

Princípios da Percepção

Self and Other intro head

Os primeiros organismos vivos eram células simples free-floating, e dentro de nossos corpos células individuais permanecem como unidades de vida primária. Cada célula whether vivendo como um organismo independente ou embedded dentro de uma comunidade de células

is composed of a membrane surrounding an internal fluid world. The function of that plasma membrane is to separate the internal world of the organism from the external world. It is the barrier between the inner world of self and the outer world—the not-self or other.

The primary awareness or sense of the cell is touch. Through touch, the cell membrane is able to differentiate between what is of the cell and what is of the world. The result is the perception of *that which is myself* in contrast to *that which is other*.

As infants, one of our first developmental processes is to begin to differentiate the perception of self from the perception of other. Perceptually, it is important to maintain that distinction as our senses reach farther into the world and as we deal with the increasingly complex environment.

Development of the Senses intro head

We do not enter the world with our senses fully formed. They begin to develop *in utero* as potential, but develop and sharpen in response to experience *in utero*, after birth, and throughout life. Our basic perceptual patterns are established in the womb, beginning with the co-development of touch and movement, which together establish the baseline for the perception of taste, smell, hearing, and vision.

Each sense needs to develop its own autonomy and to integrate with each of the other senses. That allows each sense to sometimes lead our awareness, with all the other senses in supporting roles. As our senses learn to shift in relation to each other, fluidly alternating the dominant role, we gain maximum flexibility in response to the environment. That dynamic interplay of senses allows us the choice of stability or mobility at any moment.

Developmentally, the hierarchy of senses is:

- Touch and movement
- Taste
- Smell
- Hearing

- Vision.

Movement and Touch intro head

Touch and movement develop simultaneously, and are inextricably linked to each other. Each is the shadow of the other.

We can bring awareness to movement and touch on two levels: the somatic and the cellular. The somatic level is the experience of the body moving through space, and the contact of our skin with the outside world. The cellular level encompasses the movement of cells within their fluid environment and the cellular membrane's awareness of the external world.

Bonding and Defending intro head

In very simple terms, bonding is when we accept a stimulus and move toward it, and defending is when we do not accept a stimulus, but we move away from it or recoil.

Our first bonding is saying "yes" to mother earth. Our bodies accept the pull of gravity, and we give ourselves fully to the relationship, setting a tone of safety and ease. We then bond with our mothers, giving our bodies into theirs for comfort and safety. Initial parental bonding provides a sense of self in relationship to another being, which sets the tone for all future relationships. Bonding is emotional as well as physical. The physical bond we establish with the earth and our mother is the same as our emotional bond.

Our first defending is saying "no" to mother earth. We individuate ourselves by resisting the pull of the earth, moving our bodies away in separation. We then learn to move away from our mothers and fathers and come into ourselves. Defending is not negative. It is an important aspect of our growth, to be able to move away from what does is safe or pleasurable or what is strange.

We bond and defend through each of our senses. Our life experience and our perceptions, from infancy through adulthood, create patterns of habitual bonding and defending in each sense organ. For instance, an episode of childhood abuse can render us defensive in our skin, unable to allow subtle tactile experience to enter our awareness. The habit of holding against the abuse becomes established and will persist at an unconscious level. Our defending can be so powerful as to deny the sense at all, as in the case of Cambodian women whose functional blindness was caused by witnessing atrocities committed by the Khmer Rouge. We can equally derive great pleasure and a sense of ease from experiencing sensations with which we have emotionally bonded at some point: Proust's memories emerging from re-experiencing the taste of

madeleines, or the pleasure of hearing the sound of a clock that ticked in my grandmother's house.

Opening the Senses intro head

As humans, we are endowed with curiosity, the ability to explore and change the environment, and the ability to integrate incoming stimuli into creative and individual responses. In order to learn efficiently and vary those responses, it is vital that we maintain and continually renew all our sensory systems, so that we do not become narrowed in our ability to move and respond appropriately.

Doing that requires a commitment to maintain our senses in a way that may not be culturally normal. As adults, we need to roll and crawl to stimulate the vestibular system, to play with toys and each other, and to find ways to thoroughly enjoy and stimulate our skin, our hearts, our guts, our palate and nose, our ears, and our eyes.

As an example, consider the sense of hearing. How many of us make music, in addition to listening to music? By making music alone and with others, we can attune our ears to more subtle variations in pitch, volume, and rhythm—all of which are not merely musical tasks but necessary to perform the perceptual task of decoding human speech. Our voices (motor production of sound) are a reflection of how we hear (sensory intake of sound), so ultimately also indicate how we are experiencing the great cycle of being.

To live fully within the great cycle of being, we need to fully utilize and embody each of our sensory organs and their related pathways. It is important to allow each sensory experience to resolve in a motor response, and to recycle the motor act into new sensory experience.

Inner and Outer Focus intro head

Because it can be overwhelming to open ourselves to the amount of sensory information available to us at any moment, it is helpful to find ways to refine our access to our sensory pathways. One simple refinement is to become aware of the difference between sensory information we receive from within ourselves and sensory information we receive from the external environment. Both are necessary for our survival and optimal function, and it is important to be able to alternate our focus fluidly between information from internal and external sources.

Inner focus is when we bring attention to and move in response to information from our body: the quality of breath, weight flow through our tissues, vestibular and proprioceptive information from

our inner ear and joints, the pulse of our heart, the rhythms of our blood and other fluids, and the sensations of specific tissues and movements through the body. We may also choose to focus on inwardly directed emotions.

Outer focus is when we attend to stimuli outside the body and move in response to the environment: to light and what we see, to sound and what we hear, to the interaction of relating to other people, to touch and temperature, and to smells and the anticipation of taste. Outer focus may include focus on externally directed emotions.

It is helpful to understand what our habits are regarding inner and outer focus, and how we are motivated to act. Can you smoothly transition between inner and outer focus, or do you get stuck in one place? Does your focus go inward when the situation calls for outer focus, or do you respond with outer focus when it would be more helpful to attend to your inner sensory field?

Perception and Emotions intro head

Each bit of sensory information that reaches our cortex or the higher integrative centers of the brain passes first through lower centers that are associated with emotional processing. It is impossible for sensing and perceiving to be emotionally neutral. All our responses, decisions, and behavior are filtered through the lens of our emotions. So-called rational thought is often mistaken for emotionless thought, although it is impossible for humans to bypass some aspect of their emotional centers. The notion of our legal system being able to administer “blind justice” assumes that humans are able to ignore their own preconceived expectations and presensory motor focus to achieve god-like dispassionate judgment. We should never be surprised by our capacity to believe that we are being fair while our preconceived expectations (prejudices) subvert our good intentions.

Sidebar:

In order for us to bond to our environment, we need to be willing and to be supported sufficiently to process past, present and possible future emotional associations involved in the present situation.

Bonnie Bainbridge Cohen

Learning intro head

Learning is the process by which we vary our responses to the same or similar stimuli, depending on the appropriateness of the immediate situation. Because our responses depend on both our preconceived expectations and our presensory motor focus, effective learning depends on

increasing the efficiency of our sensory systems. That widens our choices in interactions with the environment and therefore broadens our learning potential.

Our emotions are essential for learning. As teachers, we recognize the difference in learning potential between an unresponsive and lifeless group, where interest has not been kindled, and a buzzing group of students who are engaged, curious, and receptively open. The emotionally deadened group is incapable of bonding with a new experience and learning from it, while the emotionally heightened group can effectively teach itself, when we provide the tools for learning.

Projection intro head

Our preconceived expectations and presensory motor focus influence our perceptions, allowing us to dream up the world for ourselves. The resulting assumptions that we make are often called projections. When we project, we base our reactions to present conditions on past experience and expectations.

The traditional Freudian definition of projection highlights the interpersonal: the attribution of one's own attitudes, feelings, or suppositions to other people. Projection is seen as a defense mechanism in which the individual attributes to other people impulses and traits that he himself has but cannot accept. It is especially likely to occur when the person lacks insight into his own impulses and traits—in other words, does not attend to the great cycle of being.

A more general understanding is that in projection it is not necessarily negative traits that the individual attributes to others, but that one merely assumes that other people's experience matches one's own. When I see the color red, I may project my experience onto another person, assuming that she experiences the same energy that I do. I do not account for the fact that she may be color-blind or that what she experiences in reading red might be quite different from what I experience.

If we expand this notion of projection to include our attitudes and behaviors with regard to the environment in general, not only to other people, projection can explain much of our behavior and the way we relate to the world. Our expectations of the future are based on our preconceived notions of what we will experience, which influences what we choose to behold in a person or situation, and therefore how we perceive, or judge the event. Essentially, we make each other up!

The Heart as a Sensory Organ intro head

The five traditional senses are touch, taste, smell, hearing, and vision. Somatic practice has made the case for including proprioception and kinesthesia, or the awareness of movement, as a primary area of sensory inquiry.

Research is now showing that there is also an intrinsic nervous network or brain in the heart. The flow of information from that center of knowing to the central nervous system, and the way the sensory information from it is integrated into the brain, make it experientially helpful to consider the heart as a sensory organ. Functionally, we often ignore the information we obtain from the heart, but our language is full of expressions that indicate how we process its information. If we exclude the awareness of its sensory inflow, we lose potentially valuable perceptions.

The heart's knowing has to do with tasting the electro-magnetic field of another person's heart and with entering relational dynamics based on that assessment. The heart also stores patterns of responses of emotional states in relation to environmental stimuli. Nerve fibers from the heart relay that information to the emotional processing centers of the brain, just as all other incoming sensory stimuli are relayed.

Physiological Responses to Perception intro head

Within the great cycle of being, our expectations and habits of presensory motor focus feed our perceptions, and constitute our outlook on life or our worldview. Corporate coach and Body-Mind Centering® practitioner Jan Cook has organized the worldview into four basic fields of attention:

- Physical: What do I feel in my body?
- Emotional: What moods or emotions predominate?
- Mental: How is my thinking organized?
- Spiritual: To what larger meaning or purpose am I connected?

When we experience those attentional fields in our individual normal range, they help to confirm our worldview. If a particular situation or stimulus confirms our worldview, our bodies have a physiological relaxation response. When our experience diverges from our expectations, however, our bodies have a physiological stress response.

The Relaxation Response subhead

The relaxation response is related to the parasympathetic division of our autonomic nervous system. When our perception is one of safety and harmony with the world (based on our worldview), our bodies are able to relax, renew, and restore themselves. The response has ramifications throughout our bodies, affecting many different systems:

- Neuroendocrine. The parasympathetic nervous system becomes more active and related hormones help to instruct the body to slow down and relax.
- Organs. The heart rate and blood pressure slow down, blood is sent to the organs, the lung tissue contracts, and digestive processes are enhanced.
- Muscles. The muscles relax.
- Immune system. The immune system regenerates.
- Breathing. The rate of breathing slows down, and breath comes into phase with the other body rhythms (such as the cardiac pulse, the craniosacral rhythm, and the autonomic rhythm).

If we become overly habituated to the relaxation response, we may not be able to activate ourselves enough to meet the needs of responding to the environment. That can be detrimental to our health and function.

The Stress Response subhead

The stress response is related to the sympathetic division of our autonomic nervous system. Stress is not to be understood as negative; it is simply the underlying activation and readiness for our bodies to go into action in response to unfamiliar stimuli. The sympathetic response can send our bodies into action—fight or flight. The difficulties with the stress response occur when our bodies do not move into action, but freeze. As with the relaxation response, the stress response has ramifications throughout our bodies, and affects many different systems:

- Neuroendocrine. The sympathetic nervous system becomes heightened and related hormones instruct the body to become alert.
- Organs. The heart rate and blood pressure rise, blood is directed away from the organs and toward the muscles, lung tissue dilates, and the digestive processes are diminished.
- Immune system. The immune system will have an initial reaction of heightened activity in response to sympathetic stimulation, but with prolonged activation will become exhausted and less effective.
- Muscles. The muscles are activated in readiness for movement.
- Breathing. The breath rate increases, as more oxygen is demanded in readiness for action.

If we become habituated to the stress response, parts of our bodies may continue to exhibit the heightened responses even when the need for activation has finished. Over time, that can be detrimental to our health and optimal function

Repatterning intro head

Somatic movement education encourages people to reorganize their habits and patterns of movement and physical organization, leading toward more efficient, easier movement and

behavior patterns. Reorganization will tend to influence patterns of thought, patterns of emotional experience, and patterns of energy as well. The process of substituting a more efficient pattern for a less efficient one is called repatterning.

In order to offer the possibility of repatterning for ourselves or for a client, we need to intervene in some way in the great cycle of being. Within the cycle of sensing, perceiving, and moving, we seek opportunities to offer perceptual alternatives, opening to new possibilities of sensation and new experiences of movement. We want to broaden the awareness of what is actually happening, and then create the conditions that allow the experience of more efficient pathways, connections, or movement.

Once experienced, the body and mind generally choose the path of greater ease and least resistance. Often that means merely finding connections that already exist, having been lost due to physical or emotional stress that is carried as a habit in the body. At other times, we need to introduce pathways that never developed efficiently in the acquisition of movement, so perceptual and neural connections must be generated for the first time.

In somatic movement education, we study developmental movement in order to understand how we can repattern a person's interaction with the environment. Repatterning results in greater physical, emotional, and mental balance, allowing ease of motion, behavior, and thought. We also study the unique characteristics of each body system, and repattern the habits of use, through movement, touch, and sound.