

## Non-Cognitive Knowing

Reading Time: 12-15 minutes

Non-cognitive ways of knowing and sensing<sup>[1]</sup> are a fundamental part of our human nature. The rich variety of means bequeathed to humans for interacting with and understanding our environment and tending our relationships with the Earth community have all contributed to the roughly 300,000 year success of our *Homo sapiens* lineage. They have allowed us to survive even while *H. neanderthalensis* and *H. heidelbergensis* and other *hominins* failed to continue their lineages. Put another way, non-cognitive ways of knowing and understanding are key components to the ecosocial literacy that has been passed down to us through our evolutionary journey.

Let's consider the nine experiential fields or domains that humans rely on to interact with our environment. We have our five senses (vision, hearing, touch, taste and smell), two somatic senses (interoception and proprioception)<sup>[2]</sup> and our thoughts and emotions. Only our thoughts are directly linked to our use of language. The other eight are grounded in our soma and require no formal language or words in order to experience. Of course, we try to describe these experiences through the metaphors of language and symbols, but the original awareness, wisdom and understanding all happen prior to any expression in spoken or written language. Furthermore, the spoken and written expressions are not the same as the experience itself (i.e., the map is not the territory).

The interconnection and combinations of these nine fields gives rise to a stunning array of attributes and abilities — here a just a few of many examples. Sensing changes in the environment, the weather, or relationships; understanding the “languages” and ways of plants and animals;<sup>[3]</sup> the ability to listen deeply; effortless, non-distracted attention; meta-awareness and the ability to contextualize; presence with another, empathy, compassion, a sense of connection and belonging; reverence and gratitude; wonder, awe, intention and creativity. These primordial felt senses contribute to human spirituality, religion, shamanism, the medicinal use of plants, healing through sound, energy and ceremony, and the use of symbols, music, dance and ritual. The human qualities and abilities of fascination, visioning, imagination, wonder, awe, kindness, nobility, equality and justice — they all have their roots in non-cognitive felt senses. And when we add to that our formidable language-based cognitive skills, we have evolved ever more precise means of passing along our experiences, learning and wisdom from one generation to the next. We might also observe that many of these non-cognitive skills that we've developed throughout millennia are at the heart of the relational challenges that we're now facing in the 21st century.

In the most recent 400 years or so (a tiny fraction of time in our evolutionary history), we have codified and prioritized a primarily language-based method for understanding and interacting with our world. The scientific method however, as it currently stands, relies on its own particular set of assumptions, a few of which include,

- ▶ There is an objective world outside of ourselves that doesn't affect us and that we don't affect; that is, we're completely separate from each other, nature and the cosmos;
- ▶ That objective, separate world outside of ourselves is, therefore, separate from our act of formulating and asking questions. Our questions don't change the reality that we ask about;

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- ▶ The universe is like a huge mechanism and we can take apart the different pieces to understand it (mechanistic view).
- ▶ Everything that is real and worth knowing about can be separated, broken down into constituent parts, quantified and measured;
- ▶ Things that cannot be quantified and measured aren't important to consider.

As we contemplate these assumptions, it's important to note the separation (even alienation) between the current purview of "science" and the realm of spirituality, interrelationships or the heart qualities of love, kindness and compassion. From this split, we can understand how, in our modern worldview, all things on Earth have come to be known as resources, separate from us and placed here for our use and purpose as we desire.

In very recent human history, we've successfully elevated this cognitive method above everything else and, at the same time, we've exiled as unimportant, old-fashioned and impediments to progress, or superstitious many of the important non-cognitive abilities we humans have relied on for millennia. This has given rise to human infrastructures and systems based on the same assumptions of science. Naturally, our modern education systems and other ways of enculturation reinforce this and pass this worldview from one generation to the next. It is rare in any K-21 education environment to see students given the opportunity to learn about, practice, develop over time, or otherwise normalize any of our important non-cognitive abilities.

It's not too difficult to understand how this has happened. The scientific method and its associated disciplines and sub-disciplines has, along with our material technologies, given us incredible insights and understandings about Earth and the cosmos, including mapping the origin of our own (and many other) species, self-reflecting on the universe itself and witnessing the birth of our cosmogenesis, human beings walking on the moon, the James Webb telescope, the migration patterns of monarch butterflies, and thousands more equally astounding insights into our world. Unfortunately, at the same time we've been seduced by the achievements of the scientific method, a mechanistic view and our material technologies, we've also created radioactive waste we can't safely dispose of, plastics (and hundreds of other toxic chemicals) that are poisoning the entire water cycle of the planet, social systems that have created enormous inequalities and human and ecological injustices, and increasingly powerful and destructive weapons with which to advance our quests for power and control, to name just a few of the collateral damages we must reconcile in the coming years. In our frenzy of separation and mission to control everything, we've lost sight of our integral, intrinsic and innate fundamental relationships, not only with each other but with all of Earth's systems. Yet it's the honoring and tending of these relationships that have kept *Homo sapiens* flourishing where other *hominin* lineages failed.

The scientific method hasn't yet explained how human navigators, equipped with only their sailing canoes and their intimacy with the ocean and cosmos, navigated and ultimately settled the vast expanse of Pacific islands. Yet, there's no doubt they did. The scientific method hasn't yet explained how the Siona Sequoia living in their forests of the Amazon, a

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region of some 90,000 vascular plants, knew how to combine very specific and botanically unrelated plants and prepare them in such a way as to create a powerful hallucinogen to aid their dreams and visions and mediate their relationships with their environment. Yet they did. For them, it was simple: they listened to the plants. But since that explanation doesn't fit into our "scientific", separation-based paradigm, we dismiss it as trial and error, random chance and superstition.

Our quest for "data-driven" solutions to the challenges of the 21st century omits such a large part of our human skill and capacity. There is no shortage of data in the world. Along with all of that cognitive data, we need to remember and enact our hearts and our capacity to connect to one another and the cosmos — to belong to one another and all of Earth. We belong, but we've forgotten or dismissed that fundamental knowing because we're too busy in our heads trying to comprehend "data" all the time. We've forgotten the power of feeling, tending, caring, kindness, love, forgiveness and empathy and all the other heart qualities.

When working towards a flexible, robust and practical ecosocial literacy, one of the most important integrations is to normalize, recover and draw upon the many non-cognitive or felt sense ways of knowing and understanding of which we humans are capable. Currently, they are omitted from most education environments, yet we wish to normalize and contextualize them and offer students the possibility for developing them. While there are many places to begin, (see *Contemplative and Reflective Practice*) some of the easiest and most common points of entry include the development of somatic awareness,<sup>[4]</sup> attention, presence and focus,<sup>[5]</sup> gratitude and deep listening. Each of these areas can easily be integrated into classrooms of any age and content area and developed and deepened as learners grow in awareness, experience and understanding.

### *The Magic of Gratitude*

Gratitude is a universal, ubiquitous human quality. All cultures and all people understand and exhibit thankfulness, appreciation and gratefulness. However, *experiencing* gratitude isn't something we merely think about. It's non-conceptual in nature and must be genuinely felt within our being; in other words, thinking or speaking about gratitude isn't the same as *feeling* it. We generally imagine gratitude as one of the "heart" qualities, partially because it is often felt as a warmth, openness and expansion in our bodies in the vicinity of our physical heart. And, since the heart is both a sending and receiving organ, gratitude is something we can both offer and accept. Either way, it involves relationship, even if you're experiencing gratitude for your own healthy body, mending bone or clear vision. There's an obvious acknowledgment and awareness of connection and integration involved. As such, gratitude is one of the key ways in which humans connect to one another, to other beings, and to the other aspects of their environment. For example, all traditional cultures acknowledged and gave thanks to the sun, the energy source of all life on earth. This was often done on a daily basis, as a ritual, practice or in a formal ceremony. Many cultures, societies and groups give formal or informal thanks prior to meals.

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Here are some noteworthy notions to contemplate about the non-cognitive magic of gratitude:

- ▶ Gratitude is non-conceptual in nature. It can't be precisely described, only felt and perhaps hinted at with our languages. Likewise, though it can't yet be precisely measured, it is utterly real and palpable to anyone who offers it or who receives it.
- ▶ An originating impulse of many religions and spiritual traditions is gratitude for the gift of life and, as such, is the most appropriate response to the mystery of our birth.
- ▶ Gratitude is at the core of most, if not all, worldviews of the First Nations in North America (and most other indigenous cultures around the world). Among the Haudenosaunee,<sup>[6]</sup> in particular, gratitude is seen as a sacred duty. In their culture, experiencing the connection and openness that results from genuine gratitude must precede all meetings and gatherings. The expression of gratitude to all the various forms of life is so important to the success of meetings and gatherings, they are considered the "words that come before all else".
- ▶ Gratitude enacts and strengthens our interconnections and interdependence with the world around us.
- ▶ As we expand our awareness, gratitude connects us to ever widening circles of care and concern, from our core human families and communities to all things on Earth and in the universe.
- ▶ Gratitude can connect us forward and backward in time; for example, to our ancestors (without whom we wouldn't exist), as well as those who will follow after us (for example, the seventh unborn generation). Imagine a vision that extends for the lifespan of a sequoia tree or bristlecone pine (thousands of years). When you plant those kinds of seeds, you're expanding your care and concern into the future. When you contemplate what Earth was like when that giant sequoia or gnarled bristlecone pine was a seedling, your gratitude and imagination extends into the past. When you wish for your descendants, many generations hence, to be able to live freely and admire and interact with the same things you have, you are connecting yourself with that future.
- ▶ Gratitude is not dependent upon external circumstances. It does not require us to like our current circumstances or situation. Gratitude is a choice that can be made in any circumstance. In fact, it can help uplift us when we're facing difficulties and, in times of turmoil and danger, gratitude helps to steady and ground us.
- ▶ In the modern industrial growth society, gratitude is a form of activism, because to be deeply grateful for what we have is an antidote to the consumerism that drives corporate capitalism and our political economy of constant, unsustainable growth.

Regardless of how much we think we know scientifically about the origin of the universe or human consciousness, our own particular life and our unique arrival here on this planet is still a deep mystery. So far, our science and modern world view has produced nothing that would lead us to believe that we earned our life or somehow paid something to receive it. It is, simply, a profound and mysterious gift. Deep gratitude and thankfulness is the most natural and appropriate response.

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### *Deep Listening*

*“To listen is to lean in, softly, with a willingness to be changed by what we hear.”*  
— Mark Nepo

Similar to gratitude, listening exists along a wide spectrum of experience, from the superficial, mostly absent and disconnected, to deep and profound presence and connection. We might define unconditional listening as listening without judgment; without trying to give advice or fix anything; without thinking about what we’re going to say in return and without taking personally anything the speaker is saying, no matter what it is. It’s an open, receptive, curious and deeply appreciative form of listening and awareness. It reflects a state of heart/mind that’s willing to learn and discover, and that recognizes that each person has their own story and impeccable reasons for what they say and do.

*“Deep listening is miraculous for both listener and speaker. When someone receives us with open-hearted, non-judging, intensely interested listening, our spirits expand.”* — Sue Patton Thoele

When we offer this form of listening to another person and allow them to express their experience without worrying about being judged, it becomes a great gift, partly because it is so lacking in modern society, but also because it is one of the keys to effective collaboration, leadership and of generating and creating an atmosphere of transformation in our classrooms, schools and local communities. Developing this potentiality will literally change your life and the lives of those to which you offer it. Receiving the gift of unconditional listening from others will, over time, transform your relationship with those people. Listening deeply is one of those intrinsic human capabilities that is all too often lost in our fast-paced, materialistic, social media, soundbite dominated society, where conversations often lack that receptive state of curiosity, openness and non-judgement.

When we deeply investigate the metaphor of listening, we recognize the applicability of the word listening to our other experiential fields of awareness. For example, we might use the phrase “listening inward” and even though there may be no actual sound involved, the metaphor is apt, because it describes that same quality of open, curious, non-judgmental awareness that is involved in listening to another person’s words. After all, when we’re listening deeply to another person’s words, we’re also tuning in to a broad spectrum of non-verbal information.<sup>[7]</sup> Applying this quality of unconditional openness and receptivity to our numerous felt sense experiences, we begin to experience deep listening across a wide variety of sensory experiences. We can listen deeply to the felt experiences of our own bodies, the needs of our pets or of a child. We can listen deeply and begin to discern the profound gifts of another person. We can sense and connect with the source of our higher purpose and imagine our highest future possibility. It is essentially this same deep listening that has allowed the myriad cultures of the world to understand the nature of world around them and maintain balanced relationships with all of Earth’s communities.

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When we apply our open, non-judgmental awareness (open heart and mind) to our creativity, imagination and the future, we can begin to sense a future that is wanting to emerge. We can sense and imagine a future that is ecologically balanced and socially just — where kindness, justice, equality, love, unity, interconnection, reverence for life and beauty permeate all of our human systems and structures. In that open, receptive, creative place, we can imagine actions we can take today, that will help bring that future into manifestation. This ability to imagine and co-create the future is one of the profound gifts of human beings. We might imagine a more beautiful future that is pulling us forward — summoning us. What do we hear and sense when we listen deeply to the messages from that future? What is the field of the future saying to us? What kind of future is wanting to emerge and how might we contribute to bringing that future into manifestation?

This deeply interconnected and collaborative co-creativity is rooted in the domain of non-cognitive knowing and understanding. At its genesis, it is not a cognitive exercise; rather, it is a feeling, sensing and imagining *practice*, which student learners of all ages need to develop and deepen. In this way, they will awaken their true agency in creating a more beautiful, just, peaceful, and harmonious world.

### *Notes*

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[1] Cognition is a broad term that might be construed to include all the various ways humans interact with each other and our environment. However, in this context, we are referring more specifically to ways of knowing, learning and interacting which have their roots in language, especially learning through language, the action of reasoning, the application of rationality, drawing conclusions and so forth.

[2] *Interoception* is the term used to describe our ability to sense and understand our sensations and internal wisdom in all the various parts of our body. *Proprioception* (or kinesthesia) describes our sense of balance and awareness of our body in space.

[3] Most people who have pets easily recognize the connection, empathy and ability to understand their pets (and vice versa) without cognitive language. Many people also experience a similar relationship with plants.

[4] Understanding and working skillfully with our emotions initially requires an ability to tune in to the physical sensations in our body in order to help us identify the various emotions we're feeling. This is often one of the first skills we teach young children when helping them develop social and emotional skills. Unfortunately, it is not given much priority in education environments, nor developed and deepened over time. As a result, this non-cognitive skill never progresses. Despite literally thousands of words in the English language to describe emotions and feelings, most adults have a difficult time naming or differentiating their emotions beyond what they learned in kindergarten (happy, sad, mad, glad, scared, depressed and bored). When was the last time you felt petrified, giddy, cozy, fulfilled, ambivalent, disheartened or entranced?

[5] Developing presence, focus and attention is certainly one of the potentials of a wide variety of mindfulness practices, but performance arts are also wonderful ways to develop these same qualities. Mind/body awareness and the synchronization of mind and body, along with concentration and

focus can be developed quite naturally in performance music and dance and in somatically-based martial arts such as tai ji and aikido. Outdoor programs that allow students to explore in nature can also develop the abilities to listen deeply and cultivate presence and attention.

[6] There are many online references to the [Haudenosaunee Thanksgiving Address](#). Translated from Mohawk, *Obenten Kariwatekwen* means “the words that are spoken before all others.”

[7] It is now well researched that the human heart generates a stronger electromagnetic field than the brain, so much so that it can be detected and measured (by current scientific instruments) several feet away from the body. Of course, electromagnetic energy carries information (just like your cell phone) and our hearts can not only send this information, but receive it as well. If you’ve ever sensed the energy of a person without hearing their words, or the energy in a classroom, you’re using the non-cognitive, somatic sensing inherent in your body.