

The Nature of ESP

ESP is an abbreviation for Extra Sensory Perception. It is sometimes referred to as a 6th sense.

It is the paranormal ability to the reception of information not gained through the recognized senses,

5 but with the mind. It encompasses intuition, telepathy, clairvoyance, prophecy, psychics, retrocognition, empathy, psychometry, remote viewing, and telekinesis. All of these will be discussed in this article.

The nature of ESP will be approached from a scientific position. The evidence for the belief will be exposed. At the present time, ESP is a belief because it is not proven beyond a reasonable doubt. The evidence is not solid, but there is sufficient reason for it not to be discarded.

10 **Characteristics**

Many people have had the "creepy" experience of sensing the presence of another creature.

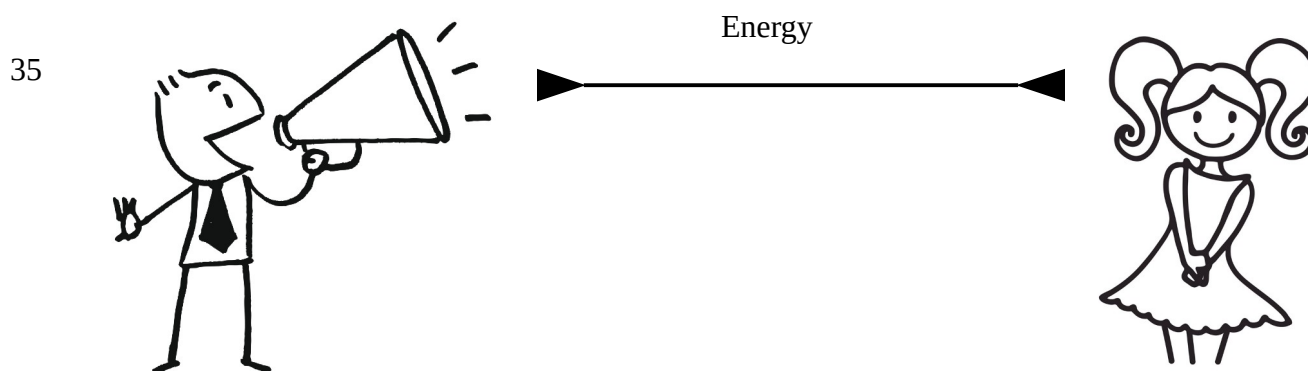
Sometimes it feels like you are being watched. The sensation is real, but it's source is not from one of the obvious senses of sight, sound, smell, taste, or touch. How did the person receive the cue that there is something out there? It appeared to be a different kind of sensation.

15 The five normal sensors were listed above as sight, sound, smell, taste, and touch. Actually, we have a sixth sense which is within the inner ear and detects orientation to gravity. It may not measure the amount of gravity, which would be a force or an acceleration, but at least it detects our heads tilt to the center of the Earth. So perhaps ESP should be referred to as a 7th sense. This brings up the suggestion that there may be other energy fields that we are not aware of when fully conscious. It is
20 well known that there are external energies outside of the normal human perception. There is ultrasound (higher frequency) and infrasound (lower frequency) that we cannot hear, electromagnetic radiation that our eyes cannot see (radio, x-ray, microwave, etc), chemicals that we cannot smell or taste, and pressures that we cannot feel the presence of, like static pressure that does not vary. Our knowledge of the physical world is limited by what we can sense. Anything that is low in amplitude,
25 outside of our frequency response range, and does not activate one of our natural sensors, is unknown

to most of us. We have no way of knowing it's existence. There are also energy sources that we have no detectors for, such as electric charge and magnetic fields. Perhaps a more accurate statement is that "normal" humans have no detectors for. The section on variability will expand on this.

Communication/Energy

30 Perception is energy intake. To perceive anything is to receive and process some form of energy. All communication is an energy exchange. The corollary is also true -- that all energy exchange is a form of communication, figure 1.



40 Figure 1. Communication is an energy exchange.

In figure 1, the male with the speaker is the source, and the cute girls is the receiver, but the male is receiving some feedback also. We tend to think of communication as bi-directional, but it can be a one-way exchange. An example of one-way energy exchange is green plants receiving solar energy for photosynthesis. We have no evidence that the sun detects and responds to green plants. Both source and receiver must be able to manipulate energy for viable communication to take place. With that principle established, then I can conclude that clairvoyance, communication with the dead, is not possible, because the dead cannot process energy. However, that means fully dead and not in the process of decay where some living tissue is still alive. Dead tissue cannot generate any energy. Telekinesis, or the ability to move objects by thought alone, is also an impossibility. Inanimate objects cannot process

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50 thought energy, at least no one has yet demonstrated that it can. Matter does interact with energy in that it can absorb heat, or radiant, energy. It can also respond to electric, magnetic, and gravity fields, but there is no known mechanism for it to react to thought.

Communication via extra sensory perception does not violate the first law of thermodynamics, which is the conservation of energy principle. ESP does not create any new energy. It only transmits it, 55 with some energy loss in the process making it less than 100% efficient. All warm blooded creatures are combustion machines. They take in energy, use some of it, and expel the rest. The combustion reaction is at a controlled low level.

(hydrocarbon fuel) + oxygen = (carbon dioxide) + heat + water

Let's compare this to a high level combustion reaction, like an explosion.

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$$\text{Fuel} + \text{O}_2 = \text{CO}_2 + \text{H}_2\text{O} + \text{heat} + (\text{acoustic energy}) + \text{radiation} + \text{light}$$

Is it possible for the controlled low level combustion reaction in warm blooded creatures to also emit low level radiation? Jung's "collective unconscious" and archetypes could be the bridge connection to ESP and how human minds communicate via a field path.

We can now address some of the other descriptions of extra sensory perception.

65 Precognition, or prophecy, does not appear to be possible. There is no known mechanism for receiving energy from the future. Prophecy is probably just a feature of wishful thinking with some imagination.

Retrocognition, or knowledge from the past, is theoretically possible. Signals, light or sound, can be reflected from surfaces and returned. That is information from the past that is perceived in the 70 present. Signals from the past can also be stored in memory and retrieved later, such as oral tradition, reading a book, or electronic recordings. So looking into the past is something that we all enjoy doing, and indeed is a characteristic of civilization.

Psychometry is the supposed ability to discover facts about an event or person by touching inanimate objects associated with them. If that object can generate some energy, then that is a

75 possibility. If it is truly inanimate and "cold" with no residual heat, smell, taste, or other form of energy,
then don't be fooled.

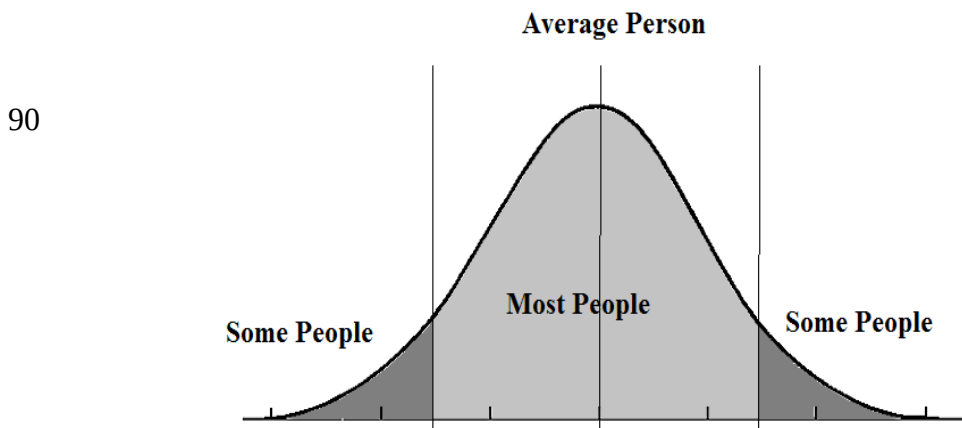
Remote viewing is the practice of seeking impressions of a distant or unseen subject. That
would not violate the conservation of energy principle and would seem possible, at least theoretically.

80 Empathy is the ability to understand and share the feelings of another. There is no doubt that it
is not only possible, but practiced routinely. It is obviously perception but not necessarily extra sensory.
Cues from eyes, body language, and previous knowledge of the person play into empathy.

Intuition is the ability to understand something immediately without the need for conscious
reasoning. There is nothing mysterious about that. It is an internal process of the mind and has nothing
to do with communication or ESP.

85 **Variability**

People are not all the same. Not only are some tall, some short, some light and some dark, but
there is a wide range of mental abilities. The full variability can be shown as a Gaussian curve, figure 2.



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Figure 2. Bell shaped curve of distribution of any human characteristic.

The average person has "normal" sensitivities to perception from external stimuli. Some people may be less sensitive and not see or hear as well as the average person. Others may be overly sensitive and perceive things that are below the "noise floor" of most people. We may call them eccentric, abnormal, crazy, psychics, or even classify them with some mental disease such as schizophrenia. The point is that some people may have an ability to detect things that others may miss. This is perfectly normal in a population with a typical distribution of characteristics. Schizophrenics hear voices. Are these voices internally generated or are they coming from some external sources? We do not know.

We know that chemicals can alter states of consciousness, such as mushrooms, psychedelic drugs, and even prescription medicines. Positing further from that, food intake can alter sensitivity. So the average person can be modified to be more or less sensitive. The responsiveness of our senses are not hard calibrations.

Consciousness is being aware of your surroundings. It can be at a low level for detecting something to eat, with degrees of perception up to situational awareness. Consciousness is composed of two inputs. One is sensory perception, and the other is interpretation of what is detected. There is variability in both – among different creatures and among individual humans.

There is no argument that a blind person perceives the world differently. Even a person with color blindness sees the same image differently than one with normal color vision. A deaf person does not hear what others hear. Disabilities aside, there is even a difference between people with perceiving the same sensory input. The interpretation of that sensory input is colored by experience, culture, and expectations, even if all human sensory organs functioned exactly the same in terms of amplitude response, frequency response, and bandwidth. So all men (and women) are not created equal.

Different stimuli can mix, creating new sensations. Synesthesia is when your brain routes sensory information through multiple unrelated senses. For example, a yellow color can elicit a taste response for citric fruits. A certain frequency sound can create a vision of a Greek statue. This behavior

is not so uncommon and is frequently found among artists, geniuses, and famous people who "see" things differently.

It is totally believable that some people may be sensitive to variations in the gravity field caused by the orientation of the sun, moon, and planets. The worlds oceans respond to the moon as tides. This is water behaving according to the position of a large mass, not nearby, but in the celestial vicinity. Humans, being more than 90% water, can conceivably be influenced by celestial bodies also. This is all speculation, but anchored to good science.

Do dreams have anything to do with ESP? During sleep mode, background "noise" is reduced to low levels. That is, our sensitivity to external energy sources is lowered. That could mean that we are insensitive to outside stimuli and "tuned" more to internal activity. It could also mean that turning down our brain burden for maintaining awake and alert functions is now freed up to detect other stuff that was always there but was below the noise floor. Dreams could be a form of extra sensory perception. This brings up the subject of what is the sensitivity noise floor for humans and other creatures. That is taken up in the next section.

Then there is the spirit world. Is the belief in God, faith, prayer, and the anti-Christ beliefs in witches, voodoo, all a figment of imagination or is there something perceived by special people. The answer is not to be opined in this essay except to say that science does not rule it out.

Other Creatures

Dogs smell things that we cannot smell. Bats and whales hear things that we cannot hear. Birds sense weak magnetic fields for navigation that we are not responsive to. Insects and fish perceive chemical hormones that are imperceptible to us. Domestic animals are known to become agitated prior to earthquakes and other natural catastrophes.

This all proves that most humans are blind to all that is out there. But some, who are on the fringes, may be sensitive.

Plants

Plants respond to light, temperature, and chemicals. It is an energy transfer. This is one-way communication. ESP is suspected of also being a one-way communication from some other energy source to a human receiver. There may be no purpose for the transfer. There may no intelligence behind the communication. It is just what it is -- an energy transfer. It could be a natural phenomena that we just do not understand at that time, but we may someday with additional knowledge.

Suppose a blind person was seated on a chair in an open field facing the west. It is night time and the air is cool. When the sun begins to rise in the East, the blind person feels a warmth on the back of the neck. There is no obvious source for the cause of the warmth. Something is detected with the temperature senses in the skin. Now suppose that this blind person also had no temperature sensors in the skin. After some time, there would be an uncomfortable feeling of overheating and the need for cooling. The blind and dumb person still has no idea of what could be causing this sensation, but there is a sensation that is out of the ordinary. The imagination could create demons. There is some unexplained phenomena that is perceptible with an unknown origin. It sounds like ESP.

Transducers

As an undergraduate student in a mechanical engineering class, the professor stated that every motor can also become a generator. That was validated later by my electrical engineering friend and mentor. If electrical energy is supplied to a motor then it will turn a shaft. If the shaft is mechanically turned, then the motor will generate electricity - simple. The same is true of every transducer. A sensor is generically a transducer. It is expected to respond to some external stimulus and produce a signal that the recipient can process. But every transducer can also motor. That is, if a signal is provided to the transducer, then it can replicate some form of the external stimulus. That is, it can convert energy in both directions.

Ears detect acoustic energy from the outside and convert that into a signal to the brain. Ears can
170 also generate sound. We know that from sensitive microphones placed near some peoples ears.

Acoustic energy has been measured coming from their ears. The brain somehow provides a signal to
the ear to make it motor. That is evident in some people with tinnitus.

The eyes are extensions of the brain. They are sensitive to light of a certain frequency range and
convert that into a signal that the brain can process as an image of the external world. The next line of
175 reasoning is -- Can the brain supply a signal to the eyes to transmit light outward? We do not know and
no one has tested that concept, but it is theoretically possible. Human can and do communicate with
their eyes. This could be a means of ESP or what we might call "Karma".

Human vision is most sensitive to motion. It is known that light energy striking a cone in the
retina from a still image stays on that cone for some time with a delayed response time. If a fresh new
180 light signal strikes that same cone, then it resets and responds actively to a motion change. So our
vision is programmed to be most responsive to motion, which is a good adaptation for survival. A
similar transient response for our hearing makes it more alert to changes, again a survival adaptation.

We have developed sensors and instruments that can now detect things that are invisible to our
5 or 6 natural sensors. The next obvious question is -- Can we develop a sensor to detect ESP energy?
185 The answer should be a resounding YES. It could be a small wire coil sensor to detect electrical energy.
It could be a very low resistance device to also detect electrical energy. It could be a charge sensor. It
could be something that amplifies magnetism. It could be an active device or a passive one. The
implication is that ESP energy is electrical, but it may not be. It could be magnetic, it could be
gravitational, or it could be something else. We know that electrical signals circulate on the skull and
190 brain activity across neurons is via moving ions, which are charged electrically. Whenever a charged
particle moves, then a magnetic field is created around it.

Prove it

Historically, research into ESP has been with statistics. Cards with images were presented to a
195 test subject while another subject in another room was asked to guess the image. Results were judged
based on the number of correct responses. That approach has now been exposed as flawed because of
the leaked signals. I can think of several other experiments.

One would be to invent a detector that is sensitive to the energy that is being transferred. Since
we do not what that energy is, it's amplitude, it's frequency range, or even what kind of energy it is,
200 then that is an open field for inquiry. All we know at this point is what kind of energy it is not. It is not
contact. Being non-contact suggest one of the field energies that we know of -- electrical, magnetic, and
gravity. There is always the possibility of some unknown field yet to be discovered. It is not one of the
5 normal human sensors that we sample the outside world with. It is not of high amplitude to be
obvious. It is not on board the average person. If it is a field energy, then the characteristic that we must
205 be observant for is what can shield it.

A second experiment would be an energy balance. If we capture a subject in a closed system
where all energy going in or coming out can be accurately accounted for, then there is some hope of
measuring a leaked energy from the unbalance. That would only be the beginning. That would be a
difficult experiment to have confidence in because heat energy cannot be totally blocked from
210 conducting through the barriers.

A third experiment could be monitoring brain activity via electrical or magnetic sensors and
correlate that activity to external energies. That is, create an event outside the person that might
stimulate some brain activity. Then take those brain activity signals and amplify or filter them and
transmit the modified signals to a receiver. The receiver could be another person or some sort of
215 actuator that moves when receiving the modified signal. This study would characterize the signal and
the transmission medium.

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