



For the first time in history since the written word, our intra-species communications is changing dramatically. Through the internet we are able to connect to any person or place on the planet. This connectivity allows for the sharing of information and inspiration--as evidenced by the political revolutions facilitated by "social media". Cyberspace, a new medium, has unique features and effects on our nervous system and health.

**Smell, Taste, Touch and Movement**

When we are with other members of our species, we exchange more than the sights and sounds of Youtube. Smell, touch, taste and movement have critical roles in development and health.

Pheromones are chemical messages that are perceived unconsciously between members of a species through the olfactory (smell) system. These messages are the reason women in proximity cycle in synchrony, and in part why there is "chemistry" between two people or not.

**Emotional Communication**

Charles Darwin wrote a book entitled "The Expression of Emotions in Man and Animal" thirteen years after his famous "Origin of the Species". In this later book, he focused on the survival value of emotion and its expression. The purpose of communication between members of a species is to convey survival information. Facial expression, volume and tone of voice occurring in 3D are particularly important, and are used by many species.

**3D vs. 2D**

Each of our senses has a three-dimensional quality that is hard-wired into our brain. This is in part why we have two eyes, two ears, two nostrils, and two inner ears that detect movement.

Imagine what it would be like to drive with one eye closed or to listen to music with just one ear. This is in part what we are doing each minute we are in front of our screens.

We were designed to live in a 3D world. Walking in the woods, working in the garden, attending a sport, yoga class, or seminar, getting a massage or experiencing physical intimacy cannot and will never be the same as their web versions. While the web is convenient, efficient and often cheaper, the compromises made need to always be recognized and considered.

**Regions of the Brain**

Certain regions of the brain map to structures such as

the hand, foot, lips and tongue. Other regions integrate information and recognize patterns. Each region contributes to brain-body-mind functioning. Like a blind person who develops acute hearing and touch, senses that are ignored will atrophy while those overused will represent a larger part of the brain. Excessive media exposure will shrink the regions that involved with 3D processing, smell, touch and movement.

Connection Research
Harlow monkeys raised without mothers preferred a soft surrogate to a hard one and were unable to mate or raise children.
Research on authority demonstrated that most individuals comply with orders, even when immoral and clearly harmful (used to demonstrate social hierarchies, and explain Nazism).
Children in orphanages with limited human contact were shown to have poor growth and delayed development.
People self-rated as "lonely" have a higher incidence of depression, cardiovascular disease and cancer.
Married men live longer than single men.
Autism and related "spectrum" disorders, with altered social functioning, is reaching epidemic proportions. These adults and kids often have extraordinary skills in specific areas.
Group behavior is different from individual behavior. Herd behavior has certain survival benefits.
Touching children (and each other) reduces stress hormone levels and improves several health parameters.
Music, art, poetry, gardening, dance, religion and other methods of connection are stress relieving
Pets improve virtually all aspects of health--neurological, mood, cardiovascular, stress reduction, etc.

**Social Strata and Group Behavior**

As a social animal, in groups, we are programmed to respond to certain status cues that place us within a social hierarchy. Our "roles" vary with the circumstance, and can be high-status in one situation (i.e. being a parent), and simultaneously low status (i.e. ex-felon).

When we change our "status" on Facebook, or join a group or community on-line, the question is what parts of our nervous system are being stimulated and suppressed.

Group or herd behavior is different than individual behavior; sometimes for the better, sometimes for the worse. Group behavior on the web has features of which we are still uncertain, and may in part explain bullying, terrorist recruitment and other negative outcomes.

**"The Medium Is The Message"**

Marshall McLuhan was a pioneer of "media theory" in the 1960's, predicting the rise of the internet as a "global village". McLuhan demonstrated that each medium, by virtue of its unique hard-wiring in our nervous system has different effects on emotion and thought. "Visual and Auditory Space" are different than smell, taste, touch and movement. For example, the smell of a skunk, the taste of an onion, the touch of a lover or the fun of dancing are far more powerful than their visual images. Each medium or channel of communication optimally conveys certain types of information, but not other types. For example it is possible to accurately communicate travel information with words or a map but not

smell or music.

Musicians and those in technical specialties (such as math, engineering, physics), due to the specialization of their nervous systems are stereotypically socially awkward or inappropriate, not attending to social cues and rituals. Children and adults with autism, ADD and related conditions often have problems in conventional social connection and emotional expression while gifted in math,

technology, music or art.

### **A Bit of Scientific Mysticism**

There is something different when we are in physical proximity, from a couple to a family, group or community. Many religions require a minimum number of participants in order to conduct certain rituals. It is common to have different experiences of movies or yoga class in groups rather than individually.

"Morphic Fields" are fields of information that connect us with other members of our species across space and time, as modeled by Rupert Sheldrake. Their proven existence help explain phenomena not otherwise explainable, including how fish and birds move in coordinated groups without crashing, the abilities of "autistic savants" and even the mystery of fetal development.

Bio-energetic models, which include morphic fields, geo-magnetic fields (the pyramids are oriented to the earth's magnetic axis) and human consciousness within their scope suggest that certain connections are global and even cosmic. Electromagnetic pollution may have an impact on this dimension as well, harming our connections within our bodies and without (intra-species and with the Earth and solar system).

### **Applications**

Research has demonstrated time and again (see box) that we need optimal connections for optimal health. The desire to be seen, heard (within a herd?!) and touched is the desire to survive. Lack of connection is perceived as unsafe and therefore triggers release of survival-promoting stress hormones. These hormones should be released on occasion, with periods of recovery including refreshing sleep. Chronic stress depletes most systems, which can then be experienced as chronic anxiety and recurrent panic, depression, sleep disturbance, and secondary dysfunctions of virtually every system of the body, which we call degeneration or aging.

While we have all had the frustrating experience of failing to communicate something important to someone else, it is possible to enhance communication with awareness of eye contact, facial expression, touch, and the tone, rhythm and volume of voice. Salesmen master the techniques of smiling and making proper contact since their income is dependent upon their mastery of the social dimension. On the other hand, could you imagine Sheldon from The Big Bang Theory trying to sell cars? But even Sheldon has and needs connections and ritual, and can learn how to engage with a girl. The brain is trainable and flexible beyond our current understanding.

It might not be the violence on TV, but the medium itself that is altering our perception of violence. The growing problem of young mass murderers in part reflects the inability to distinguish between a game or movie from real life. Some of the above factors contribute to this severe social dysfunction.

Thinking of movement, touch, smell and taste (including food quality and variety), not as extra-curricular but necessary nutrients for growth and health can alter the way we prioritize activities, education, and social policy. These

features of human existence affect our progeny through morphic fields and epigenetic modification<sup>4</sup>. Recognizing these trends in the connection dimension, and working to engage our nervous systems using non-2D-audio-visual media will be a vital priority as electronic media continue to transform society.

### **IMPORTANT NOTES:**

1. **This educational material may not be used to influence medical care without supervision by a licensed practitioner.**
2. These contents are ©2015 by Michael Cheikin MD and may not be reproduced in any form without express written permission.
3. **Dr. Cheikin's website has related articles such as "Biorhythms", Sleep, Adrenal Fatigue and many others.**
4. Epigenes are the software that modify DNA expression, which can take effect in a huge range of time, from seconds, to decades.

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