

1. Influence between horse and human. What benefits are there, really?

The horse is influenced by absolutely everything about us. Our emotions, which are reflected in our heartbeat, our thoughts that tell the horse about our focus and our presence, or lack thereof, and our intention in the situation. By the word intention I mean what we want to achieve, what purpose our actions and thoughts are focused on and working towards. When I talk about focus, this is what you specifically focus your thoughts on in the situation. It can be a narrow focus where you focus on the coat you are brushing, the hoof you are scraping the dirt from, or the feeling of the horse in your body when you ride a specific exercise. However, you can also have a broader focus like when you are out in the forest and taking in all your surroundings, or when you are out on a summer pasture and looking at the herd as a whole. All of this gives the horse information about how your interaction, presence and the possibility of two-way communication will be in the present. If your thoughts are on tomorrow's math test, the lecture you are going to give next week, the argument you had with your friend, or what to cook for dinner; you are not focused on the situation. The horse notices all of this; that we are absent from what is happening here and now, and that we are not open for connection.

Many people say that the horse mirrors us. So, if you are gentle, the horse will be the same, and if you are angry, the horse will be too. This is not entirely true based on what I have experienced through a long life with horses and working with horses and humans through my courses and private lessons. Horses give us unvarnished and honest feedback about how we affect them, and what is happening inside us; whether we are stressed or nervous, or whether we are balanced and present. How this feedback is expressed through a reaction or behaviour depends on many different factors that we will go into more detail later in the book. In addition to the personality and temperament of the horse - these are topics you can read more about in the second book: *Don't Lobotomize the Horse, An Essential Guide to Equine Communication, Intuitive Horsemanship, and Transformational Horse-Human Connection*. But keep in mind that no horse is born mean, unwilling to cooperate, or has evil plans to get even for something you did in the past.

How humans influence horses with emotions, energy, heart and brain

The word energy may be a bit confusing and unclear and does not necessarily mean the same to you as it does to me. All living things consist of energy, either in the form of emotions or forces to carry out a development or a change. I would also argue that our thoughts, our focus, our senses and actions radiate different degrees and layers of energy, which contain information about what is going on inside us. In this book I will use the word energy to describe the invisible radiation that happens in us, in the horse, and in nature, which we cannot see or touch. This can include our feelings, sensations, our inner intensity and activation. The latter is often connected to our emotions in a way that makes us experience things as positive or negative. The heart, for example, radiates a magnetic field that extends almost a meter out from our body, and which can also be described as an inner intensity.ⁱ Others who are close to you are affected by this aura, but it cannot be seen or touched, however it is as real as, for example, the love you feel for your horse, the frustration you feel when things don't go as planned, or when your horse has ruined yet another blanket out in the pasture with its buddies.

Just as the horse can be affected by the radiation from your heart, the horse is also affected by our emotions when we are insecure, nervous and afraid. Researchers conducted an experiment to demonstrate this. Where teams, both riding and where the human led the horse, were told that when they reached the test person, that person would open an umbrella. The test person did not do this, but the heart rate (HR) that was measured in both the humans and the horses showed that when they approached the test person, the HR values increased.ⁱⁱ Thus, the researchers proved that the horse is affected by the human HR, as the horse did not understand the words in the message about the umbrella that would open a little further ahead.

Heart rate is a measure of the number of heartbeats within a time interval. Pulse rate is a measure of the number of pulse beats within a time interval. Normally, these two are equal assuming there are no defects in the heart. At rest, horses often have a sinus arrhythmia, which means that the heart systematically skips some heartbeats due to the large volume of the heart. With higher activity, the arrhythmia should disappear in a healthy horse.

When we look at the size difference between a human heart and a horse's heart, it is not so difficult to imagine that the horse's magnetic field extends several meters around the body. The horse's heart weighs between 10 to 20 grams per kg of body weight, in contrast to the human heart, which weighs an average of 4 grams per kg of body weight.ⁱⁱⁱ So you can be

influenced by the horse's magnetic field even when you are standing at a distance, while we humans have to be quite close to each other in order to be affected.^{iv}

Horses use adjustment of the inner intensity, focus, feelings, muscle activation and intention in their communication with each other, in the same way that we use words. The information flow is clear because the horse (if it is healthy, and without trauma) is so present in the situation and connected to all the information it receives from the heart and brain, in addition to all its other senses. Therefore, horses have a naturally high intuitive insight. They are in touch with their true self, and not least, they react completely unfiltered and honestly to what is happening – whether it is negative or positive. Now you may be thinking “yikes, that was a lot to take in and to make sense of.” Yes, maybe, but at the same time it's not because I define intuition as the ability to receive information from the situation through the senses, the stomach and the heart – and not only trust the information we receive via analysing the brain and language. This is the very essence of the horse. They are tuned in to the frequency of their surroundings, using their entire body as a "tuning fork" to take in information on which to base their reaction. These are topics that are further addressed in the second book: *Don't Lobotomize the Horse, An Essential Guide to Equine Communication, Intuitive Horsemanship, and Transformational Horse-Human Connection*.

HRV (heart rate variability) is the measurement of the time intervals, or pauses, between heartbeats that form a steady or irregular rhythm. This reflects the interaction between the sympathetic and parasympathetic nervous systems.^v It can be compared to the pauses a vocalist has in a song, which help create the rhythm of the song. Each heart sings its own song, creating its own individual coherent and flowing rhythm when we feel, for example, joy, satisfaction, security, belonging, peace, unity, inspiration and understanding. However, if we feel discomfort, pain, irritation, frustration, anger or stress, the rhythm of the heart's song becomes choppy and uneven. When this happens with pulse variation, it is important to be able to regulate ourselves emotionally to the positive rhythm, because the negative rhythm can affect us badly both physically and mentally. This is reflected in the flow of the autonomic nervous system (more on this later in the book) over which we have no control, but which reacts based on the influences the body is exposed to at that time. The sympathetic and parasympathetic nervous systems are part of this nervous system and regulate us up into fight or down into relaxation – in short. (See the chapters “The Parasympathetic Nervous System” and “The Sympathetic Nervous System” for more information.)

Have you ever experienced your horse seeking out your friend instead of you? Even if this is a completely unknown person to the horse, it may decide to seek out that person rather than

you, whom it already knows. Strange, isn't it? But not really. The horse is often drawn to the person who has the most positive and harmonious feelings, and there for smooth wavelength in their HRV, because that person can have a positive effect on them. But the horse's response is not only based on which person has the most harmonious HRV, it may also be curious about this new person, for example the horse might find the person's scent interesting. You can also experience the opposite, that the horse refuses to greet, or runs away from, a new person that you bring with you to meet the horse. It may have experienced stressful situations in the past, which it has associated with a certain type of person (for example, a man), and therefore it may be afraid or sceptical of people who remind it of the situation.^{vi}

The horse is a sentient being with family ties, and they form bonds of friendship just like us humans. When they are with these individuals or their herd, it makes them feel safe and cared for. When they are taken away from this security, many horses experience stress. Additionally, when they are put in a situation that makes them insecure, and where the human is also insecure and stressed, this will not be a good situation for either party.^{vii}

Research has shown that different types of mammals have similar nervous systems. This means that other species of mammals can have relatively similar reaction patterns to stress and trauma as us humans, in addition to the social structures that are also roughly the same. The coping strategies that we depend on for survival are also similar.^{viii} Therefore, we can to some extent compare, and partially transfer, research results between humans and other species of mammals.

ⁱ HeartMath Institute. (2023). *The heart's intuitive intelligence: a path to personal, social and global coherence*. <https://www.heartmath.org/resources/videos/hearts-intuitive-intelligence/>

ⁱⁱ Keeling, L. J., Jonare, L., & Lanneborn, L. (2009). *Investigating horse-human interactions: The effect of a nervous human*. The Veterinary Journal. Volume 181.

ⁱⁱⁱ Van Der Vekens, N., Hunter, I., Goetze, J. P., Decloedt, A., De Clercq, D., & van Loon, G. (2013). *Human and equine cardiovascular endocrinology: beware to compare*. Cardiovascular Endocrinology & Metabolism, Volume 2, Issue 4.

^{iv} Steinhoff, U., Schnabel, A., Burghoff, M., Freibier, T., Thiel, F., Koch, H., & Trahms, L. (2004). *Spatial distribution of cardiac magnetic vector fields acquired from 3120 SQUID positions*. Neurol Clin Neurophysiol. Volume 59, Issue 2.

^v Scopa, C., Greco, A., Contalbrigo, L., Fromtini, E., Lanatà, A., Scilingo, E. P., & Baragli, P. (2020). *Inpage the interaction: Contact with familiar humans modulates heart rate variability in horses*. Frontiers in Veterinary Science, 7, 582759.

^{vi} Baragli, P., Gazzano, A., Martelli, F. & Sighieri, C. (2009). *How do horses appraise humans' actions? A brief note over a practical way to assess stimulus perception*. Journal of Equine Veterinary Science. Volume 29.

^{vii} Schlote, S. (2019). *Security in connection and co-regulation: Safeguarding the horse from traumatic re-enactments in EQUUSOMA™*. A Horse is a Horse, of Course: Compendium from the Third International Symposium for Equine Welfare and Wellness. Createspace Independent Publishing Platform (pp. 215–238).

^{viii} Porges, S. W. (1997). *Emotion: An evolutionary by-product of the neural regulation of the autonomic nervous system*. Annals of the New York Academy of Sciences-Paper Edition, 807, 62–77.