has not only been caused by human psychological distress, but that animals must rely on their abusers in order to survive.

Animals are implicitly subjected to the challenges of a dual role: humans as perpetrators of suffering and of healing. In their inherited role of domination, humans are challenged to understand the motivations and ethical consequences of their actions executed in the name of "animal welfare". If an equine psychotherapy is to be crafted, we must bear in mind the philosophy of liberation psychologist Martín-Baró: "If we want psychology to make a significant contribution to the history of our peoples . . . we have to redesign our theoretical and practical tools. . . from the standpoint of the lives of our own people: from their sufferings, their aspirations, and their struggles."[15] Equine psychotherapy is valid only if it is informed by horse values and culture.

Much of what is presented here is basic to psychology and there is overlap between animal and human healthcare practice. However, there are nuanced differences. Our purpose is to contextualize assumptions

across species and thereby evaluate their meaning and appropriateness relative to an assumed ethic that protects an individual's agency and individuation. Further, we seek to create a shared set of concepts and methods to enhance exchange across disciplines. Subsequently, our discussion is partly anthropological: a self-reflexive study of the meaning and validity of anthropocentric definitions used to describe psychological states and health formerly denied to other species. It is at the interface of human psychology and equine behavior where we are simultaneously challenged to re-examine conceptions about equine psyche and what transformational changes in humans are needed to prevent future trauma to our bicultural kin, the horse.

Case Study: Hero

The study site is located at a private stable in Connecticut. The client, Hero,[16] is an eight-year-old Lusitano stallion who came to the stable and present trainer when he was three years old. He had a difficult time adjusting during the first months at the new stable. For example, when he was taken from the barn stall to other areas such as the outside arena or to an indoor ring, he became very agitated, difficult to handle, and dangerous to himself and his handler. On these occasions, he would frequently rear, back up, or intermittently flail his rear legs while turning his head. His trainer first thought that Hero's perception of the shadows created by indoor to outdoor lighting was the problem, however there was no consistent evidence indicating causality or correlation.

Overall, Hero's symptoms have attenuated over the five years in residency. He has been able to learn high-level movements in dressage. However, vestiges of early behavioral disturbances are retained in certain contexts and the chronic nature of these disruptive and potentially injurious behaviors has compelled the trainer and guardian to seek assistance. As one key example, when entering or exiting his stall, Hero consistently displays a panic reaction by tensing his body, rearing, rushing the door, or rearing and hitting his head and neck on the doorjamb, eyes wide and "wild". This is in contrast to more typical "agitated" behavior such as when in his stall, he pins his ears back when another stallion passes and/or shows aggression as if trying to bite the passerby. Only his trainer and her assistant are able to lead him in and out of his stall. To accomplish this, they stand to the side of him with

a lead line in hand, and encourage him to walk forward and over the threshold. Some days are better than others, but as soon as he becomes agitated, it can take up to forty minutes before Hero is able and willing to step forward and through the threshold.

The degree to which his behavior is considered both predictable and chronic is reflected in the behavior of the stable staff. Hero's anxiety in passing through the door is considered a great enough psychological barrier to permit the staff to comfortably leave the stall door ajar when Hero is inside; they feel sufficiently assured that his fear and anxiety prevent him from risking crossing the threshold. The therapist was asked to work with Hero to quell his fear and potentially injurious behavior.

The Psychological Frame

Generally speaking, perhaps the greatest difference between animal behaviorists and psychologists lies in how each regards symptom. Behaviorists have understood animal *psyche* as synonymous with animal *behavior*; the "human veneer" that is conceptually collapsed onto the sensitive, yet nonetheless primitive, animal core, whose subjective state is identical with behavior.[17] When professional care is sought to remedy symptom, it is a behavioral "problem" that usually is the target of concern; accordingly the therapeutic goal is preemptively identified as the eradication of unwanted behavior. Again, generally speaking, behavior consultants and trainers focus on understanding how, even though often in gentle ways, a horse's behavior can be shaped to conform to human images of what is correct and normative. Behavioral norms are circumscribed by human expectations.

Behaviors are inventoried into a set of discrete and temporally localized, stand-alone units of expression respondent to proximal conditions or habits. Even while appreciating that behavior does not happen in a vacuum and that resolution of behavioral "problems" frequently requires change on the part of the environment (inclusive of human guardian/trainer), the animal is implicitly objectified by these assumptions. It is the human who orchestrates what learning by the animal is required. The locus of control is situated outside the horse (client). Symptom functions less as the voice of the horse's soul on the

path of individuation than it does as currency used in negotiation between horse and human.

On the other hand, psychology's explicit emphasis on the value and significance of symptom presents a different picture. Similarly to behavioral methods, psychotherapy seeks to obtain understanding sufficient to address an issue. However, psychotherapists endeavor to establish the meaning and source of symptoms to help the client shape a path which s/he wishes to pursue (or not). Therapy and "problem solving" are informed *relative to the needs and values of the client*. The goal is to maintain the locus of control with the client.

A psychotherapist is required by law and ethics to prevent a client from physically harming his/herself or someone else. But outside this domain, psychological states and behavior are not preemptively judged "bad" or pathological except in the literal sense of the word: distress causing. Of course, therapy goals and approaches vary among diverse theoretical orientations: psychoanalytic, psychodynamic, cognitive, behavioral, and client-entered therapies are each based on fundamentally different concepts of nature, development, and pathology and will have somewhat different therapeutic goals and criteria for "success."[18]

The value with which symptom is regarded is exemplified in self-injurious behavior (SIB). Whether viewed as a means to provide relief biochemically through the release of endorphins or as a psychological method of dissociation or self-soothing, the behavior serves the individual. Indeed, many psychologists conclude that SIB can have "mythological, religious, historical and cultural undertones."[19] The fact that the behavior damages the individual, is repeated, and often very difficult to extinguish, speaks to the lengths to which the mind tries to accommodate the environment even when his/her psychological states and behavior become life-threatening.

In this recognition, psychotherapeutic approaches seek to understand symptom aetiology, its significance, and meaning as they relate to the client's philosophical and lived existence. As a result, the role of the therapist takes on considerable moral and ethical responsibility extending to the sacred as s/he participates in the client's process of individuation. Psychotherapy does not have to have a fixed goal other than to serve the client in his/her discovery of symptom meaning. This requires understanding who that person is.

The Equine Self

The self is a cornerstone concept in psychology. It dictates the starting point from which western psychotherapy develops. Self-recognition, a sense of self, and theory of mind have been validated in one species or another. However, the concept of self is not as straightforward as has been supposed. Orangutans, dolphins, humans, elephants, and magpies have all passed the mirror self-recognition test (MSR)[20] that is used to empirically assess self-awareness. Yet gorillas have not and not all chimpanzees test successfully. Puzzling, but less so when seen through the eyes of neuroscience and transcultural psychiatry.

Transcultural psychiatry was established in recognition that multiple conceptualizations of self exist across human cultures—anthropocentric, ecocentric, and cosmocentric—and may not even exist in some places. Models of self are not "firmly rooted in a conception of the person as a distinct and independent individual, capable of self transformation in relative isolation from particular social contexts.[21] The same holds for experiments designed to detect self-recognition and intelligence: concept and method seem to be culturally variant. Relevant to the discussion here, how are diverse animals selves to be approached practically and ethically?

Attachment theory provides a common model for understanding how both a horse self and human self develop and why there are species and individual differences.[22] Significantly, domesticated animals who have co-evolved with humans are expected to have a psyche heavily influenced by human psychology. A horse has a horse body, needs, and habits, yet domestication dictates equine habitat, food, socialization, behavior, and, significantly, development. To a greater or lesser extent, all are predicated on the parameters set by human needs and objectives constrained by a horse's psychological and physical capacity.[23] Who then is the person who looks distinct from humans yet lives embedded and enmeshed within human society? What does healing and individuation of a horse psyche entail? Is it possible for the therapist to retain ethical fidelity to her/his client or do the built-in constraints determined and dictated by domestication preclude such? And whose psyche is the real beneficiary of psychotherapy? We begin to explore these questions by examining symptom and its relationship to self.

In discussion of the cross-species comparability of psychiatric disorders, psychiatrist Horatio Fabrega identifies four criteria necessary to satisfy the definition of pathological (which we will continue to regard here as "distress causing"). Symptoms must: (1) comprise identifiable psychological and somatic distress; (2) cause an interruption or significant change in an individual's life arc; (3) constitute significant behavioral alterations relative to an understood social and cultural space; and/or (4) be relatively persistent and express exclusive of any given specific context.[24]

Hero's symptoms readily satisfy the first criterion; he displays considerable fear and panic with "tensing his body, rearing, rushing the door, or rearing and hitting his head and neck on the doorjamb, eyes wide and "wild". Since he expresses profound fear at other times and places outside the stall, Hero also satisfies the fourth criteria. But what constitutes Hero's "life arc" and what is the normative "social and cultural space" that he occupies?

Hero is a horse raised to compete in high stress situations and to father horses for similar purposes. He is genetically distinct from the human species. However, Hero is also different from horses who live outside human care, so-called feral or wild horses.[25] It is unclear whether or not Hero would be able to thrive outside the domesticated setting. Domestication is a dominant agent in determining the equine envelope of tolerance and wellbeing. We may speculate that as someone who is implicitly bi-cultural, having competence in both horse and human cultures, Hero's threshold of tolerance, as well his sense of self, will deviate from that found in free-ranging horse society. Assuming that he will remain within the context of stable culture, we may consider that his life's arc is defined by the normative social and cultural context of a domesticated horse. Unlike many others, Hero's guardian is committed to keeping and caring for him regardless of therapeutic outcome. His life therefore will continue to be highly directed by humans and include captivity, occupying, entering, and exiting a stall and stable, training, being ridden and groomed, participating in a competition, and breeding.

From this standpoint, his fear symptoms "cause an interruption or significant change in his life arc" and deviate significantly from his "understood social and cultural space". Hero's terror obviously reflects the depth to which he feels threatened and his self in peril of extinction:

therapeutic intervention is therefore recommended. However, ethics compel the therapist to ascertain to what extent Hero's sense of self is supported or thwarted by his social context.

Therapist-Client Communication

Beyond general theoretical guidelines, psychotherapists obtain most information pertaining to symptoms through verbal narrative, therapist observation, records, or all of three. In many cases, it is the client who takes the initiative to seek out therapy either because the distress they feel compels them to do so or because circumstances force them to do so. In the latter case, for example, an individual may attend therapy because employers require him/her to address an "anger management problem" or a spouse insists that the individual seek counseling to "save the marriage." However, when clients are non-human, it usually a human third party who initiates the therapy and comprises the main conduit of information. How can the central tool of human psychotherapy, the verbal narrative, be used for non-speaking animals? If descriptions of the horse's symptom are predominantly conveyed through the human guardian, how can the horse's relationship to symptoms be ascertained and his agency maintained?

The absence of verbal narrative may have presented a difficult hurdle in the past, but models of communication have changed. Similar to other animals, children were once believed to be incapable of developing PTSD because they did not express typical verbal manifestations of the disorder. Neuropsychologist-analyst Schore and others[26] argue that the exclusion of prosody, facial expression, and unconsciously derived information ignores the majority of affective signals. "The [focus] on the patient's verbal outputs as the primary data of the psychotherapeutic process…delete the essential 'hidden' prosodic cues and visuoaffective transactions that are communicated between patient and therapist." Overall, spoken language is "a relatively poor medium for expressing the quality, intensity and nuancing of emotion and affect in different social situations…the face is thought to have primacy in signaling affective information.[27]

Early learning is largely nonverbal, unconscious, and implicit, as opposed to explicit, conscious information processing, involving parts of the brain where self-awareness, empathy, and identification with others are developed. Both equine and human brains have a left and

right hemisphere and a corpus collosum that connects the spheres. It is the right hemisphere's automatic response that controls vital functions required for survival. Subsequently a horse's inability to verbally express his/her trauma is not reason to assume that his/her trauma is not being expressed in other ways.

The brain and its functions are primed to dialogue with others and in so doing, create knowledge and meaning. Parent-child paired processing consists of: "nonverbal attachment communications of facial expression, posture, and tone of voice [which] are the product of the operations of the infant's right hemisphere interacting with the mother's right hemisphere."[28] Even as adults, while attending to verbal utterances, there is "listening and interacting at another level, an experience-near subjective level, one that implicitly processes moment-to-moment socioemotional information at levels beneath awareness."[29] Critically, in consideration of trauma recovery, unconscious communication between patient and therapist occur from right-brain to right-brain, at levels beneath conscious awareness. Psychoneurobiological systems mediate the nonverbal communication by way of the right brain's capacity to translate facial expressions and body gestures; nuanced changes in a client's emotional states and that of his/her therapist are recognized by each others' right brains subliminally.[30]

The equine therapist must therefore learn the meaning of the horse's affective cues and cultivate an ability to communicate nonverbally at levels beneath conscious awareness. Experienced horse trainers, veterinarians, and others rely on mood, conformation, and behavior to infer and anticipate how the horse is responding to a given situation. Tom Dorrance, a cowboy of 78 years, called by seasoned horse people the "original" horse whisperer, maintains "the best thing I try to do is listen to the horse. I listen to how he's operating: what he's understanding or what he doesn't understand; what's bothering him and what isn't bothering him. I try to feel what the horse is feeling and operate from where the horse is."[31]

By refined observations and intimate communications, an equine therapist becomes a "culture broker" who comes to learn the language spoken by the horse; his/her preferences, moods, demands, and fears. Communications such as a horse's expression of fear and the therapist's response constitute the beginnings of the "therapeutic dialogue" much

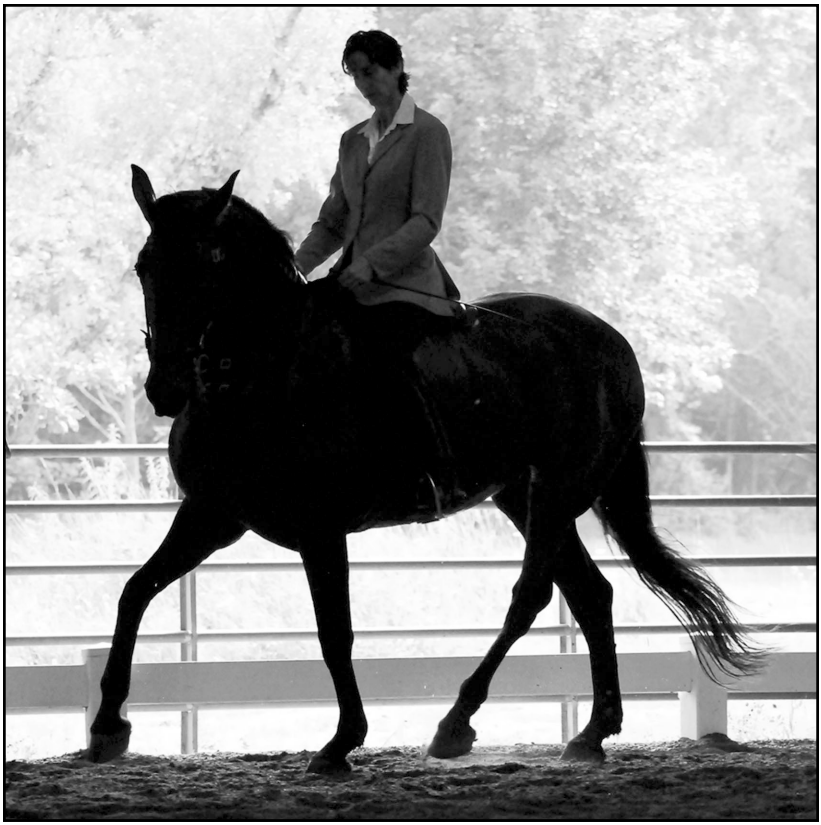

Fig. 1: A rider and her horse; Bettina Drummond on Love.
Photo courtesy of Lyndee Kemmett

akin to that performed in human-to-human sessions. However, such inter-subjective exchange is often met with skepticism because it is difficult to render into objective representations. Recently, animal behavior researchers has begun to converge with these conceptualizations, moving from a reductive, behaviorist to an integrative, relational view of animal expression:

> It is not the *grin* that is the body language; it is *how* the animal *grins*, how its (sic) whole body moves, that makes the grin an expression of fear, or anger, or something else. We must focus on the whole animal if we are to properly judge the expressive meaning of features of behaviour, whatever feature it is.[32]

The past lack of formal descriptors of animal communication places greater emphasis on creating good communication and relationships between the therapist, client, and human guardians.

Working With the Client

Two features are considered essential for successful therapy and healing: the therapeutic container and the therapeutic alliance. A safe place or "holding environment" is fundamental to human psychotherapeutic treatment.[33] It refers to the physical and relational space created to provide a sense of security when an individual is administered care. This creates a starting point of non-reactivity from which therapy can proceed.

The principle behind the therapeutic container is that it minimizes stress for someone already psychologically and/or physically compromised by an experience or wound. Physically, this usually means a quiet place, soft light, comfortable surroundings, and the ability to sit or lie down, with no interruptions or threatening intrusions from the outside world. Yet physical safety alone does not always confer a sense of safety. There is also relational safety to consider.

In human treatment, the therapist's task is to cultivate a "therapeutic alliance" with the client that creates a relational holding environment to permit the client to feel safe enough to allow his/her true self to emerge without an excessive fear of vulnerability and exposure. In Hero's case, the therapeutic "safe place" is comprised of his being in his stall leaning against the back wall facing the door with his trainer's back leaning slightly on his midsection putting her hand behind her back and stroking his belly.

The therapeutic alliance also entails identifying and creating a system of shared meaning. Unlike most human therapeutic sessions (the exception being family and marriage counseling) where therapy classically involves the client and the therapist alone, equine therapy is usually conducted in the presence of a third person. Communication patterns and expectations are most always grounded in what has been established by the guardian and/or, in Hero's case, his trainer. Often this type of data is collected through interview with the guardian or trainer and while it may contain some objective observations, its meaning lies largely with subjective, felt information. For example,

Hero's guardian noted that the horse did "the Spanish walk, whenever he was very proud of his accomplishments." (A feature of the Spanish walk is a stepping up and extension of the front legs at a walk done mostly at the request of the trainer/rider in a trained horse.) When questioned as to how she inferred this, she did not specify objective observations of his behavior, but maintained that it was a "feeling" and a look in his eye.

Subsequently, diagnosis nearly always involves assessing the relational system in which the individual is embedded. This in itself does not differ dramatically from human-human therapy: it is not uncommon for a client's family to come to session to help explicate underlying dynamics and elucidate symptoms etiology. However, domestication and horse training are by definition created and maintained by an intrinsic inequality of power. Symptom resolution and treatment can become complex as a result. The question is, does the relationship undermine psychological health? Does it form a source of trauma or act to re-traumatize? Is, for instance, the behavior for which a pat on the neck or "treat" is given to reinforce something that the client horse enjoys, or does the exchange corrode agency? All of these questions confront the therapist.

Diagnosis and Treatment

The present case study was selected for two main reasons. First, detailed medical examination and tests did not reveal any physiological or structural issues. By process of elimination, symptoms were therefore considered explicitly psychological. Second, preliminary assessments by attending veterinarians, the horse guardian, and the therapist (co-author, Vera Muller-Paisner) suggested the individual as a candidate because of previous trauma experience which provided inferential grounding for comparing equine and human psychological distress and treatment.

PTSD can be triggered when the individual is exposed to internal or external cues that symbolize a past traumatic event. For example, a person violated on a beach may feel terrorized by the feel of sand beneath their feet but not know why. The sand is not the object, but rather a symbol, representing the trauma. They may become anxious remembering an old memory surrounding the feel or scent of sand.

An old memory coupled with anxiety may cause a re-experience or "flashback" of the trauma. Both the body and mind replay the trauma "as if" it were happening at that moment. PTSD has been documented in multiple species including cougars, elephants, chimpanzees, cockatoos, and wolves. Judith Herman created the category of complex PTSD to bring attention to the profound effects that captivity imposes on the prisoner.[34]

PTSD and complex PTSD are not unrelated: they are part of a comprehensive classification system in which trauma and symptoms range along a continuum. At one end of the continuum are individuals who have had healthy, loving childhoods and who exhibit normal capacities to deal with stress but are suddenly confronted by a single traumatic incident. At the other end of the trauma continuum are prolonged or multiple, highly invasive, physical and psychological insults. Victims of such trauma include abused children, prisoners, and others—including animals in captivity—who are unable to escape their circumstances and who typically develop more complicated and enduring symptoms. If the trauma is not processed or integrated, there is no discharge and the traumatic memory is replayed with the same response and intensity every time. When these memories appear "stuck", they are encoded in the sub-cortical regions of the brain and not readily accessible cognitively.[35] When triggered, the individual reacts as if the traumatic event were recurring. These patterns and responses were consistent with what is observed in Hero.

Hero shows other indications of PTSD. His trainer experiences him as a sensitive and loving animal who may suddenly become unavailable and unaware of himself and others. This resembles a dissociative state brought on by the sight of a threshold or door that may symbolize the memory and therefore the stressor of a traumatic event. Hero may not cognitively understand the connection between trigger and the reaction, and, as mentioned earlier, an inability to remember the traumatic event is not unusual. Trauma changes how memory works and how information is stored. 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 that create 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 as if it is happening in the moment. Recent high-resolution neuroimaging studies indicate that the PTSD is associated with reduced thalamic activation. Thalamic reduction impairs consolidation capacity resulting in symptoms of somatosensory integration failure (e.g., flashbacks), poor cognitive integration that expresses as exaggerated self-blame, and hyperemotional states.[36] PTSD can also be described as an overly conditioned fear response to stimuli that threaten death. What is consistent is a predictable association of events and symptoms, namely, for Hero, the situation of exiting and entering the stall that evokes intense distress.

Hero's discomfort conforms to more than one diagnosis. Symptoms may be complex and may occur in the context of other anxieties, such as "Specific Phobia", "Agoraphobia", or "Panic Disorder", for example, which are cued by a particular object or situation, become situationally bound or predisposed, and are usually recognized by the person as an excessive or unreasonable fear of the stimulus. However, differential diagnosis is only important relative to ascertaining the meaning that the symptoms and associations have and if or how they might influence the design of the treatment plan.

There are several methods by which thoughts and feelings associated with trauma can be integrated and ameliorated. Often, it is the symptom presented which serves as the portal through which therapy can proceed. Research suggests treatment that specifically "processes" traumatic memories is more effective than supportive counseling or drug therapies. Among the approaches, cognitive behavior therapy (CBT) and Eye Movement Desensitization and Reprocessing (EMDR) are considered the most effective. EMDR was the treatment of choice (in its tactile form adapted for horses, Bilateral Equine Tapping for its application to horses (BET)). EMDR is considered an effective treatment for PTSD and the reduction of anxiety due to traumas of war or other psychological assaults. It is included in the professional treatment guidelines of the U.S. Department of Defense, The American Psychological Association, and the American Psychiatric Association.[37]

The exact neurobiological mechanisms involved in EMDR/BET are not established. However, EMDR is believed to increase thalamo-cortical temporal binding that has failed during traumatic insult.[38]

EMDR/BET differs from other methods such as flooding in that the internal process of memory integration depotentiates external cues thereby avoiding re-traumatization that flooding can cause. This is an important point for animals because it is usually not possible to obtain client consent.

Two tapping devices on the outside of Hero's jaw on both sides, at the Temporal Mandibular Joint (TMJ), each the size of a quarter are attached to an audio scan by wires. Each tapper produces a vibration, equal to tapping oneself with the forefinger, and instrument settings include intensity and speed, which are calibrated to the horse's movements. The taps alternate, causing "dual attention" to both internal and external events. Tapping alternate sides of the body causes the corpus callosum to allow intercortical communication between the left and right hemispheres of the brain. The theory is that the tapping, with the use of simultaneous specific protocols, creates the possibility of experiencing a fearful event differently, thereby disconnecting the anxiety from the memory. Once the memory and anxiety are separated, the memory obtains a different value and will no longer create a high level of fear response. People remember the trauma, but are able to manage the memory without a visceral response. The event becomes integrated into life's narrative. They become able to go through the portal of memory the way that Hero was able to cross the threshold of his stall.

In their training, horses generally learn to move away from the riders' aids (i.e., the trainer or rider's hands, legs). Horses' extreme sensitivity to touch is considered in this therapy. The phases of BET include establishing a safe place (therapeutic container), guiding the brain into dual attention bilateral stimulation, by using the cognitive left brain to help to unfold negative associations in the right brain, thereby reprocessing to link a new ego state with a positive desired cognition of the presenting problem. The therapist approached Hero with the same "intentionality" and open mindedness that is used with human patients and allowed him to sniff and touch the equipment used in the BET protocol. There are no movements until the horse is settled and relaxed. Waiting for the moment of relaxation becomes part of the "holding" environment, be it fifteen minutes or one hour. Once he was relaxed, it was time to present the problem, or if the actual trigger was assessed to be too dangerous by the therapist, an associated

symptom was used. In Hero's case, after he seemed relaxed, the stall door was opened he was asked to move out across the threshold. He was hesitant and panicky, but not as panicky as on previous occasions. His movement appeared slower and less tense, with his head more forward and down. When Hero's behavior improved, the trainer let him know by rewarding him with a pat on the neck and a kind word.

In approximately twelve trials, behavior improved by 50% as measured by a quantitative decrease in symptoms and overall presentation. Hero became less hesitant to move across the threshold and more settled after entering and exiting the stall. His panic subsided as he allowed himself to be led with less resistance, although not in a consistent manner; there were sporadic bursts of panic. In the first 48 hours after the first BET treatment, Hero bared his teeth, would not listen, and slept the entire day; very unlike him. It seemed like an abreaction (a reliving of an experience in order to purge it of its

Fig. 2: BET tapping device at girth for a client.
Photo courtesy of Vera Muller-Paisner

emotional excess), and an emergency session was created using only the "safe" place where relived experience unfolds in a controlled environment that has been experienced as secure.

In the next session, one week later, Hero showed much improvement on entering and leaving his stall. By the third session, leaving and returning to the stall were uneventful. Additionally, Hero seemed more relaxed and available when ridden. Further, even under circumstances that could be very stressful, he was much calmer. For instance, Hero was bred after the second session and did not tighten his neck and held his head in a more normal way for breeding. The general impression was that Hero was more at ease with the use of his body, and appeared more confident. What remained to be seen was the behavior this confidence brought. Indeed, when the stall was left open, and there were mares in heat standing in the outside paddock, Hero, for the first time, left his stall unattended and went to visit the mares. When he was moved to a different barn one year later, he had become much more comfortable moving in and out of the stall. His new living accommodations include an open stall with free range of movement, between the outside grassy paddock and his stall. At present, Hero moves in and out at will. Hero's trainer has found him more willing and quick to respond to engagement, thus saving the use of his legs from the repetitive nature of the work in dressage. Treatment continued for six sessions each between 30 to 45 minutes, one week apart. Included in the treatment regimen were cognitive exercises that would reinforce the new behavior.

Discussion

We set out to explore how animal symptoms might be approached in a psychologically inclusive framing: to investigate what considerations are necessary clinically and ethically when using human-based criteria for diagnosing and treating psychological distress in a horse. We also explored some of the ethical and practical implications involved. As to be expected, only the surface of a vast topic was scratched, raising more questions than could be presently answered. At the end, however, we are charged with evaluating whether or not Hero benefited from these therapeutic ministrations. The answer is "yes" by these criteria: his symptoms attenuated to near extinction (something that

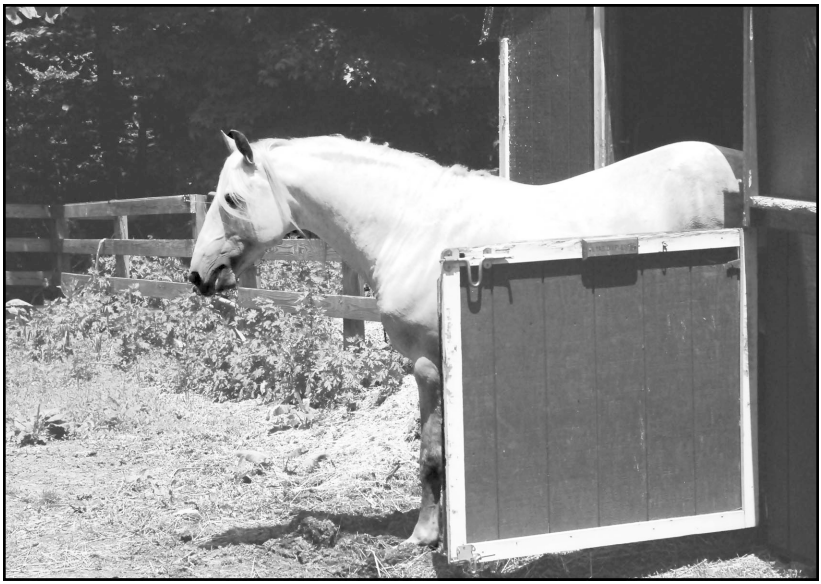

Fig. 3: Hero's new open stall with free range of movement.
Photo courtesy of Lyndee Kemmett

was not possible with other approaches prior to BET); his overall demeanor as evaluated by the therapist, trainer, and veterinarians is joyful, confident, and assured; he showed a desire to initiate and participate in the world around him; and his risk of injury was dramatically reduced. And what of animal psychotherapy in general?

We are well served to heed James Hillman's plaint that after more than 100 years of psychology humans are beset with even more ills and distress. This knowledge is of particular relevance since the majority, if not all, of the animals we seek to heal have been psychologically wounded by humans. We are therefore cautioned to exercise great care in translating ideas and tools to other species. In seeking to aid animals who suffer from what humans have done to them, humans must guard against overzealousness brought on by an eagerness to explore new frontiers and the frantic effort to right past wrongs.[39] The vast numbers of wildlife and apparent absence of psychopathology in free-ranging, nonhuman species before western human colonization suggest that psychological issues were manageable without human intervention: the

"outbreak" of previously undetected symptoms consonant with PTSD found in diverse species is not coincidence.

There are also many technical aspects to investigate. Approaches to treatment are neither comprised of a single approach nor unified philosophy but rather a diversity ranging from psychoanalysis to cognitive-behavior to traumatology to the use of psychopharmaceuticals. Each approach carries its own ethical and conceptual assumptions. Choosing one or the other requires individual evaluation to meet specific concerns and value systems. For instance, psychopharmaceuticals are prescribed to address a variety of psychological disorders such as infanticide and self-mutilation for animals kept in zoos, and hyper-aggression and phobias in companion dogs and cats. However, while congruent with some psychological schools, others consider the use of medications for mental disorders as a way to mask symptoms primarily designed to assuage human caregivers rather than address deeper underlying causes (i.e., captivity, neglect, abuse) responsible for creating non-normative behavior. If humans are to be involved in animal healing, then the task must be carried out with profound consideration and humility. Human philosophy, values, and attitudes toward the identity and rights of animals must be examined carefully and relative to the individual when considering care of other species.

In summary, then, those who remain in captivity and dependent on humans for life and death can benefit from psychotherapy. However, it is clear that the human bond has the potential to both heal and harm. For domesticated animals and wildlife in captivity, humans are intrinsically guilty of dual roles, a situation that is eschewed by psychology. The line between healer and abuser is very fine. It is therefore our own mental heath that falls under scrutiny. It is essential to take to heart the call for "physician heal thyself".

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