## **Spooky Senses**

By Clark M. Thomas

© April 24, 2023

## Abstract

What do seemingly spooky senses have to do with other human senses and physics? We are talking about "objective ESP" that might be verified, not subjective sensations beyond logical models. Sensory feedback loops are keys within evolution in all plants and animals, and part of life's perpetual struggle against entropy. Humans likewise utilize real sensations beyond the usual five types. Other life forms have sensory abilities that seem ESP to us, but looked at closely are just part of their core suite of tools. Objective ESP is one aspect of our better understanding the nature and limits of entanglement and supersymmetry.

Aristotle said humans have five senses: touch, taste, hearing, smelling, and seeing. Was he right?

The commonly held definition of a "sense" is "any system that consists of a group of sensory cell types that respond to a specific physical phenomenon, and that corresponds to a particular group of regions within the brain where the signals are received and interpreted." This definition should work both for "normal" and objective spooky senses among our hundred trillion synapese. Other forms of sensation bring the total up from five toward eighteen, or more:

- (1) Sight. [two types of receptors for colors and brightness]
- (2) Taste. [could be either five or one]
- (3) Touch.
- (4) Pressure.
- (5) Itch.
- (6) Thermoception. [possibly two, for heat and cold]
- (7) Sound.
- (8) Smell.
- (9) Proprioception. [as in "close eyes and touch nose"]
- (10) Tension sensors. [monitoring muscle tension]
- (11) Nociception. [pain, with three receptor types]
- (12) Equilibrioception. [balance and body movement]
- (13) Stretch. [senses dilation of blood vessels]
- (14) Chemoreceptors. [medulla; blood hormones, drugs]
- (15) Thirst.
- (16) Hunger.
- (17) Magnetoreception. [weak in humans, strong in birds]
- (18) Time. [involves multiple receptors]

All of these objective sensations, and possibly more, can now somehow be measured and verified. There are indications that other senses exist that are not easily measured, and thus seem to be spooky and seemingly devoid of particulate system status.

All living organisms, individually and collectively, are packages of negentropy (order) interfacing with both order and disorder (entropy). In any system of systems there comes a time when individual negentropic life units stop functioning, even while similar units survive through procreation and adaptation. That individual case is called death of the individual organism.

If all similar units disappear, even when the parent biosphere continues on, the set of all individuals within one type becomes extinct. Eventually, possibly over billions of years, an entire biosphere may become extinct across its original planetary home. The transcending idea of Gaia involves an even larger domain of life within a self-regulating Earth. Nevertheless, the threat of entropy is always there on the grander scale of space and time within any local universe. The idea of negentropy permanently persisting within the 4D multiverse is logical, but unverifiable.

Primary feedback systems for orderly negentropy to deal with entropy are the senses each organism uses to navigate and to propagate additional such life units. When a system of sensory systems is disrupted there is greater danger without adaptation. We are now facing rapid climate change. For many species a brutal race is on between multifaceted adaptation and extinction.

In light of the many great challenges just to exist within a fairly stable biosphere, it is likely that evolutionary spooky sensations also exist and persist for enhanced survival and prosperity, even if we hardly are conscious of them.

Even more interesting, the general model of supersymmetry is also associated with some forms of sensation feedback loops. This greater thesis will be elaborated in a forthcoming essay.

In general, it is better to deal with a potential threat before it directly affects us, than after it penetrates our vital shell. Any "ounce of prevention" strategy involves in part methods of reaching out to the near environment to establish an "early warning system." Some threats, such as sunburn, are both distant and close – so a personal defense such as sunshade can have immediate benefit as if the distant threat from streams of potent photons is local. Some types of threats don't require exotic feedback loops. Others are better handled with spooky senses.

Seventy-four years ago Albert Einstein sent a letter to a fan in England. That letter is here. In this letter the great physicist revealed that he was trying to speculate how bees, for example, could live their amazing lives without special senses. He was also somewhat aware of magnetoreception. That was in 1949, before modern experimental physics had explored the cool powers of biological magnetic sensors. Also, science had not yet fully comprehended how bees and other pollinators can see into the infrared to find their target plants.

Whereas Einstein could not fit such questions into the gravity sheets of General Relativity, he at least was thinking deeply about spooky senses – which interestingly correlate with his youthful questions about the spooky nature of quantum physics. Today scientists are still looking for the elegant dynamic model to answer his fertile questions. Fortunately, real supersymmetry itself is not that hard to grasp within the foundational limits of entangled particle physics.

Consider these seven examples of biological feedback loops that have some aspects of an elegant supersymmetry paradigm:

(1) Back in what seems like ancient history, retail shopping malls were large and filled with people actually shopping. There was no Amazon, and no Internet. Cave man that I was back then, I occasionally would conduct a field experiment to see if I could mentally connect anonymously with another cave person who seemed attractive. That's what cave men (and cave women) have always done; but now it's done with digital dating apps.

I would, for example, stand on an upper shopping level and look down at an interesting person below. Targets were not able to see me even in crowds with their peripheral vision, and there was distracting noise and surrounding activity. One of two things clearly happened in each of these occasional weird encounters:

<u>First</u>, the person of interest was busy interacting, and did not notice my directional gaze. So, no two-way contact was made.

<u>Second</u>, the person of interest was blissfully going about the mall guided by their alpha-wave consciousness – and they almost magically (should we say spookily?) looked directly at my eyes. Out of dozens of potential sets of eyes she only looked at mine.

(2) There was another arena even more spooky. That one involved me sitting toward the back and on one side of a large gathering in a local church. There were at least two hundred people there, arranged tightly in a sloping congregation shell facing the busy religious ceremonies. The person of my interest for that day was an intriguing stranger down toward the front, and diagonally far to my right. There was absolutely no way for both of us to notice each other with normal senses from over 100 feet distance. To this day I have never seen this stranger again, nor had I before.

In this one case she sharply swiveled her head and looked diagonally backward directly across hundreds of faces only into my eyes, which of course I quickly averted. There was no scanning on her part, just a direct eyes-to-eyes look. The odds that this precise interaction would happen were very low – so there must have been some sort of objective spooky connection, but what sort of spooky physics?

(3) Decades later I casually told my younger sister about these odd field experiments. To my surprise she opened up to me about the several discrete times she had felt in crowds eyes staring at her from behind. It seems that the mass of her recipient head had almost no filtering effect on direct gazes from any direction – and thus yields enhanced survival value if a glance were to be unfriendly, as from a hungry prehistoric predator. Whatever the communication channel, it does not always appear necessary for eye-to-eye contact to be made.

(4) Nor does the spooky channel only work from people to people, more likely from mammal to mammal. We have heard stories of people camping in tents, only to awaken in the dark to an awkward feeling of silent danger. After they awoke safe and sound in the morning light did they discover large predator footprints nearby.

(5) My last proximal example herein involves a tiny, young dog I had recently adopted. About ten years ago I was in my

house's basement, while my chihuahua was safely outside, so I stupidly assumed. Suddenly with no warning I had a sharp stab of dread signifying some sort of acute danger. I rushed outside and saw a random punk who had stopped his car in the middle of the street, then stepped outside intending to snatch my terrorized tiny treasure. Fortunately, I arrived to rescue her *with less than five seconds to spare.* Since then, she and I always go out together, and stay very close.

(6) This dog story is an example of critical cross-species communication. It would furthermore seem that mammals, at least, share within their species similar alarms. We can also model spooky group behavior within locust swarms, migrating bird flocks, and baitfish balls, among others. Life on this Earth is awesome, which we typically take for granted.

(7) A distant example of attempted spooky communication was when I was several thousand miles away from my late wife in 1989, and without any means of phone communication from where I was in Africa. At no time could I establish any spooky connection with her.

It thus seems that we humans in the successful experiments had shared a spooky sense encounter of the proximal kind that Albert Einstein could not neatly fit into his general field theory. Ironically, Einstein is also one of the fathers of quantum theory. Maybe my successful spooky encounters were another sensory manifestation that invites a different type of explanation.

The variety of successful and unsuccessful spooky connections leads me to speculate that biological spooky connections have a key distance correlation with non-biological supersymmetry.

Therefore, the spooky sensory phenomena I explored with creepy science techniques may also be one angle of modeling the greater puzzles of quantum entanglement and supersymmetry both inside computers and over various distances.