





ABOUT ME

Education

- PhD student, Department of Education, University of New Hampshire (UNH)
- Master of Public Administration, UNH
- Master of Fine Arts, Bennington College
- Bachelor of Arts, UNH

Employer

- Project Director, Sustainability Institute, UNH

NATURE AS TEACHER

- Biomimicry: “nature as mentor” (Benyus, 1997)
- What does it mean to take seriously the idea of nature as a teacher?
- What are the epistemological and pedagogical implications of doing so?



STUDY OVERVIEW





BRIDGING THE GAP

Equine-assisted learning (EAL): experiential education to facilitate growth and development of skills in humans

Human-Animal Studies (HAS): interdisciplinary area of study in social sciences and humanities focused on the relationships between humans and animals

HUMAN- ANIMAL STUDIES

1970s: philosophers such as Peter Singer. Animal rights, animal protection.

1980s, "first wave": quantitative social science. Animal welfare.

1990s, "second wave": qualitative social science.

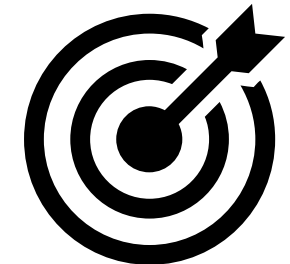
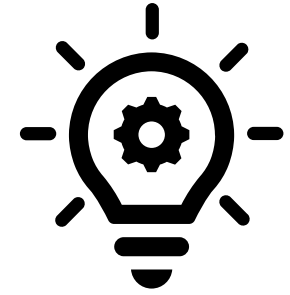
2000s, "third wave": humanities, "post"-isms. The "animal turn".

2010s: "fourth wave": "political, materialist, affective turns"

(Shapiro, 2020, p. 805-811)

ARGUMENT, SCOPE, AIM

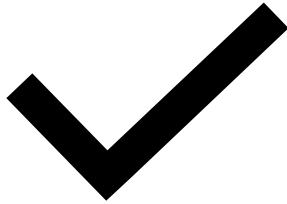
- **Argument:** EAL could benefit from being in deeper conversation with the broader scholarly and theoretical trends represented in HAS
- **Scope:** explore the gap between the research on the use of EAL in adult populations and HAS scholarship focused on adult horse-human relationships.
- **Aim:** situate the practice of EAL in broader scholarly and theoretical trends, explore ways to deepen and improve EAL practices, and identify new pathways for research and scholarship.



RESEARCH QUESTIONS

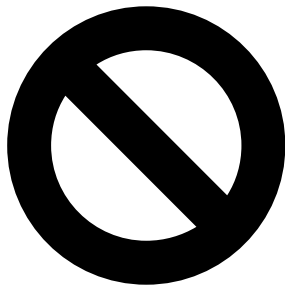
- What is the state of research on equine-assisted learning for adults and Human-Animal Studies scholarship focused on adult horse-human relationships?
- What does an analysis of this research tell us about the opportunities for the development of equine-assisted learning approaches for adults?

INCLUSION/EXCLUSION CRITERIA



Include:

- Equine-assisted learning
- Human-animal studies focused on horse-human relationships
- Adult populations
- Peer-reviewed articles written in English



Exclude:

- Focus on youth
- Other EAAT modalities
- Literature, art
- Teaching horseback riding, horse training, or similar areas
- Books & grey literature
- Peer-reviewed articles written in languages other than English

METHODOLOGY

Databases: JSTOR, Web of Science, EBSCOhost, Google Scholar, & University of New Hampshire Library

Keywords: equine-assisted learning, equine, horse, equine-assisted interventions, adults, posthumanism, embodiment, affectivity, human-animal relationship, horse human relationship, human-animal studies, animal turn

Snowball technique: review of bibliographies to identify further sources

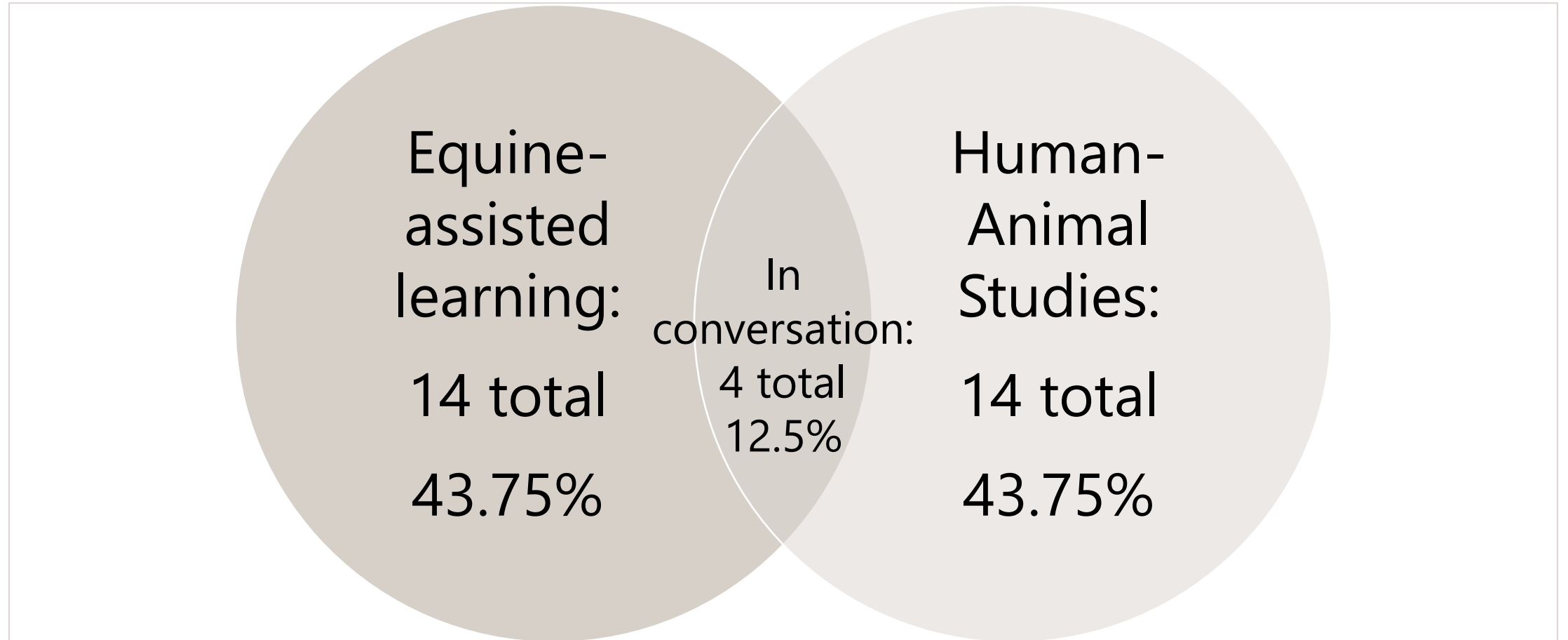
Peer reviewed articles written in English





FINDINGS & DISCUSSION

FINDINGS



COMMUNICATION

- “Third language” (Brandt, 2004)
- Blurs human-animal divide
- Demarginalizes non-verbal communication
- Creates space for “understanding the subjective and intersubjective lives of those who cannot speak—humans and animals alike” (Brandt, 2004)

Instrumental → *relational*



LEARNING

- “Co-learning”: emotional connection & somatic coordination (Birke & Hockenhull, 2015)
- “Co-shaping”/“co-domesticating” (Maurstad et al, 2013)

Reflection → *relation*



PEDAGOGY

- “More-than-human” consciousness
(Abrams, 1996)
- Ecological awareness/sustainability
(Garcia, 2010)
- Ethical leadership
- “Interspecies pedagogy” (Fredrickson, 2019)

Anthropocentric → *multispecies ethics*



GENDER

- Transfer of stereotypes (Dashper et al, 2018)
- “Transcend social boundaries—gendered or species divisions” (Birke & Brandt, 2009)

Binary → *fluidity*



AESTHETICS

- Symbolism
- Environment/structures
- Choreography
- Performance
- Entrainment

Projection → "moving together"

(Birke & Hockenhull, 2015)



ETHICS

- Social agency of horse (Birke, 2017)
- Individuality/subjectivity (Karkulehto & Shuurman, 2021)
- Power and the possibility of refusal (Staunæs & Raffnsøe, 2019)

Anthropocentric —→ *multispecies ethics*



LIMITATIONS

- Focus on EAL
- Lack of equine science
- Quality of studies reviewed
- Focus on adult populations

EXPLORATIONS



Human-ecological values
& behavior; "Interspecies
pedagogies" (Fredrickson,
2019)



Non-verbal
communication; somatic
pedagogies



Intersectionality



Ethical dimensions



THANK YOU

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WORKS CITED

Abram, D. (1996). *The Spell of the Sensuous: Perception and Language in a More-Than-Human World*. Vintage Books: New York.

Artz, N.L., Robbins, J., Millman, S.T. (2021). "Outcomes of an Equine Assisted Learning Curriculum to Support Well-Being of Medical Students and Residents." *Journal of Medical Education and Curricular Development*, 8: 1-9. <https://doi.org/10.1177/23821205211016492>

Baldwin, A.L.; Rector, B.K.; Alden, A.C. (2021). "Physiological and Behavioral Benefits for People and Horses during Guided Interactions at an Assisted Living Residence." *Behavioral Science*, 11: 129. <https://doi.org/10.3390/bs11100129>

Benyus, J.M.. *Biomimicry: Innovation Inspired By Nature*. HarperCollins, 1997.

Birke, L. (2017). "Meeting points: choreographies of horses and humans." *TRACE: Journal of Human-Animal Studies*, 3: p. 54-70.
DOI: 10.23984/fjhas.53189

Birke, L. and Brandt, K. (2009). "Mutual corporeality: Gender and human/horse relationships." *Women's Studies International Forum*, 32, p. 189-197. doi:10.1016/j.wsif.2009.05.015

Birke, L. and Hockenhull, J. (2015). "Journeys Together: Horses and Humans in Partnership." *Society and Animals*, 23: 81-100.
DOI 0.63/5685306-3436

Brandt, K. (2004). "A Language of Their Own: An Interactionist Approach to Human-Horse Communication." *Society & Animals*, 12(4): 299-316.
DOI: 10.1163/1568530043068010

WORKS CITED

- Dashper, K., Fenner, K., Hyde, M., Probyn-Rapsey, F., Caspar, G., Henshall, C., McGreevy, P. (2018). "The Anthropomorphic Application of Gender Stereotypes to Horses." *Anthrozoös*, 31(6): p, 673-684. DOI 10.1080/08927936.2018.1529349
- Equine-Assisted Services | PATH Intl. (2022, January 11). *PATH International*. Retrieved March 28, 2022 at <https://pathintl.org>
- Garcia, D. M. (2010). "Of Equines and Humans: Toward a New Ecology." *Ecopsychology*, 2(2): p. 85-89. DOI: 10.1089/eco.2009.0042
- Gehtmane-Hofmane, I. (2018). "Equine Assisted Learning: Symbolic Value of Horse as Underlying Pattern in Human Thinking." *Society. Integration. Education*. 5: p. 81-86. DOI: 10.17770/sie2018vol1.3379
- (2019). "The Unique Characteristics of the Horses for Humans Learning Practices in Equine Assisted Learning Practice." *International Journal of Smart Education and Urban Society*. 10(3): p. 35-42. DOI: 10.4018/IJSEUS.2019070104
- Fredrickson, B. C. (2019). "Interspecies Pedagogies: What Could a Horse Teach Me About Teaching?" *Trace: Journal for Human-Animal Studies*, 5: p. 4-30. <https://trace.journal.fi/article/view/78122>
- Hicks, H. "The Philosophy of Biomimicry," *Philosophy and Technology* 29 (3): 223-243. Pre-publication version.
- Hemingway, A., Carter, S., Callaway, A., Kavanagh, E., and Ellis, S. (2019). "An Exploration of the Mechanism of Action of an Equine-Assisted Intervention." *Animals*, 9: 303, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6616398/>

WORKS CITED

- Karkulehto, S. and Schuurman, N. (2021). "Learning to Read Equine Agency: Sense and Sensitivity at the Intersection of Tacit and Situated Knowledges." *Animal Studies Journal*, 10(2), 111-139. <https://doi.org/10.14453/asj.v10i2.6>
- Matamonasa-Bennett, A. (2015). "Putting the Horse Before Descartes: Native American Paradigms and Ethics in Equine-Assisted Therapies." *Business & Professional Ethics Journal*, 34(1): p. 23-43. <http://www.jstor.com/stable/44074839>
- Maurstad, A., Davis, D., and Cowles, S. (2013). "Co-being and intra-action in horse-human relationships: a multi-species ethnography of be(com)ing human and be(com)ing horse." *Social Anthropology/Anthropologie Sociale*, 21(3): 322-335. DOI:10.1111/14698676.12029
- Meola, C.C. (2016). "Addressing the needs of the Millennial workforce through equine assisted learning." *Journal of Management Development*, 35(3): 294-303. DOI: 10.1108/JMD-082015-0110
- Pfoutz, E.B. (2019). "Vulnerable Becomings: Reimagining human relationships with horses and other beings." *Society & Animals: Journal of Human-Animal Studies*, 27(2): p. 133-149. DOI: 10.1163/15685306-12341548
- Shapiro, K. (2020). "Human-Animal Studies: Remembering the Past, Celebrating the Present, Troubling the Future." *Society & Animals*, 28: 797-833. doi:10.1163/15685306-bja10029
- Sider, K. (2021). "Playing with Horses: Improvisation and Communication." *TDR*, 65(3): p. 91 102. <https://doi.org/10.1017/S1054204321000332>
- Staunæs, D. and Raffnsøe, S. (2019). "Affective Pedagogies, Equine-assisted Experiments and Posthuman Leadership." *Body & Society*, 25(1): 57-89. <https://doi-org.unh.idm.oclc.org/10.1177/1357034X18817352>
- Uhrmacher, B.P. (2009). "Toward a Theory of Aesthetic Learning Experiences." *Curriculum Inquiry*, 39(5): p. 613-636. <http://www.jstor.org/stable/20616455>