

How Change Happens in Equine-Assisted Interventions

A Theory of Horses, Humans, and Psychotherapy

NOREEN W. ESPOSITO AND ANGELA K. FOURNIER



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How Change Happens in Equine-Assisted Interventions gives clinicians and researchers an intervention theory on the mechanisms of change during psychotherapy and other interventions that incorporate horses. Chapters introduce the concept of intervention theory, present a theory of the problem (what the client comes with), theories explaining the intervention (what is done during a session), and theories of change (what happens in the mind of a client), with each theory's function described. Using an autoethnographic approach, the authors describe, deconstruct, and analyze personal experiences as clients during an equine-assisted intervention. Then the authors present and apply a unique intervention theory by linking it to the thoughts and experiences of clients in and after a session. Practitioners will come away from this book with a unique perspective on the field and with an increased understanding of what their clients are thinking both in and out of session. Researchers will have an explanatory theory from which to draw testable hypotheses when studying interventions incorporating horses.

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Psychotherapy

First Edition

**Noreen W. Esposito and
Angela K. Fournier**



Routledge

Taylor & Francis Group

NEW YORK AND LONDON

Cover image: From Getty

First published 2023

by Routledge

605 Third Avenue, New York, NY 10158

and by Routledge

4 Park Square, Milton Park, Abingdon, Oxon, OX14 4RN

Routledge is an imprint of the Taylor & Francis Group, an informa business

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Library of Congress Cataloging-in-Publication Data

Names: Esposito, Noreen W., author. | Fournier, Angela K., author.

Title: How change happens in equine-assisted interventions :

a theory of horses, humans, and psychotherapy / Noreen W. Esposito, Angela K. Fournier.

Description: First edition. | New York, NY : Routledge, 2023. | Includes bibliographical references and index.

Identifiers: LCCN 2022041910 (print) | LCCN 2022041911 (ebook) | ISBN 9780367538521 (hbk) | ISBN 9780367538507 (pbk) | ISBN 9781003088011 (ebk)

Subjects: LCSH: Horses—Therapeutic use. | Horsemanship—Therapeutic use. | Psychotherapy.

Classification: LCC RC489.H67 E87 2023 (print) | LCC RC489.H67 (ebook) | DDC 616.89/16581—dc23/eng/20220912

LC record available at <https://lcn.loc.gov/2022041910>

LC ebook record available at <https://lcn.loc.gov/2022041911>

ISBN: 978-0-367-53852-1 (hbk)

ISBN: 978-0-367-53850-7 (pbk)

ISBN: 978-1-003-08801-1 (ebk)

DOI: 10.4324/9781003088011

Typeset in Bembo

by codeMantra

*For my dad, Richard who encouraged my curiosity and who loved to learn and for my wise teachers, Lego, Kash, and Lion, NWE
And to Liz, Crackerjack, and everyone at Eagle Vista Ranch, for bringing me into the Herd AKF*



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Acknowledgments

Noreen's acknowledgements

This book, which started as a journal article, morphed into its present form with the encouragement, support, and sometimes unintentional help of many wise people.

If not for Micky Purcell and Folly Farm I would not be doing this work. Thank you for recognizing that there was such a thing as equine-assisted interventions, even though we did not have a label for it then. I am so grateful for your willingness to share your horses and space and stand alongside me as we learned together and from each other how to do this work. Thank you for going to all those trainings with me. You never complained, even when we had to scrape ice off metal folding chairs so we could sit around a smoky fire on a freezing morning. Thank you for your willingness to continue on this journey in the landscape of possibilities. Your influence is woven into this book.

My co-author Angela Fournier joined me on this book journey before it was going to be a book. You are a great writing partner. You kept us on track and moving forward. Whether we were working jointly or on our own sections, you were kind, thoughtful, and non-judgmental. You tolerated my eccentricities and reminded me when I had doubts that our ideas made sense. You brought insight and logic, a passion for human-animal interaction research, and an optimism that cheered me. I cannot capture in words how grateful I am.

I want to thank Anna Moore at Taylor & Francis for saying yes to our book proposal. It gave us the confidence to write.

Non-horse people:

I want to thank those people in my life who do not share my interest in horses but still, during the ups and downs of this process, provided much needed encouragement. Anne Mulkern, thank you for listening, validating the challenges of academic life, and for your unwavering confidence in my ability. To Brenda Slade, my like-minded friend, your weekly zoom support over two pandemic years kept me connected to everyday life and reminded me that curiosity is a strength. To Chris Raines who believes

in this work and Victoria Soltis Jarrett, thank you for the opportunity to bring students into this experience.

Past mentors:

Thank you Jan Morse for your matter-of-fact expression of confidence in my ability to put thoughts to paper and for making me write during my visits to Edmonton and Salt Lake.

People in the world of equine-assisted intervention:

Thank you to Lynn Thomas whose passion for this work, innovative ideas, reflective insight, and willingness to try new things helped me to see the importance of this work and to think outside the box. Amanda Graham, you have been a mentor and friend, sharing your insights, wisdom, and curiosity about this equine work, giving me in-the-field (literally) experiences from a different perspective. You are one of the few people who already knew of and I could talk to about transderivational search. Thank you Beverly Kane for sending me to Eagala and co-facilitating our first real session and reading an early draft. Thank you to Mark Lytle for hosting Eagala events in NC that made the work more accessible to me and to the many trainers who helped my learning process. Thank you to all the people who stopped by the EAST poster at the 2020 Eagala conference, asked questions, and said yes, this makes sense. Thank you Nerds for Herds (Angela S, Anastasia, Erica, and Michelle).

Thank you to Debra Eaker-Rich for your thoughtful reading and kind feedback. Thank you to all my clients including the many students, faculty, staff, and professionals who spent time with horses at Folly Farm.

People who do not know me:

I am so grateful (see definition of grateful in “Atlas of the Heart”) to the researcher Brene’ Brown, even though you do not know me, your writings, Ted talks, and podcasts gave me the courage to keep moving forward and take the risk of putting my vision into print. When you share your own fears of putting yourself out there, when you talk about stepping outside your lane, it helps me to be brave. “The Gifts of Imperfection” gets me through moments when I think I am crazy for doing this. You remind me to let go of what people think, of perfectionism, the need for certainty, of comparison and self-doubt, at least for the moment. Thank you for telling the world about qualitative research.

Kerry Ann Rockamore, thank you for all the writing and motivational resources on your National Center for Faculty Development and Diversity website and for your two-week writing challenges. The first shitty draft helped me get my chapters done.

A special thanks to Stephen Porges for giving us polyvagal theory and for Deb Dana’s work in translating it to practice. Thank you to Anne Mader for dragging me to a Deb Dana workshop in my little town of Efland, NC. Thank you Deb for your writing, workshops, and resources like the polyvagal flip chart and the ladder that helped me apply polyvagal

theory with my clients, which helped me see it in action and then use it in EAST.

Thank you to Dave Neill's Verbal to Visual for helping to build my confidence in sketch drawing stick figures and concepts.

Finally, I want to thank Christine, Amy, and Michael who give me more joy than they can know.

Angela's acknowledgments

I am most grateful to you, Noreen, as I have learned so much from working with you on this book. I learned about the body and the mind, about metaphor and story, and about intervention and theory. You've changed what were fuzzy notions about how to explain this work into clear, precise explanations based on science and theory. Thank you for sharing your ideas with me and including me on this journey to introduce EAST to the world. To Liz Letson, my colleague and friend at Eagle Vista Ranch and Wellness Center, thank you for your collaboration in the practice and research of equine-assisted intervention. Working with you at the ranch has given me the experience necessary to contribute to EAST and the writing of this book. And finally, I am grateful to my family – immediate and extended, two-legged and four. You've supported me throughout my career and this book is no exception. Thank you for giving me the time, space, and inspiration to do this work that I love and for always believing in me.

A Note from the Authors

In some ways, psychotherapy incorporating horses is like traveling abroad. When you spend time in other cultures, you deepen your understanding of yourself. Being with horses is like being in another culture. It is easier to question assumptions about how things are supposed to be when you experience how those things can be different.

Noreen and Angela



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Introduction

A few years ago, near the end of a three-day, outdoor training for psychotherapy incorporating horses, someone asked “but how does it work?” There were a few moments of uncomfortable silence until someone offered a heartfelt “it’s magic... the horses are magic.” I (NWE) looked around the circle of faces and saw a few smiles and nods of agreement as people got up from their chairs to leave for the day. Problem solved. A momentary sense of relief washed over me. I really wanted to believe; magic was such an easy and comforting answer to a hard question. To me it meant there was something special and unexplainable about the horses. I might have been satisfied and magic would have been a good enough answer if it was just curiosity that begged the question. But in this case, it was curiosity about something related to mental health and wellness. Curiosity about a gap in knowledge: How do equine-assisted interventions lead to change? That kind of gap is usually filled by theory.

The “magic” event was a reminder that there was no unified theory about psychotherapy incorporating horses. We were missing an explanation for what is essentially a transdiagnostic approach. As an academic and a clinician I knew that we needed theory to strengthen the scientific knowledge that would ultimately improve clinical practice. Theory would give researchers and clinicians a common language, stimulate clinical and research questions, and guide clinical practice and research design. Theory would provide crucial information by explaining how this intervention works and what causes change. It would help us to build knowledge. We cannot truly understand what we are doing without being able to describe the causal mechanisms that, for example, link changes in some part of the equine intervention with changes in some part of the outcome (Reynolds, 1971).

The “magic” that day was that I was motivated to take this task on and find some kind of answer. It was the beginning of my search for a theory to describe causal mechanisms of change. I started with a few ideas and early drafts but it was difficult going until I found a willing partner (AKF). Our search ultimately led to the writing of this book.

Clinicians, researchers, and horse professionals

If you're reading this, there is a good chance you are a clinician, researcher, or horse professional interested in equine-assisted intervention. Maybe you are already incorporating horses into psychotherapy or other mental health interventions and are looking for an explanation of the changes you're seeing in your clients. Or maybe you're a researcher interested in equine-assisted intervention and you're looking for a theory or framework to help shape your research questions. Our goal in this book is to provide you with a common theoretical perspective by presenting an intervention theory on the mechanisms of change during psychotherapy, counseling, and other modalities that incorporate horses. We call this new theory Equine-Assisted Story Transformation (EAST). This intervention theory, which originated from the Eagala Model of equine-assisted intervention, is innovative in its merging of body and mind, horse and human, and extends beyond any specific model or approach. It fills a theory gap faced by clinicians and researchers working in any type of psychotherapy incorporating horses, in equine-assisted learning as well as the broader field of animal-assisted intervention. Throughout the book, for simplicity, we focus on psychotherapy incorporating horses but do not intend to restrict to only psychotherapy. In fact we use illustrative cases from equine-assisted learning in later chapters. We hope this book will stimulate thought and encourage professionals to consider the mechanism of change: how what is happening during and after a session with horses makes things different.

There are a number of organizations that train practitioners on how to incorporate horses when providing psychotherapy. We are most familiar with two: Eagala and ARCH. These organizations, among others described later in the book, help practitioners understand how to bring horses into their work. Not unlike a recipe, practitioners may learn the ingredients of a session (client, horse(s), facilitators, and space) and specific techniques, the what to do, how to do it, and why. What is missing from this information is a deeper understanding of what is happening and how these recipes lead to change.

Samin Nosrat's 2017 bestseller *Salt Fat Acid Heat* is an exceptional cookbook that joyfully explains the behaviors of her four title ingredients. When she explains, for example, how the osmosis and diffusion of salt happen, the reader can then see how time becomes a major influencer in the cooking process. By articulating when, how, and under what circumstances ingredients change food, she liberates readers from restrictive recipes and helps them become more effective, confident cooks (Nosrat, 2017). *Salt Fat Acid Heat* is a theory book. We have tried to do something similar here. Although there are recipes guiding psychotherapy incorporating horses, what we are proposing is a deeper look at, for example, the links between physiology and thought or the role of time, sleep, and story.

Knowing how change happens during and after equine sessions will help us understand when, how, and under what circumstances ingredients create change. We're proposing an intervention theory that we hope fills the gap when someone asks "but how does it work?" This innovative book explains, step-by-step, through text and illustration, a transdiagnostic intervention theory in equine-assisted therapy. EAST considers the person's pre-existing story, the intervention experience itself, the mechanism of change after the experience, and the outcome. It moves from story to experience to processing to re-story.

Book organization

The book is organized into three sections and written so that you can read the different sections and chapters in the order that suits you. Section 1 provides a theory primer and a rationale for developing a theory (Chapter 1), explains what we mean by equine-assisted intervention (Chapter 2), and describes some key characteristics of horses and other equines (Chapter 3).

Section 2 introduces the theory – EAST – as a whole (Chapter 4). The theory is then broken into several parts – the theory of the problem (Chapter 5), the theory of the intervention (Chapter 6), the theory of change (Chapter 7), and integration of the different components to form EAST (Chapter 8). This section provides rich background information about several theories that are integrated to form EAST, including metaphor theory, narrative theory, polyvagal theory, experiential learning theory, transformational learning theory, and our theory of the horse. We refer to these theories and the scholarly literature to address mechanisms of change during an equine session, through reflection after a session, and integration when followed by sleep.

Next, Section 3 involves application of EAST through autoethnography, the adaptation of a qualitative research method where the researcher writes about a topic from their own personal experience (O'Hara, 2018). Our intention is to paint a picture for the reader of what is going on, moment-to-moment inside the mind of a client during a session incorporating horses. We each share personal experiences in the role of a client during professional training sessions. First, Chapter 9 introduces autoethnography as a research method, and Chapters 10 and 11 provide autoethnographies from NWE and AKF respectively. Chapter 12 provides analysis of the autoethnographies, applying EAST as the theory through which we understand what happened during and after our own sessions incorporating horses. By analyzing our real-life sessions, we apply theory to practice, showing how to apply EAST in a real-life clinical situation. Chapter 13 summarizes EAST theory and application, placing them in the context of recent changes in humans' treatment of horses and practitioners' understanding of mind/body connection.

On the subject of EAST

It is fitting that this theory explaining how change happens when incorporating horses has the acronym EAST. One of the cardinal directions, east is the direction of the sunrise. It represents going from dark to light. It is the direction toward which the Earth rotates and marks a new day. Depending on the culture, east may be associated with hope, and the direction to which people pray. In some Indigenous communities, east is the direction of Spring, of change, or of new understandings. The theory EAST assumes that psychotherapy incorporating horses is a mind-body experience that can help us become aware of and change unconscious stories of ourselves and the world. Like a sunrise bringing light to the dark, and spring bringing a new day or new understanding, psychotherapy incorporating horses can give us a new, more adaptive perspective. In a similar vein, we hope this book gives you a new direction in better understanding equine-assisted intervention.

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Section I

Why theory for equine-assisted intervention?



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1 Why theory?

This chapter provides an overview of how we understand the components of any theory in general and explains how our proposed theory fits within the category of theory. First, we introduce our proposed theory: equine-assisted story transformation (EAST).

EAST: An intervention theory

EAST is based on an integrative theoretical model consistent with a post-modern worldview. It incorporates polyvagal theory (Dana, 2021; Porges, 2021), metaphor theory (Lakoff & Johnson, 1980), narrative theory (Madigan, 2019; White, 2007), a theory of the horse, transformational learning theory (Mezirow, 1991), and experiential learning theory (Kolb & Kolb, 2017). The integration of these provides EAST with key elements of a mind/body connection, neurophysiology, conceptual metaphor, externalization, disorienting dilemma, reflection, and restorying. From EAST's postmodern perspective, facilitators are collaborative, respecting the unique story that each individual person holds within them, while at the same time, keeping an awareness of their own assumptions, beliefs, and perspectives. Both the person and the horse are experiencing the other in some way, whether nearby or from a distance. The person's physiological state and sensory perceptions are part of the experience. The body and mind use incoming information and draw from pre-awareness and then awareness, seeking a reference point for interpreting what is happening in the moment. After the experience, the mind continues to process as meaning is made through story. EAST is a way of understanding how the body and mind are one unit, with as much happening below the surface as above. We have divided EAST into three sections – a theory of the problem, a theory of the intervention, and a theory of change. Chapter 4 will expand on these sections and introduce the theory assumptions.

EAST represents our explanation for what happens during a session of psychotherapy incorporating horses. EAST is consistent with several clinical approaches, including the Eagala Model (Eagala, 2019), O.K. Corral Series (O.K. Corral, 2014), and Arenas for Change (ARCH, 2021). But it is more abstract and less operationalized than a clinical intervention and

thus is conceptually useful for incorporating horses within a variety of practice approaches. It is a synthesis of various supporting theories, our more than ten years of personal experience as facilitators, the influence of other EAGALA and ARCH practitioners, the guidance and feedback from colleagues using other techniques, encouragement from champions of this work, and an understanding of the scientific literature. We have assembled EAST as an intervention theory that is about what happens when during a facilitated session humans interact with horses in particular ways, regardless of the approach.

Although there are different approaches that guide the clinical practice of psychotherapy incorporating horses, explicit theory is missing. Our goal for EAST is to provide a clear theoretical basis, common research language, and framework for incorporating horses in psychotherapy that may be used in part or whole for different human–equine interventions. We believe that EAST will be useful for clinicians and researchers focused on this work. It is not the only theory that might be applicable to this work but we believe it will be a useful theory. The next section of this chapter introduces important terms and concepts in theory and theory development.

Learning about theory

Learning about and understanding the fundamentals of theory was important in our process of developing EAST and introducing it in this book. This section of the chapter is not meant to replace the many scholarly writings on theory that are the essential readings in one's discipline. Instead, it serves as a starting place to indicate how we (NWE and AKF), two professionals in the field coming from different disciplines (nursing and psychology), see EAST in the context of theory. In order to understand if what we are proposing is a theory, and perhaps for you to effectively apply EAST as a theory underlying your practices, it's important to understand what a theory is and is not and what components make up a theory. EAST is a theory to explain how psychotherapy incorporating horses works. This primer briefly explains how theories in general work. In *The Way Things Work Now*, David Macaulay (2016) explains how machines work, from simple machines like zippers to more complex machines like metal detectors. "To see the way a machine works, you can take the covers off and look inside. But to understand what goes on, you need to get to know the principles that govern its actions" (Macaulay, 2016, p. 8). Using this analogy for psychotherapy incorporating horses, we can "take the cover off" and look inside a session. We will see one or more horses, a therapist/facilitator(s), a client, and perhaps some physical props. We can make observations of who does what and when. But in order to know if the process is working, we have to know what to measure – what

should be changing? And if we find something is or is not changing, we need to know *why/why not*. That requires a deeper understanding of the process. Machines are governed by principles or scientific laws (Macaulay, 2016); understanding the principles makes it easier to fix a machine when it's not working. Theories include concepts, statements, and assumptions. Understanding these pieces and how theories work helped us develop EAST and may help you in your work.

Some of you reading this may be well-versed in theory, and don't need an introduction to the topic. Or you may feel learning about theory is too far removed from your day-to-day clinical practice and wish to get right to the part where we share how we think horses facilitate change. In that case, feel free to skim this section or skip ahead to Chapter 2, where we describe equine-assisted interventions addressed by EAST. On the other hand, if you want to increase or refresh your understanding of theory or are curious about our understanding, then read on. Whether you read this section on theory now or not, it will be useful as you move through the book. Refer back to it and remember what a theory is. Returning to this section may be helpful to remember what makes up a theory, including the definition of a concept and different types of concepts, statements, and assumptions.

Theory primer

Theory is a mental construction that helps us understand how something works. Theory comes from a combination of thoughtfully explored ideas, observations, and reflections which are assembled in a particular way to communicate understanding about a phenomenon in the world. Theory is needed to know what parts of a phenomenon are making other parts happen and to bring focus to what is really going on. It explains what makes something do what it does and gives us the ability to anticipate what might happen when we increase, decrease, or otherwise adapt parts of that intervention.

Theories influence our understanding of the world and are sometimes so embedded that they are taken for granted, their influence no longer apparent as things run smoothly. There are other times when it is important to recognize and explicate a theory in use. When things are not running smoothly, when new problems arise, when an intervention is no longer working, or when the usual way something is done needs to be adapted to a new situation, then having theory becomes essential. When people are paying for a service and we are trying to justify its use, then theory is mandatory. When planning a research study where the goal is to systematically explore how we understand phenomena, theory becomes the guiding force that directs focus and attention on what, how, and why phenomena are examined. When evaluating a practice intervention, theory helps us identify the key elements that make that intervention work.

Theory components

The purpose of theory is to describe, explain, or predict how or why something is happening (Salmons, 2019). There is no single definition of theory. McEwen and Wills (2019, p. 28) define theory as “a set of logically interrelated concepts, statements, propositions and definitions...derived from philosophical beliefs of scientific data and from which questions or hypotheses can be deduced, tested and verified.” The next section introduces the different components of a theory.

Concepts

A theory has at least one and usually multiple concepts. According to Walker and Avant (2019), a concept is “a mental image of a phenomenon, an idea, or construct in the mind about a thing or an action” (p. 63). A concept is not the actual thing but only a mental image of that thing. A concept of a lake is not the lake itself but a mental image of the lake. We express that mental image that we are calling a concept through language. The name or term we use for the mental image is also not the concept (mental image) but rather a label that represents that mental image (Reynolds, 1971; Walker & Avant, 2019). We apply a label to the thing we are seeing in our mind and can then communicate what we are seeing to others (Figure 1.1).



Figure 1.1 Applying a label to a mental concept

When we experience a thought, idea, or phenomenon in our minds, we may take a mental step back to observe, ask ourselves “what is this?” and then give it a label. We do not necessarily do this in everyday life, where to be efficient we process things automatically and quickly. But when we encounter something unfamiliar, or see something from a different perspective we slow down the processing. This is similar to a mindfulness practice where *observe* and *describe* might be considered as separate mental steps, particularly when learning something new (Linehan, 2015). The naming of a concept may help in our own recall of it and can be used to communicate the mental image to others. Once we have a label, the mental process tends to happen almost simultaneously, the observing and describing seemingly merged. In fact, the differentiation between the concept and the word used to represent the concept is not always clear in the literature. Rather than the mental images themselves, concepts have been defined by some writers as the symbol or word or phrase that is used to represent the idea or thing created in the mind. A concept is the word or label that communicates the essence of something (Fawcett, 2018; Oxford University Press, 2020). There is a blurring of the line between the mental image and its label. We will do that here; for ease of writing this book, when we use the name or label of a concept we are also referring to the concept itself with the caveat that a concept can exist in one’s mind without language or a name. Concepts are the foundation of our thought process; we begin developing concepts as infants, interpreting experiences and ideas and organizing them in a way that helps us to efficiently communicate and understand the world. We have concepts before we have words (Carey, 2009). They are part of our everyday life.

Types of concepts

The labels, words, or symbols chosen to represent a concept are especially important when working with theory or doing research. When communicating a concept to another, the most important thing is how much agreement there is in meaning (Reynolds, 1971) (Figure 1.2).

Concepts can be abstract or concrete. An abstract concept can be made concrete by adding either time or space (location). School is an abstract concept. Adding the specific Stuyvesant High School in New York City makes what was abstract now concrete (Reynolds, 1971; Walker & Avant, 2019). If one concept has as part of its definition another concept then the former is more abstract than the latter.

The meaning of a concept can differ by context or perspective. The word “horse” represents a concept that for one person might be a living creature and for another a stuffed toy comes to mind. The meaning of concepts like boundary, health, emotion, empathy, language, and narrative depend on how they are defined in a specific context. The concept of bonding in the construction field may bring to mind images of

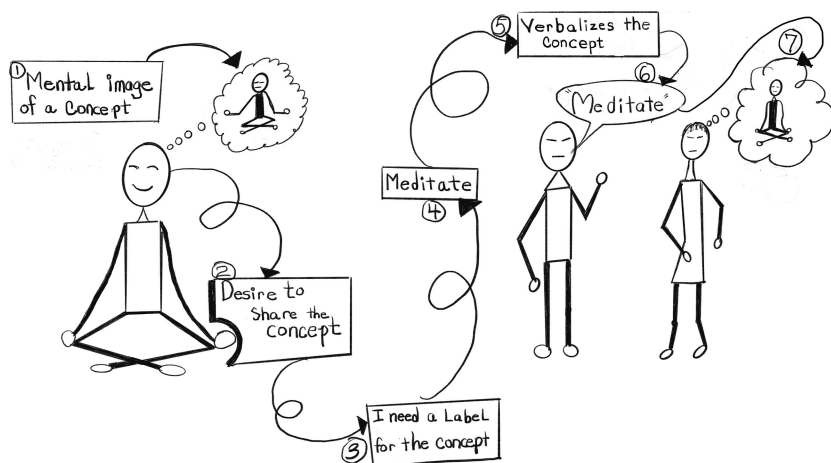


Figure 1.2 Communicating a concept from one person to another

adhesives while the concept of bonding by a mother toward her infant has a very different meaning (Klaus et al., 1983). When scientists are sharing abstract ideas, when they are working with theory or doing research and they need to agree on the meaning, then the concept needs a definition (Reynolds, 1971).

It is important for people to avoid reinterpreting, expanding, or adapting the original meaning of a concept as they communicate it to others. It is advisable to check the primary source for a concept definition. Sometimes the definition of a concept may change as a theory is tested and evolves. In this book, we indicate and explain how we are defining concepts and where they might differ from other sources.

Concepts and constructs: Theory or research

A concept in a theory will have a theoretical definition that explains the concept itself and how it fits with the theory. Theoretical definitions do not have specifications for measurement in the definition (Walker & Avant, 2019). However, in quantitative research operational definitions are used to provide a way of measuring the concept. An operational definition provides criteria for the existence of a concept in a specific research situation so that it can be measured and tested. It will show when the concept is or is not present in a study. Because an operational definition can artificially limit a concept, it is generally not used in theory. Instead, a theoretical definition allows for the richness of a concept in a theory (McEwen & Wills, 2019). A concept in a theory is more abstract than its research operational definitions and some concepts are more abstract than others.

When a concept is deliberately invented or created by researchers for a specific research purpose it is called a **construct** (McEwen & Wills, 2019). Researchers develop operational definitions for constructs. All constructs are concepts but not all concepts are constructs. Theory concepts rather than research constructs are the focus of this book. If future researchers develop operational definitions for concepts taken from EAST, then they will be working with constructs (Figure 1.3).

As concepts are developed around a phenomenon they can be broadly linked to form a conceptual framework (Fawcett & Desanto-Madeya, 2013). Concepts linked into conceptual models can be inductive, coming from observations or deductive when derived from research. The concepts can be further arranged to begin to form theory. A group of concepts does not make a theory, but when they can be logically interrelated into an organized form, theory begins to emerge (Merton, 1968, p. 143).

Statements

A statement is a declarative sentence. A theoretical statement either declares the existence of a concept or describes the relationship between two or more concepts in a theory. Existence statements might be “that horse is large” or “those horses have slow heart beats.” An existence statement indicates that the concept actually exists somewhere in the world (Reynolds, 1971).

A relational statement describes the type of relationship between concepts. One type of relationship can be when there is an association or correlation between concepts. It is saying that when **this** exists **that** also exists. The other type of relational statement is a causal statement. Causal statements indicate that one thing **causes** the other thing. In quantitative research, the thing that is doing the causing in a causal relational statement is called the independent variable.

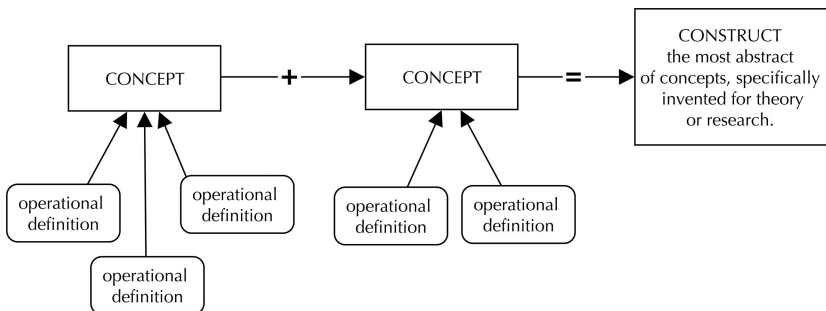


Figure 1.3 Concepts and constructs

Assumptions

Assumptions are the implicit and explicit beliefs about a phenomenon that are based on the theorist's values, philosophy, and/or knowledge and understanding of existing research. When an assumption is drawn from factual information then it is a factual assumption. When based on the theorist's values they are called value assumptions, neither right or wrong and not possible to prove. Assumptions are not testable, are foundational to the theory, and must be accepted to accept the theory. For example "horses are sentient beings" is a value assumption (McEwen & Wills, 2019).

Theory

Theory is a gateway to knowledge. There can be many different theories about the same phenomenon. Each theory comes from a particular perspective and will have its own focus. A theory is shaped by the theorist's philosophical lens and in turn shapes the research that ultimately informs the theory's ongoing development.

Theory scope from macro to micro

Theories can be categorized in a variety of ways. One way is to consider the scope or range of a theory, its breadth or depth. The more types of phenomena a theory includes and the greater the number of factors that explain what is happening, then the bigger the scope or range of a theory. Grand theories are the most abstract. They have a broad scope, for example, a grand theory may try to unify knowledge in a discipline, try to explain systems, seek to be all-encompassing, to provide a universal answer to how a world works. They take a macro view and although they are generally not testable, they can serve as a guide for phenomena that are the focus of middle-range theories (Walker & Avant, 2019).

In the 1960s, the idea of middle-range theories began to appear in scientific literature, for example, in developing practice disciplines like sociology (Merton, 1968) and nursing (Jacox, 1974). Rather than trying to explain how the entire world works these theories are less abstract and more focused. Although limited in what they try to explain, they are not so specific that they are made up of simple observations. Middle-range theories focus on specific phenomena, helping to describe, explain, and predict. They tend to come from real-life experience or clinical practice. They may evolve from broader grand theories to be more focused. They allow for the development of hypotheses that can then be tested (Hedström & Udehn, 2017). When theorists narrow the range of a theory by selecting certain factors to isolate and focus on while at the same time excluding other factors the theory becomes more suitable for testing (Hedström & Udehn, 2017).

With grand or macro theory at one end and middle-range theory in the center of this continuum, micro or everyday working theory is located at the other end of the theory range. Nursing is a practice profession with many examples of micro theories taking the form of practice theories. Practice theories provide a prescription or specific action needed to achieve a desired goal. These theories can be subcategorized, for example, situation-specific theories are a type of practice theory that provides guidance in a particular situation (Im, 2005).

The scope of theories ranges from the most abstract grand or macro theories to middle-range theories with testable hypotheses to the everyday micro theories that are the least abstract and most focused. Not only do theories have breadth and depth, but they also have a task. A theory may describe a phenomenon, explain how it works, or predict what will happen.

Theory provides perspective and directs our gaze, providing a way of looking at something. Like putting on a pair of eyeglasses, we see the world through a theory lens, some things are in focus, clearer and sharper while other things are blurry, out of focus or even out of range.

While making a video recording of horses, I (NWE) placed the tripod on the flatbed of a pickup truck facing a pasture. The camera was focused in the direction of a water trough about 8' in front of the truck. While looking through the camera viewfinder, I heard the pasture gate close as the horses were turned out. I could see the top of the head of a horse, the rest were not in range of my view. Although I wanted to look at horses relating to each other, I found myself having to make decisions on where to put my focus. I hadn't anticipated this dilemma. I did not have any guiding theory to suggest where I should look. Did I want to look at what was in front of me, or capture the entire pasture which would include far away things, seeing only large movements? As I considered this the sky darkened and clouds rolled in and I began broadening the camera view, my interest shifting from the horse in front of me to three horses in the pasture to the horses in the bigger space. Micro to macro. What do I want to know? There were no set boundaries, no delimits of my focus. There are times when this type of starting somewhere and seeing what you see is useful. Those familiar with qualitative research will recognize the strategy of getting the lay of the land or taking a "grand tour" in data collection before narrowing focus but eventually focus is always needed (Fetterman, 2020; Spradley, 1979). A guiding theory of some kind would have been helpful in giving focus to my photoshoot.

What is intervention theory?

An intervention is when one thing is added or inserted between two other things that somehow alters the latter. Adding salt to soup changes the chemical structure of soup and is an intervention. An outcome of adding

salt is a change in the taste of the soup. Psychotherapy, counseling, and education are interventions that professionals implement with people to facilitate some type of change.

When an intervention has several interacting parts it is considered a complex intervention. Interventions increase in complexity as the need for flexibility increases, for example, when done in different locations, involve different populations or are expected to have different kinds of outcomes. An intervention theory is a middle-range theory that gives theoretical explanations for how and why an intervention is effective. In complex interventions, one theory cannot explain all of what is happening (Aromatario et al., 2019; Craig et al., 2008). Many theories can be integrated into an intervention theory with each playing its own small or big part in the overall theory. An intervention theory considers who is being served, what intervention is going to occur and how that will lead to change. Thus an intervention theory can be organized by considering the theory of the problem (what the client brings to the intervention), the theory of the intervention (what is done and how it works), and the theory of change (what are the mechanisms of change).

Justification for EAST

Having an intervention theory that can explain change increases flexibility and allows the user to strategically adapt an intervention for new populations or unusual situations (Aromatario et al., 2019; Craig et al., 2008; Moore et al., 2015). It helps the interventionist know what parts of the intervention may need adjustment and anticipate the consequences of those adaptations. The following is an example of how that knowledge might have been recently useful.

When the Covid 19 pandemic disrupted face-to-face psychotherapy in 2020, mental health providers quickly transitioned to telehealth, video-conferencing, and distanced forms of communication. Clinicians working in the field of psychotherapy incorporating horses were faced with a dilemma, how to continue providing the benefits of experiential services to clients who were already engaged in this modality of care. The clinicians began exploring the idea of doing this work through telehealth. Various approaches were tried including the use of still images of horses to elicit thoughts that would then be processed in an imaginal way,¹ having a live video feed of horses viewed simultaneously by clients from their homes and the therapy team. When this was done the client and the facilitators shared a common visual and perhaps auditory experience that could then be explored with the client. Just as telehealth has increased access to care in some ways, the virtual psychotherapy incorporating horses sessions opened up the realm of possibility for incorporating horses in

psychotherapy while fundamentally changing the current approach. Typically horses are incorporated in psychotherapy with the expectation that horse and client are physically present in the space even if they may not be in direct contact. A typical session is experienced through four of the five senses (vision, hearing, smell, and touch).

When the virtual approach is used, several things change. The client sees photographs or sees and possibly hears horses in a video format. This narrows the experience to one or two senses. The visuals are experienced in a rectangular image (computer screen) with the exact image simultaneously displayed to both the client and the facilitators. This differs from a live session where the client may be standing away from the facilitators, with each having their own experience. In an in-person session, the client might be interacting with the horses and distant from the facilitators for much of the session. The horse–human experience is uninterrupted by clinician comment. With photos and video the facilitators are at hand, the client may feel the need to speak, their time to process may change, and there is no longer a two-way interactive process between horse and human. The client may react to the images but the horse images do not respond or react to the client.

Changes in the intervention change the consequences. Some cues are no longer present. There is decreased exposure to the natural outdoors and the client has lost the ability to move about, change perspective, or alter the environment. It becomes observation and description without participation. Mind without body. It is more passive and less active. There is no heightened awareness about physical safety. There is limited if any polyvagal sensory feedback (Porges & Dana, 2018). There are no longer things occurring that elicit an in-the-moment behavior change for the client. A client may imagine sensory experiences if they have had previous equine sessions but it is unclear what new clients might experience.

In every change there can be gains and losses, an upside and downside. These virtual sessions opened up new and different therapeutic opportunities for clients. The creative adaptation of an existing intervention is an opportunity to study the factors that cause change. If we can do psychotherapy incorporating horses without actual horses it would be more cost-effective and decrease the need for facilitator training. The virtual sessions force the question: do we actually need the physical horses? How important is it to be in nature? What are the factors that drive change in psychotherapy incorporating horses? And what happens when some of those factors are increased, decreased, or entirely eliminated? When and under what conditions are those factors critical and when are they expendable? This is where theory comes in. EAST, illustrated in Figure 1.4, will give us a way of organizing, linking, and understanding the what and how of psychotherapy incorporating horses.

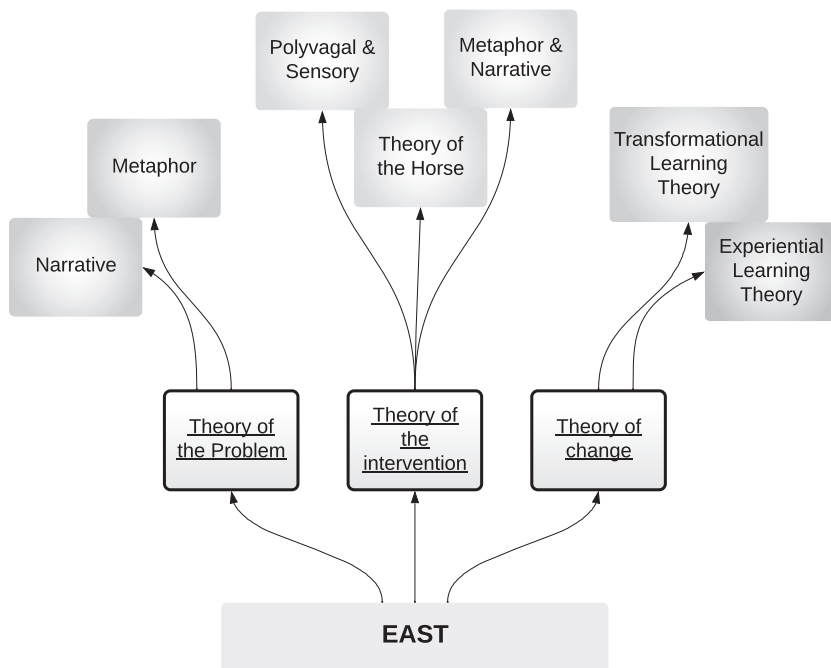


Figure 1.4 Theories organized within EAST

Note

- 1 Horse Path Therapeutic Cards are photos of a herd of horses in their natural habitat in Utah, USA. The horses appear in various roles as individuals and members of a group with situational body language that clients may interpret metaphorically <https://www.horse-cards.com/about>.

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2 What is equine-assisted intervention?

This book is about how change happens in equine-assisted intervention. But what exactly is equine-assisted intervention? Those of us in the field often get this and other questions about our work. Is this a treatment for horses or people? What happens in these interventions? This chapter addresses these questions. First, we briefly discuss the broader field of animal-assisted intervention, providing key definitions and distinctions. Then we discuss a range of interventions incorporating horses and identify common components among the different practice approaches. Finally, we review the scholarly literature on treatment outcome, identifying methodological limitations and recognizing gaps in our understanding of how equine-assisted interventions facilitate change.

Animal-assisted intervention

As we said in Chapter 1, an intervention is when one entity is added or inserted between two other entities that somehow alters the latter. Animal-assisted intervention is a broad, multidisciplinary field in which animals are incorporated into interventions like psychotherapy, counseling, and education to facilitate some type of change. The International Association of Human-Animal Interaction Organizations (IAHAIO) is a global association of organizations that engage in practice, research, and education in animal-assisted intervention and service-animal training (IAHAIO, 2018). The IAHAIO defines animal-assisted intervention as health, education, or human service activities that are goal-oriented, structured, incorporate animals, and are aimed at benefiting humans. Put more simply, the American Veterinary Medical Association (AVMA) uses the term animal-assisted intervention broadly to describe the use of animals to benefit humans (AVMA, 2022).

Professional organizations categorize different types of animal-assisted interventions, shown in Table 2.1, based on the intervention objectives. In *animal-assisted therapies*, animals are incorporated into treatments delivered by health or human service providers and the animal is necessary

Table 2.1 Animal-Assisted Intervention Terminology

<i>Intervention</i>	<i>Objective</i>	<i>Provider</i>
Animal-Assisted Therapy	Deliver health treatment or human service	Professionals licensed in health or human service
Animal-Assisted Education	Address academic or educational goals	Professionals in education and related services
Animal-Assisted Activity	Enhance quality of life through engagement with animals	Professionals, paraprofessionals, and nonprofessional volunteers

Adapted from the American Veterinary Medical Association (2022).

for the treatment (AVMA, 2022). *Animal-assisted education* is an intervention incorporating animals with specific academic or educational goals, delivered by educational or related service professionals. Animal-assisted therapy and education are both goal-directed, structured interventions delivered by trained professionals in their field. In contrast, *animal-assisted activities* are not necessarily directed at a specific goal; they may not be targeting a particular concern, condition, or objective. Rather, they are meant to enhance quality of life by providing opportunities for motivation or recreation. Animal-assisted activities are delivered in a variety of environments by professionals, paraprofessionals, and nonprofessional volunteers (AVMA, 2022).

In each of these intervention categories, the human provider must meet certain education or training requirements. Often, the animal must meet specific criteria as well, which may include physical requirements (e.g., age, health status), behavioral constraints (e.g., housetrained, obedient, nonaggressive), and trained skills (e.g., putting a paw on a book). There is a burgeoning literature on the efficacy of animal-assisted intervention, which is beyond the scope of this book. The interested reader can examine handbooks (e.g., Fine, 2019), published guidelines on the field (IAHAIO, 2018), published reviews on specific populations (e.g., O’Haire, 2017), or summative articles on conceptualization and efficacy of animal-assisted intervention in general (Machová et al., 2016; Nimer & Lundahl, 2007).

Animal-assisted interventions can incorporate a variety of species, including companion animals (i.e., dogs, cats), smaller animals (e.g., hamsters, rats), farm animals (e.g., llamas, pigs, chickens), birds, and reptiles. The most common animals used in interventions are dogs and horses (Fine, 2019). In this book, we are addressing *equine*-assisted intervention – interventions involving horses¹ and other equines.

Equine-assisted intervention

On terminology

Since its inception, the practice of using horses to benefit humans has gone by various names. Depending on the practitioner’s training, interventions have been referred to as equine-*assisted* or equine-*facilitated*. In practice and scholarship, specific interventions are named (e.g., equine-assisted *psychotherapy*) or the briefer equine-assisted *therapy* has been used. Practitioners recognize that variability in language can cause problems, such as stakeholder confusion, weakened credibility, and difficulty billing for services. In response, leaders in the field recently developed uniform terminology.

A group of experts addressed terms and definitions by (1) collecting frequently used terms through review of websites, glossaries, and published research, (2) conducting a survey of practitioners and stakeholders, and (3) participating in a summit to agree on terms and develop a consensus document (Wood et al., 2021). There was consensus on using *assisted* rather than *facilitated*, and replacing the often-used overarching term – *equine-assisted activities and therapies* (EAAT) – with *equine-assisted services*, categorizing specific services as *therapy*, *learning*, or *horsemanship*.

Equine-assisted services as defined in the consensus document is quite broad, including interventions for physical health (e.g., physical therapy, occupational therapy), interventions for mental health (e.g., psychotherapy, counseling); interventions aimed at educational, organizational, or personal learning (e.g., teambuilding); and horsemanship (e.g., riding, vaulting). Figure 2.1 illustrates this classification system, creating a continuum from healthcare to horsemanship.

Equine-assisted story transformation (EAST) helps explain how change happens when horses are incorporated into just a segment of these

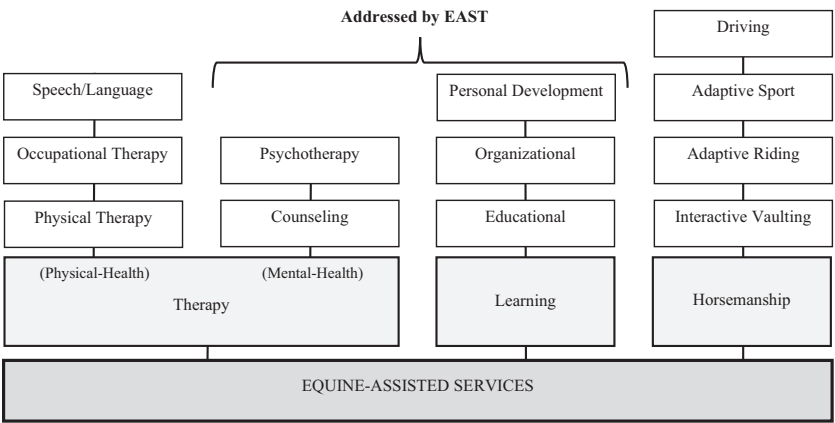


Figure 2.1 Range of equine-assisted services identified by Wood et al. (2021)

services – psychotherapy and learning – the services labeled *Addressed by EAST* in Figure 2.1. These services address mental health and wellness. The other services in Figure 2.1 address physical functioning (e.g., physical therapy incorporating horses) or horsemanship (e.g., driving vaulting) and are not addressed by EAST.

For the purpose of this book, equine-assisted interventions are interventions that incorporate horses into psychotherapy and other mental health or learning applications. We categorize these interventions into two broad types – psychotherapy incorporating horses and equine-assisted learning. Table 2.2 provides definitions for these terms, adapted from the terminology consensus document (Wood et al., 2021). We recognize the field will continue to evolve and terminology may change as a result.

Psychotherapy incorporating horses

Psychotherapy incorporating horses, also known as equine-assisted psychotherapy (EAP) or equine-facilitated psychotherapy (EFP), is psychotherapy for humans that takes place in an equine environment in the presence of horses or other equines. First and foremost, psychotherapy incorporating horses is psychotherapy. Practitioners are prepared to provide psychotherapy services. Requirements vary by country but generally psychotherapy practitioners have graduate or postgraduate training in the field. In the United States, counselors and psychotherapists come from various disciplines such as psychology, nursing, or social work and hold professional licenses issued by a state government regulatory agency. Psychotherapy graduate programs may include instruction on incorporating horses or other animals, but many do not. In that case, practitioners complete psychotherapy training and then obtain additional training on

Table 2.2 Equine-Assisted Interventions Addressed by EAST

<i>Term</i>	<i>Definition</i>
Psychotherapy incorporating horses	Psychotherapy for humans that takes place in an equine environment in the presence of horses or other equines. Services are provided by mental health professionals qualified to do psychotherapy.
Equine-assisted learning	Non-therapy experiential learning services that take place in the equine environment in the presence of horses or other equines. Learning is facilitated by professionals trained in their respective fields (e.g., teachers, coaches), aimed at promoting the development of life skills for education, organizational performance, or personal growth and wellness.

Adapted from Wood et al. (2021).

incorporating horses in the psychotherapy process. We describe some of the training organizations later in this chapter. In the field at large, horses can be incorporated in a variety of ways (i.e., horseback riding, ground-work) and the horse's role in treatment can range from a minor presence added onto the typical psychotherapy process to serving as the core of the treatment.

In the absence of a comprehensive theory to explain the mechanisms of change, equine-assisted intervention training programs tend to refer to different theories on psychotherapy, suggesting that one or more theories are relevant to or compatible with the various methods of psychotherapy incorporating horses. For example, Trotter (2011) suggests psychotherapy or counseling incorporating horses is drawn specifically from brief therapy, gestalt therapy, reality therapy, and Adlerian therapy. PATH International mentions several as well – gestalt, person-centered, cognitive-behavioral, and narrative therapies (PATH International, 2011). Eagala suggests that their model is consistent with several theories due to the inclusion of post-modern concepts – humanistic/person-centered, solution-focused, narrative, collaborative, non-interpretive language, and symbolic modeling (Eagala, 2019). In some cases, the psychotherapy theories are only mentioned, and in other cases, there are suggestions on how a particular way of incorporating horses is consistent with a theory. However, none of the training organizations provides a comprehensive, testable theory on why or how incorporating horses into the intervention impacts change. This limitation is also present when incorporating horses into learning interventions.

Equine-assisted learning

Equine-assisted learning is a non-therapy, experiential learning service that takes place in the equine environment in the presence of horses or other equines. Learning is facilitated by professionals trained in their respective fields (e.g., teachers, coaches), aimed at promoting the development of life skills for education, organizational performance, or personal growth and wellness (Wood et al., 2021). Recipients are individuals and groups from workplace or educational settings, including people with specific needs, challenges, or disabilities. As an example of this process, Stock and Kolb (2016) conducted a qualitative study, interviewing 28 corporate managers after they participated in an equine-assisted learning session for organizational development. The participants experienced unstructured engagement with horses (e.g., observing the herd, approaching horses), completed structured activities (e.g., haltering a horse, moving horses through obstacles), and reflected on the experience. Facilitators guided processing by reflecting on observations. Participants noted similarities between their interactions with the horses and interactions with people or tasks in their management positions. Outcomes endorsed by participants included a better understanding of themselves in relation to others and a new way of thinking about building trust in their organization.

Psychotherapy and other therapy interventions incorporating horses that require a license or credential lead with the specific therapy intervention – psychotherapy, counseling, personal development – and then incorporate horses. Services are grounded in these existing fields, delivered through human-horse interaction. There can be great variability across interventions since practitioners can be educated within various mental health or learning disciplines and trained in diverse perspectives on human behavior. In addition, practitioners can learn to incorporate horses into interventions from any of a number of organizations that offer different practice approaches.

Practice methods and approaches²

Standardized methods of psychotherapy and other mental health and learning interventions incorporating horses date back to the early 1990s.³ Since that time, numerous organizations have been founded, developing various methods (i.e., practice methods) of incorporating horses into psychotherapy and learning. Table 2.3 lists some of the organizations that have developed practice methods and provide training for practitioners. A review of organizational materials and the scholarly literature indicates each of them train practitioners to deliver equine-assisted interventions as we define them in this book. Following the table is a brief description of some of these approaches. Training materials invariably use different terminology (e.g., equine-facilitated experiential learning, EAP). The materials reviewed were published prior to recent consensus on terminology and thus may be changing. For consistency with the rest of this book, we refer to equine-assisted interventions using the two broad terms we defined earlier, adapted from Wood et al.'s consensus document (2021) – psychotherapy incorporating horses and equine-assisted learning – rather than the specific terms used by individual organizations.

Table 2.3 Equine-Assisted Intervention Training Models

<i>Training Organization</i>	<i>Web Address</i>
Adventures in Awareness	adventuresinawareness.net
Certification Board of Equine Interaction Professionals	cbeip.org
Eagala	eagala.org
Eponaquest Worldwide	eponaquest.com
Equine Psychotherapy Institute	equinepsychotherapy.net.au
Gestalt Equine Institute of the Rockies	gestaltequineinstitute.com
Human-Equine Alliances for Learning	humanequinealliance.com
Human-Equine Relational Development Institute	herdinstitute.com
Natural Lifemanship	naturallifemanship.com
O.K. Corral Series	okcorralseries.com
PATH International	pathintl.org

Adapted from Fine, 2019

PATH International

The Professional Association of Therapeutic Horsemanship International (PATH) is an association dating back to 1969 (originally formed as the North American Riding for the Handicapped Association, NARHA). The organization educates and trains instructors and credentials centers that offer equine-assisted services to individuals with disabilities or other special needs. PATH trains and certifies instructors to offer programs in hippotherapy (i.e., physical, occupational, or speech and language therapy incorporating horses) and horsemanship (e.g., adaptive driving, interactive vaulting) as well as psychotherapy and learning interventions (PATH International, 2011). In the PATH approach, *psychotherapy* incorporating horses is ground-based – no horse riding – while *learning* can include ground-based and mounted activities. According to training materials, horses are incorporated into interventions because as domesticated prey animals they are intuitive and aware of their environment. Noticing changes in the environment, including changes within the humans in the environment, horses serve as biofeedback, bringing things to the surface without language, exposing behavior patterns. PATH suggests a relationship with horse(s) can be a foundation to replicate metaphor of self and other (PATH International, 2011).

Eponaquest Worldwide

Eponaquest Worldwide was founded in 1997 by Linda Kohanov in an effort to explore the healing potential of horse-human relationships. The Eponaquest approach involves employing horses in human development work, providing equine-assisted intervention workshops in leadership, personal development, and equestrian skills. Most pertinent to this discussion, the organization offers an apprenticeship for learners to become Eponaquest instructors, facilitating the Eponaquest approach to incorporating horses in learning interventions. In this specific method, the “way of the horse” and horse-human relationships are leveraged to train individuals and groups on leadership, personal development, and equestrian skills (Eponaquest Worldwide, n.d.). Activities may be ground-based or mounted.

Eagala

The Equine-Assisted Growth and Learning Association (Eagala) was co-founded in 1999 by Lynn Thomas and Greg Kersten. The organization provides training for horse professionals and mental health professionals to incorporate horses into psychotherapy and learning interventions. In 2019, the organization reported 49,945 clients were served by 500 programs in 40 countries (Eagala, 2019). The method requires a team – an equine

specialist,⁴ a mental health specialist, and one or more live horses – to facilitate ground-based interventions. Facilitators are trained in experiential principles, facilitation with non-interpretive language, and observation of the people, animals, and objects in the therapeutic space. The process is client-centered and solution-oriented. Facilitators hold space for clients to engage with horses and the environment in order to externalize and enact their story. For a more detailed description, see Buck et al. (2017), Notgrass and Pettinelli (2015), the Eagala manual (2019) or visit the Eagala website (eagala.org).

O.K. Corral Series

The O.K. Corral Series was developed in 2006 by Greg Kersten. The organization provides a series of training programs in psychotherapy and learning incorporating horses, with each program covering a different purpose (e.g., learning for the workplace) or population (e.g., psychotherapy with veterans). The approach adheres to several principles, based on natural horse behavior and the similarities and differences between human behavior and horse behavior. It is assumed that horses elicit patterns in clients and model individual and herd behavior as possible solutions for presenting problems or goals (O.K. Corral Series, LLC, 2014). Trainings teach practitioners to incorporate horses through ground-based and mounted activities.

Gestalt Equine Institute of the Rockies

In 2008, Duey Freeman and Joan Rieger founded the Gestalt Equine Institute of the Rockies (GEIR). The organization provides training in psychotherapy incorporating horses. This method is unique in that rather than list a variety of potential therapeutic approaches that fit with incorporating horses in interventions, practitioners learn to integrate horses into one theoretical approach to human behavior. Specifically, the GEIR method integrates psychotherapy based on gestalt theory with relational horsemanship methods (Gestalt Equine Institute of the Rockies, n.d.). Sessions are experiential and interactions with horses can be ground-based or mounted.

Natural Lifemanship

Founded by Bettina Shultz-Jobe and Tim Jobe, Natural Lifemanship is a method for treating trauma and developing healthy relationships through connection with horses. With trainings beginning in 2010 (Natural Lifemanship, n.d.), the method is based on the neurobiology of trauma and relationships. The Natural Lifemanship organization trains horse professionals and mental health professionals to facilitate trauma-focused EAP

(TF-EAP), in which clients develop skills to self-regulate and connect with others (Jobe et al., 2016). This approach focuses on developing relationships to recover from trauma. As to why horses are incorporated, as opposed to other animals, the organization cites literature on the effects of trauma on the human brain (MacKinnon, 2012). The organization compares the brain development of someone who has experienced trauma to the natural brain development of horses (Jobe et al., 2016), organized for vigilance and response to threat. The role of the horse is to serve as an *other* with whom the client can relate, developing relationship skills. Horses are incorporated through groundwork as well as rhythmic riding, aimed at improving emotional regulation and processing of trauma (Jobe et al., 2016).

Equine Psychotherapy Institute

The Equine Psychotherapy Institute (EPI) was developed in 2011, offering workshops in psychotherapy incorporating horses and equine-assisted learning (Kirby, 2016). This approach allows for ground-based and mounted interactions with horses. Based in Australia, EPI's approach is a synthesis of several therapeutic approaches, including relational gestalt therapy, mindfulness, Buddhist psychotherapy, cognitive-behavioral therapy, neuroscience, and somatic experiencing (Kirby, 2021).

Arenas for Change

Arenas for Change (ARCH) was founded in 2021 by Lynn Thomas. ARCH is an online platform providing education and community for practitioners in the well-being industry (Arenas for Change, n.d.). The organization also trains practitioners in a facilitation framework for psychotherapy and learning interventions that incorporate horses or other animals. In the ARCH framework, psychotherapy and learning take place through externalized story; clients identify storylines and characters and may work on making changes to their story. The work is experiential; natural horse behavior serves as stimulus for the client's story (ARCH, n.d.).

Similarities and differences across approaches

This sample of training organizations is meant to give an idea of the different practice methods in the field. Each organization has a unique style of incorporating horses into interventions. For example, in the Eagala Model, psychotherapy incorporating horses is described as experiential, activities are ground-based, and metaphor is incorporated. The interested reader can learn more about individual organizations at the websites listed in Table 2.3. From our review of the organizations' websites and promotional or training materials, it is clear that the various approaches apply

some common components, including but not limited to being experiential in nature, including ground-based and/or mounted activities, and focusing to a greater or lesser degree on metaphor, story, and horse-human relationships. For example, equine-assisted intervention is typically experiential in nature. The approaches we described earlier involve delivering psychotherapy or learning in the equine environment through engagement or interaction with horses. Experience can include observation of the horses and horse environment, physically engaging with horses (e.g., spending time near, petting, grooming), completion of tasks or activities (e.g., walking with horses, moving horses from one location to another), and/or symbolic modeling of personal goals or concepts in the horse environment (e.g., creating and labeling a structure with props). Contrary to the experiential component, the inclusion of mounted activities, in which clients sit or ride atop a horse, versus ground-based activities is less consistent. Some approaches include both mounted activities and groundwork, while others incorporate horses through groundwork only. Similarly, some approaches emphasize the importance of human clients developing relationships with horses, while others do not include relationships as part of the intervention. Rather than adherence to one particular approach, EAST can be useful in understanding how change happens within a variety of practice methods that include some or all of these components.

In addition to guidelines or standards on key components, training organizations often make statements about why horses can or should be incorporated into psychotherapy and other interventions. Again, a review of organizational websites and materials at the time of this writing reveals themes on why horses are good partners in intervention or characteristics that allow them to help create change. Some organizations suggest horses' size, strength, and speed contribute to their role in psychotherapy. Many training organizations implicate horses' status as a social animal and their membership in herds as important. The horse's status as a nonpredatory or prey animal is consistently mentioned in practice method materials. While there seems to be an effort to explain why horses are incorporated into interventions, and some agreement across organizations on key horse characteristics, there is not yet a theory incorporating specific horse characteristics to explain *why* these characteristics matter and *how* they allow horses to facilitate change. EAST aims to fill that gap; the theory identifies horse features and explains how they contribute to the horse's role in psychotherapy and learning. Next is a brief review of the scholarly literature on equine-assisted intervention, identifying potential outcomes and processes as well as limitations.

Research on equine-assisted intervention

Interest in equine-assisted intervention has led to a growing body of literature. Findings suggest that these interventions are useful in helping people

overcome challenges and improve well-being, manage relationships, and address a range of emotional and psychological issues such as addiction and post-traumatic stress disorder (Thomas & Lytle, 2016; Wilson et al., 2017). Equine-assisted interventions have been associated with improvements in anxiety and depression, self-esteem, trust, and insight (Bivens et al., 2007; Ferruolo, 2015; Meinersmann et al., 2008). Pilot studies suggest a potential for decreasing mental health and behavior issues in children exposed to violence and improved self-efficacy for adult victims of intimate partner violence (Schultz et al., 2007; Wilson et al., 2017). We review several specific studies here, providing a sample of the empirical work on psychotherapy and learning interventions that incorporate horses.

Sample of outcome studies

In a study of 90 psychiatric inpatients with chronic mental illness, Nurenberg et al. (2015) randomly assigned participants to one of the four treatment groups – EAP, canine-assisted psychotherapy, environmentally enhanced social skills group psychotherapy, or treatment-as-usual. All participants received 10 weekly group sessions. The equine-assisted intervention was based on the Eagala model. Results showed that violent behavior in the equine group had decreased at three months, compared to pre-treatment levels, whereas violent behavior did not decrease in the other groups. They proposed that “interacting with physically imposing animals that appear quite capable of causing harm but do not” (Nurenberg et al., 2015, p. 85) may have served as a model for nonviolent behavior. They also suggest that the tendency for nonpredatory animals to *mimic* rather than *direct* human responses may be therapeutic for this population.

Burton et al. (2019) conducted a prospective study of 20 veterans diagnosed with post-traumatic stress disorder (PTSD), comparing a treatment-as-usual group ($n = 10$) with a group experiencing treatment-as-usual plus six weekly one-hour sessions of Eagala-model psychotherapy incorporating horses ($n = 10$). Results showed that PTSD symptoms declined significantly for both groups and resiliency scores increased significantly for participants in the equine group. The psychotherapy sessions with horses had other benefits, although not systematically recorded. Participants reported a calming effect from the treatment, facility, and horses; as well as improved self-esteem, quality of life, and personal growth. The researchers suggest peer support and interaction may account for some positive effects. They suggest psychotherapy with horses may work as well as standard treatments for PTSD. The authors provided detail about the intervention itself; key factors listed were a solution-oriented approach, the use of metaphor and the symbolic nature of the environment, and the concept of transderivation. All participants were also engaged in other therapy, a complicating factor in this and other studies.

In a randomized controlled trial of equine-assisted learning, Pendry and colleagues (2014) randomly assigned children in grades 5–8 to an experimental group or wait-list control group. The experimental group received 11 weeks of equine-assisted activities in weekly 90-minute sessions following the PATH International approach. The goal of the intervention was improved social competence, measured via parent report and behavioral observation. The data showed a moderate positive effect, with children in the experimental group having improvements in social competence. Specifically, the children had greater personal responsibility, decision-making, goal-directed behavior, self-awareness, and self-management. Furthermore, the number of weekly sessions attended was positively associated with desired outcomes.

In a second study examining equine-assisted learning, Morgan (2017) conducted a quasi-experiment comparing students who received experiential activities for stress management with students in a control group. Students in the experimental group, which included Eagala-model equine-assisted learning or other activities (e.g., mindfulness, yoga), reported reduced stress at post-test. A second study shows the versatility of this modality, addressing wellness among older adults. Researchers conducted a mixed-methods crossover design wherein older adults with functional limitations or cognitive impairment received Eagala-model equine-assisted learning (Lee et al., 2020). Following a series of four sessions, participants completed a self-report measure on sense of purpose and engaged in a discussion with researchers on their experience. Respondents reported a sense of purpose from the activity as well as social stimulation in the group setting.

Studies on process

As noted earlier, metaphor is a key component in some practice methods of equine-assisted intervention. Fournier et al. (2018) explored the role of metaphor in Eagala-model work. In a correlational study using self-reports of 112 men and women about their first session, researchers provide empirical evidence supporting metaphor as a key variable. They observed and systematically recorded behavioral interactions from human to horse and horse to human using the Human-Animal Interaction Scale (Fournier et al., 2016). Participants reported the use of metaphor by rating their level of agreement with the statement “the horse represented something in my life” and writing about that representation. For most participants, horses metaphorically represented a feeling or state, someone in the person’s life, relationships, challenges or barriers, life lessons, or themselves. The outcome of psychosocial learning was measured via agreement with the item “I learned something about myself” and written descriptions. When entered into a mediation model, metaphor was a significant mediator of the relationship between human-horse interaction and psychosocial

learning. It seemed learning from engaging with horses occurred through metaphor.

In a qualitative study with eight facilitators, interviewees described their insights and observations of the Eagala approach and subsequent outcomes (Wilson et al., 2017). Practitioners provided psychotherapy incorporating horses to adolescents, treating anxiety and depression. When asked about key factors that facilitate change, participants discussed the experiential nature of the work, allowing clients to experiment with new behaviors. They also suggested the opportunity for visual representation of problems as a key factor. With regard to outcomes, improved confidence and self-esteem were the most common effects noted. Participants also reported an improvement in self-control and emotion regulation. Facilitators perceived the psychotherapy with horses as powerful and impacting clients more quickly than typical office-based treatments, referring to peak or “a-ha” moments within a single session.

Research limitations

While these findings are promising, enthusiastic interpretations of pioneering research efforts have unfortunately led to statements that exceed what the scientific literature can support. Lee et al. (2016) conducted a narrative synthesis of 24 studies where horses were incorporated into psychotherapy between 2005 and 2013, revealing several limitations in the literature. Of the 24 studies, most were master’s theses and dissertations, with only four actually published in peer-reviewed journals. This means most of the studies were graduate student papers rather than research articles deemed relevant and scientifically sound by experts in the field. Regarding methodology, there were incomplete analyses of qualitative studies, a tendency to combine data from different practice methods hindering comparisons, low survey response rates, and small sample sizes. They did note a paradigm shift in how researchers talked about psychotherapy with horses over time, moving from an anthropocentric perspective to a biocentric one. In the former, humans have inherent value, evident by “using” the horse; in the latter all organisms have inherent value and horses are part of a team.

Much of the literature reflects heterogeneity in intervention implementation and the above-noted limitations in methods. Studies may not adequately describe the characteristics of populations or specific issues that were targeted, which approach was used, whether a particular theoretical perspective was guiding the intervention, and what specific activities occurred. In some studies there is a mix of activities including horse care, horse riding, and on-the-ground interaction, all within one intervention. In a systematic review of the 14 studies appearing in peer-reviewed journals between 2003 and 2013 (Anestis et al., 2014), all had substantial threats to validity. Threats included inadequate controls, lack of randomization, and variability in application of the intervention. The researchers

also noted the absence of theory explaining the mechanism of change, in particular, questioning the role of the horse. McNamara (2017) conducted an empirical study revealing the same problem. Interviews with ten EAGALA-model practitioners in six different settings showed a lack of clear theoretical framework to guide their work. The researcher noted a lack of clarity in how borrowed elements from several theories contribute to a cohesive integrative model. This problem was evidenced by discrepant accounts from the professionals on what parts of the intervention were most important.

In summary, research on equine-assisted intervention is promising, but future studies need greater methodological rigor guided by theory. Despite a growing evidence base showing positive outcomes, there is still little insight into exactly how and under what conditions psychotherapy and learning incorporating horses works.

Summary

This chapter has addressed the question: *what is equine-assisted intervention?* It turns out this is a fairly complicated matter. There are various definitions, depending on who is investigating, discussing, or delivering the intervention. Horses are incorporated into interventions addressing physical health, mental health, and learning. Interventions are sometimes in the saddle and other times on the ground. Services are delivered by professionals in health, education, and horsemanship. For the purposes of this book, equine-assisted intervention is defined as intervention aimed at improving human mental health and well-being through psychotherapy or learning that incorporates horses. We distinguish between psychotherapy incorporating horses (i.e., psychotherapy provided by a licensed mental health professional that incorporates horses as part of a treatment) and equine-assisted learning (i.e., non-therapeutic learning that incorporates horses and addresses organizational, personal growth, and life skills). Equine-assisted interventions are provided by professionals who have completed education or training in their respective fields (e.g., college degrees, licensure) and are trained to incorporate horses in their work. There are a variety of equine-assisted intervention training programs, which tend to incorporate some common components. Equine-assisted interventions are experiential, they incorporate horses performing natural horse behavior in the horse environment, and they often incorporate metaphor, symbolism, and story. EAST was developed with these types of interventions in mind.

While the content summarized here sheds light on important aspects of the process and potential outcomes, there is limited information on the experience of clients who receive equine-assisted intervention, regardless of the particular approach being applied. There are no reports in the literature detailing the moment-to-moment experience of a client during a session, a perspective that would provide important insight into what

is happening for the client. Moment-to-moment information will help researchers develop deeper knowledge on the who, what, when, and how of this approach. And while theories of human behavior, psychopathology, and psychotherapy are referred to by training organizations and have been mentioned as possible explanations in the scholarly literature, there is a need for theory explaining how change happens in equine-assisted intervention. EAST answers that call, providing a theoretical framework to explain equine-assisted intervention that incorporates established theories from the social and animal sciences. Regarding the latter, the characteristics of horses and their relevance for intervention work are discussed next in Chapter 3.

Notes

- 1 As discussed further in Chapter 3, equine-assisted interventions may incorporate several equine species, including donkeys and mules. For simplicity, and because horses are most often used in practice and referred to in the literature, we refer to horses throughout the text.
- 2 Information on practice methods is current at the time of this writing. However, methods are subject to change over time. For example, the Eagala model has evolved over time from prescribing structured activities (Eagala, 2011) to unstructured experiences (Eagala, 2019).
- 3 We're focusing on practice methods to give the reader an overview of the ways in which horses are incorporated into psychotherapy and learning. For a broader history of the field in general, see (Hallberg, 2008, 2018).
- 4 Equine specialists are professionals who have extensive experience working hands-on with horses (i.e., 6,000 hours or three years full-time work) and have completed Eagala certification (Eagala, 2019).

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3 The horse

“I live in awe and gratitude for all the boundless blessings that horses represent” (Hamilton, 2011, p. 288). This is one of the many quotes about horses, most of which describe unique characteristics or behaviors. A quick Google search brings up pages and pages of quotes about horses’ unique way of being in the world and the way they make us feel. Equine-assisted interventions capitalize on horse attributes and our response to them. In interventions addressed by equine-assisted story transformation (EAST), horses are not trained to perform in any particular way. Instead, the intervention relies on horses’ physical presence and natural behavior; the horse serves as a stimulus for metaphor and story. Here, we describe that stimulus. After discussing key horse characteristics, we suggest that it is the unique combination of multiple characteristics within the horse, interacting in a unique way, that make up the horse as we experience them in psychotherapy and learning. So, what is a horse?

Regarding zoological classification, horses belong to the Equidae family; along with donkeys, mules, and zebras; with multiple subspecies of each (Parker, 2019). Of the animals in the Equidae family, horses are discussed most often in the intervention literature and certification materials and therefore are the focus throughout this book. Horses and other equines belong to the Kingdom Animalia; they are animals. Their phylum is Chordata (i.e., they have a flexible rod supporting their back); more specifically, horses have a backbone and are classified as vertebrates. Moving further down the classification, horses belong to the Class Mammalia; they are mammals. They have mammary glands, a neocortex, fur (or hair), and middle ear bones. But what does a horse look, smell, and feel like? What do horses do? Here, we describe the horse as an animal whose presence provides stimuli for the human senses.

Stimuli for the senses

Sights

What do horses look like? When looking at a horse you might first notice a relatively large animal, in comparison to a human, with four legs and just

one toe on each foot, called a hoof. Horse bodies can vary in size and color. Horses are covered in hair, typically with short, fine hair covering most of the body and long, coarse hair on the neck (i.e., mane), forehead (i.e., forelock), and tail. Hair on a horse's body can be solid in color – black, white, gray, or various shades of brown, orange, red, or yellow – or have more than one color, such as white and black or white and brown. The color of the hair on the body can be the same or different from the color of the hair on the mane, forelock, and tail. For example, a Bay horse has a brown body with black mane, tail, and legs (Edwards, 2016). The hair covering the body is typically short hair, but similar to other mammals it can grow longer and thicker in cold weather and then shed when the weather warms. Horse hair can have distinctive markings and growth patterns, creating a unique appearance for each horse, such that horses of the same general breed and color can look quite different. For example, a horse's face can be accentuated with white markings. A small patch between the eyes is called a *star*, a spot on the nose is referred to as a *snip*, a thin band all down the nose is a *strip*, and a thicker patch covering the bridge of the nose is a *blaze* (Rider, n.d.). The legs can also be accented with white markings – those that extend from the hoof to above the knee are called *stockings*, marks from the hoof to below the knee are called *socks*, and smaller markings just above the hoof are called *pasterns* (Edwards, 2016). Some horses have longer hair on their lower legs, called *feathers*. The hair on the body generally grows smooth, but can include *whorls*,¹ which are patches of hair that grow in the opposite direction of the surrounding hair (Meyer, n.d.). Whorls can be anywhere on the body and are often present on the face.

Perhaps one of the more notable features of horses is their size. Equine-assisted intervention practitioners suggest horses' size contribute to their impact because it makes it difficult to ignore them (Eagala, 2019). And indeed, horses can be quite large. Horse height is measured at the withers, the ridge between the shoulders (Merriam-Webster, n.d.), and described in *hands*. One hand is four inches. The Shire breed is considered among the largest in the world and can be as tall as 19 hands (i.e., 6.33 feet) and weigh up to 2,640 pounds (Hendricks, 1995). But horses can range in size to also be relatively small. Miniature horses, which also serve in equine-assisted interventions, measure 34 inches or less from the ground to the withers and weigh between 150 and 350 pounds (American Miniature Horse Association, n.d.).

The hooves of the feet are covered by hoof capsules, which continually grow, like human toenails. For horses in the wild, the capsule is worn down naturally while walking and grazing. Domestic horses typically need their hooves trimmed every few weeks. Hooves are made of keratin, a versatile tissue also found in hair, feathers, horns, and beaks. The keratin in horse hooves forms in circular tubules, making them especially strong and resistant to fracture (McKittrick et al., 2012). Strong hooves are

important, as it's estimated that horses spend approximately 90% of their time (i.e., 22 hours in a 24-hour period) on their feet (Waring, 2003).

A horse's eyes are on the sides of the head and are the largest of any land mammal (Knill et al., 1977; Waring, 2003). The black part of the eye is the pupil and the colored part is the iris. Outside of the iris is the white sclera. The most common iris color in horses is brown, but they can also be green, hazel, amber, or blue. Unlike the human pupil, which is round, the horse pupil is a horizontal oval. A horse's eyes can look different, depending on their level of arousal and emotional state. For example, a horse who is relaxed might have what is called a "soft eye" in which the muscles around the eye are relaxed, and there is no sclera showing (Paulson, 2020). On the other hand, a horse that is alert, stressed, or fearful may open the eye wide, so that the sclera is visible (Wathan et al., 2015).

The eyes are just one feature on horses' elongated faces, capable of exhibiting a variety of facial expressions. Wathan et al. (2015) studied facial expression and musculature in horses. These researchers examined horse facial anatomy and reviewed video footage of horses in a variety of contexts. They identified facial expressions and the muscles responsible for them, resulting in an equine facial coding system. The coding system revealed that horses have surprisingly complex facial expressions, including similarities to that of humans and other primates. The coding system includes muscle actions of the upper face (e.g., forelock, eyebrow, and eyes) and lower face (e.g., nostrils, upper and lower lip, jaw, and chin). The facial features of the horse are unique and can vary in appearance, from moment to moment, serving to communicate with those around them. According to Wathan and colleagues (2015), their complex facial repertoire allows for effective communication among horses and between horses and other animals, including humans.

Horse ears, called pinnae, stand up on top of their heads. The musculature is complex, allowing for impressive range and specificity of movement. Horses can move their ears toward the direction of sound. Like a satellite dish, they can bring the ears forward, to the side, or back. A horse's ears can move synchronously in the same direction or they can move independent of one another. In addition to tracking sounds, the placement and movement of a horse's ears can communicate with those around them. For example, ears that are flat back against the neck communicate dominance or aggression (Edwards, 2016; McDonnell, 2003).

Sounds

We can hear a variety of sounds when working with horses – sounds horses make to communicate with others and sounds that occur as part of their natural behavior. McGreevy (2004) classifies equine vocalizations as laryngeal, which are produced by the larynx, or nonlaryngeal, which are byproducts of the expiratory effort. Laryngeal vocalizations capitalize

on the horse's large sinuses, allowing for greater volume. Horses' vocal repertoire includes several different laryngeal vocalizations, including the whinny, nicker, and squeal. Nonlaryngeal vocalizations may include the sound of a horse snorting or snoring. Beyond vocalizations, horses make a variety of other sounds with their body, such as when chewing on grass or other food, drinking water, walking or running, and swishing their tail.

Smells

Horses have a unique, earthy smell. Their own odor may be accented by sweat or anything they have laid on or rolled in recently. Being near a horse or in the horse environment may include subtle or potent smells of hay, grass, dirt, or manure. When horses are in an indoor environment, such as a barn, the animals' smells can mingle with other smells, like woody smells of a barn or earthy smells of a dirt-floor arena. In an outdoor pasture, the smell of horses might mix with a multitude of smells from nature – other animals, grass and plants, dirt or sand, and fresh air.

Textures

What does it feel like to touch a horse? Like other mammals, horses are warm to the touch. Their hair is smooth and soft. When laying a hand on a horse you can feel its strong muscles; moving your hand from one point to another you might feel grooves as you move over a muscle group. The back or side of a horse is long and smooth, while the legs are more boney. The chin, under the mouth, is very smooth, but with pokey whiskers sticking out. Horse hair of the mane, forelock, and tail is strong and coarse, yet can be brushed to feel smooth and silky. Because of its strength and durability, horse hair is used to make a variety of products, including bows for musical instruments like the violin and cello, fabric for clothing or furniture coverings, jewelry, and art.²

In summary, horses are animals with unique physical characteristics. Being in the presence of one or more horses will allow for a variety of sensory experiences including sights, sounds, smells, and textures. In addition to these physical attributes, behavior is another important layer for this complex stimulus. For example, we've described what the ears look like, and their ability to move, but when and why they move is also relevant in describing horses. Next, we discuss behavioral characteristics of horses.

Behavioral characteristics

Horses are a nonpredatory species, adept at monitoring and responding to their environment. They live alongside other horses in herds, with social structure and observable group dynamics. Horses have a unique history of domestication that influences their interactions with humans. Each of

these factors influences horse behavior, contributing to the complexity of the horse as a stimulus for intervention.

Nonpredatory

Horses are nonpredatory. They do not prey upon other animals for food; instead, horses can be subject to predation from some animals like mountain lions, wolves, and humans. There are several important characteristics associated with horses' nonpredatory status. They are keenly aware of their surroundings, focused on the present environment, and skilled at responding to threat.

Sensory awareness

Similar to other nonpredatory species, horses practice vigilance, wherein they allocate time to detect important environmental stimuli (Beauchamp, 2014). McDonnell (2003) describes horses as having multi-sensory alertness and an ability to react to threat instantly. Horses' increased awareness of their environment can be tied in part to their sensory structures. Horse eyes are among the largest of terrestrial mammals. Their visual field is a wide, narrow panoramic view of the horizon. They have limited depth perception but are highly sensitive to peripheral motion. They have less visual acuity than most mammals, similar to that of humans with red-green color blindness (McGreevy, 2004; Rorvang et al., 2020).

In addition to visual abilities, the horse's sense of smell (i.e., olfaction) is key in perceiving the environment, for many reasons including communication (Guarneros et al., 2020). In fact, horses' sense of smell is so sensitive that some work in the field of scent detection. The ability for horses to detect scent and cover a large amount of ground quickly makes them suitable to search and rescue missions (Roberts, 2015; Talirovsky et al., 2020). The increased length of the nose, relative to other mammals, allows for the passage of large volumes of air, carrying greater air molecules to the large olfactory mucosa area. Because the nostrils are on either side of the nose, air can be taken in from both sides of the head to help locate the source of an odor (Stoddart, 2012). In addition, horses are one of the animals that has a vomeronasal organ (i.e., Organ of Jacobson), an accessory olfactory system within the nose for detecting chemical signals (i.e., chemosignals). Given these sensory strengths, horses are able to take in a vast amount of information from the environment.

Response to threat

As nonpredatory animals, horses are sensitive to threat in the environment and have means of both escape and self-defense. They are described as responding instantly to whatever is in their environment and having

a strong flight response (Roberts, 2002). Yet there can be variability in the flight response, influenced by numerous characteristics. For example, Miller (2011) suggests that it is crucial to know a horse's *flight line* – the relative distance a horse will run before stopping to turn and assess the situation. Flight lines can vary from feet to miles, depending on breed, temperament, history, and situational factors.

In addition to flight/escape, horses defend themselves through aggressive behavior. They show aggression toward unknown horses, herd members, and other species. Horses in the wild have been known to show aggression toward predators such as wolves (Olczak & Kloczek, 2014). In addition to vigilance and the flight or fight response, horses' survival in the wild is promoted through membership in a herd.

Herd structure and ethology

Horses are a “we” species (Hamilton, 2011), forming strong group bonds with other horses in wild and domestic settings (McDonnell, 2005). They tend to live in large herds that travel and graze together; in the wild large herds are made up of several smaller groups called bands. Goodwin (1999) discusses horse ethology³ and its implications for horse-human interactions, based on observation of feral domestic herds. Herds and bands maintain a social order, with hierarchies based on sex, developmental stage, and breeding patterns. Within the band some horses form pair bonds, in which several horses stay together for what seems to be companionship. Once established the herd structure persists as long as group membership is preserved (Goodwin, 2007). Within the herd are multiple harems, which include a mature male (i.e., stallion), several mature females (i.e., mares), and their young offspring (McDonnell, 2005). The stallion provides protection for the group and one of the mares serves as leader in maintenance behaviors (e.g., grazing patterns and treks to water). Horses living in a pasture or stable may not be able to develop these specific patterns, due to restrictions in space and herd membership. Nevertheless, horses living together will develop a herd structure, with subgroupings and patterns of hierarchy. Dominant–subordinate relationships are an important component of herd structure, such that one horse is typically dominant over the rest of the group, one horse is subordinate to the rest of the group, and the other horses are dominant to some and subordinate to others (Waring, 2003). These social positions impact many aspects of life (e.g., access to resources, breeding, and herd movement) and aid the herd by promoting efficiency and stability. Dominant–subordinate relationships and other herd dynamics are developed and maintained through communication between horses.

Collective detection and communication

Horses and other nonpredatory animals use strategies to protect against predators. Collective detection (Galton, 1883) is the act of a group of

animals working collectively to detect threat in the environment. According to Beauchamp (2014), collective detection can be broken down into two parts – vigilance and response within the group. Although horses are anatomically prepared for vigilance, the amount of time an individual animal can devote to vigilance, and the stimuli any individual can sense from their place in the environment, is limited. Thus animals living in groups benefit by sharing in vigilance efforts. Horses in a herd do not all have to be vigilant in detecting predators all the time. Instead, some of the herd can be scanning the environment for threats while others perform different tasks, rest, or sleep. Likewise, stimuli that are closer to and sensed by some of the herd can benefit all of the herd. Once a threat is detected, it must be communicated throughout the herd.

Horses communicate with each other through movement, body language, vocalizations, and non-vocal sounds. Vocalizations include whinnies, knickers, squeals, and groans. Non-vocal sounds include snores, blows, and snorts (Yeon, 2012). The latter has been studied as a possible indicator of mild positive emotion in horses. In addition, horses can communicate through incidental sounds like scraping a hoof on the ground, whipping their tail, or smacking their lips.

Domestication

Horses are considered a domesticated animal, yet they have retained certain characteristics necessary in the wild. In this section, we cover important principles of domestication, the horse's specific route to domestication, and behaviors from their wild ancestors that remain. Animals are considered domesticated when (1) they are kept by humans for a purpose, (2) humans control their breeding, (3) their survival depends on humans, and (4) they have genetic traits not found in the wild (DeMello, 2012). Domestication is associated with reductions in brain size, with domesticated animals having smaller brains than their wild, pre-domesticated counterparts (e.g., Kruska, 1988, 1996). The limbic system, responsible for emotional responses and memory, is the part of the brain most reduced in size during domestication (Kruska, 1988). This is consistent with reduced emotional reactivity, a key characteristic of domestic animals (Price, 2002). We can certainly imagine the lowered emotional reactivity required for a horse to allow a human on their back.

Zeder (2012) describes domestication as a two-way relationship between humans and some animal populations and suggests that humans and other animals followed three different pathways to domestication. The pathways are separated by the process of domestication – whether it was led by humans or was a more mutual process undertaken by both humans and other animals. The three pathways are the commensal pathway, in which domestication occurred through a mutual partnership; the prey pathway, in which an animal was initially hunted and then corralled; and the direct pathway, in which humans used knowledge gained from domesticating

other animals to domesticate a new animal directly without going through an initial stage of communal or prey interaction. Horses are thought to have been domesticated via this third, direct pathway (Zeder, 2012).

Species in both the commensal and prey pathways unfolded over tens of thousands of years, moving through varying levels of interaction with humans. For example, dogs are thought to have gradually progressed from no human contact to (1) becoming habituated to humans, then (2) developing an active partnership for hunting and protection, and finally (3) human-controlled breeding and dependence. Dogs followed a long, gradual process, co-evolving with humans. Goats, sheep, and cattle were domesticated via the prey pathway. These livestock species were hunted by humans for meat and hides. Gradually over time, humans developed strategies to increase the availability of the animals, then began to manage herds, and eventually came to control the animal's breeding. In contrast, horses had a shorter, more direct path. Animals on the direct pathway went directly from living freely to being under strict human control (Zeder, 2012).

In addition to the pathway of domestication, there is great variability in just when different species were domesticated. Its estimated dog domestication dates as far back as 29,000 years and was more of a co-evolution between humans and dogs (Pierotti & Fogg, 2017), perhaps explaining dogs' desire to join up with, stay connected to, and behave in service of humans (Wynne, 2019). In contrast, horses followed a much shorter path and have only been domesticated for about 6,000 years (Teletchea, 2019). Perhaps these factors – timing and pathway of domestication – in combination with the previous factors described, results in the unique relationship between humans and horses and contributes to its role in intervention processes.

A mosaic of characteristics

Figure 3.1 illustrates the factors we've applied to the horse in a stacked Venn diagram, showing layers within layers. Each layer symbolizes a characteristic outlined in this chapter. The outer layers apply to a wider range of animals, and as we move toward the center, the range narrows, ultimately leaving us with the horse. Some animals are domestic, some domestic animals are nonpredatory, some domestic nonpredatory animals live in herds, etc.

The outer layer – animal – applies to all organisms in the Kingdom Animalia, including horses, humans, birds, and fish. As discussed in the chapter, a live animal in an intervention setting will have a particular presence and can exercise a level of agency. The presence of a live animal can increase arousal and provide a stimulus for story. This will be manifested differently across different animals. Dogs have different presence and behavior than hamsters, hamsters differ from goats, etc. Each layer,

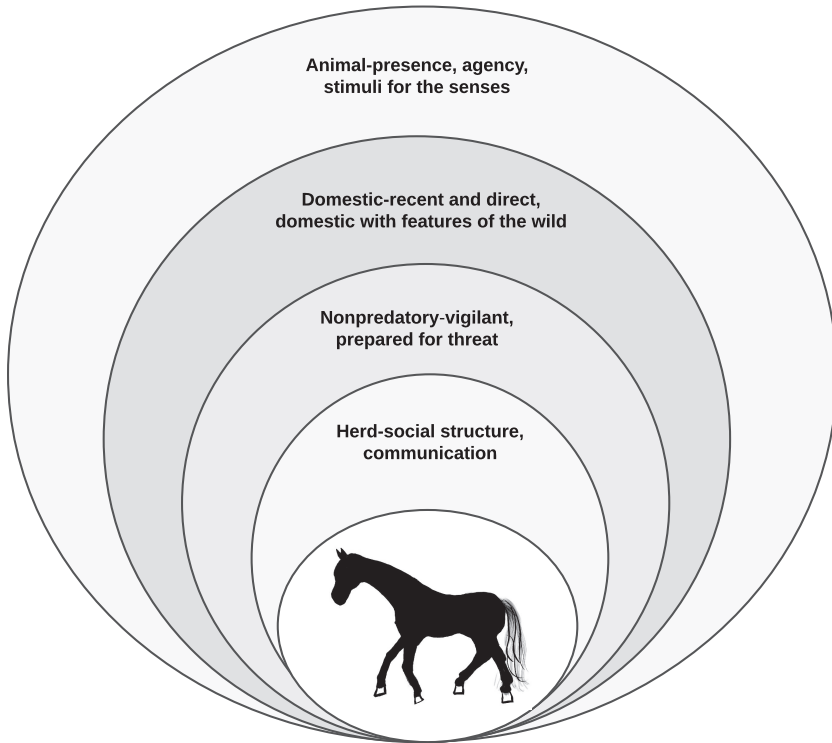


Figure 3.1 Horse characteristics

manifested or expressed in a particular way in horses, can have a singular influence on an intervention process, but occurs in combination with the other layers.

What this ultimately provides the intervention process is a complex, interactive stimulus. The presence of any animal in an intervention can provide a novel, engaging stimulus. For the purposes of this book and introducing EAST, the stimulus is one or more horses. Now that we have identified what we mean by equine-assisted intervention and described the complex beauty of the horse, we introduce EAST in the next section of the book.

Notes

- 1 There is speculation that a horse's whorls correlate to temperament. Some evidence suggests whorls in horses and cattle indicate behavioral laterality (Shivley et al., 2016) and agitation during restraint (Grandin et al., 1995).
- 2 Horse hair pottery is a particular style of ceramic pottery made by some Navajo artisans (NativoArt, 2016).
- 3 Ethology is the scientific study of animal behavior.

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Section II

Equine-assisted story transformation (EAST)

EAST



How we understand our world

We think in metaphors.
We are natural storytellers.

1

2



When story gets stuck

Our stories are shaped by **conceptual metaphors**.
Change metaphor to change story.



The horse

Social, autonomous, dynamic. They increase arousal and evoke metaphor & story.

4

5



Externalizing story

Moving a story from inside the mind out to the arena separates the person, from the story.



Enter experience with "the setup"

A story exists on arrival and physiological states influence story.

Oh, it's just like....

We view new experience through past experience.

6



Re-storying

New metaphor & changed perspective shapes a new adaptive, unstuck narrative.

9



Reflection

If existing story doesn't hold up to questioning, the disorienting dilemma is either dismissed or resolved with a new conceptual metaphor.



Disorienting dilemma

Disconnect between what is expected and what is experienced provokes a search, scanning across past experience, seeking anything similar.

4 Introduction to EAST

The next four chapters focus on equine-assisted story transformation (EAST). In Chapter 1, we introduced EAST as an intervention theory that adapts and integrates several theories that explain what is happening when human and horse interactions are facilitated in a particular way. EAST is divided into three sections: a theory of the problem (Chapter 5), a theory of the intervention (Chapter 6), and a theory of change (Chapter 7).

Theory sections

Theory of the problem

The term **theory of the problem** refers to our understanding of what is causing a problem. It is the perspective one takes when considering what might be open to change. Imagine yourself watching someone walk with a limp, putting most of their weight on one foot with the other foot only briefly in contact with the ground. You might think, this person's limp is problematic and, wanting to help, you give the person a cane (an intervention). This seems to fix the immediate problem because the person's gait improves. The cane may be a good enough intervention (Figure 4.1).

But what if you decide to investigate further so that you can understand the cause of the problem? By having a theory of the problem you are able to devise interventions that may be more effective or longer lasting. A person who twisted their ankle has a different problem than someone who has a pebble in their shoe. The first benefits from a cane until they can rest, ice, and elevate the ankle. The other could just shake out the pebble, put their shoe back on, and the problem would be resolved (Figure 4.2).

In EAST, the theory of the problem is that our perspective of the everyday world is influenced by past and present experience, the metaphorical meaning given to those experiences, and the resulting narratives that we tell ourselves. A problem arises when we experience the world (environment) from a particular viewpoint and become stuck in a story (cognitive) that is then limiting the possibility for change (behavioral). An underlying assumption is that humans are natural storytellers. Humans use story to



Figure 4.1 Person walking with a cane

give meaning to their lives and communicate to themselves and others how they experience and understand the world. The stories reflect deeply embedded conceptual metaphors that have been shaped by past and current experience.

Theory of the intervention

Once we have a theory of the problem, then we can come up with a theory of how to fix it or even prevent it. An intervention is when something is inserted between two things to alter the process of what is occurring. A **theory of the intervention** is an explanation of what is inserted, how it works, and what it does. In EAST the theory of the intervention has physical (body/sensory), cognitive (mind), and environmental components. EAST's theory of the intervention involves a process of interacting with the external environment which the body/mind interprets as safe or not; with bodily experiences that prompt and bias the person's surface story. The story is symbolic and functional and has the potential for change. The horse, as a dynamic part of the environment, is essential to our horse-human intervention theory. The theory of the intervention has four parts: the characteristics of the horse pertinent to the experience, human body responses, human mind responses, and initial meaning-making through story. EAST's theory



Figure 4.2 Person emptying pebbles from their shoe

of the intervention then is made up of horse theory, human polyvagal theory, sensory theory, metaphor theory, and narrative theory.

Theory of change

The third part of EAST is our **theory of change**. The theory of the problem is what the person comes with. The theory of the intervention explains what is happening during the intervention. The theory of change is our explanation for how change is happening for the person, specifically what happens in the mind of the person during and after the intervention. We use transformational learning theory and experiential learning theory to explain what might happen in the person's mind during and after an intervention based on EAST (Kolb & Kolb, 2017; Mezirow, 1991). This theory of change provides insight into how the human mind gives meaning to familiar and unfamiliar experiences, how it processes situations that create disorienting dilemmas inconsistent with current understanding, and how willingness to change shapes meaning.

Philosophical perspective and assumptions

EAST's guiding philosophy

As you can see, EAST is an intervention theory that integrates multiple theories. These theories work nicely together because they are consistent with the overarching philosophical perspectives of postmodernism and constructionism. Postmodernism reminds us that, when thinking about humans in their world, rather than one universal truth or one right way of seeing things, there are many truths. Postmodernism emerged as an alternative to the modern era where people assumed that there was an identifiable objective truth that all could agree on. Instead, postmodernism emphasizes the relative truths of each person, of families, groups, cultures or societies. It rejects one right way of viewing something and acknowledges that meaning can be different for different people. For example, several people can be at the same event and the interpretation of that experience will differ from person to person. In a conversation, the definition that someone gives to a word may not be the same definition the other person holds and those different meanings may influence how each person experiences the interaction. In postmodernism there is an awareness that one's truth is not necessarily the truth of someone else (Crotty, 1998; Doan, 1997).

Closely related to postmodernism is constructionism which considers how truths, ideas, and beliefs develop over time. Crotty (1998) explained that constructionism is the view that what we know and what we give meaning to is constructed as we interact with others in our world. We interpret our experiences in everyday life. Social constructionism, a form of constructionism, is the idea that our communities and social context shape knowledge and meaning for us.

Thus postmodernism is a philosophy with a stance that a person has their own truth about how the world works. And constructionism is the idea that those truths and stories are built and rebuilt as the person experiences life, interprets what is happening, and gains knowledge. And that social context and experience shape the person's ideas about and knowledge of the world. This philosophical perspective is consistent with the theories that we expand on in Chapters 5 to 7. Postmodernism reminds us to be open to the truths of others and constructionism supports the idea that clients will construct a narrative drawn from their unique experience.

Assumptions

The above is an introduction to EAST. The next three chapters will provide a deeper look at EAST's theory of the problem, theory of the intervention, and theory of change. Below is an outline that links the theories. The linear outline reflects our understanding of how EAST works. You may find it useful to refer back to this outline when reading the theory chapters that follow.

- 1 We experience the world through metaphor.
- 2 Conceptual metaphors are deeply embedded in the unconscious mind. They are constructed throughout life and shaped by experience and sociocultural context.
- 3 Almost all thinking patterns and personal stories reflect unconscious metaphorical concepts.
- 4 Humans are consciously and unconsciously sensitive and responsive to internal and external stimuli in the environment.
- 5 Internal and external stimuli influence personal stories.
- 6 Personal stories shape behavior and influence the interpretation of phenomena.
- 7 Human behavior reflects conscious explicit self and unconscious implicit self.
- 8 Personal stories can be adaptive or maladaptive. When personal stories are maladaptive and persist despite contrary evidence, they can keep people stuck in a problem, increase emotional distress, decrease functionality and quality of life, and contribute to suffering.
- 9 Experiences that are contrary to thoughts, beliefs, personal stories, and expectations create a conscious discrepancy that disrupts unconscious conceptual metaphors of how one knows the world.
- 10 Horses are sentient beings who are systemically responsive to their environment.
- 11 Horse environments may include but are not limited to humans and human behaviors in that environment.
- 12 Horses have uncensored reactions, in that they respond to what is in the moment, influenced by human behaviors and uninfluenced by human sociocultural norms.
 - a Human behavior is a reflection of human explicit and implicit self.
- 13 When horse behaviors in response to their immediate environment (other horses, people, objects, space, or event) are discrepant from the experience, story, or meaning humans may give to the event, the human mind initiates a transderivational search.
- 14 Discrepant experiences and unexplained phenomena create disorienting dilemmas.
- 15 If a person experiences a disorienting dilemma or unexplained phenomenon, the person may eventually question the existing known and seek new meaning.
- 16 The greater the disorienting dilemma experience, the deeper and more disruptive its effect.
- 17 As human arousal and alertness increases, the experience deepens.
 - a The deeper the experience the greater the potential for learning and change.
 - b Excessive arousal (fight or flight) interferes with learning and change.

- 56 *Equine-assisted story transformation (EAST)*
- 18 Deeper change is more likely to be transformational.
- 19 The horse, by its natural behavior, response, and presence, is a catalyst for change.
- 20 Reflection strengthens and deepens change.
- 21 Facilitators are humans, despite their own stories, and may be most effective using non-interpretive language.

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5 Theory of the problem

Equine-assisted story transformation (EAST) is a theory that explains how someone, with a particular way of seeing themselves and of being in the world, and with a story of how things are or should be (problem), has an experience (intervention) that they then process and make into a new story (change). In EAST, the theory of the problem is our explanation for how people came to understand and experience themselves, others, and their world. The form our stories take, including the words we use and

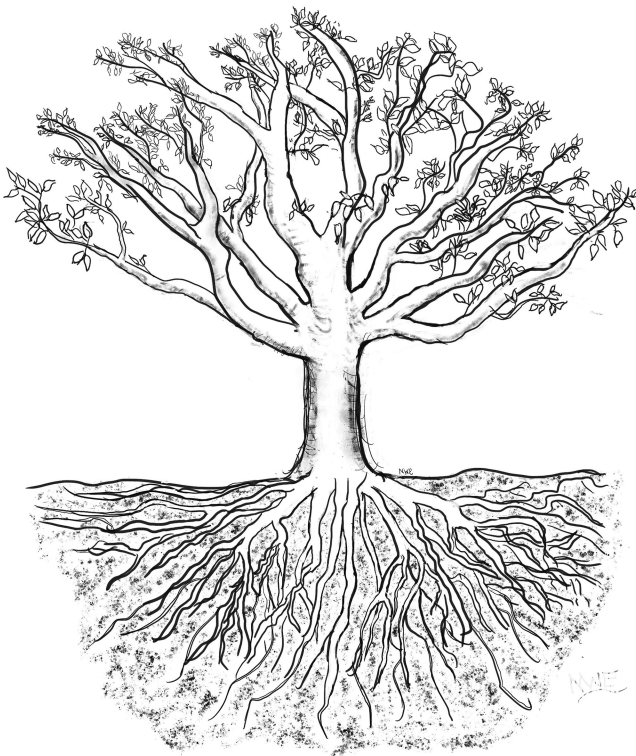


Figure 5.1 Overstory above and understory below awareness

the actions we describe come from past experiences, the interactions of body/mind things we are aware of, and body/mind things that happen out of our awareness. In EAST, we recognize all of those things, what is obvious and what is not. In *The Overstory: a novel*, trees tell the human that “You miss the half of it, and more. There’s always as much below ground as above” (Richard Powers, 2018, p. 3). Like a tree (Figure 5.1) there is the visible story we put forth (what is seen above ground) and a very busy understory hiding below (roots underground).

The focus of this chapter is on the problem, what already exists for the **human** before they arrive at an equine session. Horses therefore, although essential to EAST, are not part of this chapter. We reintroduce horses in Chapter 6. We begin here by identifying theories that are used in theory of the problem, introduce our definition of human “experience,” and then organize the component parts of the theories according to the types (domains) of human experience. These components, about how we make sense of and experience the world, include narrative theory (story), metaphor theory, sensory “theory,” and polyvagal theory. These theories give us a way of conceptualizing (abstractly thinking about) what is happening in the mind (story, metaphor) and the body (sensory/polyvagal), all of which we use to interpret and remember the experience.

What is an experience?

We use the word “experience” throughout this book. Psychotherapy incorporating horses is experiential, meaning it is an intervention using experience. An experience is the encountering or the undergoing of something (Oxford University Press, 2021). Philosophers originally viewed experience as a solely mental phenomenon, requiring a state of awareness, with emphasis on thought. Many philosophers now acknowledge that experience includes both the body and the mind. An experience may be a conscious observation or an awareness of a phenomenon. An experience may come through the senses or through thought, images, or emotions (Neubauer et al., 2019). An experience may even be encountering or undergoing something outside of conscious awareness. Experience involves the body and mind in complex interaction with the world.

James Lawley and Penny Tompkins (2000) who wrote about symbolic modeling, a particular type of in-office psychotherapy focused on the mind, described three domains of human experience: sensory, conceptual, and symbolic. We adapted and expanded that framework for EAST. Below is a description of our four domains of experience which are cognitive, symbolic, sensory, and physiological. These domains refer to the different ways that humans in their bodies and minds know, think about, recall, or interpret an experience.

The cognitive domain of experience (mind)

The cognitive domain of experience contains abstract concepts and thoughts as described in Chapter 1. Abstract concepts might include beliefs, judgments, or complex experiences. The words pretty, aging, vacation, and wedding are labels for abstract concepts that fall into the cognitive (conceptual) domain. The cognitive domain includes factual knowledge and processes such as evaluating, interpreting, and assembling concepts into story.

The symbolic domain of experience (mind)

The symbolic domain is that place where symbols (specific discrete things, words, or images) usually drawn from the sensory or cognitive domains are used to represent something or some event. Our understanding of an experience as a structured whole, the gestalt of an experience (Lakoff & Johnson, 1980) can be understood in the symbolic domain. Images or representations of events may be visual or experienced through any of the senses. They may or may not have words.

The symbolic domain is the domain of metaphor, when an individual understands and experiences one thing using an entirely different thing as the reference. The symbolic domain allows us to make sense out of complex experiences through metaphor. The symbolic domain also includes what Bucci (2021) refers to as subsymbolic experiencing. Rather than identifiable symbols, the experience is one of a feeling, a mind/body experience when simultaneously occurring mental and physical computations occur in a way that allow us to function. Sometimes referred to as flow or intuition, it is what happens for an athlete who is able to perform something in a new situation based on some past performances. For example, a golfer on an unfamiliar golf course gets a hole-in-one.

The sensory domain of experience (body)

When we experience something through one or more of our five senses we are in what we refer to as the sensory domain. We know the physical world and our environment, things in nature, and things human-made through our senses. Our sensory perceptions, whatever we can touch, taste, smell, see, and hear, are part of this third domain of experience.

The physiological domain of experience (body)

The fourth domain of experience, the physiological domain, reflects a definition of experience as something that extends outside of our conscious awareness. The body's autonomic nervous system and vagus nerve, with a focus on survival, monitors internal and external environments for

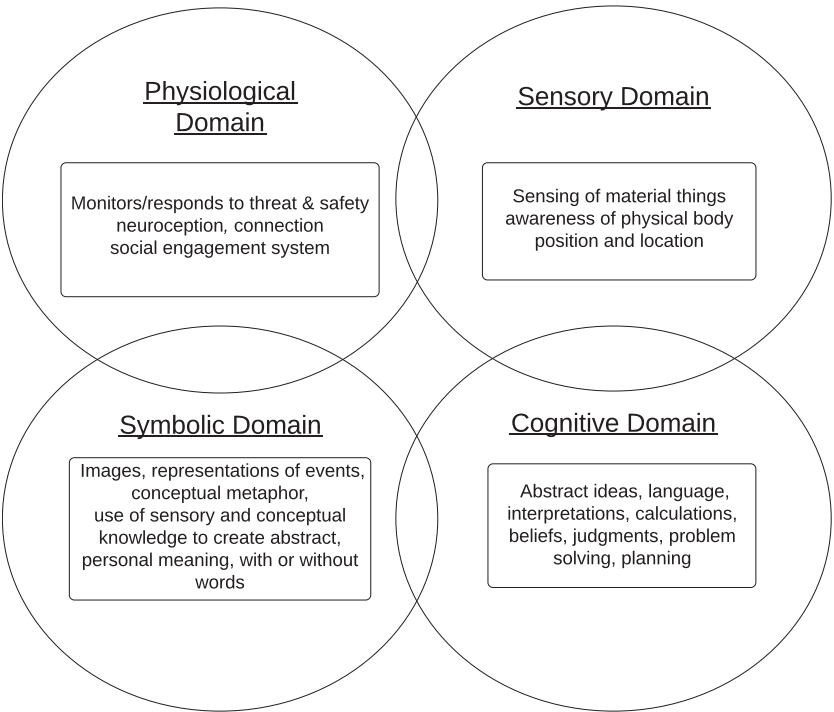


Figure 5.2 Domains of experience

threat and safety, adapting as needed by shifting between physiological states. We use the polyvagal theory described later in this chapter as a way of thinking about the physiological domain of experience (Porges, 2011).

Thus far we have presented the idea that stories are used to understand ourselves and the world, that stories and thought are influenced by past sensory experiences, existing beliefs, and assumptions; all of that is influenced by the body's current physiological state. How we understand the world is influenced by the thoughts our mind is producing and the messages our body is sending. What we bring and what we feel in a moment in time is part of an experience. It is an event that occurs through the cognitive, symbolic, sensory, and physiological domains of experience (Figure 5.2).

Supporting theories for domains of experience

Experience is a mind–body event, processed through the cognitive, symbolic, sensory, and physiological domains. We create stories to make meaning as we think about and reflect on an experience. The words and images we use as we create story are embedded with metaphor to

symbolize that meaning (Connelly & Clandinin, 1988; Cortazzi, 1993). This section explains how each theory in the theory of the problem fits with one of the four domains of experience. These include narrative theory (cognitive domain), metaphor theory (symbolic domain), and polyvagal theory (physiological domain). We do not have a specific theory for the sensory domain.

Cognitive domain: Narrative theory

This section focuses on thought and story. In Chapter 6, we introduce systems of thought, useful when considering what happens in the moment, during an experience. For this chapter, we are interested in what has happened before an equine session.

Robertson and Clegg (2017) remind us that “Stories are as essential to human life as the air we breathe; as necessary to our development as food and drink; as critical to our functioning as any of our senses” (p. 1). Human beings are natural storytellers. We make sense out of our lives, give meaning to our experiences, and share events with others through story. Across all cultures and throughout history, humans have used story as a basic form of expression. From our earliest days we learn through the stories others share with us, most commonly but not only through language. Stories come through the cognitive domain of experience, weaving individual and cultural messages into our understanding of the world. We draw from those early story messages to shape our own evolving life stories, constructing and reconstructing our identity and the meaning we give to everyday life (Riessman, 2008).

What makes a story?

A story is an abstract, mental “conceptual arrangement of events” (Sibierska, 2017, p. 48) that can be communicated through a variety of mediums such as visual images, models, acting, or words and language. A narrative is what you have when you tell a story through the medium of language, written or oral. A story can be fiction or non-fiction. Story is, in its entirety, an interesting, understandable set of events linked by time and causation (Cortazzi, 1993). A story is a meaningful recounting or representation of connected events about the past, present, or future. As we interpret life experiences, we link events together across points in time in a particular sequence, emphasizing here, minimizing there, adding, or omitting, all to give meaning to ourselves and others. A story has a beginning, something in the middle that causes what happens in the end (causation), and some type of human interest. Sometimes the middle event is “told” first. The plot, the rise, and the fall of events linked to causation shape the narrative (or other medium) thread that weaves those events together, forming a story (Morgan, 1999). Those three things, time, sequence of events, and

human interest create plot. Events with a plot are transformed into a story. We communicate that story to ourselves and others through oral or written narratives, imagery, performance, or other means.

When we encounter something we do not understand or there is the uncertainty of why things are happening, we feel compelled to create an explanation and use story to impose meaning on the event. Those stories are evolving interpretations of recent and past experience drawn from memory and filled with metaphor. They reflect facts if we know them and often when facts are missing, our mind, sometimes without our awareness, fills in the memory gaps to make story sense (Robertson & Clegg, 2017). Memories may feel like moment-to-moment factual videos but many of them are not. Instead memories often reflect how people want to or need to see things during and after the event and then how they reconstruct what they saw (Cortazzi, 1993, p. 81). Because memories can be modified each time they are remembered (Cozolino, 2017), stories can and will change over time. Changing story changes the meaning given to an experience. The idea that stories are constructed from the interpretation and evolving memory is key to understanding how each person's story has its own uniqueness specific to their past and present experience.

Michael White and David Epston (1990), who developed a narrative therapy approach, describe humans as multistoried. They explain that we have many different stories, and there can be multiple stories occurring simultaneously. Stories are about our struggles at work, at home, in relationships, with things that go well and things that do not. There are stories about the past, present, and future. Stories about oneself or others. Families have stories. The interpretation of events shapes story and story shapes interpretation. There can be many different interpretations about the same event, problem, or person; thus there can be many different ways a story can be told (Madigan, 2019).

Problematic stories and externalizing

Stories shape who we are, what we think about ourselves, what we do in life, and who we might become. There are the inner narratives that we tell ourselves (what we think), narratives told to others (what we share), and the lived narrative (what we do) (Holloway & Freshwater, 2007). A story may follow a single path of thought, with a sequence of events, simply being first this event happened and then that event happened causing something else to happen. The plot we build and the meaning we give to the experience shape the story.

Sometimes people get stuck in one straight storyline and tell the same plot over and over. They may not realize that they have multiple life events to draw from and multiple stories to write. A storyline can be changed, different stories can be constructed, and stories can shift. Changing the storyline can change meaning (Denborough, 2014).

Messages internalized from our immediate and larger social and cultural world are woven into and become part of our stories. These stories can be freeing or have limiting beliefs that keep us stuck. Problematic messages can become problematic story lines that become internalized and recurrent. "...persons experience problems, for which they frequently seek therapy, when the narratives in which they are 'storying' their experience, and/or in which they are having their experience 'storied' by others, do not sufficiently represent their lived experience" (White & Epston, 1990, p. 14).

When people internalize a problem they understand the problem to be within them. Or sometimes within other people. They may talk about a problem as if it is part of their identity as if they are inadequate, broken, or defective. They may say things like "I am a terrible student," "I am an imposter," "I am an angry person," and "I am unlovable." This is the focus of cognitive theory, the idea that a person's core beliefs deep within them lead to dysfunctional thinking (Beck, 2021). The problem lies within the person or with their beliefs. A focus of narrative therapy is to relocate the person's problem *outside* of the person. It can be difficult to explore a problem when the person *is* the problem or the problem is deep *within* them (Denborough, 2014). In Chapter 6, as part of the theory of the intervention, we explain the creative technique developed by Michael White and David Epston (1990) of "externalizing" the problem by moving whatever the issue is to outside of the person.

In the cognitive domain of experience the mind uses language to give conscious meaning through narrative story. We will now move to the symbolic domain of experience to see how conceptual metaphor is used to integrate mind/body past memory, present learning, and understanding.

Symbolic domain of experience-metaphor theory

When we have and interpret an experience it becomes part of the symbolic domain's system of thought. Here we find metaphor theory and the idea of conceptual metaphors which are integral to EAST and have a profound influence on our everyday thoughts, words, and actions (Lakoff & Johnson, 1980). The symbolic domain of experience occurs both in and out of awareness.

What is a metaphor?

Before explaining how conceptual metaphor works, we first want to define metaphor, a type of analogy, as it is generally understood. "The essence of a metaphor is understanding and experiencing one kind of thing in terms of another" (Lakoff & Johnson, 1980, p. 5). Metaphors are designed to capture the essence of something in a very succinct, vibrant

way. Metaphors are a pervasive component of human thought, making complex things simple.

Overt metaphors, such as “it’s the tip of the iceberg,” are easily recognizable and often thought of as something used to embellish writing or speech. But the vast majority of metaphors are embedded in language and go unnoticed even though they may appear many times in a conversation. Metaphors show up in every language, including sign language. We use both verbal and non-verbal metaphors to express our thoughts. Gestural metaphors are enacted through body movement (moving hands, rolling eyes) whether communicating with others or when alone.

Some of our communications are literal in that the wording is meant to convey exactly what is said. “I took the bus to school.” A more complex idea in a literal statement might be “I volunteered to do these four tasks by 5pm, but they are more work than I anticipated.” A metaphor for that might be “I bit off more than I can chew.” Those eight words convey the complex experience succinctly. Below are some more examples of metaphor.

I have nothing left, my bucket is empty and there are holes in the bottom.

My heart is filled with joy and gladness.

He’s had an easy ride but she had to climb her way up the ladder of success.

There’s a glass ceiling, you can see what’s above it but can’t get there.

Conceptual metaphor theory

Conceptual metaphor theory, described by Lakoff and Johnson (1980), profoundly shifted how scholars view metaphor. Previously thought of, as we mentioned earlier, something used in creative writing and language, Lakoff and Johnson explained that metaphors are basic to how we understand things. Scholars, including linguists and cognitive scientists, now see metaphor as even more basic than literal language and understand that humans think primarily in conceptual metaphor.

From the time we were infants we moved through the world having experiences. We crawled, stood, walked, touched, and made things move, and we interacted with and connected to others. As we gained experiences we built an understanding of how the world works and where we fit in that world. Even before we had language we had thoughts of those earliest experiences which, stored below our level of awareness, became the foundation of the metaphorical symbolic domain. New experiences were understood in terms of previous experiences and were blended into existing beliefs, assumptions, and knowledge. “It is through metaphor that we come to understand the world and it is through metaphor that language itself develops” (Siegelman,

1990, p. 3). Metaphor is the basis for how we make sense of our experiences and the symbolic domain is our uniquely individual resource center and reference library.

What we think, how we view things, and the words we use are all metaphorically shaped (Lakoff & Johnson, 1980; Lawley & Tompkins, 2000; Leary, 1990; Torneke, 2017). As we go through life our experiences, thoughts, and feelings are saved as internalized metaphors. Our minds first record the experiences as metaphorical images. Then we apply words to those images. We use metaphor in language because many of our thoughts are out of awareness, internalized metaphors that shape what we say and what we do. Metaphors are about people, the environment, and the relationships between. Some of the most fundamental types of metaphor represent space (location) and force (how much, what is behind force). Metaphors can be embodied, reflecting some physical sensory experience or they can be material objects of any kind that become symbols of something else. Many metaphors use the body to physicalize concepts.

Source and target

It is sometimes confusing to understand what is representing what in a metaphor. Cognitive linguists explain that metaphors have a source and a target. The source is the thing used as an analogy and the target is the thing that needs explaining. The source is usually something we know through our senses that comes from the physical world or body. The source is more concrete than abstract and easy to understand. The target is the complex thing we are trying to explain. The source and the target each have some characteristics in common but they have many things that are different. The more different the target is from the source, the easier it is to understand the complex concept being explained (Figure 5.3).

New experiences

When we experience something new our mind searches for some past experiences, through thick layers of neural processing in our vast, implicit, unconscious memory. What emerges, what is explicit and available to us, is a succinct something our mind can use to make sense of this new thing. Something to “hang our hat on.” A metaphor becomes a quick frame of reference (Leary, 1990). Our mind often draws from past physical experiences, using our body to metaphorically express complex abstract (non-physical) ideas (Cozolino, 2017).

I'm going round and round.
I bit off more than I can chew.
He dropped the ball.

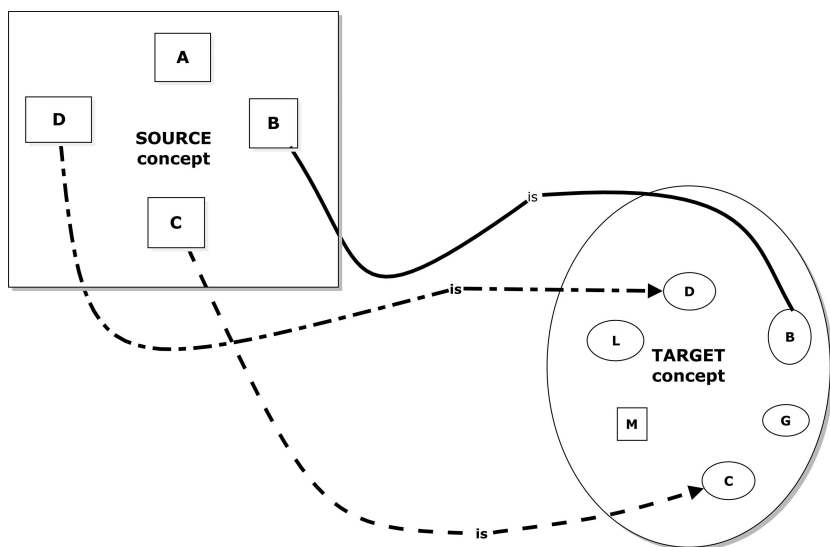


Figure 5.3 Metaphors have a source and a target

Physicalized conceptual metaphor

Sometimes the conceptual metaphor is a physicalized experience. While working on this book I (NWE) began to pay attention to my own use of metaphor. I noticed that when driving on the entrance ramp of a highway, about to merge left into traffic I had a body feeling of playing Double Dutch, the jump rope game where two ropes are being turned in opposite directions. The feeling in my body was exactly like the moment before propelling myself into the space between those two moving ropes. I saw with my mind's eye the shape of someone in front, to the left of me. I sensed there was someone behind me, to the left. They were each holding an end of each rope in their hands and turning their arms in wide circles. Sitting in the driver's seat of my moving car, as I began merging, I noticed that I leaned ever so slightly to the left, moving my body in the direction of the merge. It was as if I was about to jump into those ropes. Once my car merged I was in the center of that moving space surrounded by cars. I felt a deep sense of satisfaction, much as I had when as a girl I successfully inserted myself into the constantly changing space surrounded by moving ropes. That metaphor shows up in my mind when I am merging into a moving space in traffic. Perhaps it has been there since my earliest driving days, when I was first learning to merge. It is an example of the subsymbolic domain described earlier.

Table 5.1 Domains by Location and Level of Awareness

<i>Location</i>	<i>Domain</i>	<i>In Awareness</i>	<i>Out of Awareness</i>
Mind	Cognitive domain	x	
Mind	Symbolic domain	x	x
Body	Sensory domain	x	
Body	Physiological domain		x

This table locates each domain by the “physical” location that we have it associated with, asking that you remember these are abstract, metaphorical containers. The symbolic domain is evident in awareness and out of awareness.

When we encounter something new, our mind/body searches for something we already know, something in our past stored in metaphor that we link to the new experience. The new phenomenon becomes a metaphorical part of our existing neural network wired with past experience (Lawley & Tompkins, 2000; Torneke, 2017). Metaphors help people make a succinct coherent whole out of a complex of experiences to make complex things simple and to see big problems differently. Metaphor allows us to shift perspective and see the forest rather than just the trees. That makes it very useful in psychotherapy (Atwood & Levine, 1991). Metaphor is central to any new experience and especially physical experiences such as those between humans and horses.

Metaphor theory gives us a way of thinking about the symbolic domain of experience. It explains how one comes to understand the world and reminds us of the powerful out-of-awareness influence of the past on the present. Finally, metaphor is the building block of the narrative story.

EAST is a body/mind experiential, transdiagnostic intervention theory that addresses four domains of experience (see Table 5.1). The first two domains, cognitive and symbolic, are domains of the mind. The two remaining domains represent experiences through the physical body. They are the sensory domain and the physiological domain. They will be especially important in Chapter 6 when we discuss the intervention. But they are also part of the theory of the problem, existing and influencing the person before their encounter with the horses.

Sensory domain of experience

The sensory nervous system, the part of the nervous system that processes sensory information, provides the sensory domain of experience. The sensory domain includes the five senses – vision, hearing, smell, taste, and touch. Since infancy it has been a source of information that allows us to know the physical world. We use the senses to observe behaviors, experience objects, and navigate around space. When we are in conversation,

listen to music, look at drawings, feel the wind against our body, or experience fireworks we are in the sensory domain. When we feel the warmth of a horse's body through touch or notice our own internal or bodily sensations we are in the sensory domain. When we have feelings, for example, we notice that our fists are clenched and our jaw is tightened and we have an urge to reach for something we are being blocked from, that body feeling is in the sensory domain. If we think about that feeling, label it as an emotion (anger), then we are in the cognitive domain. The label belongs in the cognitive domain, and the body feeling comes from the sensory domain. An emotion is the linking of those two domains in a body-mind experience.

The senses gave us our earliest information and remain until the end of life. They can be recalled from the past to be reexperienced and imagined in the future. Sensory perceptions become memories that serve as rich resources for the metaphorical symbolic domain and as building blocks for the abstract cognitive domain. This domain fits with the theory of the problem in its contribution to how a person understands the world.

The physiological domain of experience: Polyvagal theory

The fourth component of the theory of the problem is polyvagal theory. Developed by Stephen Porges (2011), this theory explains the ever-present, in-the-moment system of survival that exists in humans and other social mammals. It is an essential part of the theory of intervention in Chapter 6, explaining what might be happening during an intervention. We have included it here because it has influence prior to the intervention in explaining how physiological state contributes to one's story in the past, present, and future. Below is an introduction and overview of polyvagal theory with emphasis placed on areas that apply to EAST. We are not intending for this to replace the in-depth explanation that you will find in primary sources (Dana, 2018, 2021; Levine, 2018; Porges, 2011, 2017, 2018, 2021; Porges & Dana, 2018).

What is polyvagal theory?

Polyvagal theory, which began more than 25 years ago, is an evolving theory embedded with evidence-based principles, systematically derived from the scientific literature, and with testable hypotheses (Porges, 2021). Although not the original intention, Stephen Porges' theory has led to polyvagal informed mind-body strategies in the fields of both mental and physical health. This mind-body connection is particularly important in EAST, where the intervention has a strong physical (equine) component.

Polyvagal theory gives us a way of understanding how social mammals, including humans, have a nervous system that is working behind the scenes for survival, safety, and social engagement.

The Polyvagal Theory provided us with a more sophisticated understanding of the biology of safety and danger, one based on the subtle interplay between the visceral experiences of our own bodies and the voices and faces of the people around us.

(Van der Kolk, 2014, p. 79)

The body's nervous system, specifically the autonomic nervous system, produces physiological responses such as heart rate and respiratory changes when it senses safety or potential threat in the environment. These and other physiological changes that happen below the level of awareness influence how one interprets what is happening in conscious awareness. One's body state is inextricably linked to one's thoughts (Dana, 2018). The mind/body understory is influencing and supporting every conscious overstory.

Unlike reptiles which are on their own at birth, when social mammals take their first breath, their safety and survival depend on being nurtured by others. Social mammals are wired at birth to engage and connect to others. It is the autonomic (involuntary) nervous system (ANS) that plays a key part in supporting this. The ANS monitors one's internal and external environment with the goal of maintaining safety and responding to threats. It is like an oscillating radar dish, "our personal surveillance system, always on guard, asking the question 'is this safe?'" (Dana, 2018, p. 8). Surveillance happens in pre-awareness, out of conscious control. The ANS is the source of the neurophysiological state which in turn mediates behavior and psychological processes including the ability to interact with others (Porges, 2017). For humans, the resulting physiological state shapes thought, emotions, and story.

How polyvagal theory works

Survival mechanisms have evolved over time from the most primitive reptilian defense of immobilization or freezing when sensing danger to fight or flight as creatures developed mobility. Over time mammals developed a third survival mechanism – social engagement and connection. Animals with bilateral symmetry (matching body parts on either side of the center), including humans and horses, have both a central nervous system (CNS) and a peripheral nervous system (PNS) (see Figure 5.4). The CNS, which includes the brain and spinal cord, is the overall command center of the body and the PNS is the network extending to the organs and limbs in the rest of the body. One part of the PNS, the somatic nervous system (SoNS), is responsible for voluntary skeletal muscle movement. Polyvagal theory

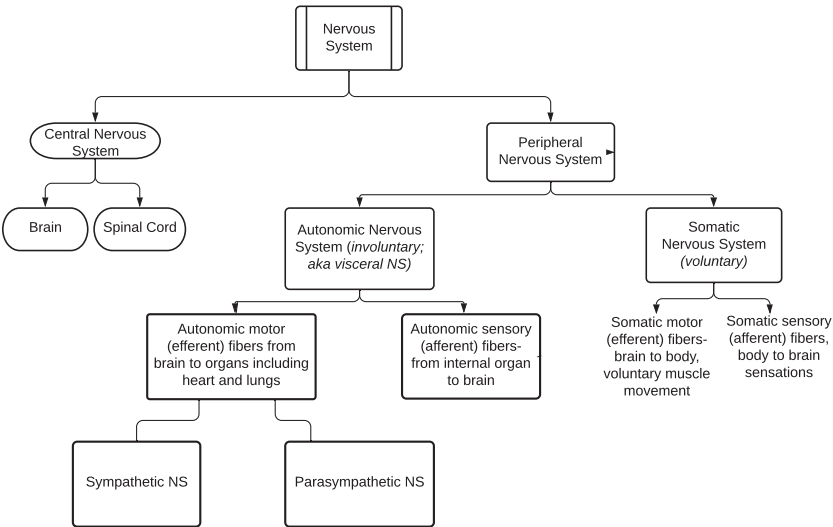


Figure 5.4 The nervous system

focuses on the other part of the PNS, the autonomic (involuntary) nervous system. The ANS receives and responds to messages from the environment and from internal organs.

The ANS is made up of two main branches: the sympathetic (defense system) and parasympathetic (both defense and social connection) NS. The sympathetic branch in the spinal cord is a mobilizing system, responsible for body changes like increase in heart rate and respirations that produce the fight or flight response. The parasympathetic branch uses the tenth (X) cranial nerve called the vagus nerve. The vagus, a central component of the ANS, is a complex messaging system that travels from the brain stem down through the heart, throat, lungs, diaphragm, and digestive system. Vagus is aptly named, and it translates to “wandering” from Latin. It is divided into two branches. One branch – the dorsal vagus – travels from the posterior part of the brain stem down to the organs primarily subdiaphragmatic (below the diaphragm). The other branch – the ventral vagus is supradiaphragmatic, traveling from the brainstem to the heart and bronchi in the lungs. In the brain stem, the ventral vagal branch is integrated, both anatomically and physiologically with other cranial nerves (V, VII, IX, and XI) which control striated muscles of the face (facial expression), pharynx, larynx (vocalizations), and middle ear (hearing specific sounds) (Geller & Porges, 2014). This grouping of cranial nerves (V, VI, VII, X, XI) form the social engagement system, coordinating heart and respiration with facial expression, gaze, head gesture, vocalizations, and listening to convey in-the-moment physiological state from one individual to another (Figure 5.5).

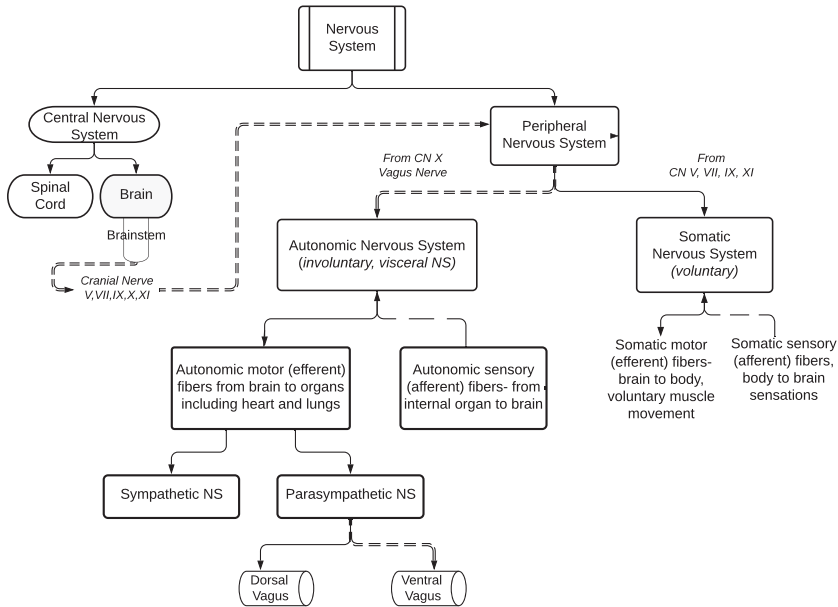


Figure 5.5 Locating the vagus nerve within the nervous system

Polyvagal tenets: Hierarchy, neuroception, and coregulation

Hierarchy

Porges (2011) has three tenets of polyvagal theory – **hierarchy**, **neuroception**, and **coregulation**. Porges describes how the ANS subsystems function in a hierarchal manner, the two primary defense systems, and then the social engagement system.

Dorsal vagal system

The dorsal vagal system is the oldest, most primitive part of the autonomic nervous systems. When an individual feels safe and there is no apparent threat, the system functions to regulate the gut, managing digestion, and promoting growth and restoration. In other situations the dorsal vagus functions as an immobilizing, shutdown defense system. Seen in all vertebrates, this system is usually dormant in humans and other mammals, activated as a last resort, when there is a threat to life. It is intensified with hypoxia (drop in oxygen). When activated, the dorsal vagal defense suspends digestion, the heart rate drops, oxygen flow to the brain decreases, and the body enters a state of energy conservation, immobilization, and

shutdown. The body feigns death by collapsing or having a vasovagal response and fainting.

This may be useful when a predator approaches; the animal appears dead to avoid being attacked. I saw this in action one day in my backyard when I went to investigate the cause of my dog Ruby's frantic barking. I (NWE) found what appeared to be a dead opossum lying on the ground. I assumed that Ruby, a large hunting dog, was responsible for the little creature's demise. She was making a wide circle around the animal's body but wasn't getting close enough to touch it. After putting Ruby in the house, I went back to bury the little guy but he was gone! I looked around and caught sight of it slowly walking back into the woods. My guess is that the animal's dorsal vagal branch was responsible for freezing during that traumatic encounter with the dog. When there are no severe threats, the dorsal vagus works to promote digestion in the resting state (Figure 5.6).

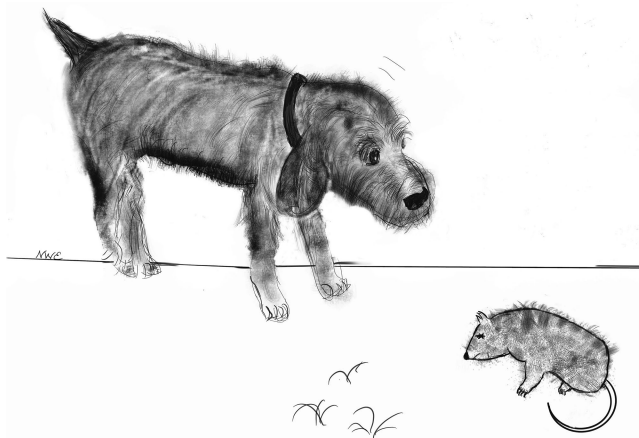


Figure 5.6 Playing opossum

Sympathetic nervous system

Next in the hierarchy is the sympathetic nervous system (SNS). This system, which evolved after the primitive dorsal system, is the mobilizing system that provides mammals, including humans, with a second defense option, fight, or flight. This system, unlike the dorsal vagal system, is a high-energy consumption system. The SNS default is to be “in the ready” by running the heart at higher beats per minute than baseline. To counter that, the ventral vagal system acts as a brake, slowing the intrinsic rate of the heart's pacemaker, effectively downregulating the SNS when the brake is applied. When the ventral vagal brake is released, and the vagus is no longer influencing the heart, heart rate spontaneously increases, energy is mobilized and if there is danger, the body goes into fight or

flight mode. It is as if you were in a car that does not have “Park” on the gear shift and instead, the only option is “Drive.” Take your foot off the brake and because the car is in “Drive,” the car moves forward. Movement and mobilization is the default, the body is prepared for danger and survival. When there is no danger and you do not have to speed away, the vagal brake is applied, slowing the heart down. Your car is stopped. By easing your foot off the ventral brake pedal, you can release just enough energy as is needed to do things during safety that require mobilization, for example, play.

The evolution of the SNS as a defense meant that rather than becoming immobilized and shutting down with threat, mammals were able to get oxygen to muscles and mobilize to defend (see Figure 5.7). For humans in this survival mode, when the vagal brake is released (the car shoots forward) and the focus is on fight or flight, social engagement does not happen and connections are lost. In this state, everything seems potentially dangerous. The ability to accurately read facial expression decreases and what would have previously been interpreted as neutral facial cues may now seem threatening. At the same time, hearing shifts from the human voice to a heightened awareness of low frequency predatory growl sounds and high frequency distress sounds (Dana, 2018). Thus, with an external stressor or cues of danger, the SNS activates, and there is an experience of fear with corresponding negative thoughts focused on the environmental danger.

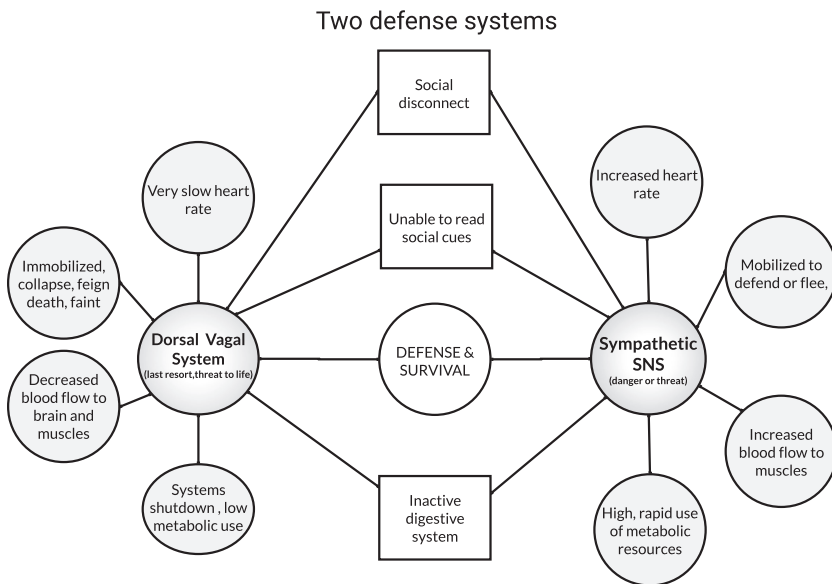


Figure 5.7 Differences and similarities between the two defense systems

Ventral vagal: The social engagement system

The social engagement system is the third vagal circuit. As mammals evolved the vagal pathway changed. Not found in primitive creatures, the newer vagal branch was able to downregulate the SNS and allow for social engagement behaviors (Porges, 2017). When there is no perceived threat of danger, when there are cues of safety rather than danger, the ANS's ventral vagal branch becomes active. For social mammals, cues of safety correspond to the drive for social connection and engagement. Social mammal survival depends on social connection. In humans, the ventral vagal nerve innervates the upper thorax, neck, and facial muscles influencing facial gestures and vocalization designed for social engagement. The ventral vagal nerve is linked to cranial nerves that mediate hearing, vocalization, mastication, and facial expression. For example, the human infant's smile and cooing and the mother's responding smile and vocalization happen through the ventral vagal nerve. Vocalizations are used by social mammals as an important part of social interaction. They are cues of whether the individual is dangerous or safe to approach. If safe, the ventral vagal nerve downregulates the defense system and enables the social engagement system. This social engagement system is active across different species of mammals. Alan Theede, a veterinarian, describes cues of safety that calm horses, cows, dogs, and other animals to allow for physical examination (Theede, 2018).

Deb Dana's (2018) clinical application of polyvagal theory is based on the idea that thoughts and perceptions of self, other, and the world dramatically shift depending on which part of the ANS is dominating – dorsal vagal, sympathetic, or ventral vagal (Porges & Dana, 2018). It incorporates the three tenets of the polyvagal theory, the hierarchal system, neuroception, and coregulation.

Neuroception

Neuroception is the second tenet of polyvagal theory. The ANS is continuously monitoring the environment for indicators of safety or of danger. Neuroception is the name given to the neural processes that continuously monitor the external environment. It is a visceral, body sensitivity, perceiving, and then evaluating for cues of safety or danger. It is the personal surveillance system that lets us know if we can feel safe and can connect with others or react if there is something amiss. The cues of feeling safe or sensing and reacting to threat are specific to each individual. Neuroception provides moment-to-moment surveillance, meaning that in any given experience, we are in one of those states, readying to react or able to socially engage and connect. Neuroception as part of the polyvagal theory is within the physiological domain, something that occurs outside of our awareness, and then gives information that sets the stage for

sensory perception of feeling, the mind/body experience of emotion, and associated cognitions. It is at the body end of experience, before a message gets to symbolic and cognitive domains of the mind. The resulting physiological state “biases the detection and evaluation of environmental cues” (Porges, 2018, p. 59). The same external stimuli, depending on the body’s state, will be perceived as neutral, positive, or a threat. If during an experience there is sympathetic arousal, what the body is sensing may not necessarily be what is actually there, and the story may translate to “I am unsafe, the world is unsafe,” while a quieter ventral state paints a picture of “I am okay, the world is there for me” (Dana, 2018). Neuroception is in the background of the stories we tell (Figure 5.8).

Coregulation

The third tenet of the polyvagal theory is the idea that there is **coregulation** of the physiological state between individuals. This happens from human to human and between humans and other social mammals. Coregulation is what mothers do for their crying infant, gently holding them close to their chest, vocalizing in a particular tone until the infant’s

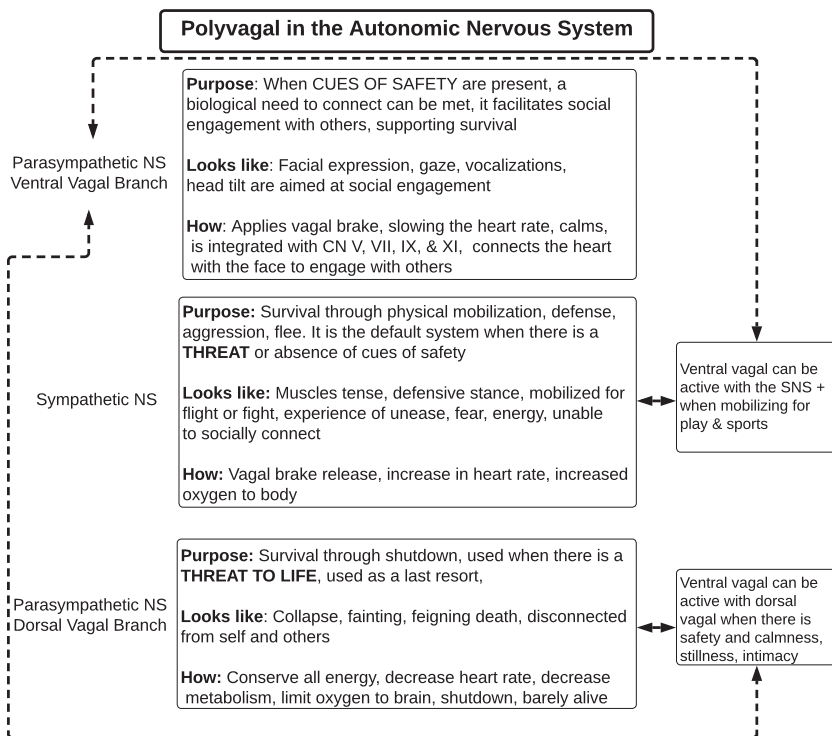


Figure 5.8 Polyvagal theory: the role of the vagus nerve within the autonomic nervous system

physiological state matches the mother's. We coregulate others in our lives, our friends, family, and others we care about. We have a biological need to connect and have a sense of belonging to some other. More than interpreting words, coregulation is a bidirectional connection that happens between the nervous systems of two individuals. Geller describes this as a visceral or gut sense that, if noted, can cue us to how we are feeling during an interaction (Geller, 2018). Neuroception of cues allows for coregulation. Out of conscious awareness, it is the assessment of another, the warmth and prosody of the voice, facial expression, eye contact, and body posture that when experienced as safe influences the vagal function of the other. Even the infant, calmed, gives back to the mother.

The ANS maintains a shifting physiological state, using the dorsal vagal, sympathetic, and ventral vagal modes. These modes are responding to neuroception of the environment and these modes can be influenced through coregulation by another. Our perspective of any situation is shaped by our past experiences and memories, which shape the thoughts and stories we create in our mind. We will explore in Chapter 6 how our story may change depending on what is happening in the moment, what cues of safety or danger are perceived, and which part of the ANS is activated. EAST gives us a way, through the different domains, of taking into account what happens in the presence of horses. Polyvagal theory helps to capture that perspective (Porges & Dana, 2018).

Summary of EAST's theory of the problem

EAST identifies, positions, and links the cognitive, symbolic, sensory, and physiological domains of human experience (see Figure 5.9). The adage

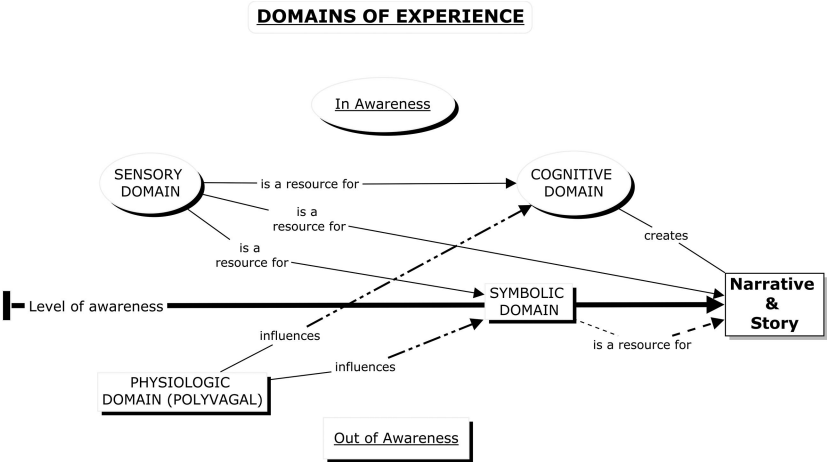


Figure 5.9 Domains of human experience: the relationship between the cognitive, symbolic, sensory, and physiological domains

“out of sight, out of mind” reminds us of the link between the sensory and cognitive domains happening in our awareness, the overstory. At the same time we are seeing that there is much happening out of our awareness, in the physiological and symbolic domains, the understory. In Chapter 6 – the theory of the intervention – these domains of experience are considered with the addition of the horse. What role do horses (social mammals) play in these four domains of experience?

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6 Theory of the intervention

This chapter is about what happens for a human when horses are incorporated into a psychotherapy session. Not all psychotherapy/horse models are the same. Although the implementation of models such as the ones described in Chapter 2 vary depending on their prescribed approach, equine-assisted story transformation (EAST) is not model-specific. Instead, EAST, a transdiagnostic, experiential intervention theory is designed to

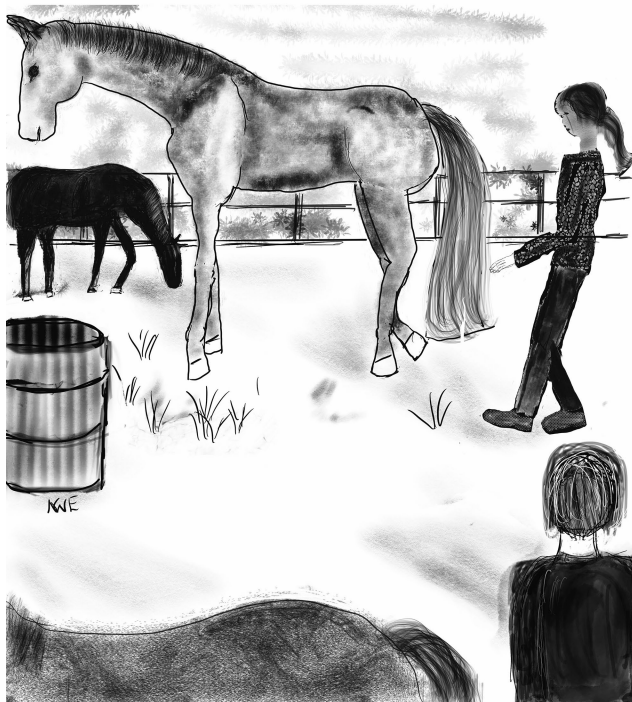


Figure 6.1 What an equine session might look like

be flexible. It provides a theoretical perspective that explains what might be happening for a person during a variety of approaches where horses and people are on-the-ground, freely moving about at will, in some form of awareness or interaction with each other, and in the presence of one or more facilitators (see Figure 6.1). We are assuming a postmodern, non-interpretive psychotherapy approach, meaning that the facilitators are not imposing their beliefs or interpretations on the person's experience. We provide examples of how the theory might be applied in the later chapters. It will be up to clinicians and researchers to determine how EAST fits their particular intervention situation.

You have already been introduced to the theories that we explore in this chapter (the horse, polyvagal, sensory, metaphor, and narrative). We now shift focus, expand explanations, and have the horse join the human as a central character. Basically the theory of the intervention is that a horse and human experience each other through their bodies and through their minds, and then the human tries to make sense of what happened. The body-mind events happen quickly. The body is experiencing, the mind is processing, and then more experiencing and processing happen. At the beginning of the session, the horse and the human, automatically and out of their awareness, are assessing each other as possible threat (neuroception). If all indications are that the other and the environment is safe, they may be open to socially connect (social engagement). At the same time, in conscious awareness they experience each other through their senses (perception). In an instant this information moves from the body to the mind, where an out-of-awareness mental search of past experiences and existing knowledge begins. The mind wants to understand what is happening in

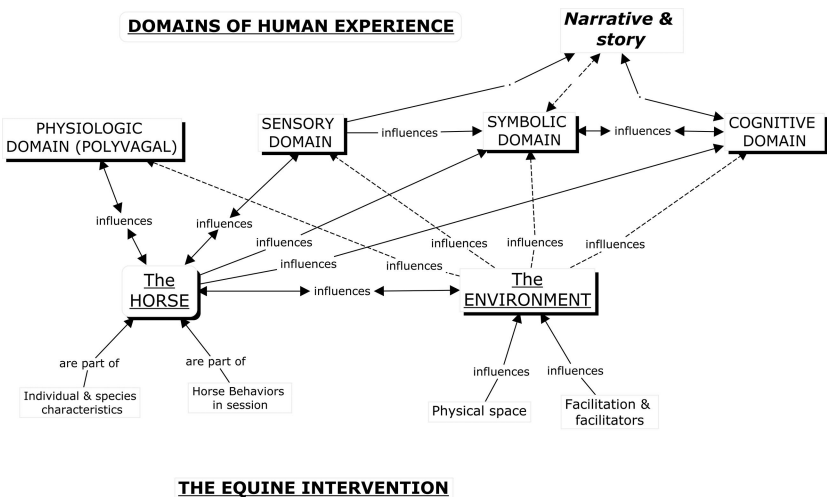


Figure 6.2 Domains of human experience and their interaction with the equine intervention (horse and environment)

terms of something it already knows. Quick automatic thoughts may pop into awareness. Feelings and mental images may be translated to words. And the words become sentences. Although there can be the development of a story, that may happen after the equine experience, when there is no longer a real-time, physical event (Figure 6.2).

This chapter is divided into five topics relevant DURING an equine experience. They are the horse, the body experience, the mind experience, the mind's interpretation (from thought to story), and other considerations.

The horse and human experience

On center stage in the theory of the intervention is an acknowledgment of the theoretical role of the horse in interaction with the physiological, sensory, symbolic, and cognitive domains of human experience. EAST does not incorporate a neurophysiological theory of the horse, for that we refer you to others (e.g., Jones, 2020; Kelly et al., 2021). Horses are dynamic, social beings. They are nonpredatory mammals, alert to a range of external stimuli, with a strong defense system allowing them to quickly react through fight, flight, or freeze. They respond to the non-verbal body language of other species including humans. Horses experience humans and humans experience horses through the physiological (polyvagal) and sensory domains. Humans use sight, smell, touch, and hearing to observe the physical characteristics and behaviors of horses and other humans. From a human perspective, the size of a horse is remarkable. Even the mini horse at 36" and 200 lbs is larger than an Irish Wolfhound, the tallest of dog breeds. How the horse feels to the touch or the chewing noise it makes grazing on grass contributes to one's experience of a horse. When a person observes, describes, and interprets a horse's behavior it is through the human lens.

We have noticed that people without horse experience often use human, dog, or cat behavior as their frame of reference when interpreting the behavior of a horse. This is consistent with the idea that people (and likely other mammals) base their interpretation of new experiences using past experience. The dilemma is that horses are a distinct species. Unlike dogs who from an evolutionary perspective sought out and developed a relationship with humans, horses were forced into captivity. They have a different kind of relationship with humans. If they are uninterested in or wish to avoid a human and they are at will and free to do so, they may turn and move away. Horses do socially interact with humans and can develop relationships with them, but unless motivated by food, they do not try to please or attach themselves to a human in the intense way we see with some dogs.¹ Instead they seek food on their own in the natural environment by grazing. Horse behaviors may be incongruent with and disrupt the human's expectations.

Size, distance, ability to move at will, and behavior are some of the horse characteristics that may elicit human (and other horse) threat or safety arousal, through polyvagal neuroception and/or sensory perception. Arousal can activate bodily and sensory awareness, memory schemas, episodic memory, and conceptual metaphor. The horse by its nature may be calming or unsettling, elicit emotion, and provoke thought, a search for meaning and story.

Horses can symbolically physicalize a story. They may come to represent something abstract for the human, become a source metaphor, and influence other metaphors in the environment. Whether moving or standing still, connected or disconnected, the horse creates a dynamic experience requiring ongoing reappraisal and interpretation through all domains of experience.

Horses thus serve multiple purposes in EAST's intervention theory. They are part of the environment where a person's story takes place. Horses by their physical presence and behaviors are external sensory stimuli that elicit human physiological, sensory, emotional, and thought responses. This combination of external and internal stimuli creates an experience for which the human mind tries to make sense. Once the mind finds some frame of reference from the past, it can begin to shape understanding by moving conscious thought into language. Humans are natural storymakers who will create internal narrative to make meaning out of experience. The horse, as a metaphor source, by its physical nature and symbolic role becomes integral to the person's story. The horse is safe or threatening, in or out of awareness, always present and influencing the human's physiological, sensory, and metaphorical understory and, in turn, the cognitive overstory.

The body experience

Polyvagal theory

Polyvagal theory (see Chapter 5 for details) reminds us that physiologic state is an ever-present part of the understory, in continuous play for horses and humans (both clients and facilitators) during horse-human activities. Physiologic state influences how both horses and humans react in the moment, interpret events, experience the world, and engage and behave with each other (Gehrlach et al., 2019). We do not know what thoughts or emotions a horse might be having. However, for humans, evidence indicates that certain physiologic states set the stage for negative emotion, thought, and story (Khalsa et al., 2018; A. Theede, 2018). When those states are quiet, other physiologic states set up positivity, hope, and social engagement (Porges, 2017). Here, we apply three aspects of polyvagal theory – neuroception, connectedness, and coregulation – to understand horse-human interactions during the equine experience.

Neuroception

Polyvagal theory explains that through **neuroception**, our nervous system is constantly monitoring our external and internal environment. The first priority is to detect potential threats to survival and safety. This surveillance system can then move up the hierarchical ladder seeking cues of safety. The key to polyvagal theory is the vagus nerve, which extends from the brainstem to the throat, lungs, heart, and below the diaphragm to the digestive system. The vagus nerve is a two-way direct connection between the brain and body organs. As described in Chapter 5, this surveillance system allows body organs to immediately respond when needed if there is threat to life (dorsal vagal shut down), potential danger (sympathetic fight or flight), or cues of safety (ventral vagal calm and connect) (Porges & Dana, 2018).

Neuroception differs from but is a parallel of perception (S.W. Porges, personal communication, November 12, 2021). Perception, which happens in awareness, comes from stimuli experienced through the five senses. Neuroceptive detection happens below our level of awareness and is attending to sensory patterns that are reflexively identified as safe or threatening. For example, an approaching horse is detected as a threat or safe and triggers a physiological response that is out of our awareness. The human experience of the physiologic response might be perceived as a gut feeling, hair standing up, butterflies in the stomach, tightening in the chest, or shallow breathing. We might understand these and/or other sensations as anxiety or fear which in turn is conceptualized in thoughts that form meaning, making story about what might be happening.

If the surveillance system is not perceiving potential threat, and there are cues of safety, for example, from a human or animal, through down-regulation the defense mechanisms are disabled. Safety cues might be experienced as slow, relaxed movements, gentle gestures, calming prosody, intonation of a human voice or the soft nicker of a horse, the opening of a hand, or the offer of a velvety muzzle (A. Theede, 2018; M. Theede, 2018). These cues can occur out of our awareness. Cues of safety signal a physiological response, with a change in breathing and corresponding decrease in heart rate (respiratory sinus arrhythmia²), that might be evident with a sigh, muscles relaxing, the dropping of shoulders, and a sense of calm and perhaps curiosity (Porges, 2017). The feeling might be understood as relaxed, peaceful, maybe curious, with corresponding thoughts, and a story reflecting that experience. The other being (horse or human) is safe to approach and there may be a willingness to connect.

Physiologic state is an ever-present influencer of emotion, thought, and behavior. Neuroception allows for a body-mind pathway, a below-awareness surveillance system that triggers physiological changes that may emerge into consciousness as a sensory experience, interpreted as emotion, thought, and ultimately story. Like the motion sensor on my home

security camera, whether a deer or a person or a spider crosses its path, the light turns on and the defense system is activated. I may or may not be aware that this is happening.

Anything can be a stimulus in our environment and especially horses in a psychotherapy session. The horse is a stimulus that elicits a neurophysiological sensory experience interpreted as threatening or safe. Sensory experience is translated to emotion and thought, moving from body to mind, flowing from bottom to top. Alternatively, neural pathways can move from top to bottom and from mind and thought to emotion with its physiological component. Talk therapies such as cognitive behavior therapy (CBT) focus on that top-down direction. Changing thought, including story, changes emotion and body experience. There are, however, more sensory neurons (80%) heading from the body up than there are motor neurons (20%) sending messages from the brain down (Porges, 2021). Thus what happens in the body may be a more powerful influence on story than what is happening in the mind. A bottom-up state of neurocepted threat will take precedent over top-down cognitions such as “I am here to work on a problem” or “the horse is safe because they said so.” And because survival is primary, it is most likely that a horse is initially neurocepted as a possible threat until proven otherwise through cues of safety.

Although rarely considered in psychotherapy approaches, including interventions incorporating horses, neuroception, and physiology are important components of EAST. Polyvagal theory reminds us of and explains an adaptive system responding to perceived internal and external environmental cues. Every social mammal has this system, although there are some individual differences. Porges (2017) notes that individual variability lies between stimulus and response – what an individual has previously experienced as threatening or safe. People come to equine activities with varying degrees of past horse experience. One individual may have never been in physical proximity of a horse, another may have had some positive and/or negative past experiences, and a third might be an experienced horse-person. As mentioned earlier, individual horses vary in personality, states and traits, behaviors, and have their own histories and neuroceptive responses.

Evidence tells us that humans and horses in each other’s presence have sympathetic and parasympathetic responses (Baldwin et al., 2018). When a person enters a space with a horse, just seeing the horse may increase arousal that either stays or dissipates with cues of safety during a session. “We see both the thing itself and all that we associate with it. We feel it too. Everything our attention rests upon triggers a sensation, ...minutely subtle...below the level of conscious awareness” (Storr, 2020, p. 41). When a person reports that “At first I was a little anxious around the horse,” that anxiety reflects sympathetic arousal which was the lens for that initial experience. It is useful to remember that the mind-body is an artificial separation. It is all one system, overstory and understory, aware or

not, humans and horses respond to the environment as a unit (Hanscom et al., 2020).

Connectedness

Connectedness is a second component of polyvagal theory incorporated in EAST. Porges refers to it as the biological imperative for humans and other social mammals to have a trusting relationship with others. Rather than attachment, which is a psychological construct, polyvagal theory focuses on this as a neural event (Porges, 2017). We can see this within and between species, including in horse–human interaction. We naturally seek connection. This occurs when, with cues of safety, the autonomic nervous system has its defenses downregulated by ventral vagal pathways, lowering heart, and respiratory rate. Our social engagement system (facial expression, sound, body position) coordinates with another’s social engagement system. The openness to connection comes with an expectation for reciprocity from another. This is a biological event with subsequent body feelings and thoughts. Observing horses interacting with each other, or having a horse approach in a kinesthetically relaxed, curious posture with proxemics of space and position all providing cues of safety, the ventral vagal system kicks in. It applies a vagal brake to the sympathetic system, slowing the heart as facial muscles work to indicate reciprocity to the approaching horse. It is with reciprocity that there is then the opportunity for a sense of connection (see Figure 6.3). In our clinical work, we have noted that clients frequently offer unsolicited comments about a sense of connection and calmness. But not always.

If one offers cues of connection and the other does not reciprocate – looking away, not engaging, walking past without acknowledgment – then there is an invalidation, a violation of neural expectancy for the social

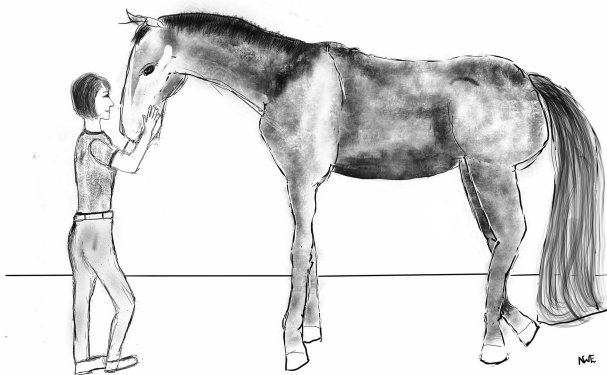


Figure 6.3 Connectedness

engagement system. Porges refers to this as **biological rudeness**, an automatic response to a lack of reciprocity resulting in an immediate return to a defense state. This sets in motion a cascade of emotion and thought, interpretation of the non-reciprocity as being offended or rejected. We see this when, for example, a person approaches a horse, perhaps with outstretched hand, or stands still looking toward an approaching horse and the horse does not reciprocate; it keeps moving, walks past, or turns away. Rudeness implies non-conformity with social rules and perhaps intent. Since we do not know what, if any, intent horses may have, we are calling this a **biological response to non-reciprocity**. A physiological event is happening for the person that triggers an emotional (sadness, anger, fear, shame, etc.) and psychological response. The intensity and expression of any response vary by individual and situation. It is our experience that during equine-assisted interventions there are many opportunities to observe the human's biological imperative to connect and biological response to reciprocity and/or non-reciprocity with the horse(s). Non-reciprocity is sometimes given meaning by a human as "she doesn't like me," or "he needs his space" or some other interpretation of the behavior (Figure 6.4).



Figure 6.4 Biological and psychological response to non-reciprocity

Coregulation

The third polyvagal theory concept we consider in EAST is coregulation. The vagus nerve's mind-body highway allows a social mammal to react to out-of-awareness environmental signals "in ways that calm, alarm, or dysregulate...." Coregulation in polyvagal theory is the "mutual regulation of physiological state between individuals" (Porges, 2017, p. 9). This is a bidirectional communication between the nervous systems of individuals that can occur between humans, between horses (and other mammals), and between individuals of different species. Of particular interest to EAST, coregulation can occur between *horses* and *humans* in psychotherapy incorporating horses. If one mammal's physiological state is responding to threat or safety, the other's physiological state will move toward that. The process of evaluating the other's state is neuroception. The process of regulating each other's state is coregulation. Thus, a person with increased sympathetic activity experienced as anxiety, in proximity to a secure and calm (ventral vagal system) horse may find themselves becoming calmer. Or, the horse may neurocept the person's sympathetic arousal and match that, feeling less safe. This matching of physiology happens outside of our awareness, but the resulting feeling state can be perceived and then given meaning, the next piece of the intervention.

Sensory "theory"

The equine experience is filled with an endless number of sensory stimuli that a human may or may not bring to awareness, recall beyond short-term memory and later, during sleep, store in long-term memory. They remind us that an equine intervention is the creation of an experience with interpretation in the moment and proves a reference, a potential episodic memory for interpretation after the experience.

Environmental **smells** might be of outside fresh air, grasses, smells of nature, the whiff of manure, and the body of a horse. Or the experience might be in an indoor arena, with the air more intensely horse, hay, and manure. Tied to smell is **taste**, a sense that may be stimulated along with smell. There are the **sounds** of nature (birds, insects, trees moving in the wind), of rain on the barn roof and specifically of horses chewing, snorting, coughing, sneezing, squealing, whinnying, stomping a foot, or of running hoofbeats. **Touch** perceptions may be of crisp, cold winter air, or the warmth of the sun, the feeling of the earth underfoot, the coarseness or softness of the horse's mane or coat, the solidness and strength of its body, the warmth of its breath, the sharpness of its teeth through one's clothing, and the weight of its hoof on one's foot or of mutual leaning on each other's body. Finally there are all things **visible** including the sky, the field, fences keeping things in or out, gates to pass through, the ground, a pile of manure, hoofprints, and everything about the horse. The observable and



Figure 6.5 Eye of a horse

interpretable size, shape, color, location in space, movement, position of body parts, whether standing with head upright or head down, ears forward, sideways or back, any of those, and more may be visible. Like touch, there is the observable sensory perception of the horse's eye, its round or ovalness, size, color, and noting the direction of gaze. There is also the sensory perception of being seen by the horse, of seeing the horse, looking into the horse's eye and having the horse look into yours, and holding that gaze. That is sensory perception and if the horse and human are open to it, connectedness (Figure 6.5).

The mind experience

Experiential psychotherapy is a mind-body experience. The physiological polyvagal and sensory experiences provide incoming information for the mind. The polyvagal/metaphorical understory (out of awareness, unseen) and the sensory/cognitive overstory (in awareness, accessible to self and others) contribute to and support each other, creating what Hess (1949), in his Nobel Prize lecture, described as an unbroken unity. The interpretation of information from bodily and sensory experiences leads ultimately to conscious thought and words. We turn our focus now to systems of thought and then move to the symbolic understory; followed by the cognitive (words to story) overstory. This chapter ends with the role of facilitators and thoughts about levels of participation.

Systems of thought: Fast and slow overstory

Awareness follows changes in the body as higher mental processes are activated to make sense of an experience (Cresswell et al., 2017). The mind tries to understand what is happening using multiple modes of thought that run parallel to each other. One system of thought emerges in response to bodily and sensory stimuli. The conscious mind may initially draw a blank, but eventually thoughts will appear, as images or words, even as the search of memory stores and existing knowledge continues.

One mode of thought is the mind's immediate automatic interpretation, reflecting one of two systems of thought. Kahneman (2011) in *Thinking, Fast and Slow* writes about these two systems as characters in a drama. He sets up system 1 as the hero of his book, automatically and effortlessly producing the immediate impressions and feelings we have in an experience. System 1 includes innate skills that we share with other animals such as a fear of snakes and learned skills such as how much effort it takes to jump over a puddle or how to drive a car. The other character in his book is system 2, what we think of as conscious reasoning. The second system involves paying attention and putting effort into figuring something out like problem-solving, calculating numbers, strategic planning, or even controlling impulses. We like to think that the logical, analytical, step-by-step system-2 is the one in charge of how we are in the world, but it is not. System 2 can take over and is able to sometimes control system 1 thoughts and urges. However if our attention is diverted, system 2 is disrupted and no longer the boss (Kahneman, 2011). For example, while driving my car I³ may be fascinated by a Brene Brown podcast on imperfection (system 2) and then abruptly realize that I missed what she was just saying because my attention was diverted to a squirrel dashing out into the road (system 1).

In terms of interactions with horses, system 1 is activated when, despite concentrating on and documenting observations of horse behavior in a distant field (system 2) I suddenly realize I am feeling the warm slow breath of a horse on the back of my neck. Likely an activation of the ventral vagus, this is an opportunity for the social engagement system, eliciting a bodily response with then an immediate feeling of pleasure. I am in system 1. The response is automatic, involuntary, and drawn from a lifetime of past experiences. I am detecting an offer to connect and the immediate response is positive; I want to reciprocate. Give me five seconds and my system 2 will begin to analyze the situation, perhaps evaluate my behavior if other humans are nearby, analyze what the real meaning of the horse's behavior is, dismiss the social cue, and wonder if it is just that I have lotion on that smells interesting or I might even walk away. System 2 interrupts what could have been a reciprocal interaction. When a person behaves in a way that seems to ignore that biological imperative to connect, there may be misinformation or beliefs about horses that are likely the automatic system 1.

Systems of thought: Symbolic understory

We move now from the system of slow/fast thought back to the symbolic domain, which continues to work out of awareness in the understory and appears in the aware overstory. Out of awareness stored memories and knowledge are available for the mind to use to create metaphor, move thought to words, inform system 1 and 2 thought, and for narrative meaning-making and story.

Memories

There are different types of memories. Short-term memories are not stored, they are fleeting, lasting for less than a minute, and limited to only a few things. Long-term (stored) memory includes the implicit, unconscious memories for procedures, guiding us in how to do things we have learned. Explicit long-term memory refers to those things that we can recall. These recallable memories are divided into semantic and episodic memories. Semantic memories are recalling facts about something, for example, describing the characteristics of different breeds of horses. Explaining an Arabian horse as a smaller and more reactive type of horse than a Clydesdale is information that I draw from semantic memory. In contrast, episodic memory is memory of a personal-specific event in time and place and is experienced with contextual details, in a particular state of consciousness and an awareness of self in that time. Using semantic memory I might recall an event factually. When I am using episodic memory the same event is being reimagined as if I am there, at a particular location, seeing what is around me, who is there, and feeling the physiological and sensory experiences of that specific event. Rather than saying to myself, for example, that it was a cloudy day, I may feel the grayness of the sky and the closing in of bare treetops. It is an imaginal, physiological, and sensory re-experiencing of my own previous experiences. The traffic merge experience in Chapter 5 is another example of an episodic memory. In that case it was used to form a conceptual metaphor.

The psychoanalyst and researcher Wilma Bucci (2021) has done extensive work on the linking of episodic memories, images, and feeling states to words and language through what is called referential activity during a staged referential process. It is a way of linking what is below the level of consciousness and what is in conscious awareness to language. We will return to this process of converting to words later in this chapter.

Episodic memories such as those with horses, people, events, and environmental contexts incorporate bodily and sensory information into the memory experience. Bucci explains that the unconscious mind organizes information, including episodic memories into memory schemas (Bucci, 2021) that evolve through multiple life experiences and are used to inform new experiences and events. When there is a new experience,

the mind draws from these schemas of past experience. Filled with bodily and sensory information, they serve as sources for personalized conceptual metaphors. The mind's symbolic domain draws from stored memory and knowledge to create metaphors that help to explain the present. The basis for understanding anything new is by using what is already known (Torneke, 2017). Each equine experience is a new event, and as such, demands access to the past to interpret the new. We take from where we have been, have an opportunity to explore where we are now, and perhaps consider where we might want to go.

Transderivational search: Putting memory to use

There are times when a new experience immediately makes sense. The mind does an automatic search of past experiences and quickly finds an easy match. Other times the new experience is dissimilar from what is already known. The new thing does not make sense. When that happens the mind does something that cognitive linguists call a transderivational search, a mental search across a broad field (of past experiences) for a fuzzy match. Fuzzy refers to a match that, rather than being crisp and clear, is non-exact with only some similarities. A transderivational search is an internal, automatic, often out-of-awareness process that occurs when incoming sensory information does not match what is already known (Gordon, 2017). When encountering something unfamiliar or disorienting, there is uncertainty (and likely sympathetic arousal). The phenomenon needs to be interpreted so that it can have meaning. The mind, open to learning, initiates a search across a broad array of past experiences, seeking bits of episodic memory that might have something in common with the new experience. Once it finds a source memory that matches, the mind brings the traces of that episodic memory and its attached sensory experiences and meaning to the new information (Gordon, 2017).

Finding words

EAST is about story transformation. Memory schemas and conceptual metaphors become body experiences and images that we eventually translate to language. In Chapter 5, in the example of jump rope as the source concept for merging onto a highway (target concept), was an experience that did not have words. Words are symbols representing thought. They help us to think about the past, present, and future; shape our understanding; and communicate concepts to others. Language, made up of words, has limits when communicating an experience. Even poets and authors, whose work is to put words to experience, can find words inadequate to convey meaning. Writers are told to avoid explaining in their stories and instead show what is happening. Einstein lamented that words did not seem to have any role in his way of scientific thinking (Bucci, 2021).

The unique and dynamic experience of psychotherapy incorporating horses is usually followed by an attempt to explain the experience to oneself only to find that words are insufficient to fully capture what has just happened.⁴ How does someone translate that experience into words? There may be concrete observations of “the horse is big,” and “he pushed me,” or a vague sweeping “wow, amazing!” But thoughts may not be fully formed. There may not yet be words to express the in-the-moment physiological, bodily, and sensory responses and the subsequent neural firings of memories from multiple past experiences trying to integrate with present experience. There may be no words to incorporate the physiological, sensory, and symbolic domains of experience.

Tolstoy wrote that he found it impossible to directly express the essence of complex, interrelated ideas through words (Bucci, 2021).⁵ He noted that this complex, what he referred to as a network, is not the sum of its parts or separate related ideas but ‘something else.’ Tolstoy’s network of ‘something else’ is what Bucci explains as parallel lines of memory schemas, made up of the sensory-filled multiple life experiences, that we are drawing from and inadequately try to capture in one single verbal mode (see Figure 6.6). We are trying to apply words to system 1 and system 2 thought and what happens in between.

Bucci identified three parts to the process of connecting experience to words. They are *arousal/activation*, *symbolizing/narrative*, and *reflection/reorganization*. The process can be observed in our everyday conversation, in writing and creative work, and in psychotherapy that focuses on past or

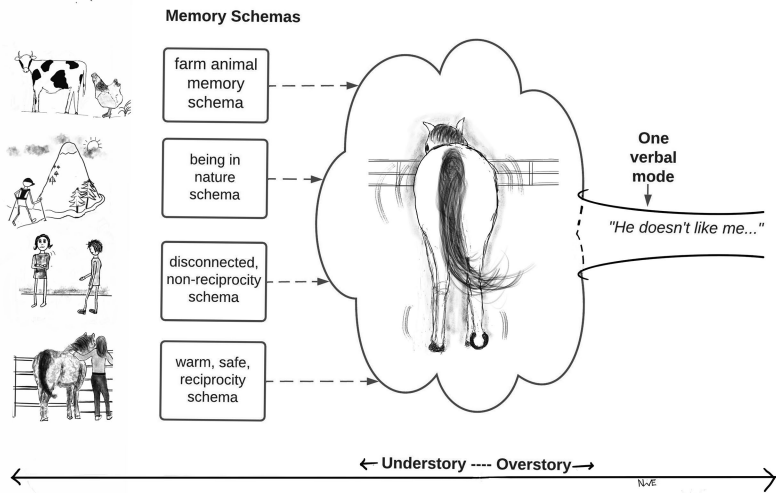


Figure 6.6 The complexity of experience inadequately captured through words

present experience. Our thoughts and words are shaped by bodily experiences (Bucci, 2021). Arousal happens in the physiological (polyvagal) and sensory domains of experience. Imagine as a prompting event, a horse walks by and does stop or seem to acknowledge a person. Arousal activates the vast memory, knowledge, and experiences the mind can access. The person may notice a vague feeling of being nervous or upset. The feelings might be noticed through the body, a tensing of muscles, a change in breathing, or an overall state of unsettledness or even apprehension. The person may not know why they are feeling uncomfortable or they may know but not be able to explain it in words (Bucci, 2021). Mental processing happens in and out of awareness, at different levels, and in different systems of thought. A person may try to make sense of their experience through word thoughts, may try to explain to others, or may experience a sense of understanding.

During Bucci's symbolizing phase, conceptual metaphor and imagery may begin to shape story and transition to words. The fast, automatic interpretive system 1 thought and the slower, analytic system 2 thought move one then from the symbolic to the cognitive domain. The third process Bucci describes, reflection/reorganization, we discuss in Chapter 7, after the equine encounter ends.

Conceptual metaphors

Conceptual metaphors link it all together, uniting body, mind, words, and language (Gibbs, 2019). Where cognitive theorists use terms like schemas, cognitive linguists use the term "conceptual metaphor."

Conceptual metaphors are the "fundamental metaphors that exert powerful influence over our way of thinking, speaking and acting" (Torneke, 2017). As we saw in Chapter 5, we form many of these basic metaphors in infancy and early childhood as we encounter things in the world. The idea that life is a journey ("she chose that path") or up is good ("she got a raise," "it was a thumbs up review") are examples of conceptual metaphors. Like those two, many conceptual metaphors are universal, appearing in languages around the world. They are embedded in everyday language, helping humans understand themselves, imagine themselves in the future, and see how they might change (Landau et al., 2014). Imagine someone wanting to achieve the daunting task of becoming an Olympic level dressage rider. By using the metaphor of a journey, the person can understand that it takes time, there is at least one path to follow, a sequence of "places" to get to, and perhaps roadblocks along the way. The conceptual metaphor of moving from here (introductory level riding) to there (Grand Prix level) helps the person visualize a process and what they need to do (Landau, 2017). Conceptual metaphor is when the person's mind, drawing from a complex of past experiences (what travel is, walking on a path, practicing a skill), creates representative ideas. Lakoff & Johnson (1980) said that the

basis of knowledge is through conceptual metaphor. It is Tolstoy's 'something else.'

Another example of conceptual metaphor is seen in this snippet of an equine experience.

Two horses – let's call them Rusty and Dusty – were standing near a gate. Rusty put his teeth on the side and then the rump of Dusty. Rusty was biting in the direction of Dusty, his teeth grazing but not breaking the skin. Dusty slowly began moving away from the gate and away from Rusty. Rusty had physical contact but did not use physical force or actually push Dusty. Yet my immediate thought was "he's pushing that horse around, he's in charge." Power is metaphorically associated with mass, weight, and strength (Onuf, 2017). As Dusty moved away, he kicked up his back legs in the direction of Rusty but not enough to touch Rusty. I thought "that was half-hearted." The heart, the source of the metaphor in this case symbolizes life, passion, and willingness to fight. The conceptual metaphor comes from my life experiences. Although I did not say these words aloud, my mind translated my experience into words that were available for system 1. The thoughts were automatic, involuntary impressions of what was happening and because the experience fit with something in my past experience, my thought system 2 accepted them without trying to modify them. They might become part of my beliefs. When things fit with something we already know, we accept them as is.

Imagining an equine experience: Polyvagal, sensory, and symbolic domains

Imagine an experience where you are standing and a very large draft horse has walked up and is standing in front of you. Neuroception is already scanning for potential threat or cues of safety. Your perception of external stimuli (exteroception) is interpreting the distance between you and the horse, the size of the horse, and other sensory stimuli. Your unconscious mind is searching for some similar pattern of being near a large, warm, creature, with relaxed, calm body language which is acting as a cue of safety. Your unconscious mind finds a memory schema of being a child near a safe adult. An unconscious, preaware conceptual metaphor forms that this experience has some similarities to past experiences including being near something strong and safe. You have an urge to reach out and notice a desire to connect with the horse.

Your mind in awareness may not have words or may find words that may not fully capture what is happening for you. You are just in the moment. And perhaps, at that moment, a facilitator asks you to describe what is happening. You attempt to find words to describe something in verbal mode. Your mind is moving from unconscious conceptual metaphor to where words and language take shape. The place between experience and words is part of the symbolic domain of experience. Your conscious thought may

come from activated system 1 thought to provide an immediate impression. You share what comes to mind, “he’s a gentle giant.”

Add to that the likelihood at any moment that the horse, a social mammal with its own autonomic nervous system, survival instinct, and drive to connect may move closer, extend its head, snort, stomp its foot, change focus, look away, or even turn away. Moment-to-moment shifting of the experience for you on multiple levels, from body to mind and mind to body, is matched by the instantaneous shifting of your interpretation. System 1 thought is active. It may be difficult to get system 2, the slower, voluntary, problem-solving system that demands focused attention activated.

When the therapist asks a question, your mind might stay with the moment or you might refocus to think about how to respond. And that process of considering how to respond creates another experience, an interaction with a professional and any past experiences with that.

Cognitive overstory: Weaving words into story

The previous sections introduced the idea that there are multiple sources of incoming information and multiple modes of thinking with processing of perceptions, activation of vast mental resources of episodic memories, knowledge, and metaphorical understanding. The modes of thought are connected but independent of each other. Symbolic thought, where a metaphorical something is representing something else, is generating images, words, and understanding, and thought moves from out-of-awareness into awareness. Bucci’s (2021) referential process explains that after arousal, in the symbolic phase, the mind’s multiple modes of non-verbal thought, images, and metaphors, both inside and outside of awareness are moved into one verbal path (Figure 6.6). Story, a meaningful conceptual arrangement of events, may emerge as one of those modes of thought. It is as if there are multiple lanes of traffic, all independent but aware of each other, merging into one exit lane of words, to be converted to narrative and story. Like traffic, it may slow down and require patience. The route is bidirectional, non-verbal experience goes in one direction toward words, and words can go in the other direction, along an entry ramp, interpreted into multiple lanes of thought.

So much is happening in the understory and so much can happen in the overstory. When words were insufficient to express his complex ideas, Tolstoy used the indirect approach of story. He created a dynamic context through character and plot development so that his readers were able to understand an experience as he saw it. When we are affected by experience, it is when we put it into story and then translate it to words and language that we make sense of what has happened (Marsten et al., 2016). Words can be assembled into narratives. When the narratives begin to tell of cause and effect “he walked away because....” plot emerges. If allowed or facilitated, a narrative with plot will be woven into a meaningful

whole to produce a story. Experience activates memories, and conceptual metaphors and images flow into words and narratives and narrative story. Much of this process happens after a session, sometimes over hours, days or longer. Story takes time.

Researchers have discovered that across languages, stories about experiences have four parts. They start with a summary of what the story is about; orient the listener or reader to the who, what, where, and when; tell what happened by providing a complicating action and resolution; and then return to the summary of the story and the present moment (Nelson, 2022). Nelson explains that in telling the story of an experience, there are two time frames: the time the story happened and the present moment. During the telling, the storyteller and listener are both imagining the events as if they are happening in the now. The actual present moment becomes less noticeable while experiencing the imagined story events. When narrating a past experience as a story, the imagining happens in the time-travel same state of mind as episodic memory and conceptual metaphor. It is a body-mind experience. By staying in the actual present moment when telling of a past event, and not following the ‘past story format’ described above, a person is able to avoid re-experiencing the event.

Chapter 5 introduced the concepts of story and narrative, that we have stories about what has happened and we can create stories of what might happen in our lives. Our stories are shaped by experiences in our memories, metaphors that explain the world, and the moment-to-moment experiences that continue to provide new information to be processed. Dana (2021) reminds us that one’s story reflects the polyvagal state that is most active in the moment. Dorsal produces stories of disconnect and hopelessness, sympathetic brings forth stories of adversaries, anger and anxiety, and in a ventral state, stories are of connection, hope, and possibility. Whatever story there is, there is always the opportunity to restructure past stories, change storylines, and create new story.

Externalizing

In Equine-Assisted Story Transformation (EAST), the physical domains of experience, neuroception, and perception are, for the most part, happening as the body meets the environment. The mental experiences are happening within the mind. Thought and story are located inside the person as an internal narrative supported by memory and metaphor. What happens if the story moves outside the person?

In Chapter 5, we introduced the cognitive domain concepts of externalizing and narrative theory. When people share their problems or painful experiences, either verbally or in writing, many report that just expressing helps them feel better (Pennebaker, 1997). Although somewhat effective, simple expression and catharsis does not work in every situation or with every person. When people become stuck ruminating in an

internal narrative, and they feel something is wrong with themselves, they feel worse.

Literature supports the idea that when people self-distance from their story, stepping back and viewing it separately, like a fly on the wall, they are less vulnerable and more open to seeing from a different perspective (Kross & Ayduk, 2011). White and Epston (1990) described how moving a problem from inside the person to outside the person allows them to objectify the problem and see it from a distance. They referred to this as **externalizing**. The person is not externalizing in the sense of blaming someone else for their problem. It is that the *person* is no longer the problem; instead the *problem* is the problem. The problem becomes personified, a character in a story. External to any person, it is its own object. They found that people have less of a sense of failure when the problem is outside of them. And when a person is less attached to the problem, it is easier to view “the problem” from multiple, previously inaccessible vantage points (Denborough, 2014; Madigan, 2019; White & Epston, 1990).

From the postmodern worldview, people are experts in their own experiences. Yet sometimes that expertise is from a limiting perspective. A person’s story may have an unchanging plot and they may believe that what has happened to them in the past determines what will happen going forward. It is possible to shift the story and see a bigger, more holistic picture by detaching a person from their problem. The “problem” becomes distinct and separate from the person and thus the “I” is less threatened. The person is then able to change the existing story and to *re-story* their narrative and reconstruct meaning (Madigan, 2019). In expressive writing, externalizing is done through language. In EAST externalizing can occur through non-interpretive language and by physicalizing story through observation and interaction with horses, symbols, and space. The horses are catalysts for change, influencing a person’s physiological, sensory, emotional, metaphorical, interpretive, and logical perspective.

Externalizing the problem in equine-assisted intervention allows a person to move a problem in a story from inside to outside themselves. Depending on the specific equine intervention model, externalizing may be intentionally facilitated. Whether or not intentional, story and story problems can be externalized and embodied by the horses and whatever is in the environment.

Thoughts on arrival

Even as one arrives at an equine session, many stories may be occupying the person’s thoughts. There may be curiosity or worry about what is about to happen interspersed with random thoughts of what to make for dinner. There may be a mental replay of an irritating conversation with a co-worker, system 1 thoughts replaced by problem-solving system 2 thoughts. Thoughts of “where do I park?” and thoughts without words

that eventually become “are those the horses I am going to be with?” There are thoughts before, during, and after an experience.

As one approaches the horses there is the ongoing out-of-awareness, behind-the-scenes neuroceptive monitoring for threat or safety, and in-awareness perception of sensory input such as seeing the horses or smelling cool air. Both the external and internal environment are part of this experience such that neuroception and sensory perception of, for example, a horse in one’s visual field may correspond with physiological changes in the body. As sensory perception grows there may be a notice of tension in the chest, of a faster heart rate, and a feeling of anticipation or trepidation interpreted as anxiety. The mind will seek understanding and meaning for what is happening. There may be fear of thoughts such as “why am I doing this?” and “I could get hurt.” At the same time the mind does a derivational search for something similar and another mode of thinking comes in, “this is just like that time I ...” as the mind finds something that represents this thing.

If an experience is found that is similar in concept, it may be accepted in a “this is just like that.” There may be reaffirmation of an existing belief, a possible meaning given to the experience. Because the environment is dynamic and changing there may be multiple opportunities to ask oneself “what is happening here?” While the mind is trying to make sense of an experience, to understand it, there may be no words to explain what is or has just happened. If words are found, they may seem inadequate to express what is being experienced. Understanding is not yet possible and one may only be able to find words that describe what is being observed, “the horse came up to me, I reached out and touched him.” There may be an attempt to put events in a sequence “and then that other horse turned and walked away.” The mind will continue to work on making sense of the ongoing experience.

Other considerations

Engaging in the process

When someone arrives for a session in any form of therapy, with many thoughts playing in their mind and systems active in their bodies, it may be pertinent to consider willingness as a factor. Many talk therapies use a five-stage model to understand the therapy process and relationship. Lawley and Tompkins (2000) adapted that model to explain how clients engage in a unique type of talk therapy called symbolic modeling. We are adapting it here to consider when thinking about an equine intervention. The stages are (1) entry (intention to change, showing up), (2) moving into the space (either visually or physically, the client is introduced and begins to engage with the horses and space), (3) externalizing and embodied metaphor (the horse, objects, and space become symbolic metaphors),

(4) reflection (during or after the session, thoughtful exploring of metaphorical connections and patterns), and (5) conditions for transformation (change happens) (Lawley & Tompkins, 2000). It is during any of these stages that metaphor work is done. Everyday language occurs before (pre-stage) and after (new narrative) these stages, when the client is not actively in the therapeutic process.

Facilitators

One last thought about the equine session. EAST is not model-specific but has the flexibility to adapt to different settings, populations, and techniques. We have considered the influence of facilitators and how this experiential therapy is implemented. Facilitators are unique individuals with personal and professional histories. From a postmodern perspective, the assumption is that facilitators avoid influencing the client with their own memory schemas, domains, and metaphors. One example of how this might look is from the Eagala Model. Facilitators trained in this model are encouraged to use non-interpretive language, limiting most of their comments and questions to concrete observations to which the client can assign their own meaning.⁶

An equine experience creates an arousal stage (Bucci, 2021), which opens a gateway to memory and metaphor in a way that is not necessarily available in the office setting. It is a rich opportunity with many moments of experience and modes of thought that are active during a session. We are wondering how facilitation may enhance, interfere, or remain neutral with processes during a session? As we will see in Chapter 7, reflection is important and time and sleep contribute to that process. Is there an optimal time for processing of a session? These are just a few of the questions we have.

Notes

- 1 The dog behavior suggesting an urge to connect has been emphasized through breeding. Golden retrievers interact enthusiastically with humans while Akitas, a guarding breed, tend to remain aloof.
- 2 The normal heart beats at a continuously changing rate, speeding up, and slowing down in synchrony with changes in spontaneous breathing. Heart rate variability (HRV), an indicator of a healthy heart, refers to the variation in time between each beat. HRV is influenced primarily by the ventral vagus and to a lesser extent the dorsal vagus.
- 3 Throughout the chapter “I” refers to NWE.
- 4 Practitioners have a similar challenge when they try to use words to explain psychotherapy incorporating horses. It becomes difficult to describe to potential clients, as well as other stakeholders, what this is about and how it works. Researchers struggle too in finding the language for study design and defining variables to measure in an effort to systematically describe and explain processes and outcomes.

- 5 From a letter from Tolstoy to Strakhov cited by Bucci (2021), p. 11.
- 6 The skill of using noninterpretive language in Eagala is influenced by the late psychotherapist David Grove's Clean Language approach using a particular type of talk to elicit metaphorical descriptions of a client's inner mental world (Grove & Panzer, 1998). The therapist avoids inadvertently having their own metaphors influence client metaphors.

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7 Theory of change

Louis Cozolino and Vanessa Davis (2017) describe an experiment where a hungry rat searches for cheese hidden in one of five tunnels. The rat enters the first tunnel, no cheese. It tries another tunnel, same result. The third tunnel is the winner, the rat finds the cheese. The next day the experiment is repeated. This time the rat skips the first two tunnels and heads directly to the cheese in tunnel three. On a subsequent day the researchers move the cheese and the rat, after searching in tunnel three and finding it empty, moves on to the other tunnels, eventually finding the relocated cheese. Cozolino and Davis contrast this behavior with how a human might respond. They see the rats as realists, accepting that the cheese is in a different place.

Humans, on the other hand, will go down the third tunnel forever because they come to believe that's where the cheese *should* be. Within a few generations, humans will develop rituals, philosophies and religions focused on the third tunnel, invent gods to rule over it, and create demons to inhabit the other four [tunnels].

(Cozolino & Davis, 2017, p. 41)

Change is hard for humans. Rather than the inefficiency of having to keep inventing new ways of thinking, our brain automatically defaults to that which worked at some point in the past. So, like the rat, we will take the shortcut to the third tunnel, but then we can get stuck in a limiting pattern, our complex minds interfering with any urge to try something different. We hold onto the shoulds and should-nots that keep us in empty tunnels, sometimes to the point of suffering in hunger. If our way of being in the world happens to match our circumstances then there is no need to change. But if things are not working or if the situation changes then we can get stuck in frustration, sadness, or anxiety. The patterns of neural connections that efficiently use our unconscious domains, schemas, and conceptual metaphors to shape conscious perspective and experience can end up reinforcing ineffective beliefs and assumptions.

The premise of this book is on how psychotherapy incorporating horses creates change. The theory of the intervention in Chapter 6 explains

processes happening in the body and mind of the person during an equine experience. This chapter focuses on what happens after the intervention, when the horses have been left behind yet thoughts of the experience continue to occupy the mind. The concrete equine experience itself can produce change. There may be processing during or at the end of the session, but the person may not yet have words for what they are experiencing. Mental processes may continue in the hours and days after the event and for many people, it is that continued meaning-making that produces deep change. In this chapter, we explore the question “how does change happen?” and add “when does change happen?”

The theory of change used in EAST incorporates two theories that, although taken from the field of education, are a good fit for an experiential psychotherapy and consistent with how change happens. The theories are transformational learning theory (TLT) (Mezirow, 1991) and experiential learning theory (ELT) (Kolb & Kolb, 2017). We sought theory that complements the earlier theories, allowing for the subjective domains of experience (physiological, sensory, symbolic, and cognitive), which are consistent with a postmodern narrative view and an experiential approach. These theories help to explain what needs to happen for different types of change, including change that is transformative. One incorporates the subjective experience (TLT), and the other provides a structural process of how learning occurs. They both emphasize reflection, in particular, post-experience critical reflection. They help explain what can happen for a person when they are in an externalized, symbolic, metaphorical story – such as can happen in psychotherapy incorporating horses. The next sections are on the concept of reflection, then TLT, ELT, and the role of sleep.

Reflection

During an equine encounter, things can happen quickly. There are physiological and sensory domain experiences. The symbolic and cognitive domains are activated, perhaps to the extent that there is an early development of story. There will be thinking that uses tacit knowledge, which may inform System 1 in-the-moment intuitions and interpretation. And there may be functional, problem-solving logic in use. There will be moments of not being “in the experience” but rather being “in one’s head,” asking oneself “Am I doing this right, Am I standing in the right position to approach the horse? What is my body language communicating right now?” These are not the reflective, meaning-making thoughts that ultimately lead to big change. Although there may be moments in time to try to reflect, those will be insufficient. When “in the experience,” one cannot be reflecting “on the experience.” The reflective thought that we will consider in this chapter is what happens after the experience, the thoughtful, critical evaluation of the gestalt of the experience, and the meaning given to it.

Both Mezirow's TLT (1991) and Kolb's ELT (2015) incorporate the work of John Dewey, a 20th-century philosopher and foundational scholar in experiential education. In his 1910 book *How We Think*, Dewey explained the importance of reflective thinking as a specific type of thinking necessary for change (Dewey, 1997). He was interested in how humans move beyond firmly held, sometimes limiting beliefs. What happens that allows a person to begin to consider that the world may not be flat or that the cheese is somewhere other than where it should be? Dewey wrote a theory of experience, defining experience as an interaction between an individual and the environment. He promoted the idea that we use our beliefs, assumptions, and past experience to interpret each new experience. It follows then that, since taking from the past, not all experiences will lead to new understanding or change (Dewey, 1938). A given experience may dull one's sensitivity to an issue or it may lead to an increased skill but at the same time keep someone in a rut, closing down future opportunity. But sometimes an experience can arouse curiosity, increase willingness to understand more deeply, and motivate a person to change.

Dewey described different modes of thinking and how they do or do not contribute to change. One mode is the casual stream of consciousness, another is imaginative thought, the third is thoughts about beliefs, and the fourth mode is reflective thought. Although any of the first three types may lead to reflective thought, they generally do not. Reflective thought is when one actively and persistently examines something known or assumed, evaluating what is supporting that belief and the conclusions drawn from that support (Dewey, 1997).

Reflection is an active process that starts when confronted with or perplexed by a problem during an experience. It involves thinking about similar past experiences, developing several hypotheses from different perspectives, then comparing, and choosing among them. Although described in a linear fashion, Dewey saw it as a more iterative process that would have the reflective person going back for more experience while working out hypotheses.

Reflection is not likely to happen during an equine session and may require planning and facilitation from a facilitator. A researcher who was part of a leadership group equine session described different moments during sessions that elicited emotions and sometimes self-judgment by several participants. Although the focus of EAST is on individual rather than group work, the researcher noted that without reflection people in the group were left to their own thoughts and there seemed to be some missed opportunities for processing (Kelly, 2014). She also noted that the group members were left with more awareness of their skill deficits than strengths. It may be useful to know what both our strengths and vulnerabilities are.

Adam Grant, an organizational psychologist, in his book *Think Again*, found that examining underlying assumptions and rethinking start with

intellectual humility. One first needs an awareness of what one does not know, which then creates doubt, curiosity, and ideally discovery (Grant, 2021). In contrast, if we are sure of what we know, then conviction and overconfidence lead to confirmation bias, “see, I was right, that’s just like this....” We feel confident, self-validated, and our beliefs are reinforced. As I (NWE) am writing this I am pushed to think about my assumptions about equine sessions, my desire to dismiss a researcher’s analysis of the experience and instead have my own explanation.

Transformational theory of learning

An essential function of psychotherapy is to help us gain insight into how we view ourselves and our world. Different types of learning can happen in both the educational and psychotherapeutic setting leading to small perspective changes or big paradigm shifts. Three types of interest to Mezirow are transmissional learning, transactional learning, and transformative learning.

Transmissional learning can occur with an educator or a therapist where the person with the information gives it and the learner receives it. An example of what that might look like in a traditional psychotherapy approach would be psychoeducation. For example, in some therapies, like dialectical behavior therapy (DBT), transmissional learning is what happens in a skills group where one learns emotion regulation skills. In psychotherapy incorporating horses (PIH) transmissional learning might be learning the meaning of horse behavior or how one might approach a horse.

The second type of learning is transactional learning, where one gains valuable experience by doing and interacting with others. In a DBT skills group, members might share with each other their experiences using a skill or there may be role playing a new skill during group. In an individual psychotherapy session there is a transactional exchange between therapist and client. In PIH transactional learning might be an opportunity to explore interaction techniques with horses, like practicing approaching horses or setting a boundary. Transactional learning is active, engaged, experiential learning.

The third type of learning is transformative learning. This type of learning involves deep questioning, a willingness to look at taken-for-granted beliefs and recognize that assumptions may not be facts. Transformative learning in DBT might be the critical examination of judgmental thoughts or the radical acceptance of difficult life events. Getting to that point in therapy might take weeks or months of therapy or might occur sooner if the therapist can act as a catalyst for change. In PIH transformative learning happens when for example there is a disruptive or disorienting event that brings into question what the person holds to be true, a willingness to examine that belief and the necessary subsequent steps for change. Either situation can lead to a big shift in perspective.

TLT is an adult learning theory developed by Jack Mezirow to synthesize adult learning and psychological theory. The goal was to have a learning theory that explained how people make meaning out of their experiences, including how meaning is understood, validated, and reformulated (Mezirow, 1991). Meaning is the interpretation of an experience and it is made first, before there are words, and then meaning is made through language. It is easy to see how this theory is consistent with a psychotherapeutic approach, one focused on change.

Transformative learning involves experiencing a deep, structural shift in the basic premises of thought, feelings, and actions. It is a shift of consciousness that dramatically and irreversibly alters our way of being in the world. Such a shift involves our understanding of ourselves and our self-locations; our relationships with other humans and with the natural world; our understanding of relations of power in interlocking structures of class, race and gender; our body awareness, our visions of alternative approaches to living; and our sense of possibilities for social justice and peace and personal joy.

(O'Sullivan, 2003, p. 327)

Throughout most of our lives we experience change gradually, adapting as the world changes around us. The TLT, consistent with metaphor theory and a postmodern perspective, acknowledges slow change but is primarily focused on meaning change that happens over a short period of time. The theory was developed to understand how an individual becomes able and willing to examine and change firmly held assumptions, beliefs, and world views. It incorporates the idea that something, some kind of catalyst (an event in an equine session), can abruptly shift how one normally sees things. This shift is not the usual way that our minds work. Normally we hang onto our established thought patterns consistent with the way things should be. The theory explains that when we experience something new, we automatically view it through our existing meaning perspective. We mentally seek some frame of reference, a derivational search of past experience, find something that seems to fit, validate for ourselves the accuracy of the interpretation, and then act on the meaning given to this *new* experience seen through *past* experience.

The type of learning that happens when old meaning from past experience is attributed to new experience, “oh that’s just like...” is what Mezirow refers to as *thoughtful action*, a form of non-reflection. It is our normal approach to the world, using our pre-existing expectations to confirm that we know this new thing because it has some things that are similar to what we already know. We might even be introspective, noticing that we are thinking, feeling, or behaving in a particular way in response to the experience. We might be analyzing, discussing, and judging but it is done based on what is already known. We might reflect on the content but

because we tend to see what fits with what we already know and ignore or dismiss the things that don't fit, change does not happen.

When something disrupts the status quo or we hit a roadblock, we feel disoriented. The incongruence between past and present experience sets up a dilemma, a disconnect between what is expected, what we think should be, and what is. If instead of ignoring or misinterpreting, we stop to question the truth of what is being experienced then we begin to reflect. Reflection is a key component here. Learning through reflection on experience might be *confirmative* in that the original understanding was accurate or it might be *transformative* if it changes our understanding. TLT explains this transformational learning through several phases, illustrated in Figure 7.1.

First, there is some powerful catalyst that causes us to experience a disorienting dilemma – we find that what we thought or believed in the past, and that we are convinced is true, may not be. Next, we examine our beliefs and critically assess our assumptions, accepting that some of our past assumptions may have been wrong or not fit with the disorienting dilemma. Then we plan a course of action to understand the situation or experience and a strategy for what to do next. We may acquire knowledge or skills needed, try out new roles and provisionally test them, and build confidence and self-efficacy in the new assumptions, beliefs, behaviors, and roles. The last phase is reintegration, where we incorporate our new understandings into our sense of self and emerge back into life with a new perspective. This process can shift story to a new perspective and

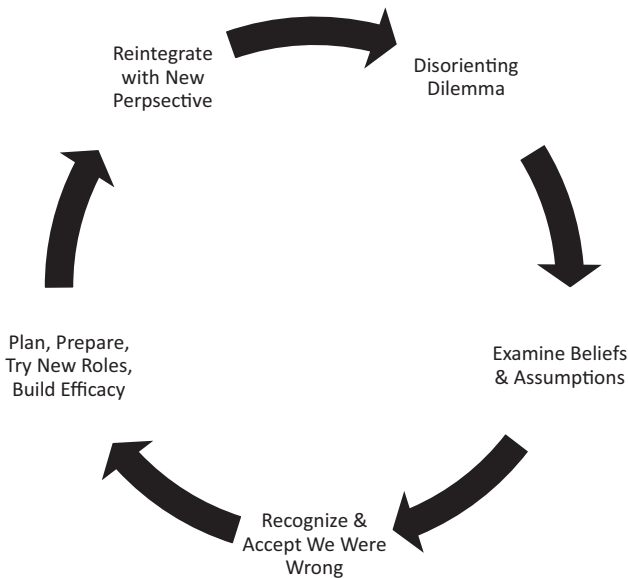


Figure 7.1 A process of transformational learning, adapted from Mezirow (1991)

new meaning. In this way we can see that experience and reflection are iterative processes, subject to evolve and change. Even though a past experience has already happened, the meaning we give it can change in the present. And that change in meaning is transformative – it changes the way we see ourselves and the world (Clark, 1993). While some learning is additive, adding to what we know, transformational learning is constructive; knowledge is created from experience interpretations and reinterpretations (Mezirow, 1996). Mezirow's theory continues to find applicability and is one of the most prevalent of learning theories (Christie et al., 2015). Cranton explains that

At its core, transformative learning theory is elegantly simple. Through some event which could be as traumatic as losing a job or as ordinary as an unexpected question, an individual becomes aware of holding a limiting or distorted view. If the individual critically examines this view, opens herself to alternatives, and consequently changes the way she sees things, she has transformed some part of how she makes meaning out of the world.

(Cranton, 2002, p. 64)

This theory captures much of what may happen during and after an equine session. The horse may act as a catalyst, and we may choose to ignore, confirm, or reassess and reinterpret how we understand ourselves and others. A change in our understanding of ourselves is consistent with psychotherapy (Salvatore et al., 2010) and personal and professional development (e.g., Nielsen, 2012) and thus is relevant to PIH.

Experiential learning theory

Jack Mezirow, David Kolb, and Alice Kolb were influenced by the writings of key experiential educators of the 20th century including John Dewey's *Experience and Education* and Paulo Freire's *Pedagogy of the Oppressed*, respectively (Dewey, 1938; Freire, 1993). Kolb explains that knowledge through learning happens when, through a process of grasping, understanding, and then giving it new meaning, an experience is transformed (Kolb, 2015). Knowledge is thinking about understanding and making new meaning out of an experience.

David Kolb developed a four-step process of experiential learning and change. This ELT is used in educational settings, professional development, coaching, and counseling settings. The theory includes an inventory of learning style preferences; however we focus here on the learning cycle.

Figure 7.2 illustrates the ELT described by Kolb (2015). The ELT four modes include concrete sense experience (CE-Experiencing), reflective observation and remembering (RO-Reflecting), abstract conceptualization

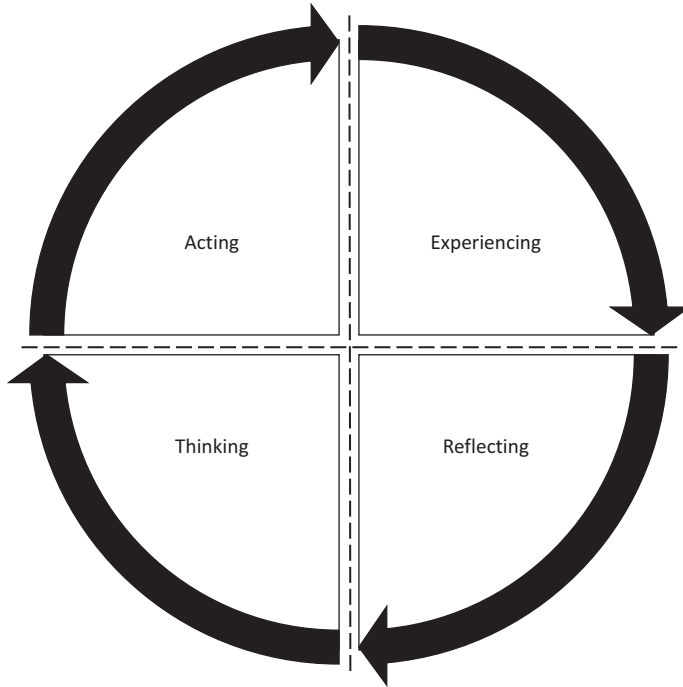


Figure 7.2 The four modes of the experiential learning cycle (Kolb, 2015)

and theorizing (AC-Thinking), and active experimentation and action (AE-Acting). Experiencing, reflecting, thinking, and acting.

All modes of the learning cycle are a form of experience. In the Experiencing mode, the focus is on a concrete experience that has a presence so real and vivid it cannot be ignored (Kolb & Kolb, 2018). The most memorable experiences are those that flood the senses, elicit a being in-the-moment feeling, and are outside of the norm or take us by surprise. Noticing the sensations and feelings helps to remain in the concrete experience. The sensory and physiological domains are stimulated, and the brain integrates this by creating images and initial meanings. Concrete experience exists only in the present, a depth of experience that one cannot fully understand. If someone slips into a thinking rather than being mode and is too much “in their head” it will be more difficult to be present in the moment.

In Reflecting mode, we are reflecting on something unexpected and trying to link it to past experience. The idea is to become detached, thinking of oneself as an observer. It is more difficult to do if there are internal or external pressures to take some action. Reflection requires time and space, benefits from stillness and quieting the mind, and is challenging to do when there is intense emotion (Kolb, 2015).

The Thinking mode involves trying to understand and conceptualize the experience at an abstract level, perhaps coming up with a concept, word, idea, or metaphor that captures the experience. It requires focus and again can be distracted by strong emotion or other stimuli. It may involve theorizing about generalizations beyond the experience.

Acting is where the change, new insights, or new meaning are turned into action. Action can be something small like talking about the experience with others, writing about the experience, or doing something differently. Action is trying out what has been learned in life. The experience can continue to be explored and the cycle continues. It is unclear what role the acting mode of ELT has from a psychotherapy perspective, but would be a useful part of the process to consider.

Kolb emphasizes the importance of not oversimplifying this four-cycle mode seen as a recursive circle or spiral, with a dialectic dynamic between opposing learning modes, with CE opposite AC and RO opposite AE. Although the cycle appears to begin with a concrete experience, it is possible to start at another part of the cycle. He points out that experiences may not be orderly, one may be lost in thought only to have one's attention abruptly shifted by something happening. Learning may happen in many small complete or partial cycles (Kolb & Kolb, 2017).

Experiential learning, transformational learning

We have described two learning theories: experiential and transformational. ELT explains how learning happens through experience. TLT explains the kind of learning that changes our perspective, how we come to think about or understand something about ourselves or the world in a different way. From the theory descriptions, you may see some overlap between ELT and TLT. They complement each other rather than compete with one another. For example, the disorienting dilemma in TLT happens while a person is in the Experiencing mode of ELT. And the self-examination and assessment of assumptions of TLT is consistent with the Reflecting mode of ELT. In Figure 7.3 we show our understanding of how these two learning theories are consistent with and complementary to one another.

Transformational learning and interventions incorporating horses

Interventions addressed by EAST are experiential; clients have an experience with horses that facilitates change. And we suggest that the change happening is meaning-making and perspective change via transformational learning. Applying the learning and modeling theories, the focus during a psychotherapy or learning session incorporating horses is, or could be, primarily on Experiencing – having a concrete sense experience

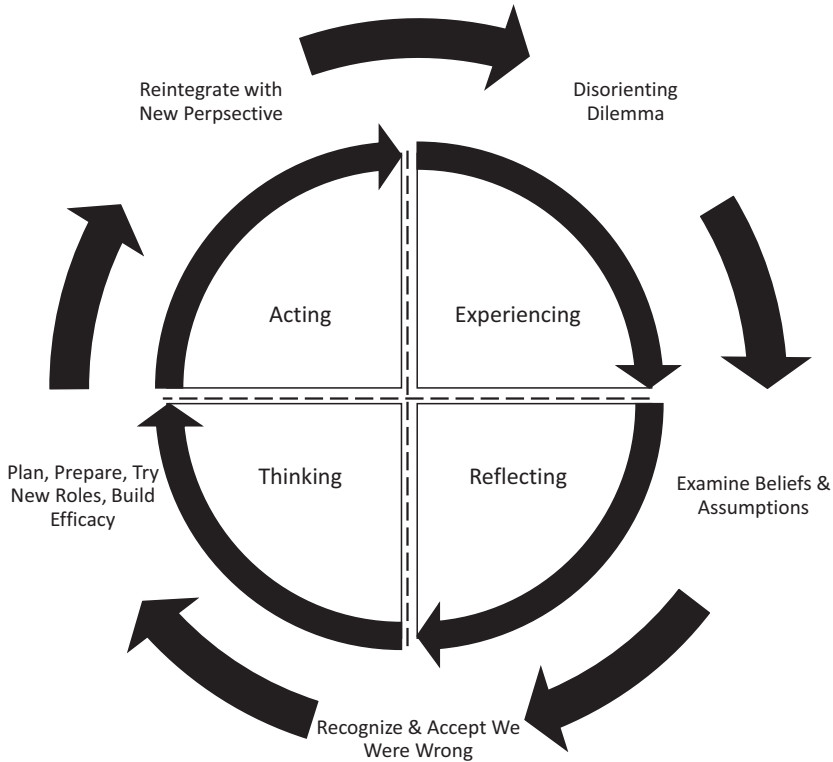


Figure 7.3 Integration of experiential learning and transformational learning

with horses in a horse environment. One equine-assisted-intervention model focuses on Experiencing during a session and discourages their facilitators from asking clients to “think about” or do homework after a session, believing clients do this naturally. Rather than reflection, they debrief after several sessions (Eagala, 2019, pp. 90–91).

Remember from ELT that the most memorable experiences are those that flood the senses, are in-the-moment, and/or are novel or surprising. The brain integrates an intense sensory experience by creating images and meanings (Kolb, 2015). As described in Chapter 3, equine experience floods the senses with unique and perhaps novel sights, sounds, smells, and textures. For some, just being in the presence of horses is a new experience. And for most recipients of equine-assisted intervention, participating in psychotherapy or learning interventions with horses in an arena or pasture, as opposed to an indoor office setting, is new and surprising. Second, horses are social beings with agency – mobile, free of restraints, being and doing, responding, and reacting on their own volition. Horses serve as catalysts, responding to or creating situations in ways that are difficult

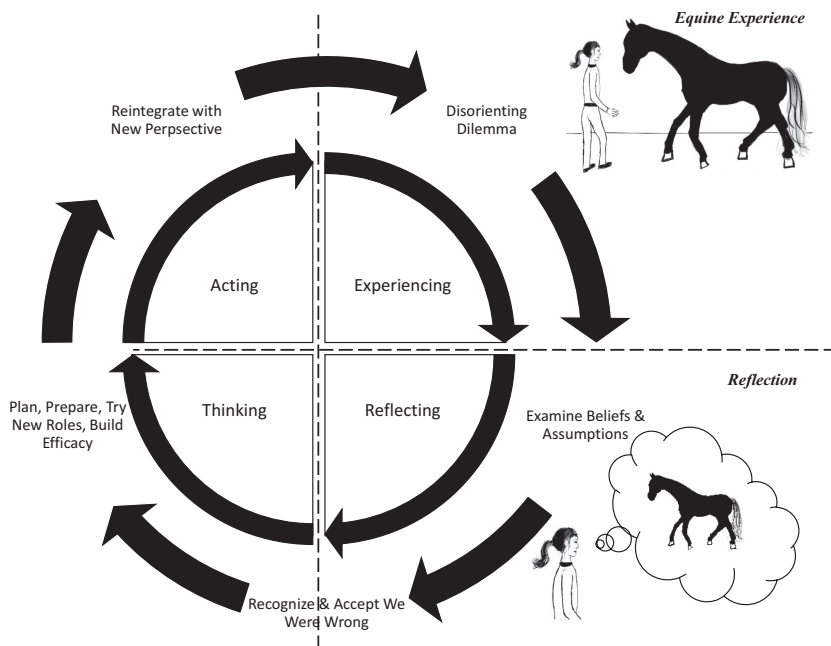


Figure 7.4 How equine intervention fits with the learning process

to ignore. When things are happening that do not fit the way we think they should it is difficult to deny that something is amiss. And because the horse is large and has a presence that is difficult to ignore, they can make a big impact. The horse's behavior during an intervention can be confirmative, behaving in ways expected based on previous experience, or they can behave in surprising ways inconsistent with our present understanding of the world. This discrepancy between what we expect to happen in the situation and what actually happens creates a disorienting dilemma and in doing so, provides the opportunity for transformative learning. The symbolic domain is active, with access to conceptual metaphor and with the cognitive domain making story. Figure 7.4 is an illustration of our understanding of how change happens through equine-assisted intervention.

The role of sleep

There is one last contribution to EAST's theory of change and that is the role of sleep, an essential part of the mind/body experience. Have you noticed how it is harder to focus the day following a night of interrupted sleep? Or that when you are missing sleep you are more forgetful, find it harder to engage with others, maybe even feel a little grumpy? And that

when you have a good night's sleep you get up feeling rested and alert and able to tackle difficult tasks? Or that when you are trying to learn a new skill it magically comes together and effortlessly flows after a good sleep? Although it may seem like sleep is an absence of wakefulness, and an interruption in our busy lives, sleep is just the opposite. Sleep "is an exquisitely complex, metabolically active, and deliberately ordered series of unique stages..." (Walker, 2017, p. 108). It is during a combination of different stages of sleep (light and deep NREM and REM sleep) that the brain receives a neurochemical bath that calms the amygdala, decreases the intensity of painful memories, and creates a virtual space where past knowledge and present experience are joined together.

Sleep cleans up and stores the previous day's memories, improving one's ability to learn by providing an empty basket to put new experiences. During wakefulness new incoming information is temporarily stored in the brain's hippocampus, the empty basket. This short-term memory storage has limited capacity so that as the day wears on it gets harder to learn. The basket fills and there is less room for new things. To make space, things need to move from the basket to longer-term storage. Like putting folded laundry away to make room for a new dryer load. That happens during sleep. Even a nap can make room in the basket, freeing up space for new memories. When people are sleep-deprived, their brains are less effective and learning capacity is decreased. It causes one to consider how an experiential activity fits with someone's sleep/wake cycle.

Sleep gives us the resources to effectively navigate social and psychological challenges and we have known for generations, and it is confirmed by numerous research studies, that sleep consolidates memory. We remember more clearly and are able to do skills more smoothly after sleep. The mind organizes and practices muscle movements and sequencing during sleep and yesterday's struggle of performing a new skill magically becomes today's flow. Sleep allows the mind to maintain things learned, especially before bedtime, and to find memories that seem to have been lost after learning them. Walker (2017) compares sleep to a recovery service for lost computer files, repairing memory items overnight.

Sleep also discerns which new memories to strengthen overnight, emphasizing areas of the brain that worked hardest the day before. Sleep is where creativity is at its best, where the brain plays with testing out and building connections between information stores, "seeking out the most distant, nonobvious associations, rather like a backward Google search. In ways your waking brain would never attempt, the sleeping brain fuses together disparate sets of knowledge that foster impressive problem-solving abilities" (Walker, 2017, p. 132).

Sleep is an essential part of experiential change. It prepares us, provides temporary memory storage, selects, organizes, processes, and creates new skills and new meaning overnight. Sleep is making behind the scenes magic. How can we not consider it as part of the process of change?

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8 Integrating the theories: EAST

One of the central goals of EAST is to acknowledge and account for both horse and human and re-unite the long-separated body and mind. To do this we borrowed from many disciplines including but not limited to psychology, education, neurophysiology, nursing, and zoology. The previous three chapters were organized as the theory of the problem (Chapter 5), the theory of the intervention (Chapter 6), and last the theory of change (Chapter 7). Those three overlapping theory groupings represent EAST (see Figure 8.1).

Nested within each of those chapters are the working theories including the theory of the horse, polyvagal theory, sensory theory, metaphor theory, narrative theory, transformational learning theory, experiential learning theory, and sleep theory. The process explained by each theory increases or decreases while moving from the theory of the problem, to the theory of the intervention, to the theory of change.

Figure 8.2 shows EAST in action. The figure is a stacked area graph, which shows how several things change over time, at the same time. In

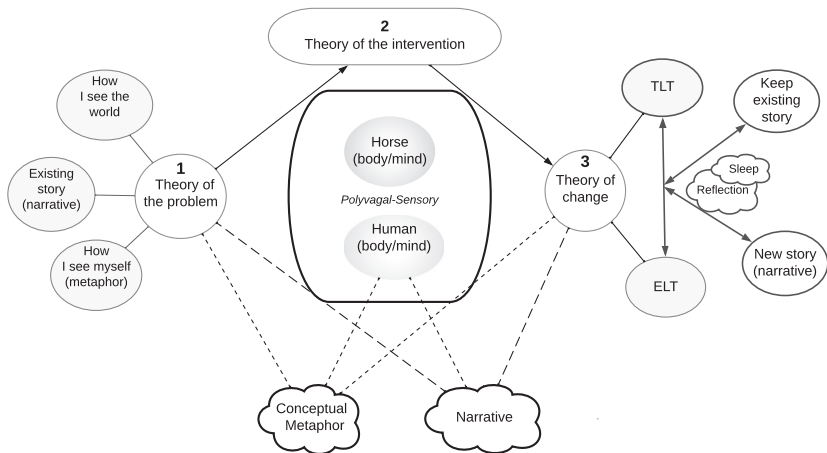


Figure 8.1 The process described by EAST (1) theory of the problem, (2) theory of the intervention, and (3) theory of change

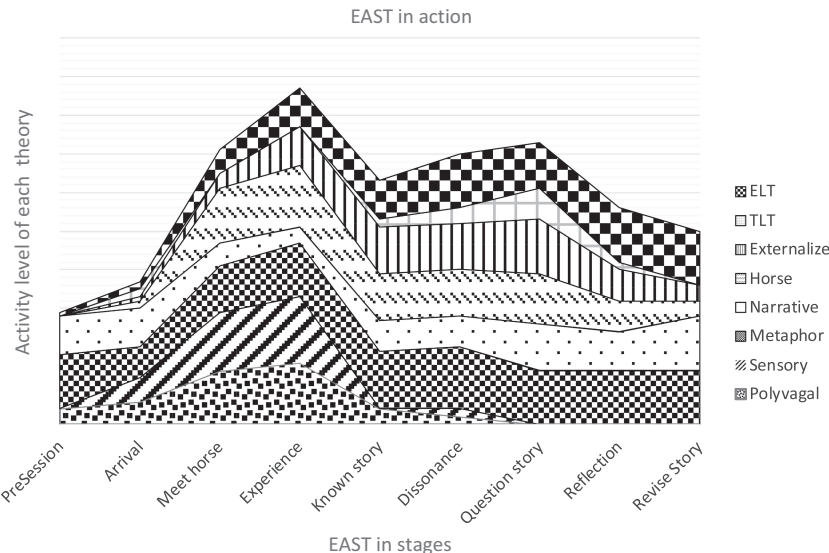


Figure 8.2 EAST in action – presence of each working theory from before an equine experience until after

this case, Figure 8.2 shows the extent to which each theory is engaged across time. The horizontal line at the bottom of the graph (x-axis) represents a chronological description of the different parts of the psychotherapy incorporating horses process in the context of EAST from Pre-Session through Revised Story. Each of the theories in EAST is listed in the legend on the right (e.g., ELT and TLT). The vertical line at the left of the graph (y-axis) indicates the extent to which each of the theories addresses what is happening at these different points of the process. The presence or activity of the theoretical components is represented by the area of different patterns, stacked one on top of another. For example, the band of area that is white with black dots represents the extent to which narrative theory is applied to what is happening. The shape of the band suggests that components of narrative theory are present throughout the process, but are more active before the session and after the session; the client is in narrative story to a lesser degree during the equine experience. Conversely, the graph shows both polyvagal theory and the sensory domain as being quite active during the equine experience, the client is having a mind/body experience taking in sensory stimuli and responding physiologically, but not active before or after.

We have given you an introduction to each of the theories with resources for additional reading. Our goal in this chapter is to pull all of those theories together and provide a user-friendly overview of how they work.

Simply summarizing EAST

Steve Jobs, the corporate executive that founded Apple, observed that “Simple can be harder than complex, you have to work hard to get your thinking clean to make it simple” (Oxford Essential Quotations, 2018). The previous three chapters are complex. In this chapter, we make it simple.

Basically, EAST is a theory that explains how someone with a particular way of seeing themselves and with a story of how things are or should be has one or more encounters with a horse(s). The horse with its individual and equine-specific characteristics, and the person with their individual and human characteristics, experience each other through their bodies and minds. They react, respond, and possibly engage physically and mentally. In the presence of a different species, each will likely have some increase in arousal and alertness. The horse by its nature behaves in ways that are both similar and different from human behavior. Regardless of any understanding of horse behavior, the person’s mind will work to make sense of whatever is happening as the horse provokes thought. Their interaction, whether physically close or from a distance, creates a dynamic, back-and-forth, horse-person, body/mind experience (see Figure 8.3). The person’s internalized story takes a physical form, potentially externalized to the horse and environment, distancing the person from their problem. The experience may reinforce or disrupt the person’s existing

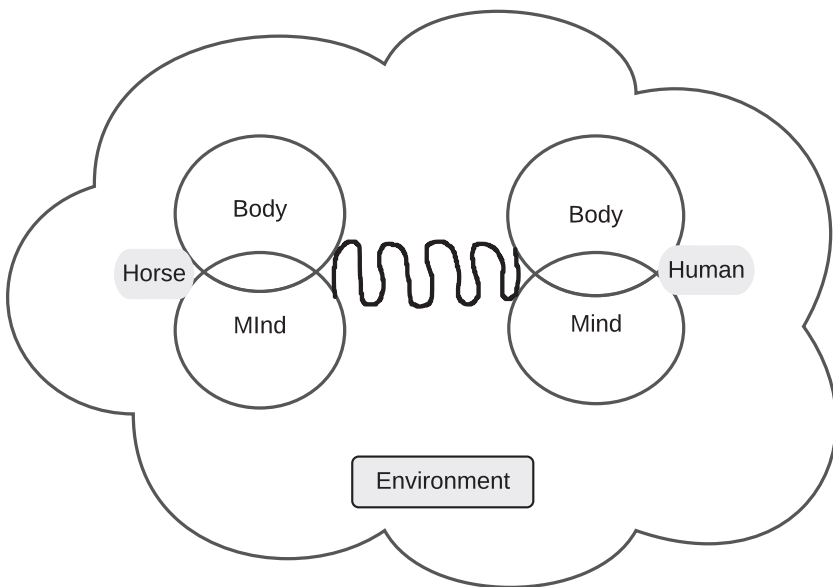


Figure 8.3 An illustration of the dynamic, back-and-forth horse-person body-mind experience

story, encouraging the generation of alternative perspectives and opening the possibility for change. Reflecting on the experience after it is over can deepen insight and sometimes change the original story. Sleep in the first 24–48 hours after an experience contributes to processing, reflection, and lasting change.

There will be many variations in how the above encounter plays out. EAST is explanatory, not prescriptive. It offers a theory of what may be happening during an equine experience and acknowledges the importance of thinking about what happens AFTER the experience. Facilitation, the specific approach, and techniques used by the therapist will likely influence the person's experience. There may be deepening insight or interruption of the process. What is different is that the horse plays a significant role and in the process can temporarily replace the therapist, shifting the members of the therapeutic relationship.

Where does each theory fit?

Taking the above-simplified version of EAST we've added back and woven in the theory names at the points where they might be active. The earlier paragraph would look like this: Basically EAST is a theory that explains how:

Theory of the problem

- someone with a particular way of seeing themselves
 - Conceptual metaphor theory (sensory, symbolic, and cognitive domains)
- and with a story of how things are or should be...
 - Narrative theory (symbolic and cognitive domains)

Theory of the intervention

- ...has one or more encounters with a horse(s). The horse with its individual and equine characteristics (*horse theory*), and the person with their individual and human characteristics, experience each other and the environment
- through their bodies
 - Polyvagal neuroception, preaware threat/safety monitoring, dorsal vagal, sympathetic and/or ventral vagal systems, social engagement system, biological drive to connect, and aversion to failed reciprocity and associated physiological responses (physiological domain)
 - Sensory perception through five senses (sensory domain of experience),
- and minds

- Conceptual metaphor, narrative (symbolic and cognitive domains)
- They react, respond, and possibly engage physically
 - Physiological and sensory domains
- and mentally.
 - Sensory, symbolic, and cognitive domains.
- In the presence of a different species, each may have an increase in arousal and alertness.
 - Polyvagal, sensory
- The horse by its nature, behaves in ways that are both similar and different from human behavior.
 - Horse theory
- Regardless of any understanding of horse behavior, the person's mind will work to make sense of whatever is happening as the horse provokes thought. Their interaction, whether close or from a distance, creates a dynamic back-and-forth, horse-person, mind/body experience.
 - All domains
- The person's internalized story takes a physical form, potentially externalized to the horse and environment, distancing the person from their problem.
 - Narrative theory, externalizing (symbolic and cognitive domains)
- The experience may reinforce or disrupt the person's existing story,
 - Narrative theory, transformational learning theory

Theory of change

- ...encouraging the generation of alternative perspectives and opening the possibility for change. Reflecting on the experience after it is over can deepen insight and sometimes change the original story.
 - Transformational learning theory, experiential learning theory
- Sleep in the first 24–48 hours after an experience contributes to processing, reflection, and lasting change.
 - Sleep

The above paragraphs offer a simplified version of EAST, with the associated theories and domains of experience. As illustrated in Figure 8.4, EAST describes a dynamic, interactive process in which a person shifts from an existing, constraining story to a new, adaptive story. Simplifying even more, we can think of the process including four things – Equine, Body, Mind, and Story (EBMS). Engaging with one or more equines elicits a body/mind experience resulting in story transformation. This chapter ends with the key assumptions guiding EAST, organized by relevance to EBMS:

- 1 **E – Equine** – The horse is a live, novel, unpredictable stimulus providing a unique experience

EAST

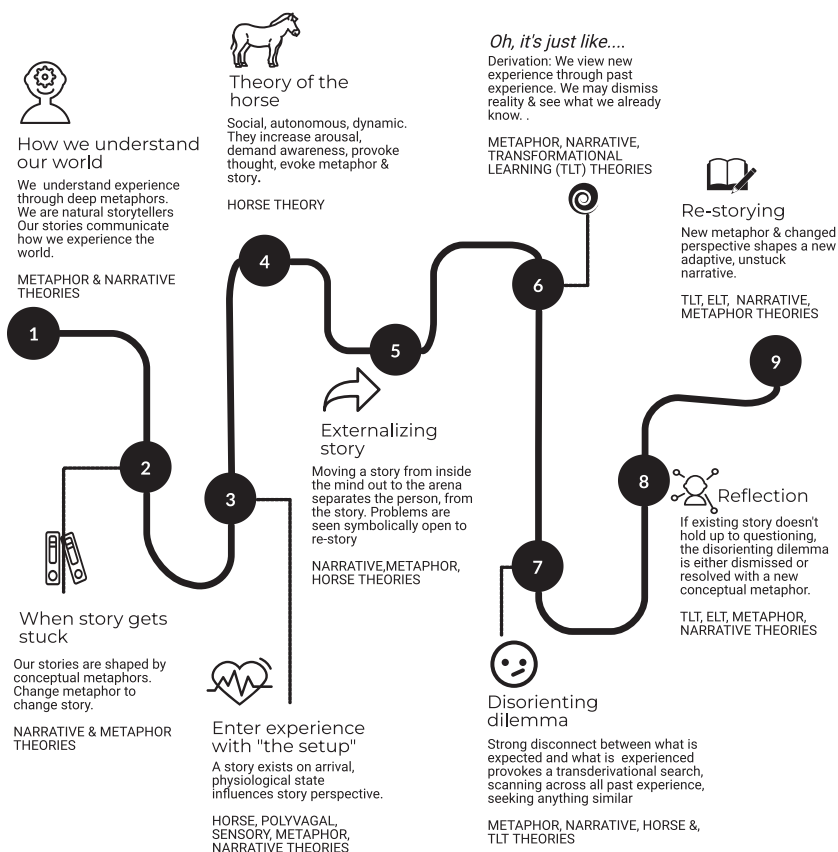


Figure 8.4 Roadmap of EAST with working theories

- a Horses have species-unique characteristics that differ from humans.
 - b Horses are sentient beings, with the capacity to have experiences, and who respond to the environment which may include but is not limited to humans and human behavior.
 - c Horses have uncensored reactions (respond to what is in the moment, uninfluenced by sociocultural norms) to human behavior. (Reminder that human behavior is a reflection of human explicit and implicit self.)
- 2 B – Body** – Humans and horses are driven to connect with others and respond physiologically to others.
- a The physical world, internal and external, produces stimuli that are neurocepted out of conscious awareness.

- b The physical world, body, and sensory organs are also part of consciousness, providing visceral and somatic experience (perception).
 - c Consciousness involves appraisal, the experiencing of an object as pleasant, unpleasant, or neutral.
 - d There is a biological drive to connect with others.
- 3 **M – Mind** – Humans make sense of the world through images and story, shaped by past and present experience, conscious and unconscious thought.
- a Metaphorical concepts, thought, and memory schemas are constructed throughout life, shaped by experience and sociocultural context and housed in the unconscious mind.
 - b Unconscious metaphorical concepts, thought, and memory schemas influence conscious thought patterns, personal stories, and behaviors.
 - c Thought patterns and personal stories influence the interpretation (appraisal) of phenomena.
 - d When personal stories are maladaptive, negative, or harmful to self or other, and persist despite contrary evidence, they increase difficulty in life and lead to suffering.
 - e Experiences that are contrary to thoughts, personal stories, and expectations create a discrepancy that disrupts unconscious metaphorical concepts of how one knows the world – a disorienting dilemma.
 - f Human behaviors reflect conscious explicit self and unconscious implicit self (all of the above).
- 4 **S – Story Transformation** – Engaging with horses triggers a mind-body experience leading to questioning past knowledge and assumptions and creating new meaning.
- a Horse characteristics and behaviors (environmental stimuli) will likely be followed by a person's mind doing a derivational search of memory for what is similar and familiar.
 - b When horse behaviors in response to environment (other horses, people, objects, space) or events are discrepant from a person's story or the meaning they are giving to the event, the person's mind initiates a transderivational search.
 - c Discrepant experiences and unexplained phenomena create disorienting dilemmas.
 - d If a person experiences a disorienting dilemma or unexplained phenomenon, the person may question the existing known and seek new meaning.
 - e The greater the disorienting dilemma experience, the deeper and more disruptive its effect.
 - f As human arousal and alertness increases, the experience deepens.
 - i The deeper the experience the greater the potential for learning and change.

- ii Excessive arousal (fight or flight) interferes with learning and change.
- g Deeper change is more likely to be transformational.
- h The horse by its natural behavior, response, and presence is a catalyst for change.

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Section III

Application



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9 Seeking the client's perspective

Experiencing equine-assisted intervention: The insider perspective

Psychotherapy and personal development programs that incorporate horses are part of a growing field of equine-assisted interventions. Interest in these sessions is kindled by the equine and mental health professionals who do the work, by public interest and curiosity, and by the positive and often glowing evaluations from clients. In this next section of the book, we bypass what clients say about an equine intervention and instead show you what an experience might be like (Figure 9.1).

Charlie Mackesy's (2019) characters in *The Boy, the Mole, the Fox and the Horse*, looking at their reflections in the water, noted that "Isn't it odd. We

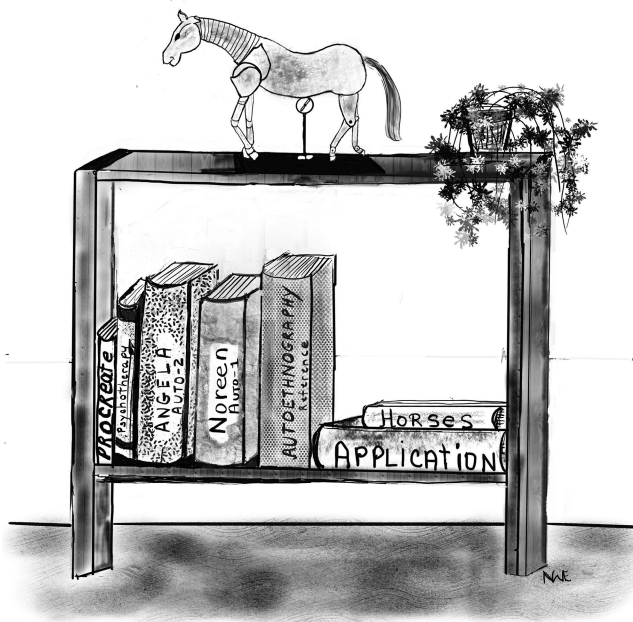


Figure 9.1 Our autoethnography resources

can only see our outsides, but nearly everything happens on the inside” (beside the water, p. 24). Thus far, we have looked at what is happening for a client from an outsider’s perspective. Practitioners describe how they conduct a session, what they have observed during sessions, what they report clients say about the experience, and how they interpret their clients’ experiences (e.g. Thomas et al., 2016). Interviews with clients yield their own evaluative interpretations of the experience (perhaps positive or negative) or a summation of what they learned (Kern-Godal et al., 2016; Lee et al., 2020; Mandrell, 2006; McNamara, 2017; Wilson et al., 2017). Yet it is still not entirely clear what happens inside the mind of a client during a session.

It is apparent when observing a session that something seems to be happening during at least some of the sessions. I (NWE) mentioned this to a colleague five years after she had participated in an on-the-ground professional development workshop that incorporated horses. She said “it’s transformative.” “Still?” I asked, feeling skeptical but hopeful. “Yes!” she replied. Another workshop participant described their experience as revelatory. And a third found it healing. Transformative, revelatory, healing. Summative reflections that each represent a perception of change attributed to a professionally facilitated experience in the presence of horses. The experiences held deep meaning for the participants but left me wondering, what happened to create those meanings? What was transformative?

At the end of an equine session, clients might have little to say but “a lot to think about.” It is not unusual for clients at the end of any type of psychotherapy session to continue processing after a session. However, in talk therapy, the client and therapist interact with each other. The therapist pays attention to the client’s words, body language, and behaviors in response to the therapist’s own actions. The therapist can see the moment something shifts, they witness the subtleties of the person-to-person interaction. Like a dance, they may shift their approach and behavior in response to what is happening in the moment. And they are witness to some of the processes that are happening for the client.

In an equine session, there may be less human-to-human communication. The client may instead have primary interaction with the horse. A triangle forms and communication shifts – from therapist-client to client-horse(s). The facilitators witness observable body language and behavior but may not be privy to the client’s words in-the-moment, in the way they might be in the office. The therapist becomes a third point in an interactive dance. Sensory, cognitive, and symbolic experiences are happening with or without the direct involvement of the therapist. The client’s experience is a reflection of human-horse interaction. When processing happens, it may be reflective rather than in the moment. The facilitators may find themselves “holding space” for the client rather than being the central catalyst for change (Eagala, 2019; Flax, 2011).

Missing insight into the client’s perspective during an equine intervention makes the mechanisms of change somewhat elusive. What is

happening in a person's mind? Was the session useful? And if so, when? What was the client's experience of the environment (including horses present) and how did it impact the session? How do we get inside the head of a client to understand how equine-assisted interventions work and how EAST might be applied?

Since we, the authors, each have had our own personal experiences being "a client" during equine sessions, we knew that something was happening, at least for us. And based on our interactions with clients, it seemed that something was happening for others as well. This led to the decision to use our own experiences as illustrative case studies for what might be happening in the mind of a client and how EAST may be applicable.

Autoethnography

We used what is called an autoethnographic approach to develop case studies that we present in Chapters 10 (NWE) and 11 (AKF). The remainder of this chapter introduces autoethnography, what it does and does not do and how we are adapting it for this book.

Autoethnography is based on the idea that the writers' or researchers' personal experiences can be used as a primary source of research data. The autoethnographies in this book however are not intended to be research studies. Instead, the purpose of these in-depth descriptions is to provide data that can be used to demonstrate the application of EAST. They are personal stories that serve as illustrations of human experience in a specific context. We used research methods to systematically analyze the stories (Chapter 12), treating them like research data, but they are not research. To understand the justification for our approach it might be useful to understand where autoethnography as a method comes from and what it does.

An autoethnography is a qualitative research method that uses the researcher's own subjective (personal) experience, written in a first-person narrative format as the basis for study (O'Hara, 2018). It is a powerful and evocative way of making visible what is not normally seen (Bochner & Ellis, 2016; Kurz et al., 2019; Smith, 2015). The idea that a researcher's own personal experience might be used as subject matter, to then be analyzed by the researcher themselves, was met with resistance by some in the research community (Chang, 2016; Harris & Watson-Vandiver, 2020). The method seemed counter to the existing research paradigm and self-indulgent (Ellis, 2004). Despite those objections, autoethnography, when done systematically and consistent with qualitative evaluation criteria, makes an important contribution to science (Chang, 2016; Peditto, 2018). It is possible to use one's own lived experience as data (Ellis, 2004). It might be helpful to understand these arguments by understanding where autoethnography comes from.

Where does autoethnography fall in the world of research methods? There are two major categories of human research: quantitative and qualitative. Based on different paradigms, each has its own set of rules and criteria for how the research is done. Quantitative research is what the general public may think of when they hear the word research. In quantitative (counting, quantity) the data appear as numbers or statistics, with variables, an interest in cause and effect, and generalization. In contrast, in qualitative research data tend to be in the form of words or images. The focus is on learning a great deal about a small number of participants. There is no goal to generalize. The quantitative focus is on one or a few things (variables) in many subjects (people). The qualitative focus is on many things (variables) about a few subjects (participants or people). The goals are quite different and the rules of how to get to the goals are different (Punch, 2013).

Autoethnography is a type of qualitative research that falls under or evolved from ethnography. Ethnography is a research methodology that is focused on understanding people in their social and cultural worlds (Fetterman, 2020). “Ethno” refers to ethnicity or culture and “graphy” refers to writing. Ethnography is the process of doing research with people who are members of a social group with a shared culture. Ethnography is also the written or narrative product of that research.

Culture is a broad term that in ethnography refers to social norms, customs, beliefs, and related behaviors of a group that give its members shared meaning (Esposito, 1993). The focus is on what the culture represents, what meaning people give to what they do rather than on the customs and beliefs themselves. Culture can be found in various social groups or linked to a country, region, neighborhood, workplace, organization, health care setting, school, or association. People do culture in many ways, sometimes overtly through dressing or behaving in certain ways that link them to their social group. Think of a sporting event like ice hockey. The fans dress and behave in a specific way that differs from how fans behave at a college golf tournament. The culture determines the behavior of the people who together determine the culture. Culture is fluid and changing and people can simultaneously belong to many different cultures.

Ethnography is usually done in the social setting or context of the people. Ethnographers use many methods such as participant observation and interviewing to gather and interpret data. Although it seems straightforward, gathering accurate and trustworthy qualitative data are challenging (Kvale & Brinkmann, 2015; Lofland & Lofland, 2006). Traditionally the ethnographer approaches the study as “an outsider,” trying to gather a person’s experience to understand it from “an insider” perspective (Esposito, 1999). The goal is to translate what happened and what was found in the setting into an engaging narrative story that accurately represents that social group. The ethnographer also provides a reflexive account of the process (Coffey, 2018).

Autoethnography draws directly from ethnography. In autoethnography (self-ethnography), the focus is again on the person and meaning-making within a specific social context or culture (Holman Jones et al., 2013). There is an engaging written narrative and the autoethnographer's reflexive account. However, in autoethnography, the researcher is both the insider and the outsider, describing AND interpreting their own experience. Despite the loss of a counterbalance of perspective that would be present with several participants in an ethnographic study, in autoethnography there is access to privileged information that would not otherwise be known.

There is a goal of engaging the reader to provide insight into a shared human experience through the narrative of self (Adams et al., 2015; Ellis, 2004; Peterson, 2015). The writing is evocative, analytic, and offers alternative ways of knowing (O'Hara, 2018). The autoethnographer presents facts, feelings, and a vulnerable self which is then reflexively explored (Reed-Danahay, 1997).

In the autoethnographies in the following chapters, we (NWE and AKF) present events, facts, and feelings as we recall them. We are each the key informant for our own subjective experience. The goal is to create meaningful narratives that are useful for theory application and give insight into how an equine session might be experienced. We invite you, the reader to observe the process (Bochner & Ellis, 2016).

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10 It's a problem

Autoethnography 1

The autoethnographies in this book are case examples serving to illustrate the application of equine-assisted story transformation (EAST). They answer the question “what is happening in a person’s mind during an equine-assisted activity?” The goal of the autoethnography in this chapter is to make visible one person’s (NWE) physiological, sensory, cognitive, and symbolic experiences during four separate equine-assisted learning (EAL) sessions that occurred during Eagala Model trainings (Eagala, 2019). We believe that, for the purposes of this book, EAL experiences are effective proxies for psychotherapy incorporating horses. EAL sessions differ from psychotherapy sessions in the focus and depth of the human-human facilitation but are experientially similar with human-equine interactions. The narrative stories in this chapter primarily focus on the processes that happen during those human-equine, on-the-ground experiences.

This and the subsequent autoethnography (AKF) in Chapter 11 both occurred during Eagala sessions. Eagala is one of the many available models (see Chapter 2), and the one we had the most access to. Thus we serve as a “convenience sample” for these autoethnographies, using what is readily available, in this case the authors’ personal experiences in a particular context as a starting point for understanding EAST (Creswell & Poth, 2016).

The narrative below makes visible physical, emotional, and cognitive processes of my (NWE) experience. The experiences are contextually framed by my life events, categorized by varying levels of engagement with the horses and the experience, reflect mental processes that ultimately led to change, and will be linked to theory.

The primary source of information for this autoethnography is my experience and memory. Memory written down becomes data (Giorgio, 2015). The experiences described in this paper are based on events that occurred in 2012 and 2015. The 2012 experience is from notes and memory, there is no dialogue. The 2015 experiences were documented and explored through dated reflective notes, journals, concept maps, and written logs during a mentoring process. Notes from trainings, conferences, networking meetings, and the literature contributed to my insights (O’Hara, 2018). I used the research software program NVivo (QSR

International Pty, 2017) to manage, code, and analyze data and the concept mapping software Cmap (IHMC, 2017) to create models and track developing relationships among concepts.

From an ethical perspective writing about self during an experience can implicate others in the story and anyone who appears is potentially identifiable (Sikes, 2013). In this autoethnography, the detailed events occurred during two of the many training sessions I attended during a two to three-year period. People that I allude to in the story are unidentifiable except perhaps to themselves if they recall that I was at a training they attended and their actions are reasonable and not out of the ordinary. There was one brief dialogue with another person during a facilitation that plays an important role in my experience and consent was obtained from that person. The horses in the story are also participants, and my descriptions of them may be recognizable to others who have been in an Eagala training. The horse owner gave written consent to include the horses in this chapter (Tolich, 2010). The settings, sessions, and horse care during these experiences follow the American Horse Council's Welfare Code of Practice (American Horse Council, 2019).

My experiences as a “client” with horses

Role play with other therapists is a great way to develop new and strengthen existing clinical skills. Getting the chance to be in the “client” role gives the therapist important insights from a different perspective. Similar experiential role plays happen for facilitators at EAL professional workshops. The best role plays are when you play yourself. Each time I had the opportunity to be the client I learned something about myself. Sometimes I learned little things, sometimes big. Reflecting on those experiences as a whole and observations with my own clients, I've noticed several things. One observation is that clients begin sessions with varying levels of engagement with the horses and the experience. Some people come with a willingness to be open to whatever unfolds. Some are expecting to see the horses as more than horses. Some people easily move into metaphor and story. But not always. Sometimes the experiences fall into the sensory realm, the horses are just horses. Sometimes the experience reinforces what one already believes. Other times experiences can be deep and transformational.

Background and context

I had some horse experience before attending my first EAL experience. I grew up in Queens, New York where despite my fascination with all things equine, my only contact with horses were the draft horses that pulled wagons through the city streets or the fancy horses in parades. After moving to Long Island, I paid for my first trail ride with babysitting money.

As an adult, whenever I had the money and time allowed, I took riding lessons. I bought my first horse when I was 42. He was a really nice horse, but a five-year-old, off-the-track thoroughbred is not an ideal choice for an adult rider. My early horse ownership education was at a riding/lesson barn where horses spent all of their time in stalls, and it was rare for them to be turned out onto a larger natural space where they could move around freely and just be themselves. As a new owner, I was cautioned by the other horse owners to always be alert and in control. This made me tense around my horse and delayed my developing trust in him even though he deserved it. I wasn't sure what certain horse behaviors meant, did not know what was myth and what was fact, and did not understand horses. There was barely an internet then, so my source for horse information was the library. It was a bit overwhelming and not how I imagined being with horses. I was hoping for a different kind of horse-human relationship. That started to shift when I moved my horse to a place with open pastures, green grass, and turnout with other horses. And I learned more about horses. By the time I first heard about equine-assisted interventions I had 40 years of riding experience and 20 years of ownership and boarding experience.

I was just turning 62 when I went to my first EAL training. I showed up curious, skeptical, and with minimal understanding of what it was about. Similar perhaps to how clients approach a session for the first time.

Experience 1 (E-1) (group)

E-1a

It was during one of my first Eagala trainings in 2012. There were maybe 30 people sitting in chairs at one end of a covered 40' by 60' arena. Milling around the open space, among the chairs and people were several horses, a pony and a donkey. None of the animals had halters, a headpiece that allows a human to control movement. I found myself as one of the eight trainees who agreed to be part of a "client group" designed to give us an introductory EAL experience. We did not know each other. I am calling this experience E1a. The facilitators gave minimal instructions for the group's goal. My mind was busy anticipating what might happen and I missed hearing all of the directions, only that we were to move something. I remember being stressed. I wasn't sure what the rules were and was feeling anxious about the horses.

I was in a thinking/analytic mode, trying to figure things out before I actually tried to do anything (Kolb & Kolb, 2018). Where was the instruction book for this? I like to look things up, to be prepared with information to know what to do. I was feeling unsure, unsafe, and consequently with an activated sympathetic NS (Dana, 2018). I was definitely pre-stage, not yet "in the experience" (Lawley & Tompkins, 2000). At most, I saw the horses as objects that we were to do something with, a task of some

kind. I felt alone and disconnected despite being in a group of people. Some of the other group members were quiet, one held back from the group, another was busy trying different things with the horse, apparently without getting the response they wanted. Each person seemed to be defaulting to their preferred way of being.

I was having lots of negative thoughts. The internal narrative was something like “I’m not getting whatever this task is done, what is the purpose again, I should have listened to the directions...” The group session was a stand-alone demonstration, what any group of strangers might experience during a first workshop session. Our members were unfamiliar with each other’s strengths or personalities and without a leader, we were unorganized and not communicating very well. I was waiting to see if someone would step up to organize things and be the leader of the group. I knew if I had to I could take on that role but was hoping someone else would step up to the plate. I was much more comfortable being a follower in this unfamiliar setting.

I am not sure if a leader emerged from the group members. I know it wasn’t me. Somehow we did eventually come together, on either side of a horse and got it to move a few steps. When that happened we congratulated ourselves. The session was short, over before we really connected with each other. As we processed what happened with the facilitators, people sharing their unique insights I recall feeling a little frustrated and unclear of what, if anything I gained.

I felt unsettled after the session, could not let go of thinking about it for the rest of the day, trying to process and make sense of the experience well into the evening. Reflection gave insight into how I am in a group, what behaviors I exhibit, how early group dynamics might work, and my reluctance working with individuals who may have different agendas than I do. I was reminded that I don’t like conflict in groups.

During the session, the horses did not take on a metaphorical meaning but stayed as horses. I wasn’t convinced that they were necessary in the experience. They were the object of a group task to “move something.” They did cause physiological arousal, they were large, mobile, and my body and mind were both aware of them. Would the experience have been the same, would I have learned the same things about myself if the task was to move something inanimate? Perhaps for the E1a group experience.

E-1b

Nested within E1a was a second, brief experience I am calling E1b. I was in the midst of the group’s attempts to organize, standing back watching, feeling tense and anxious when, for maybe 30–60 seconds, while standing facing and to the right of one of the horses I felt a switch from sympathetic tension to a calm ventral vagal state. A brown horse and I were about 4 feet apart, not close enough to touch. For that minute I was looking directly

at him and he at me, our gaze held, despite the humans standing on either side of him. I was self-aware of my presence and aware of a presence in the horse and had a sense that the horse was aware of me and perhaps my presence. It was an awareness of self and the other as beings in the “I-thou,” rather than “I-it” mode (Buber & Smith, 2018; Foucault, 1975). A mutual presentation. For those moments I was feeling deep respect, acceptance, and love toward this sentient being, feeling in-sync even though I had no idea what the horse was thinking or feeling. I felt in my body and mind vaguely similar to the nurse presence I have intentionally drawn on when with a specific type of patient, one who I sensed was alone and vulnerable. It is being fully present without the “doing” part of nursing, there is no intent to physically care for or intervene; there are no words, it is just a deep presence (Bozdogan Yesilot, 2016; Hessel, 2009; Walsh & Blakeney, 2013). Porges (2021) suggests that it is compassion, a heart to face, vagal state of safety that projects calmness and acceptance to the other. A feeling I sometimes but not always have when near horses. A feeling that is hard to explain and with horses I keep to myself because I worry others will judge or say I am imagining it or anthropomorphizing the horse. Perhaps I am shamed by cultural belief and academic authority that dismisses the beingness of horses and other animals, reinforcing an assumption that humans are special rather than just different. Perhaps I was having an experience of attunement, heart rates pairing, or coregulation. Those might give scientific, socially acceptable explanations for my experiences of presence but unlikely if other people were standing nearby (Gehrke et al., 2011). I wonder what role that mutual presence plays in an equine experience. Does arousal and connection increase the importance or memory-making of the event? It is curious that after the E-1a experience, when I find myself in an unfamiliar group, I get an image of a horse in an arena with other people standing around and a sense that I can take the lead.

Experiences 2, 3, and 4

Background for experiences 2, 3 and 4

Several years and several trainings after that first experience I again found myself in the client role, this time as an individual. By then I was experienced facilitating equine-assisted psychotherapy¹ and EAL sessions for individuals and groups. I was more confident and reasonably comfortable being in an open space with horses at liberty (free to roam) and I knew the pattern of equine sessions. They usually started with a brief conversation between the facilitators and client about session goals, then it was the offer to be with or do something with the horses and near the end return to the facilitators for processing. I wasn't dealing with performance anxiety because as the client, I could do no wrong. But I was very distracted by what was happening in my personal life.

Working as an associate professor at the university and as a psychotherapist in my small private practice was busy and demanding. However, it was my personal life that was the focus of all my attention. Blindsided by the ending of an 18-year relationship I was dealing with the fallout. We were selling the aging-in-place, forever home we built together. I found myself needing to delay plans to retire from teaching. On the physical front, an old ankle injury from a rollerblading accident was now painful bone-on-bone arthritis. Each time my right foot touched the ground it was instantly followed by a muffled, almost whispered “ow.” I’d worn out my left knee which had taken the extra weight my right side could no longer carry.

The day of the training I was wearing a knee brace but chose to leave my cane in the hotel room. I did not want to be seen as struggling, to be thought of as too old for this equine therapy work. I did not want to be an invisible older woman in the way I was experiencing that in other parts of my life. I imagined that others in the training wondered why I was still doing this work. I was feeling sad and sorry, whining to myself and just trying to get through day-to-day. That was the baggage I brought to this experience.

During this three-day experiential training it was my turn to be the client for our team. I briefly met with my team and recall saying something about finding a new home. I do not recall what they said before inviting me to go out into the field. As I walked up a hill I could see a few horses scattered around the field. Although there were several other people in this field being “clients” for their teams, they were not a focus of my attention. I recall a stabbing pain in my right ankle, I was putting most of my weight on my left leg and now that knee was starting to throb. *Ignore the pain, keep going ...just do it.* Those were fast, system 1 thoughts followed by slower system 2 thoughts, planning how I would accomplish the task at hand, to fill the role of “client” for my team. What client problem could I work on, what would be good to talk about at the end of my session? What were some issues I was willing to share? The pain? No, they don’t want to hear about that. My whining about my lost relationship? No. My fears about being old? I must be at least ten years older than anyone else at the training and 20 years older than my team. I doubt anyone would understand. I could focus on the house I was selling. My lovely, comfortable home that had gone on the market while I was at this training. What happens when it’s sold? Where will I end up? Housing might be a good problem to focus on for this experience. I’ll do something about moving, or loss or change. No not loss, that might be too hard. Focus on moving or on change.

Experience-2 (E-2) (individual): The pony and the mini

As I reached the top of the hill I looked down to see two small horses standing at the bottom. One was a pony, scraggly with a cream-colored mane, the other I think was a miniature (mini) horse, and even more

scraggly than the pony. *Humph...they could be....little houses... all I can probably afford when I start looking for a new place to live.* As I was looking down at them and thinking about house hunting, a dark brown horse maybe 15 feet from where I was standing slowly crossed my field of vision, temporarily blocking my view. He was all I could see. *Hmm, ...maybe he means something? What would he be in my story?* Nothing came to mind as he continued on his path, slowly moving out of view and quickly fading from my mind as the pony and mini reappeared (Figure 10.1).

I limped down the hill thinking that my knee hurt more going downhill than up and wondering what was I thinking that I left my cane in the hotel room. As I got closer the pony's ear turned in my direction and I knew he saw me, but his focus was on something behind me. I walked up to him, close enough to touch his back and he stood still as I put my hand on his withers, where his neck meets his back. His coat was a medium gold color. I had this strong urge to touch his mane and could not help myself. It was wild and coarse and 6 or 7 inches long and I closed my hand on a fist full of hair. It was the kind of mane you could hang onto when riding. He was too short for an adult to ride but his back was wide and flat, he was solidly built so that if you wanted, you could probably straddle and sit on him. He smelled like horse, a sweet hay kind of smell. His coat had a layer of dirt so that a little cloud of dust rose up when I patted him. He stood still, barely acknowledging me, my hand resting on his broad back. *Hmm, maybe this is my new house? Smaller, but maybe comfortable, manageable, needs a good cleaning but mostly cosmetic....* I felt a wave of sadness, like clouds temporarily blocking the sun. Then trying to push down the sadness I had



Figure 10.1 The pony and the mini

a stream of thoughts, *this is reality, face it, toughen up. It's a cold world out there, don't get dramatic.*

I'd fought these unstoppable changes for months and now I was resigning myself to it. Owning a home was a big thing from my childhood. This was not the first home I'd lost. Nor the first time I'd lost important people. Perhaps it wouldn't be the last, but it sure wasn't getting easier. I felt disconnected from the pony, his attention was elsewhere. His body was solidly there but he was not present with me. I was feeling wistful as I looked from him to the mini horse standing behind him.

This one was unkempt, awkward, and poorly put together. I would guess he was a rescue, just standing there, nose almost touching the pony's tail and looking like a strong breeze might knock him over. From a real estate perspective, he was a very small fixer upper, needing a lot of work, not good bones, maybe not even redeemable. His mane said don't touch me. I felt sad and imagined he felt sad too. I had a few moments of compassion and then an image of being in a medical clinic, seeing patients that were so complex, it was overwhelming trying to fix them. An inner voice saying "you can't fix the world" distanced me from the thought. Then another wave of sadness. Was that where I was going to end up, in a small, unfixable, unlovable place? Looking at the two of them, the pony and the mini, the whole idea of selling and moving was sad. I took a breath, felt like I'd done enough client work and decided I was done. I had a good enough story to process with the team.

Turning around I was surprised to see that brown horse about 10' in front of me, blocking my direct path up the hill. He must have been standing behind me the whole time. Now he was still, expressionless. *What's with him? Do I go around him? Why is he there? I already finished my story, he must be in someone else's story.* I looked around, none of the other "clients" seemed to be paying attention to him. He was fair game, so I decided to make him part of my story. I walked up, put a hand on his back. There was no dust, and he was bigger than the pony and mini, a full-sized horse. I thought ...*you must be the house I am leaving. I should say goodbye.* After doing that I stepped around in front of him to return to my team. I had this feeling that he really wasn't the house I was leaving, that he was something else. But what?

Experience-3 (E-3): The brown horse

As I approached my team my thoughts were on the pony/mini house metaphors. No longer thinking in metaphor, I was now in a cognitive, analytical mode. Would the metaphors I came up with be enough for the team to work with? I was analyzing the story and was no longer in the story. When I entered the field I had an intention of finding something to focus on, something about moving or change. I did not want to talk about loss

because I did not want to cry. I had an agenda of what to focus on in the field and then I looked around for things to represent its parts. Or perhaps I saw the little horses and the thing that was weighing on my mind created a metaphor to fit? Or maybe a mix? Entering the field my mind searched for a pattern that fit and found one. The metaphors were interesting and certainly the little horses fit my story of the moment. I was sure my team could do something with them. It was shareable, just enough to disclose without making myself too vulnerable. Everyone can relate to moving.

The team was standing next to the fence as I approached. They asked some questions and I said something about moving and finding a smaller house. I don't recall the specific exchange. They discussed with each other what else to ask while I waited, reflecting on my story, and relaxed. It was nice being in the client role. I started thinking about the story, reflecting on it, abstracting to my future life. It made sense, sort of fit neatly into a pre-designed box. To this day when I think of those little horses I think of the types of houses I was considering, and what I was willing to sacrifice in seeking a new home. I felt like the metaphor was consistent with what I already knew, it fit my image of a popular television series about house hunting. Now I had a mental image that summarized categories of houses I could live with, or not.

My team asked me a question that reflected their interpretation of what might have been happening for me, but it was not along the lines of my experience. As I was thinking of how to respond, out of the corner of my left eye, with my back to the field I saw that dark brown horse approaching along the fence line. *What is he doing?* I was distracted by his reappearance. I could not bring my focus back to the team. The horse stopped about 10 feet away, turned right facing toward the field that was behind me, walked another 10 feet, passing on my left, stopped and turned left. He was now behind me. *Was anyone else noticing this?* Others must be making stories about this horse. But it just seemed like it was the horse and me and no one else. He walked another 10 feet moving from my left back to my right back, stopped, turned left again facing the fence line. I watched him walk slowly to the fence line and stop. He had made a U around us. I wanted to walk toward him, not knowing what he meant but I stayed planted. After maybe 30 seconds he turned right and walked away following the fence line.

I was trying to make sense out of him, turned back to the team and said ... "has anyone noticed that horse, it's like he keeps showing up." They looked in his direction, I do not recall what was said or if there were questions. I recall saying "I think that's the house I am selling," but saying that felt forced. It didn't quite fit but I wasn't sure why. It was the explanation I had assigned to him earlier. The whole thing was unnerving. Why did this horse keep showing up? Was this something he was doing with everyone? Was I overreacting?

Experience-4 (E-4): It's a problem

It was time for lunch and then one last in-the-field training activity before we headed home. Working with a partner, we again took turns being the client. The point was for each of us to pick something in the field and the “facilitator” was to say very little other than inviting the client to tell their story. The focus was on non-interpretive facilitation, just observing and describing through the senses to avoid getting in the way of the client's story. We had experienced trainers guiding us. When it was my turn, I was looking out over the top of the hill and decided to pick something inanimate. I focused on a telephone pole off in the distance. I was ready, relaxed, and going with the flow of the activity, stage 1, waiting for my partner's question. Suddenly out of nowhere, the brown horse stepped into my field of vision and halted directly in front of me, maybe 15' out, on the top of the hill. Head to the right, tail to the left, just standing as I looked at him broadside. Immobile, he had a sad, serious vibe of intentional waiting. He was aware of me. And I was aware of him. There were no other horses in view, just him and me. His appearance caught my breath (Figure 10.2).

The facilitator, looking in the same direction I was, sweeping her arm in a large gesture across the vista asks: “What's there?”

Me: “That, I see *that*” as I stare incredulously at the horse.

Facilitator, staying with non-interpretive language: “And that, what is *that*?”

Me, emphatically: “I don't know what *that* is (pointing to the horse), but it's a problem.”

Facilitator: “And that problem, what kind of problem is that problem?”



Figure 10.2 The brown horse

I glance to my left at the facilitator but she is clearly looking in the direction I have been looking, as if she is seeing my story and I feel compelled to turn my gaze back to the horse on the hill.

Me:

I don't know, I just know it's a problem, and it's right in front of me (my hand gesturing in front), behind me (hand over my shoulder) and all around me (hands moving apart indicating a vista). I don't know what it is.

I say, a little distraught.

I am upset, feel a sense of urgency, wanting, needing to figure out the problem but not knowing how, deep in thought, not coming up with anything that made sense while at the same time staring at this thing in front of me. What does it mean? Why did it keep happening? I had nothing more to say and needed time to process. The session time was nearly up and the facilitator asked if there was more. With nothing else to say I shook my head no. She said "let's end here."

The ride home: Reflection

The three-day advanced training was winding down, we did a closing circle and then dispersed. It was a long drive home and the brown horse was on my mind. Somewhere along Interstate 40 it suddenly came to me, what the problem was. I felt this deep awareness, that the horse, the problem that was in front of me, behind me, and all around me, wherever I went was aging. Tears ran down my face as I drove, feeling a sense of acquiescence, acceptance. No matter what I did going forward in life, whether buying a house, dealing with physical pain, my health, work, loss, and change, aging was always going to be there, in a way that I could no longer ignore. Quietly, seriously standing there. Not yet on top of me, but there. And as I keep moving in my life, living day to day, aging, whether in the foreground, beside me or behind me, it is always present, visible from wherever I stand.

Aging was right there when I first saw the pony and the mini. Aging reminded me that physical needs were changing, how a one-story home without stairs would be better or how I would need something sustainable when retired on a fixed income. Aging was there while I planned how to continue my equine work. I could do it now but how would I adapt in the future? That moment when it all made sense in the car, it was an aha moment. How I was feeling, the separate issues became a succinct coherent whole. The brown horse was my personal metaphor, I simply "got it." I no longer had to bounce from one disparate worry to another, my physical, work, personal issues came together in the essence of aging.

Epilogue

It has been several years since I had that experience and it is still meaningful to me. The brown horse is a deeply personal metaphor that created a sense of peace. I ended a losing struggle and radically accepted reality (Brach, 2003). It was with that acceptance that I was able to move on. I moved to a new home. It's probably more the size of a horse than a pony, comfortable and safe. I've experienced the miracle of joint replacements so that I walk without pain and without a cane. I own a horse and I get to ride several times a week. I cannot stop aging, it is present in my life, all around me and its okay. I've made friends with it.

Note

- 1 The term “psychotherapy incorporating horses” would not become the recommended industry standard term until 2021. See Wood et al. (2021).

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11 Finding strong

Autoethnography 2

This chapter provides a second autoethnography, in which I (AKF) share my experience as a participant in learning incorporating horses. To fully paint the picture, the chapter includes a description of external factors (i.e., the setting, actions of the participants, horses, and facilitators) and internal factors (i.e., my thoughts and feelings). The reader will accompany me on the journey through an equine session and after. This chapter shows how interactions in an arena with horses allowed for the identification and transformation of an internalized narrative that was externalized through horses. The session I describe was a group session, and I refer briefly to group members in sharing my story. I have not included their names or identifying information. As with the experiences described in Chapter 10, the primary source of information for this autoethnography is my experience and memory. The session I describe occurred in 2014. I took notes immediately after the session and did reflective journaling that evening and the next day. I have informally reflected on the experience since then, up until the present. The metaphor described has continued to unfold through life experience, including empirical research on equine-assisted intervention (e.g., Fournier et al., 2018). Only recently, while working on this book, did I analyze the experience through EAST and shape my reflections into this autoethnography.

Before the session

The session was part of a three-day training for practitioners becoming certified to incorporate horses into psychotherapy and learning within the Eagala Model. The training took place in a large, indoor horse arena with an attached conference area. Walking into the facility I was immediately hit by the contrast of entering a professional meeting area; with tables and chairs, a computer and printer, a small kitchen; and the aroma of horses and manure. Each time I attend a training I notice this contrast – professionals gathering in an office-like space alongside a barn or pasture that holds sights, smells, and sounds of farm animals. It's a contrast of urban and rural, clinical and casual, and for me work and home. I grew up on a farm in rural North Dakota surrounded by farm animals. The smell

of a barn takes me back to a time and place long before I was an academic conducting research, teaching students, or treating clients. The smell of the facility that day was a familiar smell, one from my personal life; I had not experienced that sensation in my professional life. The contrast in office/barn sensations is my first memory of equine-assisted intervention, and a marker for the beginning of a very different way of thinking about psychotherapy, learning, and intervention in general.

There were approximately 30 of us at the training, which was a combination of didactic and experiential methods. We would first learn about a concept or skill while sitting in a large circle, listening to the training team – a licensed mental health professional and an equine specialist – then we would observe or participate in role-play activities to experience the process in action. There were three horses in the arena – a black-and-white paint, a brown-and-white paint, and an Arabian, who had a brown body and black tail and mane. Although the session I participated in occurred in the afternoon, I had been in the large arena with the other attendees and the horses all morning. I had mixed feelings about the horses. Being in a room with live horses while learning was a novel experience, the horses were beautiful, and being in the presence of animals, in general, brings me a feeling of joy. On the other hand, I was feeling nervous because I was unsure of what to expect and I have always been intimidated by horses' strength and speed. Despite growing up on a farm, my experience with horses at the time of the training had been limited to a handful of encounters many years earlier. I had always felt vulnerable and a bit fearful when horses approached me, if they moved quickly near me, and especially if more than one horse was moving quickly near me. My fear was that they would accidentally step on me or run me over.

This fear was activated during the training. Throughout the day leading up to my session, I had watched the horses during class and on breaks. I noticed a pattern that engaged my specific fear of horses moving quickly near me. Every time the Arabian was near one of the other horses, he seemed to antagonize them. He would move up close to them and nudge them with his head or back into them, putting his rear end on them. When this happened, the other horse would nudge the Arabian back. On three of the occasions, the Arabian nudged or backed into one of the other horses, the horse pushed back, there was mutual nudging back and forth, and it escalated into one or both horses picking up their front feet, kicking their back feet, and running around the arena. Watching this during the didactic sessions made me fearful. It was impossible to predict which way the horses would run and several times they ran within a few feet of our large group. I imagined them accidentally running into our group and running us over. Sitting in my chair, I could feel muscles in my abdomen, neck, and shoulders tense. As the horses ran near us, I would sit up straight, watch intently with my eyes wide, and prepare to stand up and move if necessary. While this was happening, I looked around at the other

attendees. Some of them appeared tense like I was, sitting up straight with eyes wide open, facing the horses. But most attendees appeared unphased by what the horses were doing. I remember attributing my discomfort to a lack of experience with horses; I was afraid because I didn't know about horses. Interestingly enough, I remember thinking that even if I did get run over by a horse, it would be because I am not experienced with horses. I felt physically threatened by something outside of myself – the horses – but was prepared to attribute any insult or injury to something within me – lack of experience or knowledge. This pattern of behavior with the horses, and my experience of it, was happening as we moved through the early part of the day.

The particular session I am sharing here took place while we learned skills for group facilitation. As with other role plays in the training, “clients” were workshop attendees who volunteered to participate in a role play. Our session took place in the center of the 72' × 150' indoor horse arena. Some of us were in the session – eight training attendees playing “clients,” two trainers playing the role of co-facilitators, and three horses. The remaining workshop attendees were seated in chairs forming a semi-circle facing us in the session, quietly observing. They sat quietly, away from those of us in the session, just observing. Once the session began, I was focused on those of us in the session, including the horses. I did not notice the observers. I did not look over at them nor did I hear any sounds coming from that end of the arena. The horses were at liberty throughout the training, meaning they were not haltered or tied up. They were free to move about the arena however they chose. Throughout the training, the horses walked among the seated participants during the didactic lessons. However, during role plays where observers were seated and participants were standing, the horses stayed near the standing people. That was the case with this particular session as well (Figure 11.1).

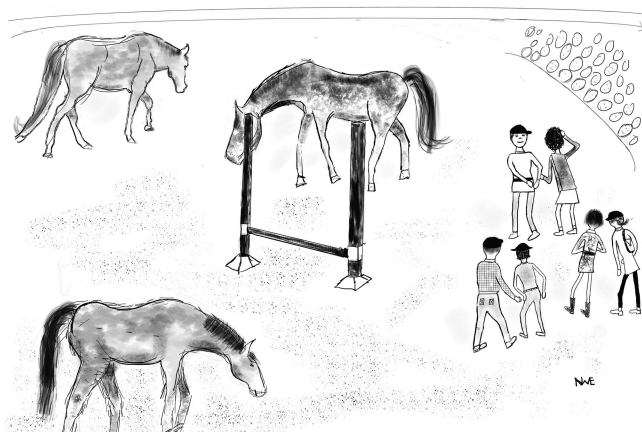


Figure 11.1 The beginning of a group session: humans planning, horses watching

In this role play, the trainers asked for volunteers to play the role of a work group attending a teambuilding session that would include horses. I remember feeling excited and anxious about the activity. I was excited to participate as a client and experience the process of learning through horses. I had attended training before and had observed real equine sessions during my clinical practice. I enjoyed learning, loved being around animals, and was excited to learn more about the process from the inside. As a quiet, introverted person who is inherently uncomfortable in new social situations, I was mildly anxious. I was aware of being observed by the other attendees, had thoughts about fitting in with my “client” group, and was a bit tentative about what the facilitators would do with us. My feelings toward the horses were mixed. I was excited for the chance to interact with them, but I was also a bit fearful. I felt my standard vulnerability of being around horses, accompanied by an awareness of the group dynamics I had observed between the Arabian and the Paints. I positioned myself so I could see the horses and looked and listened for any signs of them coming my way.

The equine experience

Before beginning, our “client” group came together to clarify our group’s character. Our client group consisted of me and seven other attendees of the training, all with varying levels of training and experience in equine-assisted intervention. As a group, we discussed how we were, essentially, already a work group – a group of people working to become certified or maintain certification in incorporating horses into psychotherapy and learning. Therefore, we decided rather than create a phony workplace that we all work at and take on artificial characters in that workplace, we would be ourselves, joined together in a group learning to incorporate horses into psychotherapy and learning. Beyond that, we briefly discussed potential goals for a group learning session and landed on the idea of “having fun.” My participation in this group discussion felt comfortable. Group members were open to everyone’s ideas and I felt like I was participating in an even, comfortable way. With this, we presented to the facilitators.

The facilitators began the session by welcoming us and asking us, as a group, “What would you like to have happen today?” One of our group members stated, “we’d like to have some fun.” The facilitators looked at each other, conversed quietly and briefly, and then said to the group, “We invite you to go out into the space and *have some fun.*” While saying this, they gestured toward the large open part of the arena, away from the observers. That part of the arena was lined with props, some which had been used in previous role plays and some which had not. The three horses were at the far end of the arena, in the direction they had gestured. After making the invitation statement, the facilitators stepped back from our group. They stood on the periphery of the arena, facing us, the horses, and the open arena space.

With this invitation, our group walked slowly toward the open space in the middle of the arena. We looked at each other and someone said “Now what? What would be fun?” Someone else gestured to the Arabian horse and said, “Let’s play with that one.” Others agreed it would be fun to play with the Arabian horse. Now here I was, in a group assigned to “have fun” and one member’s idea of fun is to play with the horse I see as most dangerous. I shared my perception of the Arabian as dangerous, explaining the interactions I had observed among the horses. “But I don’t want to ruin anyone else’s fun” I added. Two other group members said that they felt the same – a bit nervous about the horses but not wanting to prevent others from having fun. Others in the group felt more like the group member who spoke up, looking for fun and excitement with the Arabian. After a bit more back and forth, we decided we would try to make everyone in the group happy. We would “play” with the Arabian, from whatever distance we chose, communicate with each other about our comfort levels, and adjust if anyone felt uncomfortable. I felt good about this plan.

The group planning conversation just described was brief, lasting just a couple of minutes. During that time, the horses were on the far end of the arena, farthest away from the observers and not near us either. They did not seem to be part of the session yet. So far, it was just a group of people discussing what we wanted to do. We hadn’t engaged with the horses at all. Still, I was aware of their presence and our potential to impact their behavior. I was dividing my attention between engaging in group planning and watching the horses for any movement in our direction.

Once we agreed on our plan, we headed toward the horses. Immediately I wondered what would happen. What would the horses do? What would the people do? I imagined a catastrophe, but only vaguely. I imaged members of my group would do something to make the Arabian run around the arena, then the paint horses would also run around the arena, and someone would get run over. As soon as we moved in their direction, the horses’ behavior changed. Although we were at least 70 feet from them, they responded to us immediately. While we were talking in our group, they were calmly standing at the other end of the arena. When we started walking toward them, they picked their heads up, turned their ears toward us, and shuffled their feet. My body became more tense and my breathing more measured as we moved closer to them, and as their behavior shifted from still to moving.

The eight of us were slowly walking in the direction of all three horses. As we walked, we discussed what we could do with the Arabian, and it was suggested we put some props together to build a structure and see if he would run or jump over it. This was accepted by the group and we worked together to create a barrier made up of cones and PVC pipe. Then it was time to bring the horse over the barrier. The three horses were still at the same end of the arena and we were in the middle. We all walked toward the horses; the Arabian started shuffling. One group member charged him,

walking toward him quickly, stomping her feet, and waving her hands in the air. I stood back and watched her and the horse have a back-and-forth interaction. She would lunge at him, and he would run in one direction. She would go in that direction and lunge again and he would run in the other direction. As this was happening, two other group members and I moved back toward the middle of the arena, providing what I felt was a safe distance from the action. Meanwhile, the other two horses stayed at the end of the arena, just milling about, not engaging with the Arabian or our client group. Although my mind was alert and my body was slightly tense, I was feeling safe. I was watching the people and the horses and prepared to run, but the back-and-forth behavior seemed stable. However, after a while, as the Arabian moved more quickly, changing from a walk to a slow run, the other horses began to move as well. My mind went from just alert to slightly anxious. My body tensed and I became even more prepared to run, shifting my weight from one foot to another. The two Paints began to move along with the Arabian, back and forth. Then suddenly all three horses were moving around the arena in a quick, unpredictable pattern. My anxiety increased and I began walking slowly away from the horses. The fear of horses running someone over was still on my mind. As all three horses moved around the arena, I stayed in the middle of the arena, but turned my body to watch and moved slightly to maintain my distance from the moving horses. My chest was tight and my breathing was more shallow than normal. To me, the situation was feeling out of control. These big horses were moving fast and in an unpredictable manner.

Just as my *discomfort* was increasing, the level of *fun* seemed to be increasing for the group member moving the horse and three other members near her. Several of us who had voiced concerns during the planning stage moved to the center of the arena. Being in the center felt safer because the horses had room to move around us and there was no possibility of getting pinned against a wall by a running horse. Incidentally, the center of the arena was also where we had built the structure. So although the center felt like a safe place from the circling horses, it was also the place where we intended the Arabian horse to end up so that he could cross the barrier. Of the eight people in our client group, three of us were in the center near the barrier, three were near the Arabian on the outskirts of the arena, and two people were somewhere in-between. The group members in-between were keeping an eye on both groups. They seemed to be watching me specifically as horses came near, and at one point someone asked if I was alright. I was grateful for their concern but also feeling a little embarrassed that the attention was on me. But more powerful than these thoughts and feelings were my thoughts and feelings about the Arabian. I was aware of feeling both fearful and excited about him coming closer to me and jumping over the barrier. He took several passes toward the barrier, getting closer each time.

Those of us near the barrier stayed together, supported each other, and watched. Group members continued to move the horses and at some point, I have no idea how or why the Arabian came straight for the barrier (and us!). I remember feeling excited and scared. Excitement because the thing we wanted to have to happen was about to happen and scared because it could be dangerous and I had no idea how to control it. Physically, my body was tense; there was an uneasy feeling in my stomach. Despite my fear, I made a conscious choice to face it – watch this big, fast, powerful, unpredictable thing move toward me (Figure 11.2). It was scary and my heart was racing but I stood strong, kept my eyes open, and watched as it ran up to and jumped right over the barrier. It felt amazing! I could have run off to the side of the arena and watched from a distance, but instead I stayed. I experienced the horse running toward me, over the barrier, and then away from me. The other horses were moving around the arena but did not approach the barrier. At the moment, my experience was that I had not backed away from this big, strong, fast-moving horse. The horse came back around and jumped the barrier one more time. We all cheered with excitement. We came together as a group and agreed we had accomplished our goal – we got the horse over the barrier and we had fun.

Together, we walked back to the facilitators, who simply asked, “What happened out there?” We took turns sharing our experience. As I listened to others, it was clear that as individuals we each had our own thoughts and feelings about the situation, and yet it all came together in this shared experience. We shared our agreed-upon goal with the observers and described what it was like for us out there. We processed the idea of having fun, facing fears, and working as a group. Processing the session helped give words to the physical experience. For me, it felt like I had learned something about myself – that I can be in a space with fast-moving horses and not get run over. On a more abstract level, I learned I am stronger

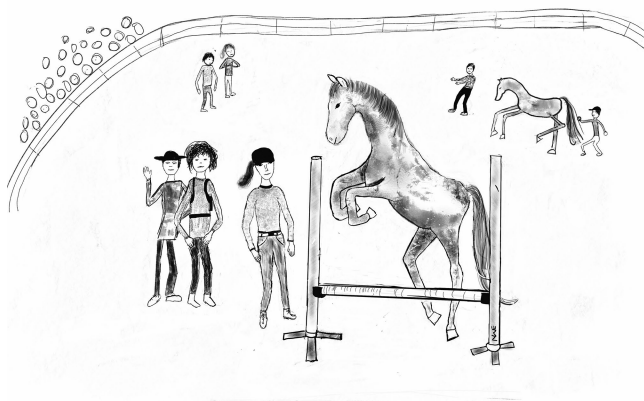


Figure 11.2 Angela cautiously watching as the Arabian horse jumps over the barrier

and braver than I thought. Once we were done processing the session, we went on with our day, learning more skills, observing demonstrations of the skills, and discussing in our large group.

Reflection

The facilitators gave everyone at the training homework for that night – to reflect on the sessions from the day. As I sat in my hotel room, I reflected back to the group session. I had a feeling of accomplishment. I was happy that I had faced my fear of the big horse coming toward me. I thought about why that gave me a sense of accomplishment and ended up really thinking about the horse – *why was it so scary in the first place?* I searched to understand – *what am I afraid of?* I connected it to social anxiety. I experience that same kind of fear within or in anticipation of social situations. I thought about that more. *What is it about social situations that scare me?* The fear is that others are evaluating me, that I will do something wrong, and people will criticize me. That's the big scary thing coming at me – evaluation and criticism. This fear of evaluation and criticism causes psychological distress – fear, worry, irritability – and physical distress – stomach aches, muscle tension, and trouble sleeping. It also impacts my behavior; I avoid some situations and am compelled to overachieve in others. I continued to search for greater understanding. *What's the big deal with being evaluated and criticized?* I realized that when I think about receiving negative feedback, I get a physical feeling in my body – the same feeling I had in the arena as the Arabian ran toward me. Exploring that more, I realized the feeling I fear from criticism is a feeling of shame. The actual consequence of me failing in social situations is that I will feel embarrassed and ashamed. I don't like that feeling and I suddenly realized it comes from within me. If I get negative feedback or criticism, I feel ashamed. *Oh my gosh, it's me! I'm the evaluator, criticizer, shamer. I'm the big scary thing. I'm the Arabian horse!*

That was a critical moment of realization for me. It was incredibly powerful to identify a source of my anxiety. It was a relief to learn that the big scary thing was me. I didn't have to be scared because it was me and I know me and I trust me. Now when I feel intense anxiety, especially in a social or performance situation, I imagine that horse, remember it's just my own self-shame I fear, and like switching off a light, I can usually turn off the anxiety, or at least turn down the dial. In the moment, I see an image of the Arabian running toward me, remember the Arabian is my critical self, and then let it go.

Reference

- Fournier, A., Letson, E., Berry, T., & Pasiuk, E. (2018). Human-Animal interaction and metaphor in equine-assisted psychotherapy: empirical support for the EAGALA Model. *Human-Animal Interaction Bulletin*, 6(1), 47-63.

12 Analysis and interpretation

In the last two chapters, we shared several different experiences of being with horses in an intentional equine-assisted activity. The descriptions and insights are not meant to be universal or all encompassing. The five experiences (four in Chapter 10, one in Chapter 11) are each unique and barely begin to capture what we believe happens during actual psychotherapy (and learning) sessions that incorporate horses. Our autoethnographic descriptions, similar to and perhaps more in-depth than one might get from a research interview, are our “data.”

In this chapter, we take those experiences to examine the role each component of EAST played in the experience. In each session the horse’s presence was a catalyst for something. In some sessions other humans (facilitators, other participants) contributed to the experience. We looked for components of polyvagal, metaphor, narrative, transformational learning, and experiential learning theories in the autoethnographic descriptions. We created a tracking tool to identify and provide examples of theory components that appear in the autoethnographies. The process was iterative, the table forced us to clarify what we had written in earlier chapters, and those refinements helped us to better understand our stories. We were able to confirm when theory components were or were not present in an experience. We found that they varied in intensity and relative importance based on the specific session (see Tables 12.1 and 12.2).

We also asked ourselves what changed for us after participating in an equine session. Was there a change from a pre-existing story to a new perspective and if so, how much? Adapting the structure of the Subjective Units of Distress Scale (SUDS) used in clinical settings (Kiyimba & O’Reilly, 2017) we created a Subjective Units of Perspective Change Scale (SUPCS). This analog scale, with scoring of 0–10, indicates the significance of the subjective change we attribute to our respective equine sessions. We identified ten as the most perspective change we have ever had (major life events like childbirth, marriage, or a death) and zero being no change. Our scoring systems are entirely subjective and intended to be illustrative (Table 12.3).

Table 12.1 Individual Components of EAST That May Be Present during and after Session

<i>EAST Component</i>	<i>Definition</i>
Live horses in horse environment Experiential	Any animal(s) in the equine family, in a pasture or arena, free to move about. The person is having a concrete (i.e., sensory perception) experience (rather than an imaginary one), during a facilitated, purposeful (psychotherapy or learning) process usually followed by reflection.
Polyvagal – dorsal vagal circuit – linked to defensive immobilization	Enables immobilization defense allows one to then become socially invisible by feigning death, numb, no energy, or fainting.
Polyvagal – sympathetic – linked to defensive strategies	Enables fight or flight defense: heart rate increase, respirations, muscle tension, person may describe arousal of negative emotion such as fear, anxiety, or anger.
Polyvagal – ventral vagal circuit – individual feels safe and social engagement system	Heart–face connection: neuroception of safety then downregulation of threat system (exhalation and abdominal breathing), slower heart, respiration, sigh, muscles of face, head, neck influence facial expression, vocalizing/intonation, listening, head position indicates open to social connection, allows detection of physiological state of another as calm and safe (or not), individual is emotionally regulated.
Connectedness	Biological drive to connect, perhaps an urge to engage.
Reciprocity	Mutual exchange of engagement cues. One individual offers and the other reciprocates.
Lack of reciprocity and biological response	One individual is open to social engagement and the other does not reciprocate by not responding to cues or responding with hostility. Unmet expectation for social engagement interpreted as not safe, activation of defense mechanisms.
Coregulation	Mutual regulation of physiological state between individuals. Face–heart connection in social engagement system is active with slower heart, breathing, sigh, facial expression, voice intonation conveys physiological state to another, to calm another. There is reciprocal social engagement.
Sensory domain of experience	Perception of sensory stimuli from any of the five senses.
Narrative/internal story	A narrative story is inside the mind, “I” and “me” in narrative. The story, problem, concern, or trait is internalized, the problem is within me, there is something wrong (or right) with me. “I am a nervous person” and “My resilience keeps me going.”

(Continued)

Table 12.1 Individual Components of EAST That May Be Present during and after Session (Continued)

<i>EAST Component</i>	<i>Definition</i>
Externalization/ self-distance	Moving a problem, characteristic, concern, or story from inside to outside the mind, separating oneself from the story, giving distance and space. The problem or story is personified or embodied through something outside the person. The person can distance themselves from the problem. It is not blaming someone else for the problem, rather the problem itself is personified as in “there is nervous” and “resilience is right there.”
Horse as some part of the narrative	The horse or the setting with the horse shows up somewhere in the person’s story or narrative, at least concretely. For example, “the horses like me,” or “the horse ran fast.” This is in contrast to someone who focuses on things other than the horses or outside of the space and the session could have been done without the horses being there.
Horse as metaphor	The horse represents something that has nothing to do with equines, the horse symbolizes something else.
Horse plays a role in conceptual metaphor	The horse represents something that has nothing to do with the equines, symbolizes an abstract concept, becoming part of an embodied metaphor. The human understands a concept through their body’s perception of and interaction with the physical world. That is, the idea of externalizing is an embodied metaphor in that the body is viewed as a container and the problem is taken from the body and put outside to somewhere else.
Disorienting dilemma	Something that is inconsistent with one’s existing understanding of things, inconsistent with how things should be, violates assumptions, “what is this?”
Horse as disorienting dilemma	The thing that is inconsistent and makes us think “what is this?” is the horse(s).
Derivational search	Thoughts easily linking one thing to another thing, confirms, or reinforces what is already known.
Transderivational search	Searching in one’s mind for something that makes sense, thinking.
Reflection	Out of or after the concrete experience, thinking back, remembering, and analyzing.
Assumption hunting (Transformation learning theory)	Willingness to look at one’s assumptions and other points of view.
Sleep	The equine experience and reflection were followed by sleep and subsequent clarity or shift in perspective.
New story	The narrative with plot has a different story than the one prior to the equine experience.

Table 12.2 Components of Experiencing Connectedness to Horse During Session

Component
Client is encouraged or directed to interact with horses
Client and horse touch, physical contact
Mutual horse/human awareness without connection
Client has feeling of connectedness to horse
Client feels disconnected from horse
No directives to client
Client is directed to do specific activity

Table 12.3 Subjective Units of Perspective Change

Subjective Units of Perspective Change (SUPC)	Number representing amount of change in thinking or perspective
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SUPC scale: 0 = no change; 1 = New information, no real change; 2 = New information; slight change; 3 = New information consciously linked with previous experience (that's like...); 4 = Curious with slight to moderate change; 5 = Change; 6 = Change by expanding, developing point of view or perspective; 7 = Change through some reflection, questioning assumptions; 8 = Change after disruptive significant event, significant change in meaning perspective; 9 = Life changing event, long-lasting change, small paradigm shift (financial loss, move new country); 10 = Life changing event, major paradigm shift (death of parent, childbirth).

Noreen's autoethnography and EAST

The four equine experiences that I described in Chapter 10 were each unique. All of the domains of experience: physiological, sensory, symbolic, and cognitive were active at different times during each experience. Each theory within EAST: the horse, polyvagal, sensory, conceptual metaphor, narrative, transformational, and experiential learning theories played some role in the experiences or the outcome of those experiences. As you look through Tables 12.4 and 12.5 you will notice that not all experiences have all of the components of EAST. Some components appear in two or three experiences, and some components are in all of the experiences. The polyvagal *components* of connectedness, reciprocity, and lack of reciprocity appear in only one of my four experiences. The experiences are identified as E1, 2, 3, and 4.

Noreen's first experience (E1)

E1a

My first experience (E1), being part of a group, had two distinct sub-experiences which I am calling E1a and E1b. I had reluctantly volunteered for the group session (E1a) which was set up around a task. We were instructed to move something and although the horse was the focus of the

Table 12.4 Individual Components of EAST That Were Present during Noreen's Experiences

<i>EAST Components</i>	<i>Definition</i>	<i>Present</i>	<i>Description from Autoethnography</i>
Live horses in horse environment	Any animal(s) in the equine family, in a pasture or arena, free to move about	x = all	In E1, E2, E3, E4
Experiential	The person is having a concrete (i.e., sensory perception) experience (rather than an imaginary one), during a facilitated, purposeful (psychotherapy or learning) process usually followed by reflection	x = all	In E1, E2, E3, E4
Polyvagal – dorsal vagal circuit – linked to defensive immobilization	Enables immobilization defense allows one to then become socially invisible by feigning death, numb, no energy, or fainting		
Polyvagal – sympathetic – linked to defensive strategies	Enables fight or flight defense: heart rate increase, respirations, muscle tension, and person may describe arousal of negative emotion such as fear, anxiety, or anger	x = all E1,2,3,4	E1: anxious about unknown, not safe, judgmental E2: arousal, irritability about pain, life, slightly disconcerted by lack of pony reciprocity E3: unnerved by the appearance of the brown horse, uncertainty, more than curiosity, anxiety E4: increased stress, unknown, what is that? E1
Polyvagal – ventral vagal circuit – individual feels safe, social engagement system	Heart–face connection: neuroception of safety then downregulation of threat system (exhalation and abdominal breathing), slower heart, respiration, sigh, muscles of face, head, neck influence facial expression, vocalizing/intonation, listening, head position indicates open to social connection, allows detection of physiological state of another as calm and safe (or not), individual is emotionally regulated	x E1, 2, 4	E2: initial feeling of safety with little horses E4: with facilitators at beginning of session, trust

Connectedness	Biological drive to connect, perhaps an urge to engage	x	E1	E1: to horse
Reciprocity	Mutual exchange of engagement cues. One individual offers and the other reciprocates	x	E1	E1: with horse
Lack of reciprocity and biological response	One individual is open to social engagement and the other does not reciprocate by not responding to cues or responding with hostility. Unmet expectation for social engagement interpreted as not safe, activation of defense mechanisms	x	E2	E2: "felt disconnected, his attention was elsewhere" N/A for E3; problem-solving, human not open to social engagement, defense system. N/A for E4: not open to social engagement activation of defense system.
Coregulation	Mutual regulation of physiological state between individuals. Face-heart connection in social engagement system active with slower heart, breathing, sigh, facial expression, voice intonation conveys physiological state to another, to calm another. Reciprocal social engagement	x	E1, 2	E1: ? at least for me, and a sense of compassion E2: "felt sad and imagined he felt sad too, compassion"
Sensory domain of experience	Perception of sensory stimuli from any of the five senses	x	E1,2,3,4	All senses except taste
Narrative/internal story	A narrative story is inside the mind, "I" and "me" in narrative, the story, problem, concern or trait is internalized, the problem is within me, there is something wrong (or right) with me. "I am a nervous person" and "My resilience keeps me going."	x	E1,2,3	E1: self-judgments E2: story of my house and life E3: what is the horse doing, is it following me? Why is it doing that? E4: the horse is important, I don't know what it is.
Externalization/self-distance	Moving a problem, characteristic, concern, or story from inside to outside the mind, separating oneself from the story, giving distance and space. The problem or story is personified or embodied through something outside the person. The person can distance themselves from the problem. It is not blaming someone else for the problem; rather the problem itself is personified as in "there is nervous" and "resilience is right there."	x	E2,4	E2: horse as house, unfixable mini horse E4: "that is a problem"

(Continued)

Table 12.4 Individual Components of EAST That Were Present during Noreen's Experiences (Continued)

<i>EAST Components</i>	<i>Definition</i>	<i>Present</i>	<i>Description from Autoethnography</i>
Horse as some part of the narrative	The horse or the setting with the horse shows up somewhere in the person's story or narrative. At least concretely, for example, the horses like me, or the horse ran r fast. This is in contrast to someone who focuses on things other than the horses or outside of the space and the session could have been done without the horses being there.	x E1,2,3,4	E1: Objectified, personified E2: horses as houses, horse as sad E3: brown horse is center of attention E4: brown horse is story
Horse as metaphor	The horse represents something that has nothing to do with equines, the horse symbolizes something else.	x E2,3,4	E2: horse as house, as broken E3, E4: Knowing the horse represents something important
Horse plays a role in conceptual metaphor	The horse represents something that has nothing to do with the equines, symbolizes an abstract concept, becoming part of an embodied metaphor. The human understands a concept through their body's perception of and interaction with the physical world. That is, the idea of externalizing is an embodied metaphor in that the body is viewed as a container and the problem is taken from the body and put outside to somewhere else.	x E1,2,3,4	E1: the horse and I were close, body feeling of close, concept of presence, and compassion E2: "broad back" embodying structurally solid house, disconnected E3: the distance the horse kept was a conceptual metaphor of something unknown E4: the problem is all around me, at a certain distance
Disorienting dilemma	Something that is inconsistent with one's existing understanding of things, inconsistent with how things should be, violates assumptions, "what is this?"	x E1,2,3,4	E1: how can I be close to this horse with all these human strangers, is it just in my mind? E2: why is the disconnect bothersome? E2/E3: what was the brown horse? Why the distance? What is in that space? E4: horses do not act this way, they approach, or move away doing their own thing, this horse is distant but connected or in my life in some way

Horse as disorienting dilemma	The thing that is inconsistent and makes us think "what is this?" is the horse(s)	x	E1: connection doesn't happen when there is distance. E3: not understanding distance, appearance E4: yes
Derivational search	Thoughts easily linking one thing to another thing, confirms, or reinforces what is already known	E1,3,4 x	E1b: making sense of the connection, identify already known concept of presence E2: horse as houses... this is just like a little house E1: search for how is connection in a group of others E3: searching for some meaning E4: searching for meaning
Transderivational search	Searching in one's mind for something that makes sense, thinking	x	E1: "presence," compassion, recalling in hospital experiences with death, "being-with" someone dying while among people "doing." E2: superficial reflection, initial impressions remained as they occurred, feeling of confirmation and hope about finding a house E3: reflection began but subsequent session interrupted it E4: yes
Reflection	Out of the experience, thinking back, remembering, analyzing	E1,2,3,4 x	E1: can one connect or be present when the other may not be aware? Does it matter? E4: assumptions about aging, about self, and about life E1: I do not recall if clarity came after sleep or before. E2: yes E3: followed by E4 before sleep E4: yes
Assumption hunting (transformation learning theory)	Willingness to look at one's assumptions and other points of view.	x	E4: Rather than feeling powerless and burdened by aging, aging is now something that I have an acquaintance with, maybe a friend, and that to some extent I can choose how close or far away I want to keep it.
Sleep	The equine experience and reflection were followed by sleep and subsequent clarity or shift in perspective	x E1,2,4 3?	
New story	The narrative with plot has a different story than the one prior to the equine experience.	x E4	

E1a: group activity, E1b: 1:1 connection; E2: pony and mini; E3: the brown horse; E4: It's a problem.

group and object of the task, I am not sure that the horse was essential for me in that experience. The source of my sympathetic arousal was performance in and of the group. What I gained was insight into how I am in a group. I left with an embodied understanding of seeing a task-oriented self in interaction with others. It was not externalizing; rather the insight had an internal physicality to it with a feeling of my own body moving and positioning in respect to others. That awareness of the body in space (the sensory domain) is used to inform the symbolic domain. Conceptual metaphor theory explains how the physical experience links with images, ideas, and then words that contributed to my narrative and resulting story. That embodied knowledge helps me “position” myself in a group, any group, including work groups. It translated into my work-life, for example, when I would find myself entering a room for a meeting, that conceptual metaphor influenced where I sat at the conference table and how I interacted with others. It gave me an understanding of self in relation to others through mental images and physical position.

E1b

The other sub-experience (E1b) was nested in the middle of the group experience. It was when I serendipitously felt a brief one-on-one connection with the horse. Several of the theories (horse, polyvagal, sensory, conceptual metaphor) and corresponding domains were in play during that brief encounter. The horse was the center of that experience. With a downregulation of the sympathetic nervous system by polyvagal’s ventral/vagal action, the social engagement system was activated. There were sensory experiences, the influence of conceptual metaphor (being with or connecting with other), and mental images. I do not recall that there were any words going through my conscious mind during that 30–60 second experience. At the time it was purely an experience and narrative came later. The experience was distinct enough to have me thinking about it in images and language that evening and the next day. At some point immediately after or when I had a moment to think there was a derivational search, perhaps transderivational, with the words and narratives used in trying understand and make sense of what happened. I recalled the concept of presence, a concept that is familiar to nurses and to therapists and is in the nursing literature with an equine-assisted activity (Walsh & Blakeney, 2013). The physicality of presence is particularly salient for nurses. I did not have to go far from what I already knew. It is what Mezirow (1991) in TLT would refer to as *thoughtful action*, a form of non-reflection. “Oh, this is just like that.” In metaphor theory, the horse is the source concept, and presence is the abstract target concept. Although I did do some introspection, “is presence really what happened?”; some analyzing and assumption hunting “can presence happen if the other is not aware?”; and informal reflection; there was no formal, intentional

reflection or re-exploration of the concept in the literature. I scored the E1b on the SUPCS at a three. My view of presence was reinforced and expanded but there was no paradigm shift or critical evaluation. Even though it was a small change, E1b helped me to deepen my professional and personal insight into when and how connection and compassion happens. In the process of developing and writing about EAST I have considered the possibility of other concepts. Attunement is a process that, in therapeutic relationships, starts with empathy. It is a kinesthetic and emotional sensing of another and the signaling to the other of that sensing, creating a “two-person experience of unbroken feeling connectedness” (Erskine, 1998, p. 236). According to polyvagal theory, with attunement comes safety, the social engagement system is active, there is a heartfelt connection to another, and misattunement happens with disconnection (Dana, 2021; Lucas et al., 2021). Sometimes the image of that E1b experience returns to me. When that happens it is a mind/body experience, a physical feeling of approach rather than withdrawal, of connection rather than disconnection, a moving or leaning toward the other.

Noreen's second experience (E2)

The second experience (E2) provides examples of polyvagal theory, both sympathetic and ventral vagal activity, as well as a disconnect and lack of reciprocity with the pony, and a question of coregulation or compassion with the mini horse. It was filled with sensory experiences: visual, touch, and smell. The component of externalizing is evident in the house-horse metaphor and the mini as an unfixable house. Searching for home in the context of loss, adjusting expectations, and finding hope were the metaphor target concepts. The house/horse metaphor was deductive in that I entered the experience, walking toward the little horses with the target in mind. I was thinking about house buying and where I was going to live.

The pony, a physical source concept, represented a small, sturdy, dusty house, the target concept. Not especially abstract, the horse-house metaphor appeared quickly, during the session, in S1 wording. That processing of E-2 is consistent with what Mezirow refers to as a *thought with reflection* reinforcing what is already believed. I was paying attention but using prior learning and understanding, including house-hunting television shows as my frame of reference. It was a nice fit, a small shift in meaning perspective, clarifying and reinforcing my existing belief system. I was introspective without having to test the validity of my beliefs (Mezirow, 1991).

That initial metaphor deepened when I thought of the pony's lack of reciprocity. I initially dismissed the disconnect with the pony as curious but unimportant. However that minor, disorienting (dilemma) observation kept bothering me until after sleep and time, a conscious thought emerged that the disconnect was how I would feel about a new house. The next day and over days and weeks the images of the experience would return

and I gradually came to understand my conceptual metaphor of finding a home. Perhaps as important as the structural integrity was the acceptance that I would likely feel disconnected to whatever house I found. It would be looking away from me, connected to someone else's needs and I would have to work to build a connection with it. My story expanded and deepened, and there was a change in that I saw a way forward without there being a major paradigm shift.

In E-2 the pony and mini metaphors helped externalize a problem I was resisting, create a story, and anchor my reflective thoughts. The horses were essential. Their presence pushed me to think differently, encouraged imagination, and created a discrepancy. If, instead of horses when I walked out into the field, I encountered plastic horses or models of small homes I would not have had the same metaphor. Inanimate representations would have been less provocative, less imaginal, and likely too constrictive. The more the source is different from the target, the more effective it seems to be. Finally, I would not have struggled with the idea of disconnection because I would not have expected inanimate objects to connect. The physicality of the horse, its behavior, and role in conceptual metaphor were essential to my final story.

Noreen's third and fourth experiences (E3–E4)

The third experience (E3) and fourth experience (E4) each involved components of polyvagal sympathetic system, sensory, horse theory, the horse as part of narrative and conceptual metaphor, TLT with a disorienting dilemma, and suggestion of transderivational search and involved reflection. E3 had an internal narrative story (me in relation to the horse) and a feeling of being disconnected or distanced from the horse. E4 had externalizing (that is a problem), assumption hunting, sleep, and a transformative new story. Because E3 immediately preceded E4, the experiences are interconnected and sleep was likely an important component for both. The SUPCS score for E3 was one because it was left as a disorienting dilemma followed by E4 which, when including reflection, had a score of nine.

In E3 and E4 the brown horse became the source concept for metaphor with aging as the target concept. In contrast to E2, this process seemed more inductive. I started with a source (the horse) and did not know the target. I was trying to make meaning out of the pattern of reappearances, horse body language, and spatial relationships. During E3 the reappearance of the brown horse during facilitation distracted me from the facilitators and shifted my story from the horse as house to something unknown. In E4 the facilitator gestures and words kept my focus externalized and reinforced for me the importance of the experience. I was seeing something that was being reinforced by another person, translating thought to words and then hearing them out loud. It wasn't necessary for

the facilitator to understand my story, but it was helpful to have someone help me articulate it. Without that, I might have dismissed the experience as a curious occurrence. Saying the words out loud, linking words with that external thing gave me a starting place during my reflection that evening and the next day.

Conceptual metaphor is how we understand the world (Lakoff & Johnson, 1980). When I was confronted with a disorienting dilemma in E3 and E4 it took several hours for transderivation (Gordon, 2017). My mind was struggling to make sense of something it could not easily link to my existing knowledge. There was no “this is like that.” I do not recall ever thinking of aging in the way I do now. I now have a physical image of the horse in that space and my relationship to those two things to symbolize my relationship with aging. It is a different, new, meaning perspective. The metaphor is a uniquely personal one, a complex abstract concept that seems otherwise impossible to communicate to others.

Aging gets a bad rap in our society. With ageism firmly embedded in the American culture I am part of, I was stuck in my own “misogynistic version” (Pipher, 2019) of invisible, no longer useful older women and assumed others saw me that way. That pre-existing story shifted with the reflections following E4. The aging metaphor was freeing from a socially prescribed, restricted role I was carrying around. The brown horse was steady and solid with his “I am what I am” aura. His behavior helped me to get unstuck.

Noreen’s experience and polyvagal theory

In polyvagal theory, connectedness is a biological drive to connect. It involves the social engagement system, from heart to face, with perhaps awareness as an urge to move toward the other (Porges, 2017, 2021). Other than polyvagal theory the concept of connectedness does not appear in EAST yet has been described by clients and clinicians, alluded to in anecdotal writings, and explored by other equine-assisted intervention researchers (Ferruolo, 2015; Fournier et al., 2018; Walsh & Blakeney, 2013). I was curious to see in what ways it would appear in our autoethnographies. Along with aspects of human-horse interaction, I noted concepts of connection, mutual awareness, and disconnection during the analysis of the autoethnographies. Table 12.5 indicates three experiences of human-horse mutual awareness without connection, one physical contact without connection, and only one very brief time when I had a feeling of connectedness to a horse. There were two experiences of feeling disconnected. In E2, there was a feeling of non-reciprocity, not quite what Porges (2017) refers to as biological rudeness from the pony. In E3, it was as if there was a force holding the horse away, creating a barrier to connection.

Connection elicited a sense of ventral vagal calm and perhaps something like coregulation. Mutual awareness without connection elicited a

Table 12.5 Components of Experiencing Connectedness to Horse During Noreen's Sessions

<i>Component</i>	<i>E1</i>	<i>E2</i>	<i>E3</i>	<i>E4</i>
Client is encouraged or directed to interact with horses	x	x		
Client and horse touch, physical contact		x		
Mutual horse/human awareness without connection		x	x	x
Client has feeling of connectedness to horse	x			
Client feels disconnected from horse		x	x	
No directives to client		x	x	
Client is directed to do specific activity	x	x		x

sense of separateness and uncertainty. Disconnection elicited a feeling of aloneness and that, with the pony I felt I was less important than what he was focused on. It was not disrespect but it was not mutual awareness. The experiences seemed to be on a continuum. At one end of the continuum there is something intentional that is experienced as rejection; next might be the intentional non-reciprocity or ignoring of the other. In the middle of the continuum might be something blocking either from connecting, a barrier of some kind, and next might be mutual awareness of each other with the possibility of connection; and finally connection.

Facilitators

Looking back on the Eagala session of the day, it is unlikely that any of the facilitators or trainers would have linked the brown horse or his reappearances, distance from me, movement, and stillness to aging. If someone had tried to interpret what I was experiencing or link it to my earlier metaphors about houses, it would have likely taken me out of my evolving story. Facilitator interpretations might have made sense on the surface, but would not have led me to the transformative insights I had. Perhaps they would have led me to someplace else just as profound. It has been more than five years since events E2–E4. Notes I made during the days and weeks after it were used to later draft what was originally meant to be a journal article and eventually evolved into a chapter in this book. I recall the events but I could not duplicate the details or thoughts from those events now. While writing the autoethnography chapter the events are familiar and the aha moments are clear in my mind. But I no longer experience sadness and despair. The conceptual metaphor of the brown horse as aging is deeply personal. Aging now seems such an obvious life experience, but at the time I was saddened, frustrated, and resistant to it. I felt alone with the problem. That day's E2–E4 sessions, linked together were, as Mezirow (1991) describes, a transformative experience, a disorienting

Table 12.6 Subjective Units of Perspective Change for Noreen

Subjective Units of Perspective Change (SUPC)	Number representing amount of change in thinking or perspective	E1: 3 E2: 5 E3: 1 E4: 9
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dilemma, a discrepancy between what my prefrontal cortex was saying the horses meant (houses) and a very strong feeling that this was something more (Table 12.6).

Angela's autoethnography and EAST

I'll start the analysis of my autoethnography by referring us back to the EBMS model. In EAST, we suggest that psychotherapy or learning incorporating horses involves people interacting on the ground with horses and that interaction causes a body-mind experience which facilitates story transformation. The equine experience can look quite different, depending on the people, horses, and environment involved. As a reminder (from Chapter 11), my experience was a group LIH session in which the other group members and I set a goal of having fun. This involved some group members engaging a large Arabian horse who I had perceived as dangerous. We created a small jump and moved the horses around, eventually leading to the Arabian horse jumping over the jump. Through reflection after the session, I contemplated my fear of the horse and connected it to my experience with social anxiety. I came to realize that the horse represented the criticism and shame I put on myself in the face of failure and thus the horse actually represented me.

As with Noreen's autoethnography earlier in this chapter, Tables 12.7 and 12.8 provide the different components of EAST as I experienced them, or not, in my session. As you can see in Table 12.7, my experience included many of the components of EAST, but not all. The session was certainly experiential and involved horses. Although the horses took on meaning for me, I did not experience connectedness with any of the horses. At no point did I get close or lock eyes with a horse. There was no reciprocity; I did not approach the horses and they did not approach or overtly avoid me. And I did not experience coregulation with any of the horses, matching physiological states.

During the session I was in the sensory domain of experience. I could see, hear, and smell the horses. I could feel the dirt on the floor and in the air. I felt objects as I helped to move them around making a jump for the horse. Physiologically, my body was in sympathetic mode throughout most of the session. I felt my heartbeat as elevated, my breathing was shallow, and my muscles were tense. My internal story matched my physiological response. Looking back, I was in narrative story well before the

Table 12.7 Individual Components of EAST That Were Present during Angela's Experience

<i>EAST Components</i>	<i>Definition</i>	<i>Present</i>	<i>Description from Autoethnography</i>
Live horses in horse environment	Any animal(s) in the equine family, in a pasture or arena, free to move about.	x	The session took place in a horse arena with three horses.
Experiential	The person is having a concrete (i.e., sensory perception) experience (rather than an imaginary one), during a facilitated, purposeful (psychotherapy or learning) process usually followed by reflection.	x	I moved about within the physical space, interacted with the people, horses, and objects in the space.
Polyvagal – dorsal vagal circuit – linked to defensive immobilization	Enables Immobilization defense allows one to then become socially invisible by feigning death, numb, no energy, or fainting.		
Polyvagal – sympathetic – linked to defensive strategies	Arousal Enables fight or flight defense: heart rate increase, respirations, muscle tension, and person may describe arousal of negative emotion such as fear, anxiety, or anger.	x	I felt my body in defense mode throughout the session, especially leading up to and during the Arabian jumping over the barrier.
Polyvagal – ventral vagal circuit – individual feels safe, social engagement system	Heart–face connection: neuroception of safety then downregulation of threat system (exhalation and abdominal breathing), slower heart, respiration, sigh, muscles of face, head, neck influence facial expression, vocalizing/intonation, listening, and head position indicates open to social connection, allows detection of physiological state of another as calm and safe (or not), individual is emotionally regulated.		At the end of the session, I felt calm and safe when processing with facilitators and group members.
Connectedness	Biological drive to connect, perhaps an urge to engage.		
Reciprocity	Mutual exchange of engagement cues. One individual offers and the other reciprocates.		

Lack of reciprocity and biological response Coregulation	One individual is open to social engagement and the other does not reciprocate by not responding to cues or responding with hostility. Unmet expectation for social engagement interpreted as not safe, activation of defense mechanisms. Mutual regulation of physiological state between individuals. Face-heart connection in social engagement system active with slower heart, breathing, sigh, facial expression, voice intonation conveys physiological state to another, to calm another. Reciprocal social engagement. Perception of sensory stimuli from any of the five senses.	x	I could see, hear, and smell the horses. I could feel the dirt on the floor and in the air. I felt objects as I helped to move them around making a jump for the horse. "This is not my idea of fun, something bad is going to happen."
Sensory domain of experience			
Narrative/internal story	A narrative story is inside the mind, "I" and "me" in narrative, the story, problem, concern or trait is internalized, the problem is within me, and there is something wrong (or right) with me. "I am a nervous person" and "My resilience keeps me going." Moving a problem, characteristic, concern, or story from inside to outside the mind, separating oneself from the story, giving distance and space. The problem or story is personified or embodied through something outside the person. The person can distance themselves from the problem. It is not blaming someone else for the problem rather the problem itself is personified as in "there is nervous" or "resilience is right there."	x	The problem was fear and anxiety; the internal source of my fear and anxiety was externalized onto the horse.
Externalization/self-distance			
Horse as some part of the narrative	The horse or the setting with the horse shows up somewhere in the person's story or narrative. At least concretely, for example, the horses like me, or the horse ran fast. This is in contrast to someone who focuses on things other than the horses or outside of the space and the session could have been done without the horses being there.	X	The horse was the center of the story during the session "The horse is going to run someone over" and part of the externalized story during reflection "what big scary thing does the horse represent?"

(Continued)

Table 12.7 Individual Components of EAST That Were Present during Angela's Experience (Continued)

<i>EAST Components</i>	<i>Definition</i>	<i>Present</i>	<i>Description from Autoethnography</i>
Horse as metaphor	The horse represents something that has nothing to do with equines, the horse symbolizes something else.	X	The horse is a big, scary thing.
Horse plays a role in conceptual metaphor	The horse represents something that has nothing to do with the equines, symbolizes an abstract concept, becoming part of an embodied metaphor. The human understands a concept through their body's perception of and interaction with the physical world. That is, the idea of externalizing is an embodied metaphor in that the body is viewed as a container and the problem is taken from the body and put outside to somewhere else.	X	The horse represented big, scary things for <i>me</i> – scary situations, scary people, situations, and people that are big, loud, unpredictable, and uncontrollable.
Disorienting dilemma	Something that is inconsistent with one's existing understanding of things, inconsistent with how things should be, violates assumptions, "what is this?"	x	The horse did not do what I expected – he didn't run over me.
Horse as disorienting dilemma	The thing that is inconsistent and makes us think "what is this?" is <i>the horse(s)</i>		It was <i>the horse</i> that did not do what I expected.
Derivational search	Thoughts easily linking one thing to another thing, confirms, or reinforces what is already known.		This is like other times I have felt unsafe with horses.
Transderivational search	Searching in one's mind for something that makes sense, thinking.	x	I felt scared, predicted a catastrophe, similar to other times I felt scared around horses and feared getting hurt. There was no catastrophe, now or in the past, and I wondered "Why was I so scared? What is it that I was/am afraid of?" I searched for other times I felt the way I felt with the Arabian.

Reflection	Out of the experience, thinking back, remembering, analyzing.	x	I reflected that night, remembering what happened and thinking about what it meant.
Assumption hunting (transformation learning theory)	Willingness to look at one's assumptions and other points of view.	x	I realized there was something more that was causing my fear and anxiety, more than the horse, the horse was connected to a deeper, big-picture experience. The physical experience with the Arabian was similar to how anxiety feels. I questioned my assumptions about anxiety – what is anxiety <i>really</i> ?
Sleep	The equine experience and reflection were followed by sleep and subsequent clarity or shift in perspective.	x	The next day, still in the training, distracted, and thinking about the re-story that happened the night before. The more I thought about it, the more it made sense and explained things in my life.
New story	The narrative with plot has a different story than the one prior to the equine experience.	x	I am not vulnerable to some big, scary thing happening to me. I am in control and I can be nurturing rather than critical to myself.

session began. Earlier that day, I had observed the horses and perceived the Arabian horse as an instigator; I saw him as dangerous and unpredictable. My own story was that I was in danger. I felt there was a very good possibility that the horse was going to start a conflict with the other horses and I was in danger of being run over. I guess my narrative was about being vulnerable and unable to protect myself from danger. This sense of vulnerability continued when I volunteered to participate in the role play, intensified when group members suggested “playing” with the Arabian horse, heightened more when the horses started running about the arena, and reached a peak when the Arabian horse ran toward me and over the jump. Once the horse jumped over the barrier twice, he and the other horses slowed their movement from running to walking and eventually stood still. At that point, my body relaxed and I felt relieved and happy. My thoughts shifted from “I’m vulnerable, I’m going to get hurt” to “I did it! I faced my fear.” This happy and more relaxed state remained during processing with the facilitators. I expressed joy in being able to face the big scary horse. That was the first half of the process for me – story leading up to the session (I am vulnerable, I’m going to get hurt), an equine experience that at first was consistent with the story (my body in sympathetic, our group setting up an activity in which I predicted I would get hurt, horses running near me), and then inconsistent with the story (I did not get hurt). This inconsistency is what we call the disorienting dilemma, which triggered an unfolding during the second half of my process – reflection.

That evening in my hotel room, as I reflected back on the session, I was thinking about how happy and relieved I felt when the horse jumped over the barrier and no one was hurt. The horse was something big and scary – and I had faced the big, scary thing. But I also thought about why I was so relieved, which gets back to why I felt so vulnerable in the first place, especially because others in my group did not seem to feel vulnerable or afraid. What I was sure was going to happen – the horses would run over someone, maybe me – didn’t happen. This disorienting dilemma caused me to search – how do I make sense of this? Why was I so scared and certain I would be hurt? I searched for ways to make sense of this and ended up thinking about my experience with anxiety. Reflecting back on the physical and emotional experience of the session, I could connect it to the way I experience anxiety. For the first time, I started to question my assumptions about anxiety. This step is consistent with transformational learning theory’s assumption hunting (Mezirow, 1991). I had always thought about my anxiety as just something about me – I’m just wired that way. When I was first experiencing symptoms of anxiety, in my twenties, and finally labeling what I was experiencing as anxiety in my thirties, it seemed to come out of nowhere. But throughout my adulthood I have come to better understand situations where I am more likely to experience anxiety. Still, my role in anxiety felt passive. Situations bring it on. The situation is outside of me and my uncontrollable, automatic, nonparticipative response

is to feel anxious, avoid, etc. I saw myself as an agent in *managing* my anxiety, but not in its actual manifestation. But during this search I was willing to question that assumption. I searched for situations where my body feels the way it felt when the Arabian horse was moving toward me, and then I recalled my thoughts during those situations. I was able to identify my own definition of big and scary – social situations where I might fail and feel embarrassed and ashamed. The story I had been carrying around was that I am vulnerable and I'm going to get hurt *by others*. Ultimately, I realized that the big scary thing was self-criticism and self-shame and therefore the Arabian actually represented me. The horse was a conceptual metaphor for what I think is big and scary – self-criticism and self-shame. That realization shifted my perspective. Now I see myself as an active participant in my anxiety; I'm actually the agent. Rather than others or situations causing me to feel anxious, I see myself as the possible threat. If I make a mistake, I will criticize myself and that uncomfortable feeling is what I'm trying to avoid. The anxiety comes from within me, not outside of me. Because it's within me, and not some big, scary thing I have no control over, like a huge Arabian horse, I can do something about it. If I should fail or make a mistake, I can choose to be kind to myself; I can be nurturing instead of critical. My story changed from "I am vulnerable and I'm going to get hurt by others" to "The only one who can hurt me is me."

Figure 12.1 is a Venn diagram of the conceptual metaphor in my autoethnography. The target concept of the conceptual metaphor is scary past experiences, illustrated with a dark storm cloud. This is an abstract concept. It is an amalgam of thoughts, feelings, and memories. I, like most people, have had experiences in the past, including early childhood, that frightened me. Thinking back, I am or was most afraid of experiences

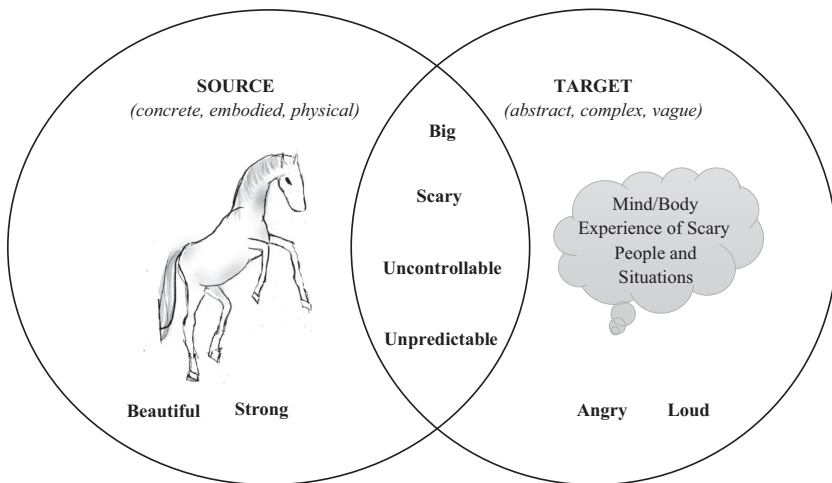


Figure 12.1 Source and target for Angela's conceptual metaphor

with authority figures becoming angry and yelling – seeming big, loud, unpredictable, and scary. I believe I had internalized these experiences as potential threats in my environment, threats that materialize from failure. My method of coping was to avoid the threat by avoiding failure. Therefore, situations where I perceive potential failure – witnessed by others – cause me anxiety. This manifested as social anxiety – anxiety in social or performance situations. Even as I am writing this now, it is difficult to find the words to describe the feeling of what I am thinking about. But thinking about scary past experiences in terms of the Arabian horse makes it easier.

The Arabian horse is the source domain, something concrete that I was already aware of. I knew what horses were – how they looked and moved – and experienced them as beautiful, big, and scary. At the mention of an Arabian horse, I can pull up an image and immediately have a sense of a large, dark animal, something that can move fast, may be unpredictable, and is much stronger than me, something I experience as physically threatening. Thinking about the Arabian horse and why it was scary, how it made me feel, connected me to understanding those scary past experiences and the effect on my life. Note Figure 12.1 lists characteristics of the source and target. The horse and past scary experiences share some characteristics – both were big, scary, uncontrollable, and unpredictable. And each has unique characteristics; I experienced past scary experiences as loud and angry and the Arabian horse as beautiful and strong.

In Chapter 6, we discussed sleep and its importance in integrating our thoughts and experiences. My equine experience happened on the second day of a three-day training. After reflecting in my hotel room, I slept and then attended day 3 of the training. I was a bit distracted that day, thinking back to the experience and my revelation. I found myself remembering situations where I experienced anxiety, then I would picture myself as the big Arabian horse standing on two hind legs looking big and strong. I would remember that's me. All I was fearing was the shame I would bring upon myself if I screwed up. Instantly, I felt relieved. Tension left my body and I had the sense of calm you feel when taking a deep breath after a stressor is over (shifting from sympathetic to vagal-dorsal). This was all happening within me, as I sat in my chair at the training. It happened several times that day, each time giving me a greater sense of security. Figure 12.2 illustrates this change in perspective, showing that I share the characteristic “strong” with the horse.

Looking at Table 12.8, you can see I have indicated just one of the components of connectedness to the horse(s). The facilitators subtly suggested interaction with the horses “go explore having fun” while gesturing in the direction of the horses. But there was no physical contact, mutual awareness, or feeling of connectedness. I can't say how my process would have been if that had happened. For me, this experience shows that you can have a meaningful experience and transformation in P/LIH even if

you don't connect physically or emotionally with a horse. The horse's presence and behavior from a distance served as catalyst enough to elicit a story I didn't realize I was stuck in. That experience, combined with my active reflection, allowed me to question the way I understood myself and change my perspective on an important aspect of my life.

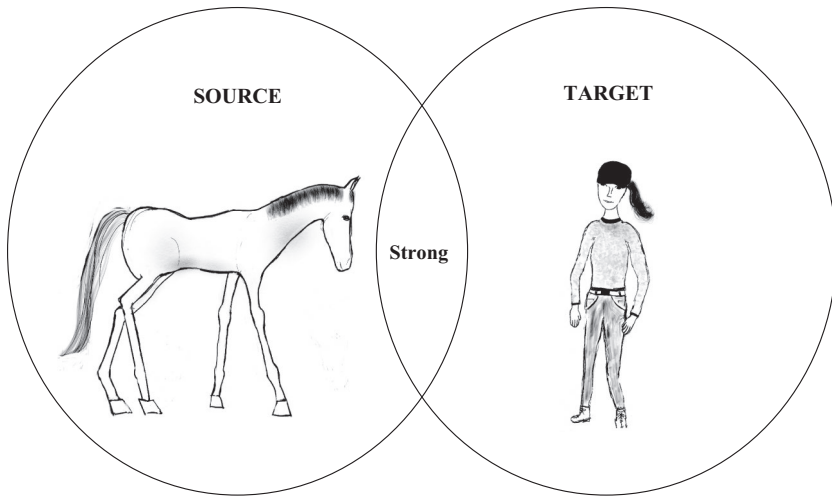


Figure 12.2 New conceptual metaphor following reflection

Table 12.8 Components of Experiencing Connectedness to Horse During Angela's Sessions

Component
Client is encouraged or directed to interact with horses
Client and horse touch, physical contact
Mutual horse/human awareness without connection
Client has feeling of connectedness to horse
Client feels disconnected from horse
No directives to client
Client is directed to do specific activity

Referring back to the SUPCS, I rate the change in my thinking or perspective as an eight. The experience caused a significant change in meaning perspective. I see myself and anxiety differently than before. That session happened eight years before the time of this writing. The image of the Arabian still comes to me. My anxiety is not gone, but now when I'm aware of feeling anxious, I picture that horse, remember that it's me, and feel a little calmer and/or a little more confident as I walk toward that scary situation (Table 12.9).

Table 12.9 Subjective Units of Perspective Change for Angie

Subjective Units of Perspective Change (SUPC)	Number representing amount of change in thinking or perspective	8
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Conclusion

Our hope in sharing the autoethnographies and their analyses is that you the reader will have a better understanding of EAST and its potential application. Our experiences are our experiences. There are many different ones out there to explore. The analysis tables and figures are a starting place. If anything, the writing of this chapter has reinforced for us how important each theory component is to the whole. From the pre-existing story, to equine experience, with arousal, conceptual metaphor, and symbolizing, from thought as images to words, from reflection to reorganization ending in a new narrative story, it is a dynamic, complex journey.

Psychotherapy incorporating horses is a conceptually rich, theoretically supported strategic horse-centered intervention. Repeatedly in the analysis we see the embodiment of abstract concepts through the horses. They, the horses, provide a powerful, physicalized metaphor source that deepens, strengthens, and expands meaning-making. They make experiences dynamic, and they behave in ways that touch on the basics of human existence including threat, safety, survival, connection, and interpretation of experience.

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13 Bringing it all together

Circling back to where we started, in the Introduction chapter, we noted that a relatively common explanation for what happens in psychotherapy or learning incorporating horses is that the horses are doing some kind of magic, or that the process is magical...And now that we have explained what we think is happening, can we dispel that idea of magic?

Our purpose in writing this book has been to introduce Equine-Assisted Story Transformation (EAST). The theory builds on the broader philosophical and theoretical shifts that have happened in recent time, such as how we understand horses and the meaning we give to our encounters with them. Until recently the human–horse relationship was conceptualized by many (but not all) cultures as the dominance of one species over another, often with brutal force. But the last one or two human generations saw a paradigm shift with the acknowledgment of the horse as a social mammal with wisdom, a drive to connect, and an intelligence that is different but equally as important as that of humans. This view allows us to think about the reciprocity of nervous systems across species, it minimizes the objectification of the horse and lends credibility to the human perception of connectedness during an encounter with another social mammal.

A second paradigm shift is the reconnection in psychotherapy of the mind with the body. An example is dialectical behavior therapy (DBT), part of the third wave of psychotherapy. Using biosocial theory and mindfulness Marsha Linehan (2015) emphasized the interrelatedness of the whole person within the context of their internal and external environment. She integrates theories about thought, behavior, and emotions and reminds us that the individual and the environment are constantly changing. Linehan's practical skills embody those ideas. Change thought and emotion, and body states change. Even more powerful, change body position (opposite action, willing hands) and emotion and thought change (Linehan, 2015). It is the integration of dialectical opposites.

Polyvagal theory, with its physiological focus, is our working model for the integration of body and mind, emphasizing the out-of-sight but ever-present role of body state on thought, experience, story, and meaning. Polyvagal theory helps us make sense of the complex interaction of

body and mind and positions the physiological state of emotion as a bridge between those two (Porges, 2021). EAST is a way of taking into account and making sense of those body and mind responses while in interaction with a horse.

EAST is an intervention theory, constructed from the science of different disciplines to explain processes happening for a human in the environment of a horse during a facilitated experience. It is an assembly of working parts meant to explain a dynamic process. The theory acknowledges that there is continuous internal and external change for both the human and the horse and those changes lead to more changes. EAST offers an explanation for how the human's perspective and story changes, and insight into why both the horse and reflection are important components of deep and lasting change.

Neuroscientists believe that conscious thought about what is happening in the moment is the result of many neurobiological processes happening a split second before we are even aware. What seems to be in-the-moment conscious perception is preceded by polyvagal neuroception of threat or safety, sensory input, and fast systems of implicit (preconscious, long term) memory. The brain integrates and predicts what would be effective for survival and as we become consciously aware of something happening, we find we are already reacting. Those understory processes, including our implicit memory, are continuously shaping our thoughts and behaviors.

An example is what happens when one individual notices the presence of another. Cozolino (2020) explains that preconscious, out of our awareness, split-second decisions made about self and other are based on those processes. The understory works to predict threat or safety, interpret who or what can be trusted, categorize the nature of the relationship, and estimate where and how to be physically positioned. As social mammals our survival and success require that we seek proximity and connection to others, requiring a complicated balance of risk and safety.

[We have] Different reactions to the same information based on whether it is coming from a friend or foe, superior or subordinate, adult or child, relative or stranger. The infinite subtleties of social interactions require a system of bodily and emotional regulation that is finely calibrated to a range of social situations.

(Cozolino, 2020, p. 47)

Our (AKF and NWE's) understanding of this understory has shifted through the writing of this book. Before I (AKF) knew anything about equine-assisted services, I heard stories from people who had witnessed or participated in it. I had listened to practitioners share stories of clients who after one or several psychotherapy sessions incorporating horses saw a profound shift in their client's thinking or behavior. I heard of single sessions where something powerful happened between a client and horse

that stirred intense emotion in the client. I heard about horses behaving in ways that seemed to suggest they had some secret knowledge about the client, their past, or their inner thoughts and feelings. What the stories had in common was that the horses did something during the session that seemed to be just the right thing to reach and impact the client at just the right time. The plots to these stories couldn't have been predicted. The session inevitably went in a direction that was unintended and unpredicted by the client or facilitators. But it was a relatable direction. And it was because of the horse(s). And it was like magic the way the horses did what they did. In trying to explain what was happening, practitioners would mention metaphor that the horses serve as metaphors for clients. This horse is like my mother; those horses are just like my coworkers. The magical ideas included the metaphors – it was like magic the way the horse responded to the client the same way her mother responded to her.

Then I started attending trainings and experiencing the process for myself. Although I didn't think of it as magic, it did seem mysterious. I had experiences where I felt a strong connection with a horse and it seemed to stir intense emotions. I experienced horses behaving in ways that ended up having personal meaning for me – a horse walking up to me in just the right moment, making me feel seen and heard, or having a thought and then noticing a horse move toward or away from me as if they heard my thought. From the stories I heard, my own personal experiences, and through reading the literature, I grappled with trying to describe what was happening in an objective way that could be supported or refuted through science. As I understood it then, horses were not doing anything magical; they were just being horses. But because of the way horses are – nonpredatory, vigilant, aware of their surroundings – they perceived and responded to subtle changes in the physiology within the humans in their environment. For example, a change in client thoughts could result in changes in their heart rate and body posture, which although imperceptible to humans, is perceived by horses. The horses respond to the change in their environment in some way that is natural for them. The client interprets the horse's response in some way that makes sense to them, and that interpretation elucidates some issue or behavior pattern in themselves they were unaware of. From there, the client can work to address the newly visible issue or pattern. My understanding acknowledged that horses, through their natural behavior, responded to their environment and the response was noticed and interpreted by the client in a way that showed how the client really thinks or really feels, despite what they present to the world or how they understand themselves. The way I thought about it was all in the sensory and cognitive domains – what is happening in the here and now – the client thinks/feels/behaves, the horse responds, and the client interprets. With regard to metaphor, it seemed to me that the horses would remind the client of something or someone. The horse would be labeled that thing and then start to behave in that way. My understanding was

that it was all projection – the horse is still just being a horse. And when a person gives the horse a label (that's my mother), the person's body and behavior change, the horse notices it and responds, the client interprets it, and on and on. Writing it now, it sounds like a linguistic and cognitive experience – all overstory.

Through working with Noreen on this book, I've come to see the process as much richer than that. Now, I see how there is a whole understory happening when horses are part of psychotherapy or learning. There is a constant current of physiological adjustment happening in both the humans and the horses during a session. And what seems like magic to so many people is actually a complex mind-body experience in the present, activating experiences from the past. Through conceptual metaphor, we come to understand something from our past in terms of this present experience. In our examples, and in many but not all sessions incorporating horses, the horse serves as a concrete, embodied, physical experience through which we come to better understand a complex, abstract thing. To find yourself suddenly having an epiphany, seeing yourself or the world differently, and the difference is connected to something early in your development that you didn't even know was there, brought about by the presence and behavior of a horse, feels like magic. But really, if there is any magic, it is that all of the specific characteristics of the horse mentioned in Chapter 3 – unique physical presence and agency, domestic with wild features, vigilant and prepared to respond to threat, social patterns to connect and protect the herd – came together into one species we call the horse. The mosaic of these features serves as a unique stimulus for understory and overstory to ultimately result in a changed story.

The understory, with implicit memory informing conceptual metaphor, shapes the overstory of perception, conscious awareness, thought, behavior, narrative, and story. An equine session provides rich ingredients and memorable, physicalized moments for meaning-making. But similar to a baker blending flour, water, salt, and yeast, the resulting dough must be left for hours, even overnight for the first rise where it will expand and grow to two or three times its size. Only then is it shaped into a form that will resemble its final appearance and then the dough is given time to rise again before being baked into its new, edible form.

Patience is a virtue when it comes to making good bread. Consider time to be a powerful instrument in the baker's tool kit. Recognizing time as a discrete and crucial element in a recipe is the first detail that sets the best bakers apart.

(Forkish, 2012, p. 26)

Similarly, patience is a virtue when facilitating psychotherapy incorporating horses. Even when a person has an immediate take away from an equine session, time is an essential element in the evolving meaning-making

process. Sleep is when the mind processes and selects what it will store in memory from the previous day (Walker, 2017). How we understand and make sense of experience requires the use of stored explicit memory, that which we consciously recall about events as we link physiological experience, sensory perception, and thought (Cozolino, 2020). After an equine session, it is these processes that make possible, like the expansion of dough after its first rise, something that can be shaped into new meaning. And with formal reflection powerful metaphors are able to rise into their edible forms. It is interesting how even months and years later we developed new personal insights while completing the tables in Chapter 12 and as we discussed the autoethnographies with each other. Our analysis for this book became an important part of our reflective process, clarifying, strengthening, and deepening change. We suspect that the understory and overstory may continue to evolve.

As we come to the end of the book we reflect on the role of each of the theories that make up EAST. We asked ourselves what might be lost if any one of the theories were eliminated? This is what we think. Without **horse theory**, we would miss acknowledging the unique physical, sensory, social, and dynamic impact of the horse. We would miss the physical embodiment of a concept with all its sensory and symbolic effects. Without **polyvagal** we would miss the importance of how the body influences thought, the ever vigilant neuroceptive surveillance for threat or safety that is in play when a person is in the presence of a horse, the hierarchy of threat and safety, the importance of feeling safe for social engagement, that social mammals, including horses and humans, have an innate drive for connection and a biological response to rejection. Without the **sensory** domain, we might forget the importance of physical, sensory experience, how it makes an experience vivid and memorable and how it provides the building blocks for symbolic thought, narrative description, and story. Without **conceptual metaphor** we would not understand the depth of change that can happen. Or see how our most very basic, foundational understanding of the world is showing up in the arena with the horses. We would not be thinking about proxemics and kinesthetics, ups and downs, close and far, and force and power. We might forget that conceptual metaphor captures the essence of a complex, abstract, difficult to explain, and unique to that individual person thing.

Without **narrative** we would not think about how thoughts as concepts and images are translated to words and language, that words strung together make a narrative and a narrative with a plot makes a story. We might not remember that externalizing and distancing from something through narrative can sometimes make it easier to understand the essence of the thing we are distancing from. Before there were alphabets and printing presses (and internet) there was story. We might not remember that we communicate, make sense of things, and imagine possibilities through story. Without **transformational learning theory (TLT)** and

experiential learning theory (ELT) we would have missed reflection. Those last two theories had to fight their way into EAST but without them we might have left our analysis at the gate. Without TLT and ELT we might forget that we naturally look for the easiest match between what is new and what is known and that disorienting dilemmas, when things do not go the way we expect, can create opportunities for change. We might forget that what happens after the experience is as important as what happened during the experience. We might forget that reflection can change an event into an examined experience, deepen insight, strengthen memory, and provoke different perspectives.

Those are some of the things we do not want to forget. It is obvious to us, through the writing of this book, that each theory is interrelated and contributes to the other theories. We see EAST as more than the sum of its parts. It is not the individual theory, not just the horse, or narrative or polyvagal but the whole of EAST that we can point to and perhaps say “it’s magic.”

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Afterword

We would like to share a few thoughts that we think would be useful for clinician and researcher readers. It was because we drew from learning theories that the idea of reflection became an important part of equine-assisted story transformation (EAST). In most psychotherapies formal reflection does not happen after sessions. The assumption may be that talk therapy, the psychotherapy itself, is a form of reflection. Some modalities like CBT or DBT have homework and between session activities for continued learning, but not reflection. Psychotherapy programs that incorporate horses may or may not use reflection. We do not know the answer but pose the questions:

- What happens for the individual if reflective activities like journaling are added between sessions?
- If there are “office” sessions between equine sessions, are the horse experiences a focus of those sessions?
- If the horse experiences are discussed outside of the arena, is the interpretation of the experience part of the processing?
- Does the timing of equine or therapy sessions matter?

When working with someone who has participated in equine-assisted interventions in the past, they may be continuing to process the experience. It is not unusual for people to recall with rich description equine experiences months, even years after they happen. The meaning a person gives to an equine experience can continue to evolve and may be worthwhile revisiting periodically.

For researchers, it might be useful to consider the role of reflection, timing and the potential for change when planning a study. Interviewing someone before thoughts have had a chance to rise will produce different data than if one waits days or weeks after an experience. We wonder how the time of day and opportunity for sleep may affect later processing and reflection. We also wonder what role the use of alcohol or other substances has on the processing of these experiential interventions.

We believe that EAST provides theory that can be used with different equine models. It is important for researchers to be diligent in their

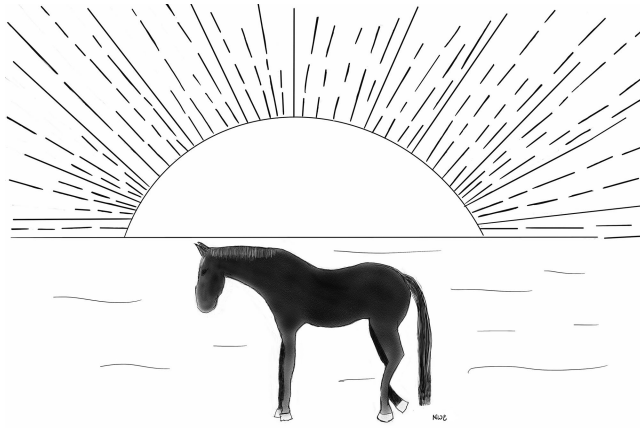


Figure 14.1 The sun rising in the EAST

understanding and reporting of how an intervention is implemented. Obviously not all sessions, facilitators, horses, or clients are the same. Even sessions that are done under the umbrella of a specific model may vary in application. The examples in this book showed a range of equine experiences, each with different outcomes. We encourage researchers to represent the intervention they are studying with enough clarity and detail to allow others to understand what happened and how it compares with other reports. This will allow readers to apply the same scrutiny to psychotherapy incorporating horses as is applied to other mental health interventions shining a light on the process like the sun rising on a new day (Figure 14.1).

Glossary¹

Animal-assisted activities activities incorporating animals to enhance the quality of life or provide opportunities for motivation or recreation

Animal-assisted education an intervention incorporating animals with specific academic or educational goals, delivered by educational and related service professionals

Animal-assisted intervention health, education, or human service activities that are goal-oriented, incorporate animals, and are aimed at benefiting humans

Animal-assisted therapies treatments incorporating animals delivered by health or human service providers where the animal is necessary for the treatment

Assumption the implicit and explicit beliefs about a phenomenon based on values, philosophy, and/or knowledge and understanding of existing research

Attachment an emotional bond or close relationship that provides emotional security and support

Attunement the brain duplicates the behavior of another through kinesthetic and emotional sensing using the mirror neuron system, may be observed as body in synchrony with body

Autoethnography a qualitative research method that uses the researcher's own subjective experience, written in a first-person narrative as a data source and for study

Biological response to non-reciprocity human automatic response to a horses' non-reciprocity, a physiological event that triggers an emotional and psychological response

Cognitive domain of experience conscious awareness of thought including concepts or abstract ideas

Collective detection the act of a group of animals working collectively to detect threat in the environment

Concept the mental image we hold about an idea or phenomenon

Conceptual metaphor is when a concept from the concrete or sensory domain is used as a source for a more abstract concept

Connectedness the biological imperative for humans and other social mammals to have a trusting relationship with others

Construct a concept deliberately invented or created by researchers for a specific research purpose

Coregulation a bidirectional connection between nervous systems of two individuals

Cues of safety information from the environment that communicates to an individual that it is safe and opens the possibility for connection. When present there is a sense of calm and a willingness or desire to connect

Disorienting dilemma a discrepancy between what is expected and assumed to be true and what is experienced

Domestication the process of an animal transitioning from being wild to being kept and controlled by humans such that the animal's survival depends on humans and they have genetic traits not found in the wild

Dorsal a term that refers to the location of a structure, specifically the back, posterior or upper side of a living thing. For example the posterior part of the brainstem.

Dorsal vagal complex located in the brainstem, (1) coordinates information from sensory pathways coming from mostly subdiaphragmatic visceral organs and (2) unmyelinated motor pathways traveling from the dorsal part of the brainstem to subdiaphragmatic organs with a few of those dorsal vagal pathways end in the heart and bronchi.

Dorsal vagus the vagal motor pathways also referred to as the unmyelinated vagus, or subdiaphragmatic vagus, that originate in the dorsal vagus part of the brainstem as part of the dorsal vagal complex. Polyvagal theory focuses on these motor fibers which can function as a passive defense system. It is the evolutionarily oldest branch of the vagus nerve, the motor fibers respond to life threatening situations by shutting down body systems and causing immobilization. With safety it is associated with quiet and digestion (referred to as rest and digest).

Episodic memory long-term memory of personal experiences

Equine-assisted intervention interventions that incorporate horses into psychotherapy and other mental health or learning applications.

Equine-assisted learning non-therapy experiential learning services that take place in the equine environment in the presence of horses or other equines

Equine-assisted psychotherapy older term for psychotherapy incorporating horses

Equine-assisted services interventions incorporating horses aimed at improving human physical health, mental health, education, organizational or personal development, and horsemanship

Externalize to move a problem from inside the person to outside the person

Interoception our sensing of our internal body environment

Intervention theory a middle-range theory that gives theoretical explanations for how and why an intervention is effective

- Metaphor** when we understand and experience one thing by using an entirely different thing as the reference
- Narrative** words and language linking together of events that used to form a story
- Narrative story** a meaningful representation of connected events, in some sequence, where there is cause and effect communicated through the medium of language
- Neuroception** the nervous system process that evaluates risk in the environment, occurs out of awareness, and shifts the ANS into one of three states that can respond to safety, danger or life threat
- Nonpredatory** animals that do not live by killing other animals for food
- Physiological domain of experience** the body's autonomic nervous system and vagus nerve, with a focus on survival, monitors internal and external environments for threat and safety, adapting as needed by shifting between physiological states.
- Polyvagal theory** Steven Porges' theory that the mammalian nervous system, designed for survival, includes two defense systems and one social engagement system aimed at maintaining safety and responding to threat
- Postmodernism** a philosophy with a stance that rather than one universal truth or one right way of seeing things, there are many truths
- Psychotherapy incorporating horses** psychotherapy for humans that takes place in an equine environment in the presence of horses or other equines
- Semantic memory** long-term memory for facts and information
- Sensory domain of experience** facts and observations of the real world that we notice through our physical senses of sight, hearing, touch, smell, and taste
- Short-term memory** fleeting, limited memory lasting less than a minute
- Story** a conceptual arrangement of sequenced events with cause and effect. Story exists in the mind is shaped into a medium (such as words) to be developed and communicated.
- Subjective Units of Perspective Change Scale** an analog scale for reporting the significance of change attributed to an experience. Perspective change is rated from 0 (no change) to 10 (the most perspective change ever had, major life events like childbirth, marriage or a death)
- Symbolic domain of experience** domain of experience where symbols (specific discrete things, words or images) usually drawn from sensory or cognitive domain, are used to represent something or some event
- System 1 thinking** automatic and effortless thought that produces immediate impressions and feelings in an experience

System 2 thinking intentional and effortful thinking

Theoretical statement a declarative sentence, stating the existence of a concept or describing the relationship between two or more concepts in a theory

Theory of change an explanation of what happens in the mind of the human during and after an equine-assisted intervention and how change is happening

Theory of the intervention an intervention is when something is inserted between two things to alter a process of what is occurring; the theory of the intervention is an explanation for how what is inserted (the intervention) works, and what it does

Theory of the problem our understanding of what is causing a problem; the perspective one takes when considering what might be open to change

Transderivational search a term used to describe an automatic, out-of-awareness, mental search across a broad field of past memory experiences looking for a fuzzy match. The mind does this when a new experience cannot find a clear match to something already known.

Transformational learning theory an adult learning theory developed by Jack Mezirow to synthesize adult learning and psychological theory. The theory explains how people make meaning out of their experiences, including how meaning is understood, validated, and reformulated.

Transformative learning learning that involves perspective change through deep questioning, a willingness to look at taken-for-granted beliefs, and recognizing that assumptions may not be facts

Vagal brake part of the parasympathetic nervous system, refers to the influence of the myelinated (primarily ventral vagal branch of vagus nerve) that slows the intrinsic rate of the heart's pacemaker. When released it allows the sympathetic nervous system to exert more influence on the heart. The vagal brake in polyvagal theory is focused on the ventral vagus complex and does not include the unmyelinated dorsal vagus pathway, which is also able to slow the heart, producing bradycardia.

Vagus nerve tenth cranial nerve, the primary nerve in the parasympathetic nervous system with motor fibers coming from the brainstem to the body, and sensory fibers coming from organs in the body to the brainstem. One group of motor fibers (myelinated) come from the nucleus ambiguus (ventral vagal) and another group of motor fibers (unmyelinated) come from the dorsal nucleus (dorsal vagal). In polyvagal theory, the ventral vagus is the primary nerve assumed to modulate arousal for social engagement.

Ventral a term that refers to the location of a structure, specifically the anterior, front or underside of a living thing. For example the rib cage of a human is ventral compared with the spinal cord which is dorsal.

Ventral vagal complex located and emerging from the ventral portion of the brainstem, it is a complex, or neighborhood of motor pathways from multiple cranial nerves that are associated with regulating/coordinating the heart, bronchi (visceromotor) and the striated muscles of the face and head (somatomotor). This complex helps to coordinate sucking, swallowing, breathing and vocalizing in infants and continues to function throughout life as part of the social engagement system in social mammals. It includes the evolutionarily newest branch of the vagus nerve that responds to the absence of threat and cues of safety.

Ventral vagus the vagal motor pathway also referred to as the myelinated vagus that originates in the nucleus ambiguus, in the ventral part of the brainstem and is part of the ventral vagal complex. From an evolutionary perspective, neural cells migrated from the dorsal vagal area and established themselves in the ventral area, becoming, for social mammals, the newest branch of the vagus nerve. It functions in response to the absence of threat and cues of safety and is associated with the social engagement system.

Note

- 1 These are our working definitions used in the book.

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