**The Sense of Life, The vehicle for the Sense of Thought.**

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In his many lectures regarding the bodily nature of the human being and in relation to the education of children, Rudolf Steiner described, not 5 or 7 senses, but a constellation of 12. These are divided into three groups, the first group providing the information necessary to bring about body awareness. The first is the sense of touch defining the bodies boundaries, the sense of life bringing to awareness and maintaining the bodies wellbeing, the sense of movement informing the planning centres in the brain about hand, limb and body position so that skilled action is possible, and finally the sense of balance, maintaining uprightness so that the head may be still for thinking.

The second group of senses are those, which take our consciousness out into the world around us. These are – smell, which in mother child bonding, provides comfort in the familiarity of the mother’s smell, is closely linked to memory, and, through learning becomes vital in giving information about what is good and bad. Taste is closely allied to smell. Food and nurture promote life and growth. Taste is also about our appreciation of all that the world brings to us. Vision is the most used, and exploited sense in this age. Our eyes bring us colour, light, form, beauty, ugliness and information. Although, what we interpret from what we see, depends on the integration of body sense experience, our computer age brings great reliance on this sense. The final sense in this group of four is the sense of warmth. We are warm blooded and the maintenance of a constant body temperature is vital to our health and growth. We have a sense of warmth and coldness both physically and emotionally. Warmth and enthusiasm for life are closely allied.

The third group of senses are referred to as the ‘Higher Senses’, and they represent that which makes us social human beings. The first sense is hearing. The ears are the outer sense organs, but our whole body is sound and vibration sensitive. Through hearing we have language and the ability to hear the thoughts of others. The sense of word brings an awareness of the difference between sounds and the spoken word. It is strongly connected to the movement sense developmentally, through whole body, as well as laryngeal, synchronous and mirrored vibration. The sense of thought brings the awareness of the meaning of the spoken word. Words can mean many things so interpreting what a communicating partner is saying depends on the sensitivity to many other elements. The highest sense, that which makes us truly human, is the sense of ego, which is better described as the sense of the individuality of the other. When an individual stands clearly in their own space they are able to hold back their own ego to allow receptivity to what another person brings.

No sense stands alone. It is the integration of sense experience, which brings meaning. The maturation of the senses is from the lowest group to the highest. This coincides with neurological maturation, the lower centres of the brain being first to develop. The body sense information is mediated in the lower parts of the brain, below the level of consciousness. The second group of senses bring information, which reaches the conscious levels of the brain, but has much to do with social and emotional cues and therefore the limbic system. In social interaction and the sharing of ideas, all levels of the brain are involved. The cortical or highest levels of the brain are involved with reasoning and the most complex integration of information.

It is the purpose of this paper to show the connectedness and inter dependence of the senses of life and thought. The sense of life, or our sense of wellbeing, has its main centre in the brain stem, where the autonomic nervous system maintains and balances the rhythmical functioning of our heart, breathing, and digestion. The autonomic nervous system is divided into two parts – the sympathetic, which stimulates activity and prepares for action, and the parasympathetic nervous system, which has a calming and restorative function. The parasympathetic system includes the Vagus nerve. This is the 10th cranial nerve, the only one that extends its function beyond the cranium. It is part of the receptive system and its branches connect to the heart, the lungs, to the larynx and to the digestive tract.

Before birth the infant’s responses are intimately connected to the mother’s level of arousal, her activity or calmness, her happiness or her anxiety or sadness. Once the child is born this connection remains vital as the baby begins the developmental journey, its regulation being dependent on the physical proximity and bonding with the mother. Regulation equals wellbeing and the first learning of a baby is developing a memory of the mother – through its newly developed outer senses, including smell, and touch, through the known sound of her voice, through the nurture of feeding and gradually through the visual sense. Separation, hunger, over arousal, discomfort, and pain, alert the sympathetic nervous system eliciting a cry for help. The mother or main caregiver’s presence brings the balancing calming parasympathetic response. Very soon the calm response may be activated by one stimulus, for example, the touch of a hand, or the sound of the mother approaching, and gradually resilience or the ability to self-calm, develops.

In adverse conditions where birth is accompanied by separation or trauma this earliest balancing response of the bodies neurological systems may be altered, the sympathetic response predominating – either fight or flight being activated, or all systems shutting down and becoming unresponsive. When conditions of adversity persist the infant becomes sensitized to stress cues, not calming ones. The amygdala is a centre within the midbrain, which responds to emotional cues and through its connections to the frontal area of the brain develops the learning history of what is safe and what is not safe. The vagus nerve is responsible for ‘vagal tone’ or the balanced resting state. The vagus nerve complex is considered the neural basis of social engagement. It is important in modulating and coping with social interactions without activating the fight or flight response. It allows for continuous feedback throughout the body as it maintains regulation (homeostasis) and optimal wellbeing within the lungs, heart and digestion.

The earliest interactions between the infant and caregivers provide the building blocks for the sense of thought. Long before a small child is consciously aware of what words mean they are interpreting the sound of a voice, its sharpness, melody or calmness, the sound of a footstep, heavy or light, the smell of the time of day, a happy face or a sad face. A sensory experience with an emotional rider, which over time becomes a memory,

The ability to develop this feeling based memory is very closely allied to the Vagal tone. When, through its balancing action, the child remains calm and receptive, this earliest learning comes quickly. In situations of stress when the heart rate, breathing and digestion are affected, neural activity is locked into the vital centres – heart rate and breathing become quicker and the digestive system shuts down its activity. Learning is limited as the “emergency services “go into action the sensitized sympathetic nervous system response predominates. Important amongst the connections of the vagus nerve are the branches, which extend to the larynx. Throughout life our whole body is a sound receptor, vibrating in response to the spoken word. When we speak our vocal cords vibrate, giving tonal sound. They also vibrate in response to language received (Konig) bringing the idea, or thought, through the tonal quality of what is then received in the middle ear. This is the first language learning, before the child is able to move independently or has any conscious understanding of verbal content.

The’ in arms’ position is optimal for face to face, mother child interaction, and is important in the development of the visual system. The infant’s focal range is 12 to 14 inches and in the breastfeeding position he or she is perfectly placed for the emotion filled first interactions with the mother, which stimulate the production of oxytocin (the so called ‘love’ hormone) promoting calmness and wellbeing and cementing attachment. From this place of security, the infant is ideally placed to begin its visual exploration of the world, and the people in it. The nuances of happy, sad, love, anger, concern are received visually, but understood through the receptive vehicle of the vagus nerve with its connections to breathing, heart rate and sound quality, further building the memory of meaning.

In a state of calmness an infant is totally receptive to its world and the people in it. From the first hours of life a baby is capable of showing imitation of facial expressions, a tongue poking out and some sounds. As the child grows we see the imitation of gestures, sounds, words and actions. Mirror neurones aptly describe their action –the child, under three, takes in, as a mirror, all that happens around it, continuing to build its memory of meaning. Tiredness, ill health, separation and trauma shut down this possibility of openness and receptivity.

The first seven years’ physical growth is paralleled by the unconsciously developing memory. Words are understood within the emotional context in which they are spoken, they form a wholeness of meaning. It is only in the next seven-year period, that a consciousness of individual words is awakened although, as any unfolding capacity, one can see its beginnings earlier. The feeling tone of what is spoken and the connection of the speaker and the listener remain most important in the learning process. The child lives in the balance between sympathy and antipathy, not yet able to stand in a place of objectivity.

In the third seven-year period the young person stands strongly enough in his or her own space to be able to separate the feeling response from the idea. Analytical thinking becomes possible and the highest parts of the brain engaged.

Our first learning is about regulation and resilience, which engages the lower parts of the brain. Our second layer of learning is about relationship and the sensory experiences, which surround this. The midbrain is engaged. With this complex basis of learning in place we can enter the realm of conscious thought and reasoning. This is the time when the sense of thought develops. When the individual is able to find their own centre strongly enough to be able to put aside their own feelings of discomfort, tiredness, hunger, emotional pain and also their own ideas they are able to use this receptivity of the vagus nerve with all its connections, to understand the ideas of another person. Listening to the words, but responding from a whole brain perspective in understanding the ideas behind them, is possible for those who have developed the higher senses. We speak of a ‘gut’ reaction, or digesting ideas, reflections of this understanding. The bodies memory of meaning related to ‘how I feel’ is put at the service of the interpretation of the subtlety of what is heard, cueing in to the underlying meaning.

This is a brief exploration of a complex idea. The sense of life and the sense of thought are two of the twelve senses, which Rudolf Steiner described. I have endeavoured to show how these two senses are developmentally connected. The building of the memory of meaning, which the life sense activates, forms the basis of our ability to freely understand the ideas of another person, as adults.

Sources of Information and Inspiration used in this text include: -

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