



Building Relationships in Equine-Assisted Activities: Overlaps and Differences in Horse and Human Friendship Strategies

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Introduction and background

- Common EAP Methods and Models
 - Activity-based (SPUR, EAGALA, Natural Lifemanship, etc)
 - Horses as metaphors/objects (Kieson & Abramson, 2016)
 - Multi-session or Single-session
- Beneficial to Humans (Bachi, Terkel, & Teichman, 2012; Frederick, Ivey Hatz, & Lanning, 2015; Lac, 2016; Lee, 2017; Siggers & Strachan, 2016; Whittlesey-Jerome, 2014; Wilson, Buultjens, Monfries, & Karimi, 2017)



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Introduction and background

Behavioral Assessments of Horse-Human Interactions: Equines form lasting impressions based on learned associations

- Horses differentiate between people (Lampe & Andre, 2012; Proops & McComb, 2012)
- Previous interactions with individuals influence behavior during next interaction (Fureix et al., 2009; Sankey, Richard-Yris, Leroy, Henry, & Hausberger, 2010)
- Equine behavior over time with individual can indicate preference for interactions/individual
- Controlling behavioral interactions gives us insight into each horses' preference for interactions/individuals

Most research based on stress and not positive welfare

- International Society for Equitation Science

Study: Equine affiliative behaviors

- Observations of 200 horses – Two herds of Quarter Horse mares – one with 85 mares and one with 115 mares. Ages 6 - 20
- Housed in large pastures of between 20 to 30 acres (rotated).
 - Brought into smaller areas during winter evenings to remain under light
 - Brought into smaller areas daily for selected palpation
 - limited resources – space, food, water



Findings: Equine affiliative behaviors

- Indicators of social bonds
 - Proximity
 - Joint movement
 - **Mutual** touch and engagement
 - Synchronized movement
 - Nothing in social bonds is one-sided. One-sided interactions, especially those that increase stress behaviors, do not occur between close conspecifics are not signs of social bonds. One-sided interactions are communication, but not indicators of bonding.
 - No support for dominance hierarchy, only behavioral expressions for space/proximity sharing.

Study design

- No Food/Treats
 - Treats are known reward
 - Novel food induces arousal
 - Looking for non-arousal bonding behaviors (avoiding food and play)
- Physical Interactions
 - Pet/Stroke
 - Scratch (Feh & de Mazierès, 1993)
 - Coping (Christensen, Ladewig, Søndergaard, & Malmkvist, 2002; Kimura, 1998; VanDierendonck & Spruijt, 2012)
 - Pat (de Waal, 1989; Hepach & Westermann, 2013)
 - Stand/Proximity (Kimura, 1998)
- Participants
 - No previous history with herd
 - Various backgrounds with horses
 - Alone in pasture with horses

Measurables

- Quantitative
 - Duration of interaction
 - Who initiated the interaction
 - Who ended the interaction
 - Type of interaction
 - Number of interactions
- Qualitative
 - Behavioral indicators of arousal – increased movement, muscle tension, head height, ear position, irritation/escape behaviors (Fazio et al., 2013; U König von Borstel, Euent, Graf, König, & Gauly, 2011; Uta König von Borstel, Pasing, & Gauly, 2011; Yarnell, Hall, & Billett, 2013)
 - Other observed behaviors
 - Interview with participant

Study design

Horse	Gender	Color	Person 1
Tucker	Gelding	Black, furry, white dot on face	Pat
Scout	Gelding	Sorrel (brown), white blaze on face	Scratch
Ghost	Gelding	White	Stroke
River	Gelding	BIG (Clydesdale), black and white	Stand
Orin	Gelding	Dark brown, four white socks, white stripe on face	Scratch
Hannah	Mare	Brown, three white socks, big	Stroke
Gracie	Mare	Tan, furry, black in mane	Stand
Pippa	Mare	Brown, four black socks, black mane	Pat
Belle	Mare	Brown and white, furry, clydesdale	Scratch
Cowgirl	Mare	Paint (brown and white), more brown than Princess	Stroke
Princess	Mare	Paint (brown and white), more white than Cowgirl	Stand
Drummer	Gelding	Tan, furry, black in mane (looks just like Gracie)	Pat
		Pat = pat halfway down neck	
		Scratch = scratch halfway down neck	
		Stroke = stroke/pet horse halfway down neck	
		Stand = Stand near horse. No physical interaction	

Instructions: You may approach the horse or let the horse approach you. If the horse does not approach you, you may approach him/her but if the horse decides to leave, do not follow.

Donkey: You can pet, scratch, cuddle the donkey as much as you like

East Pasture: Ghost, Orin, Tucker, Scout

West Pasture: River, Belle, Drummer, Gracie, Hannah, Cowgirl, Princess, Christmas

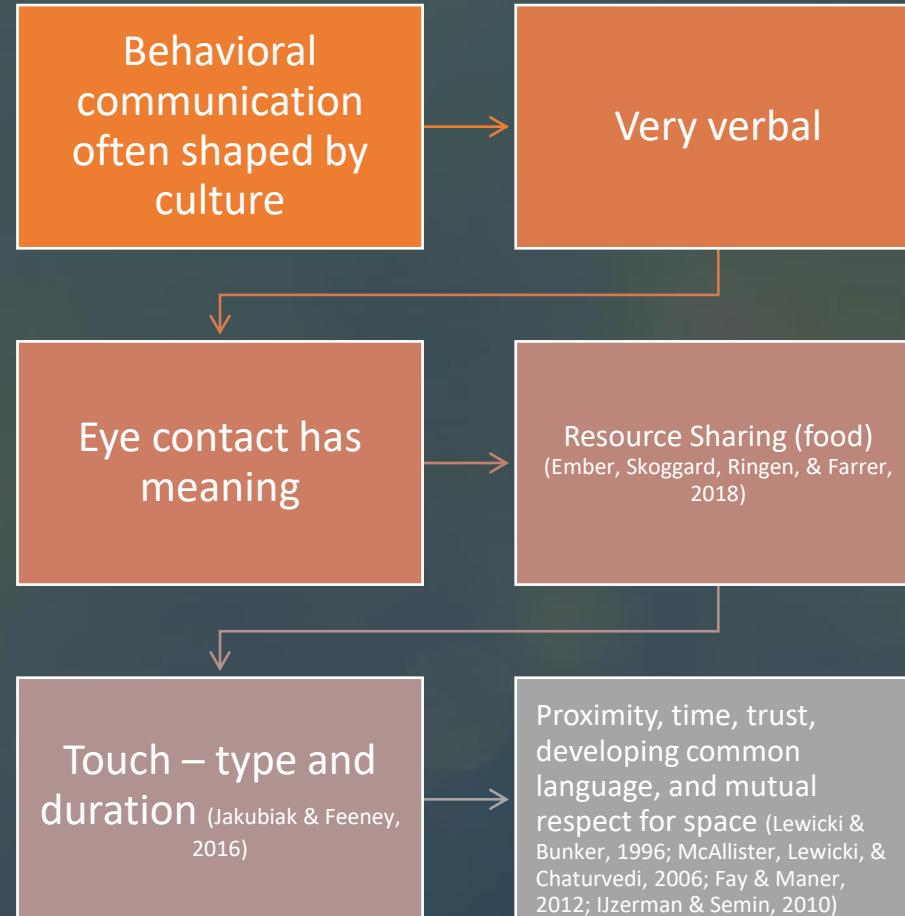


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Preliminary findings

- Humans
 - Chose to spend more time with horses with whom they were instructed to “stand” with no touch
 - Interviews show humans express stronger social bonds with horses with whom they were instructed to “stand”. Also with horses who showed decreased arousal behaviors.
- Horses
 - Exhibited more stress behaviors with individuals who were told to engage in physical contact
 - Showed fewer stress signals with participants who did not physically engage
 - Showed fewer stress signals with participants who showed consistent behaviors
 - More likely to remain in close proximity with individuals with whom there was no physical contact
- Both
 - Showed changes in behavior (choice to approach, reluctance to leave, fewer stress signals) during interactions based on proximity (could be a function of consistency)

Human Communication and Bonding



Human Social Strategies

Food sharing (Ember, Skoggard, Ringen, & Farrer, 2018)

Touch (Jakubiak & Feeney, 2016)

Proximity (Fay & Maner, 2012; IJzerman & Semin, 2010)

Slow development of trust based on type of affiliation (Lewicki & Bunker, 1996; McAllister, Lewicki, & Chaturvedi, 2006)

Applications to EAAT/L

- Mutual movement and touch
- Recognizing one-sided interactions
- Recognizing individual horse behavioral patterns
 - With individuals
 - With interactions
- Need more research in equine affiliative behaviors and how they relate to equine-human interactions



Do our actions align with our goals?

How we interact with horses in EAAT/L



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Natural Lifemanship example, Copyright ebonyhorsewomen.us

- What we want from EAP interactions
 - Behavioral regulation
 - Emotional regulation
 - Mindfulness
 - Behavioral awareness
 - Acceptance
 - Trust
 - Practice in interpersonal relationship skills
 - Confidence

How horses interact with each other



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