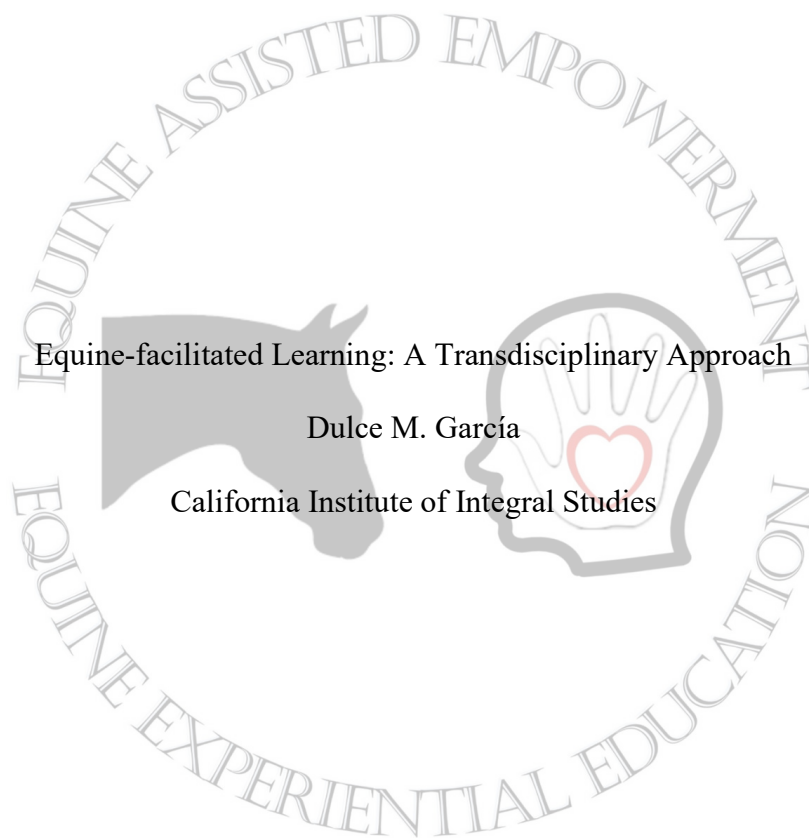


RUNNING HEAD: Transdisciplinarity



Equine-facilitated Learning: A Transdisciplinary Approach

Equine-facilitated psychotherapy/learning (EFP/L) is a relatively new treatment and learning model that utilizes horses to a) address a series of emotional and physical disabilities in children and adults, and b) teach leadership development, emotional fitness skills, and address issues of personal development, creativity and growth. EFP/L has slowly received growing recognition as a form of effective psychotherapy in the context of the clinical model, yet serious issues of *validity* remain due to the limited amount of scholarly research available for this field.

While the field of equine-guided learning has inspired some insightful popular literature in recent years, scholarly interest in the potential of the horse-human relationship remains absent beyond the narrow confines of a single discipline: clinical psychology. It would appear that highly creative applications of EFL occurring in non-medical settings have not impacted humanities and social sciences research interests in any significant manner, perhaps in part because it is an emergent field. Some universities do offer degree programs in equine studies, where most of the research being conducted is in the areas of: a) scientific understanding of horse anatomy and behavior; b) business aspects of managing an equine business; c) methods for training horses that focus on natural (humane) horsemanship; and d) equine-facilitated therapy, as a treatment for addressing physical and/or emotional pathologies. Again, it would appear that creative applications in the areas of leadership development, K-12 experiential/alternative education, and eco-sociology, for example, are not being addressed in the context of academe.

The purpose of this paper is fivefold: 1) to provide an overview of equine-guided experiences as practiced in clinical and non-clinical settings; 2) to provide a brief overview of prominent practitioners who are developing leading-edge EFT/L models; 3) to review some of the research and literature in this field, and its relevant underlying assumptions; 4) to explore

how further research in EFT/L can benefit from a transdisciplinary approach that may contribute to uncovering a higher order of possibilities in, and the hidden aesthetic of, the horse-human connection.

What is meant by an equine-facilitated experience?

Equine-facilitated (Psycho)Therapy (EFP/T)

Equine-facilitated psychotherapy (EFP) is a relatively new field that grew out of earlier programs for the handicapped. Experiences with this population uncovered that riding horses was not only resulting in increased motor skills and coordination, but there were also significant emotional benefits. Withdrawn, angry, stressed, and aggressive individuals began to show greater levels of engagement and connection with their environment while riding the horses and eventually in-between sessions. Soon, the riding-for-the-handicapped programs branched out during the 1990's into what is known today as EFP.

The two organizations that certify individuals in this modality are NARHA and EGALA. NAHRA, the North American Riding for the Handicapped Association, is a regulatory body that provides credentials to therapeutic riding programs throughout the United States for equine-assisted physical therapy (i.e. riding for the handicapped). NARHA opened a separate branch, the Equine-Facilitated Mental Health Association (EFMHA) to provide certification for licensed mental health professionals. Both organizations have developed standards of practice, ethics, and safety, and are fairly active in promoting EFP through educational conferences and dissemination of research. As psychotherapy, EFP is experiential/alternative in nature in that it involves equines. According to NAHRA's definition (2007), which is representative of most clinical practice, a typical EFP session:

May include, but is not limited to, such mutually respectful equine activities as handling, grooming, longeing, riding, driving, and vaulting. EFP is facilitated by a licensed,

credentialed mental health professional working with an appropriately credentialed equine professional. EFP may also be facilitated by a mental health professional who is also credentialed as an equine professional.

Equine-facilitated Learning (EFL)

The field of EFP has been expanding into more creative, non-clinical applications of equine-guided experiences –more broadly termed *learning*. There are some prominent practitioners who are developing highly experiential applications in the areas of human growth and development (including spiritual and artistic development and transpersonal experience), and leadership development for business professionals. EFL is generally not considered appropriate for physically or emotionally handicapped populations (depending on the level of severity, this is debatable). Rather, EFL is used as a vehicle of self-reflection and self-exploration for healthy individuals who want to experience personal growth and transformation in a highly experiential and creative setting. NAHRA (2007) defines EFL as:

An educational approach that includes equine facilitated activities incorporating the experience of equine/human interaction in an environment of learning or self discovery. EFL encourages personal explorations of feelings and behaviors to help promote human growth and development.

More traditional EFL sessions combine some of the goal-oriented activities related to horsemanship (grooming, loening, riding, ground-work), either individually or in teams, with other practices that explore inter-personal relationship styles, leadership styles, and a range of emotional and behavioral issues related to dynamic pairs of: a) fear/courage; b) dominance/partnership; c) empowerment/disempowerment; d) (un)clear/(in)consistent communication patterns, to name a few possibilities. The more leading edge modalities of EFL focus less on goal-oriented activities and utilize more improvisational activities that include unstructured experiences with the horses, combined with expressive arts and other body-centering practices such as meditation, visualization, and yoga. Examples of unstructured

activities may include: 1) reflective round-pen work; 2) exploratory sessions co-created by horse and human with no pre-conceived agenda or prescribed activities (the spontaneous unfolding of the story that needs to be made conscious or that needs to be re-storied); 3) dancing with horses, where the person enacts an improvisational dance session with the horse from the ground; and 4) improvisational forms of artistic expression from mandala painting to storytelling to poetry, etc.

What distinguishes EFP from EFL is that the former involves highly structured activities in highly controlled environments, with patients generally considered mentally ill or at least highly dysfunctional—for example, they are addicted to substances or have been victims of abuse. The goal of these sessions is for the individuals to better manage negative emotional states in order to live more productive lives. The primary focus in EFP is the treatment of pathology and the correction or lessening of associated symptomology.

Last in this brief overview of EFT, we need to discuss why the field of equine-guided therapy and learning evolved to begin with. What is it about equines that is able to facilitate healing and learning in humans? Kohanov (cited in Meinersmann, Bradberry & Roberts, 2008) “demonstrated that EFP is effective, in part, because horses, as animals of prey, have developed hypervigilance, and therefore are very responsive to subtle shifts in mood and behavior” (p. 37). For example, in the wild the lead mare in a horse herd must be able to detect the intention behind a mountain lion that is spotted nearing the herd. She must assess, fairly quickly, whether the lion is hungry and on the prowl or whether s/he has a full belly and is just a passerby. The survival of the herd depends on her accuracy in *reading* the situation and in sharing the information with her herd mates. If the mare knows that this is a predatory event, she will signal the other members and in a fraction of a second everyone will scramble for safety. Anyone that has ever observed horses in a herd dynamic understands the amazing speed at which all of this happens. This

hypersensitivity has gifted the horse with over 40 million years of successful evolutionary history.

While the behaviors just described are common to all prey animals in the wild, it appears that the horse is able to transfer the ability to read subtle levels of intention, emotion and even minute changes in muscle tension to their human friends. Perhaps because of the long history of domestication of equines and the co-evolutionary aspect of the horse-human relationship, these herd responses are operative during horse-human interaction. This is what the cowboys mean when they say that *the horse can always read you*. No matter how much you try to pretend, the horse will always detect if there is anger or fear in a human –and will react accordingly with the appropriate feedback. In that sense, we could say that the horse is sort of live biofeedback mechanism, detecting emotional states quickly and accurately, and able to sustain a relational dynamic with humans equivalent to the relational dynamic they enjoy with their equine herd members. As Wyatt Webb, a cowboy turned therapist says in one of his books, “a horse is consistent in his awareness –pure as he can be, totally sophisticated and always in the moment” (p. 101). Thanks to the efforts of EFP/L practitioners, there is a growing awareness that experiential psychotherapy is effective either as a substitute for or in combination with traditional talk-therapy methods.

Overview of prominent EFT practitioners

There is an increasingly growing number of equestrians -whether horse trainers in natural methods, competitive riders, or mental health personnel with extensive equestrian experience- that are becoming more aware of the psycho spiritual dimension of the horse-human connection. On some level, I believe that the ancient equestrians –those that depended on the horse for war, conquest, transportation and work- and the modern cowboy or competitive rider know about

these dimensions. With the growth of equine-guided experiential practices, there is a professional language emerging that is allowing equestrians from many walks of life to begin to *talk therapy* and for psychotherapists to begin to *talk spirituality* and transcendence (a taboo in clinical settings). I argue that the emergence of a language that can open a dialogue and bring meaning to the common experience of the horse-human relationship, regardless of the theatre of praxis upon which it is unfolding, is a positive development. Part of my interest in this work lies in exploring the dimensions of language as a reconciling, rather than a separating, force in the field of EFL.

Next is a presentation of the practitioners that have influenced how I approach the praxis of EFT. Many of them have actively begun to form partnerships with mental health professionals and management consultants in efforts to build bridges and expand the practice of EFL.

Wise Cowboy Therapy

Prominent practitioners of EFT in this category include folks like cowboy therapist Wyatt Webb and horse trainer Chris Irwin. Both have done battle with their personal demons, and through their relationship with horses have healed issues of childhood trauma, low self-esteem, addiction, anger, etc. Now much of their efforts are focused on helping others confront and rewrite their stories of fear, self-doubt, victimization, and trauma. Wyatt and Chris do not operate in the traditional clinical model, nor are they mental health professionals. However, they have passionate personal journeys and great respect and gratitude toward their horses. Irwin (1998) stated it beautifully when he said:

The more time I spent with horses and the more I thought about things, the more I came to realize that my new, emerging understanding of myself was only half the story. For me, the final step in my journey came when I realized the impact horses were having on the way I understood the world. (p. 113)

The respect for the horse as therapist and educator is also evident in the way Webb (2002) writes about the horse's ability to intuit what is happening with the human client at very

refined levels: “Whichever horse you choose will serve as a mirror to your energy system – what you think, what you feel, and every move your body does or doesn’t make” (p. 5).

Both Webb and Irwin have a wide popular following in the equestrian world and are increasingly becoming respected in the world of alternative/experiential psychotherapy. They operate from a place of a) intimate knowledge of horses, b) the deep bonds they have formed with their equines over many years of co-existing with and learning from them, and c) having experienced and witnessed transformative healing in themselves and others as a result of their work with horses.

The Leadership Model

Ariana Strozzi is a life-long equestrian and an internationally recognized pioneer in equine-guided education, specifically in the area of leadership development. An educator in leadership studies and a horse trainer, Ariana utilizes the principles of horsemanship to illustrate what embodied/enacted leadership looks/feels like. She has developed a learning model that teaches leadership skills through the non-verbal language of horse-human interaction. The same skills that are required to work effectively with horses –trust, authenticity, confidence, intention, intuition, and curiosity- are useful attributes on the organizational floor. This is how Strozzi (2004) describes her approach:

Humans did not invent leadership. It exists throughout the animal kingdom as a practical way for social animals to communicate, negotiate, and collectively contribute to the survival of the individual and the whole. Working with horses...we deconstruct our limiting ideas of leadership and learn that everyone within any social context has leadership responsibilities. (p. 45)

Strozzi utilizes a multidisciplinary approach in her work, as she combines her academic and professional background in animal behavior, wildlife ecology, business, horsemanship, and somatics to bring an insightful perspective to development of participatory and transformative

leadership paradigms.

A Spiritual Angle on Psychotherapy

There is a family of practicing psychotherapists in San Antonio, the McCormick's, who have shifted in their EFP approach by integrating the spiritual dimension into their work and into the literature they are producing. The McCormick's have worked for over 40 years with difficult cases, including criminals, the mentally ill, and individuals with substance abuse problems. Avid equestrians, they integrated equines into their psychotherapy practice twenty years ago. Their earlier work was very much aligned to traditional clinical approaches. However, a trip to Scotland in the late 90's precipitated deep immersion in Celtic mysticism and the deeply spiritual connection that the ancient Celts had with their horses. This experience led to a transformation of their values and belief systems with respect to psychology, which McCormick, A., McCormick, M., McCormick, T. (2004) articulate as:

We stood at a crossroads between psychology and religion, and we could see that these two disciplines, which had been at cross-purposes for years, needed to be reintegrated. Through the horses, we started reconciling these two approaches, moving increasingly toward the psychospiritual. (p. xii)

The work now focuses on demonstrating the importance of embracing the spiritual and transpersonal dimensions of experience in emotional healing. The McCormick's confess in their latest book that what psychiatrists diagnose as mental illness may be actually "crises of personal transformation, or 'spiritual emergencies'" (p. 45). This avant-garde group of practitioners is also co-directing the Institute for Conscious Awareness in San Antonio, Texas.

The Integral Perspective of Linda Kohanov

Linda Kohanov is my mentor and the person that has most influenced my approach to equine-guided learning. She is a relative newcomer to the field, as she transitioned from a career as a cellist and music critic in the early 90's to focus on horse training, endurance riding and

developing a leading-edge model for EFL called the Epona Method (named after the Celtic horse goddess). Kohanov is the one researcher and practitioner in this field that I consider most multidisciplinary and meta-paradigmatic in how she approaches the horse-human relationship. The Epona organization consists of folks with varying backgrounds: horse trainers, competitive riders, psychotherapists, expressive arts therapists, writers and musicians. In addition, Linda's development of EFL integrates research in the areas of: 1) mind/body connection and the non-local nature of the mind, primarily through the work of Larry Dossey, MD; 2) Rupert Sheldrake's theory of morphogenic fields, which she uses to explore the nature of horse-human species intersubjectivity; 3) emotional intelligence, via the work of Karla McLaren and Daniel Goleman, which has become a centerpiece in the Epona method of EFL; 4) the co-evolution of equine and human consciousness, through extensive exploration of ancient cultures and their writings, stories, anecdotes, mythologies and ceremonial practices related to the horse; 5) epistemological inquiry, with the suggestion that we need an integral way of knowing that can break through the duality of *reason* and *feeling*; and 6) dominance/partnership based approaches that determine how we construct dynamics of *power* in our personal and social relationships (reminiscent, although not directly influenced by, Riane Eisler's work).

Following this introduction to the individuals and organizations that are responsible for the development of equine-guided education, I turn my attention to a brief review of the scholarly research being conducted in this field.

Academic Research Review

Clinical Psychology

According to Bates (2002), "it is possible to effectively treat adults or children as individuals, families, or parent-child dyads. However, there is little research to support those

who have been helped by horses” (p. 17). Perusing scholarly research led to a few articles and dissertations with an exclusive focus on the clinical psychotherapeutic model. The research is primarily empirical, although there is a growing body of qualitative studies emerging. A review of the literature by Bates reports three studies that were conducted in 1997 with severely emotionally disturbed adolescents. She reports, “The results of these studies indicate that contact with horses and horseback riding decreased the number of acts of aggression in young people who are seriously emotionally disturbed” (pp. 17-18). Research in EFT is difficult to conduct because the number of programs is small, producing small samples. Nonetheless, Bates reports, “Despite the sparse statistical support in the research, there is strong clinical evidence that [EFP] reduces impulsivity, improves self-concept, and increases both the subjects’ sense of responsibility and their ability to engage in emotional relationships” (p. 18).

One qualitative research piece was written by a team of psychiatric nurses who identified a gap in the inquiry on abused women, in terms of understanding and validating interventions that assist in the process of recovery. Meinersmann, Bradberry, and Roberts (2008) indicated, “Anecdotal accounts support the effectiveness of EFP with women who have experienced abuse, but there is a lack of supporting research” (p. 36). Although this article is written from a mental health perspective, it makes an effort to *texturize* and *contextualize* the clinical experience in ways that address the issues I’m most interested in: a) patterns of experience were identified; b) acknowledgement is given to the role of the horse as co-therapist; c) it suggests that the horses were able to project feelings of compassion and unconditional love; d) the topic of gender, expressed as issues of power, emerged; and e) the theme of transformation also emerged (expressed as the fact that the EFT experience had turned the women’s lives around). In some limited, but important way, this article is distinct from most of the medical-model research in

that it begins to explore EFT in the context of feminism and transpersonal/psychospiritual experience. In addition, the voice/presence of the horses make a subtle, yet significant, appearance. This research piece is very recent, and it is yet too early to tell whether its more integral approach signals an actual shift or trend in the literature.

Eleven dissertations addressing EFT were found, written between 2000-2007, all of which deal with clinical psychology and treatment of physical disabilities. The topic of the dissertations address, primarily: depression, youth at risk of social and academic failure, special education and cerebral palsied children/adolescents, trauma in women, eating disorders, and recovery from catastrophic loss. The focus of most dissertations is clinical efficacy. One dissertation integrates concepts of horse mythology, folklore, ritual and storytelling in equine-guided healing practice. Another dissertation integrates issues relevant to women's studies, ecopsychology, and leadership studies. The latter further advocates embedding innovative healing modalities into EFT/L, such as body-awareness techniques and expressive arts therapies to address trauma.

From the initial perusal of academic literature, it might be safe (if premature) to assume that the dominant disciplinary discourse in equine-guided therapy/learning is clinical psychology. In addition, it is noted that most dissertations were published between 2006 and 2007, indicating that research in this field is nascent and full of future opportunities for scholarly exploration and contribution. The following sections discuss additional areas of research that either directly or indirectly address the horse-human relationship, and which may be of interest in developing a transdisciplinary perspective in EFL research.

Cognitive Ethology

Cognitive ethology studies cognitive and mental abilities in animals, and advocates

conducting studies in the natural environments of animals. Cognitive ethology challenges the traditional approach of the scientific community that studies animal intelligence by isolating them in a box and by applying artificial stimuli. As Bekoff (2002) explained, “Most studies of animal self-awareness have been narrowly paradigm-driven. Laboratory experiments can overlook the fact that many animals have evolved in complex webs characterized by variable social, sensory and other environmental features” p. 255. Furthermore, Bekoff urges that science begin to explore *multiple ways of knowing*, and suggests that animals may know a great deal from the perspective of *body awareness* (sound, smell, energy, etc). Thus he advocates an epistemological shift in the way that we approach animal cognition and consciousness in scientific research.

I ran into Bekoff’s work fairly late in the process of researching this paper, and did so by accident. Reading four of his articles has led me to view cognitive ethology as a valuable tool to integrate into my research. I am grateful for this serendipitous encounter because I can identify clear links between the underlying assumptions (philosophical approaches) of Bekoff’s work and those of Transdisciplinarity. For one, he recognizes that the epistemological foundations of science can either advance or limit our understanding of the world. Bekoff (2006) questions, “What does it mean to *know* something? What are some other ways of knowing, and how do they compare with what we call *science*? (p. 75). Secondly, his work recognizes the complexity of observing systems in various ways: 1) by advancing the notion that the observed needs to be *contextualized* to be properly understood, and that there is an ethical responsibility to do so; 2) by shedding light on the complex web of relationships of animal beings playing-out in the larger ecology of the planet, where beast and human are but interconnected sentient beings embedded in a complex ecology and in an evolutionary continuum; 3) by challenging more mechanistic and

reductionist behavior theories that reject the value of anecdote and anthropomorphism in scientific inquiry of animal minds, or that even refute the notion of animal consciousness, without offering scientific support for this position; and 4) by arguing for a multidisciplinary approach to the study of animal consciousness. Bekoff states, “The rigorous study of animal emotions will require harnessing the resources... [of] researchers in various scientific disciplines who provide ‘hard data’ and anecdotes, other scholars who study animals, nonacademics who observe animals and tell stories, and the animals themselves” (p. 871).

One of the most notable results of EFL is helping humans to understand and manage emotional states. In the case of trauma resolution work, this is especially important because many trauma victims tend toward dissociate states that result in low body awareness and unconscious, dysfunctional projection of hidden emotions unto their relationships. Horse-guide therapy has proven very useful in uncovering these hidden emotions and helping the client move them into a place of awareness and resolution. Bekoff mentions that, in contrast to logical positivists and behaviorists, “researchers in the fields of ethology, neurobiology, endocrinology, psychology, and philosophy...believe that it is possible to study animal emotions and minds (including consciousness) objectively” (p. 52). Therefore, the work of Bekoff and other ethologists may be quite important in furthering our understanding of how horses mirror the emotional states of humans, and how they excel at providing effective *interventions* (to use a clinical concept). Thus it may be critical to explore how emotion, cognition and consciousness operate during horse-human encounters, advancing our understanding of: 1) non-verbal communication; 2) co-construction of meaning; and 3) levels of feedback, response, and adjustment/calibration of behavior between subject/object that may result in corrective emotional experiences and/or transformative psycho-spiritual states. In this regard the work of Donald

Griffin, an experimental biologist now studying animal behavior, will be of importance for further review. Griffin (as cited in Bekoff, 2002):

Stresses that it is the flexibility and versatility of behavior that provides strong evidence of animal consciousness. Griffin also argues that we should not conflate the difficulty of coming to terms with animal consciousness with the impossibility of doing so. (p. 847)

Reading Bekoff's review of Griffin's work shed light on how the discipline of cognitive ethology might have important implications for EFT research. First of all, the study of horse-human interaction could benefit from the research done on animal cognition/consciousness in general (as a foundational ground for addressing equine cognition/consciousness). Second, in my personal experience as an EFL practitioner and equestrian, horses not only show the flexibility of behavior and ability to adjust behavior to context-specific circumstances within their herds –they are also able to transfer this capability to their relationships with humans (displayed in clinical, athletic, performance, and educational contexts alike).

There is a gap in my research that was identified as a result of reading Bekoff's work and his review of Griffin, although neither one specifically addresses this point –that is, the phenomenon of species inter-subjectivity. Is the long history of the domestication of the horse, and its intimate and transcendental relationship with humans (war, colonization of entire civilizations, transportation, athletic competition) responsible for a co-operative bond that at times feels supernormal? Much of modern civilization, as we know it today, evolved on the backs of horses. I can only ponder with awe at the implications of this co-evolution, and how it may influence the special equine-human bond that we witness in the EFP/L encounters. This is an area that merits further investigation as I continue my research efforts.

Other disciplinary perspectives on horse-human relationship

Outside of the confines of clinical psychology, I found two articles in two separate

journals that addressed symbolic meaning in the horse-human relationship. The focus of one is symbolic interaction, in this instance between horse and rider; and the other addresses the meaning of the mythological centaur through the ages. Lawrence (2002) states, “No human-animal combination is more deeply embedded in human consciousness than the centaur. This creature...expresses the close relationship between people and horses that has so often existed throughout history” (p. 57). Especially interesting is the enduring myth of the great centaur Chiron, the superb teacher and wounded healer, whose symbol of healthy integration of opposites (e.g. reason/passion, sensuality/spirituality, physical power/intellect) triumphed over the more destructive, lustful and violent centaurs in Greek mythology. Lawrence also sees the centaur as expressing the intimate relationship of horse and rider, which ties beautifully into the article about the horse-rider partnership in event riding.

The *symbolic interaction* article explores the many dimensions of effective partnerships in the difficult sport of event riding: mutual trust, confidence, respect, compatibility, and close communication. Through interviews with various Olympians and other international champions, and through an in-depth case study of one of the most impressive horse-rider partnerships in eventing history, the article emphasizes the complementarity of horse-human interaction and acknowledges that the horse has degrees of decision making capacity and consciousness awareness in its relationship with the rider –i.e. the voice of the horse finally emerges in a research piece. More importantly, this article talks about the absence of research on the animal-human relationship. Arluke and Sanders (cited in Wipper, 2000) argue that:

- 1) human-animal interaction needs to be studied at the level of observable mutual interaction; 2) researchers should attempt to take the role of animals in order to better understand them; 3) the line separating nonhuman and human interaction has been too sharply drawn and sociology should move away from its anthropocentric focus to include nonhuman animals in its purview. (p. 51)

In contrast to the lack of academic literature on the horse-human relationship, Wipper reminds us that there is rich non-academic literature on this topic. For example, Xenophon ca. 400 B.C. wrote the “earliest known treatise on horses...that deals with their emotions, minds, temperament, and ways of communicating” (p. 50). Homer’s *Illiad* also pays tribute to the horse as sensitive creatures able to weep when their masters die. There are also rich literary traditions in English and Irish sporting novels of the nineteenth century and, of course, contemporary American novels and cowboy poetry.

In summary, we see a rich tapestry of innovation and creativity with respect to horse-human encounters being weaved in non-academic circles. In contrast, academic research has been oblivious to one of the most endearing and important relationships in the history of humankind. Even in the discipline of clinical psychology, the research in equine-facilitated psychotherapy remains narrow in scope and limited in volume. In the last section of this paper, I will discuss how a Transdisciplinary approach can contribute to research in the field of equine-human relations; and how this approach is not an option, but absolutely necessary, in uncovering exciting aspects of this relationship that have implications for a number of applications.

Transdisplinary: New Perspectives on the Equine-Human Experience

One could argue that the slow growth of EFP as a *valid* form of therapy within the medical community, and the limited interest in academic circles for exploring creative aspects of the horse-human relationship is a normal evolutionary process for emergent fields. However, many of us practicing these creative learning modalities have a different sense of urgency regarding the expansion of relevant research. As facilitators we have witnessed significant results in terms of: a) assisting people in developing emotional intelligence skills; b) assisting victims of trauma, abuse, and addiction in exploring creative ways with which to reclaim some of the

personal power lost along those painful journeys (without resorting to pathology-fixing schema); c) assisting parents in creating and sustaining new ways of relating to their children; d) helping people in developing higher levels of mind-body connection; and e) assisting business leaders in self-reflection and in building interpersonal and motivational skills, in shifting from dominance-based to partnership-based leadership/relational mindsets, and in exploring the relationship between leadership and ecological consciousness. In addition, horse-human interaction can serve as a creative vehicle for exploring epistemological questions about multiple ways of knowing, for furthering the understanding of the social creation of meaning, and for deepening our knowledge of non-verbal communication and body awareness.

Given the above examples, I would argue that the potential of the horse-human relationship is extraordinary and that acceleration of scholarly research in this area would be of benefit to society. For better or for worse, academia drives *validity* and consequently it drives many decisions about institutional level investments, be it a company investing in a leadership development program or a charter school investing in an experiential learning curriculum. Additionally, some of the best training in EFP/L is taking place outside academic circles, through apprenticeship programs that do not confer an academic –hence *valid*- degree. Therefore, the issue of validity cannot be overlooked when contemplating growth strategies for the EFP/L field. On the other hand, academic validation may bring its own set of concerns –for example, *where* in the university do you house equine-guided education and is it going to weaken its vitality and creative potential if compartmentalized into some disciplinary niche? Another critical question is posed by Hark & Dollins (2000) with respect to feminist studies, but which may be a similarly valid concern in efforts to validate EFP/L through a community of scholarly discourse. They proposed that, “if women’s studies has moved further toward the center, then it can no longer

easily claim a critical marginality from which to challenge the established canon of knowledge” (p. 1196).

Disciplinary approaches may not only limit the construction of knowledge to narrowly defined perspectives, they are also subject to the inevitable socio-political dynamics inherent in the self-serving disciplinary mindset. The first concern is the topic of much of Edgar Morin’s work, exemplified in his statement on disciplinary reductionism, which in turn leads to applying simplified approaches to complex living ecologies:

None of the sciences offer us a way to integrate all the tremendous quantities of information of knowledge generated in the various disciplines and subdisciplines. This is extremely problematic for at least two reasons. First, with increasing specialization, the “big questions” are simply not asked and addressed anymore. Second, action in the world cannot be confined to knowledge drawn from one discipline. (Morin, 2008, p. xxvi)

The second concern is addressed by thinkers such as Bruce Wilshire and Lewis Gordon, who have written candidly about the decaying value of disciplinary obsession in the modern university, and have done so from an insider’s perspective. These authors talk about efforts within academic disciplines to avoid *pollution* from other disciplines, about the increasing specialized discourse that limits knowing, and the increasingly politicized environment in academia that prioritizes disciplinary purity over meaningful quest for knowledge. I argue that all of the aforementioned concerns can be addressed by a transdisciplinary approach to research, as proposed by Dolling and Hark in addressing feminist studies. Transdisciplinarity is not to be confused with a mere adding together of knowledge from different disciplines. As Montuori (2005) explained, “Transdisciplinarity is an attitude towards inquiry, informed by certain epistemological presuppositions, and an effort to frame inquiry as a creative process” (p. 148). These epistemological presuppositions include the perspectives that: a) the inquirer’s subjectivity is central to the inquiry, and research is *value-laden*; b) knowledge is socially constructed by the

individual in relationship to others and his/her environment (points to the importance of *contextualizing* inquiry within a web of social and environmental relationships); c) the complexity of most of life's questions cannot be understood with reductionist/disjunctive (i.e. simple) approaches; and d) questioning how disciplines organize knowledge and understanding how the underlying principles of those constructs shape the inquiry are critical in research. As Montuori further explains, "The lived experience occurs in a context, in a network of relationships, in an ecology" (p. 153).

Academic rigor in EFL inquiry should be driven by the questions that emerge in the unfolding experiences of horse-human interaction and equine-guided praxis, rather than by any specific disciplinary agenda (e.g. clinical psychology). Inquiry should also be driven by the effort to find the patterns that connect the rich ecology of horse-human relationship to different scholarly perspectives and lenses that can expose, rather than limit, the rich potential of equine-guided expression in multiple areas. Transdisciplinary expansion in EFP/L can benefit, not only the more innovative leading edge applications, but the field of clinical psychology as well. It is of great importance to develop the skills that allow researches to make distinctions concerning disciplinary knowledge construction and to engage in a dialogical/dialectical process when dichotomies and contradictions surface among these constructs. Rather than seeing polarities as *opposites* and choosing one position over the other, the inquirer can unleash what Bateson and Montuori refer to as the creative process. Montuori (2005) points out, "The creative process has been defined as seeing 'a single idea in two habitually incompatible frames of reference'" (p. 155). Framing creativity in this way also allows for the type of self-reflection in research that may begin to impact what has been called the *purification rituals* of the modern university. Wilshire (1990, p. 165) states, "Pollution involves mixing what ought to be kept separate" and is

responsible for the academic decadence that places professional recognition and disciplinary purity above the art and ethics of teaching. Addressing the same point, Gordon (2006) further states that the effort to transcend disciplinary decadence “is an act of *teleological suspension*. It is when a discipline suspends its own centering because of a commitment to questions greater than the discipline itself” (p. 34). Therefore, efforts to advance academic inquiry in the area of equine-human relationship should be made using paradigms (e.g. Transdisciplinarity) that will not only produce leading-edge, creative, life-enhancing research, but that will simultaneously build and *embody* the right ethical foundations. Montuori addresses *embodiment* as:

Scholarship must not be confined to the development of ideas, theories, and conceptual frameworks. Scholarship can be viewed as a creative, transformative practice, a form of self-creation in which our ideas, theories and concepts are not just articulated and disseminated but embodied. (p. 6)

Underlying any particular application of equine-guided learning is the larger contribution to the understanding of the deep, diverse, and complex layers of what it means to be human – which requires the transparadigmatic frame advocated in transdisciplinary. Underlying all paradigms is ultimately the phenomenon of self-referencing recursive process: the subject (observer) in its relationship to the object (observed) is both effecting change upon and is being changed by the self-reinforcing mutuality of subject-object interaction. The phenomenological aspect of horse-human interaction brings a rich dimension to the study of equine-guided learning. This interaction has the potential of unfolding into loops that create and sustain human understanding about subject/object singly and in relationship to one another; about the levels of interconnection between all living things; and about the transformative potential, and complexity, of relationship.

Conclusion

This paper has attempted to provide an overview of equine-facilitated learning, and hopefully create excitement in the reader about the potential of the horse-human relationship. I believe that the absence of academic research in this field is both limiting, in terms of available resources to tap into, and infinitely exciting, in terms of the windows of opportunity that are available to expand the discourse into various communities of inquiry. To find my own voice as a future scholar who can make a significant contribution to the field of EFP/L is part of the journey. Equally important in this scholarly pursuit is the opportunity to integrate into the research experiences that have shaped my life: my relationship with horses.

My interest in horses is not a newly acquired passion or a fleeting interest –it is my life’s work. Horses have been part of my life ever since I was a little girl. I grew-up in the countryside of Cuba until the age of nine, when my parents emigrated to the U.S. as political exiles. My great-grandfathers, grandfathers and father were horsemen, and I was in the saddle as early as the age of five. My earliest recollections of what I call *equus-sense* take me back to the vast sugarcane fields, the palm trees, the river beds, and the unique father-daughter connection of my childhood in Cuba. It was in that context that I had my first horse experiences, and to which my horses now take me back occasionally in the realm of dreams and flashbacks. Reflecting on my personal experience with horses and my ELF practice -and from the countless stories of other horsemen and women- that there is something very special about *equus ferus caballus* that can serve as a reflective mirror for human experience and a catalyst for transformation. What is that *special thing*, I ask? Is it science or is it magic? The question has been a source of inspiration throughout my life, and is now culminating in this scholarly journey. It feels as inspiring today as it did when I was a small girl galloping through sugarcane fields in Cuba. Being exposed to scholarly work in the areas of Transdisciplinarity and epistemologies that emphasize the complex

and recursive nature of phenomena, has given me a lens through which I can approach the question of science and magic in the horse-human connection. Perhaps science and magic can be held in the same frame of reference. As Camus (cited in Nicolescu, 2004) expressed with respect to the relationship to Earth of the poet and the scientist, “for the scientist, the Earth moves. For the poet, ‘the primordial Earth does not move.’ This is not contradictory. It is a question of two levels of reality” (p. 62).

I argue that whether horse-human interaction takes place in the context of performing a dressage pattern or racing a barrel, or whether it takes place in the context of therapy/healing, it is guided by distinct orders of recursion operating within a larger, systemic context that can be approached scientifically. Simultaneously, there is an alchemical (magical) dimension that can serve as a metaphor for the transformational aspect of the horse-human relationship. As such, science and alchemy can perhaps be held in the same frame of reference: higher-order recursive process; improvisational co-creation; ordinary/non-ordinary perceptual states; heightened states of creative expression; positive reframing of neural pathways; and experiences of non-separateness between horse and human partners. The marriage of science and magic could also bring a more unifying perspective to the pioneering, yet fragmented, efforts currently operating in the equestrian world in general, and in the field of equine-facilitated psychotherapy specifically. A deeper understanding of the patterns that connect transformational experience in horse-human interaction may cause a common language to emerge. A common language is essential in facilitating more open dialogue and cross-learning opportunities among equestrians, experiential educators, and EFP practitioners.

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