

THE EXTENDED MIND

By Rupert Sheldrake

My idea of the existence of the mind beyond the physical brain is what I call the extended mind. I would like to suggest that the mind is much more extensive than the brain and stretches out through fields that I call *morphic fields*. Morphic fields, like the known fields of physics such as gravitational fields, are non-material regions of influence extending in space and continuing in time. They are localized within and around the systems they organize. When any particular organized system ceases to exist, as when an atom splits, a snowflake melts, or an animal dies, its organizing field disappears from that place. But in another sense, morphic fields do not disappear: they are potential organizing patterns of influence, and can appear again physically in other times and places, wherever and whenever the physical conditions are appropriate. When they do so, they contain within themselves a memory of their previous physical existences. Because the existence of these fields has intrigued me for a long time, I have developed experiments that do provide strong evidence for them as a scientific hypothesis.

We are all familiar with fields that extend from material objects; the most obvious example is a magnet. The magnet is a physical, material object you can hold in your hand, but it has a region of influence stretching all around it—the magnetic field—that is invisible and can have effects over a distance.

Another, more modern example is the cellular phone. The material object you hold in your hand has a material composition which you can weigh and analyze, but its function depends on much more than its material constituents. It depends on invisible fields that stretch out far beyond the limits of the cell phone itself and its whole function depends upon those extended fields. Likewise, the fields of our mind are rooted in the brain, but they extend out far beyond it in accordance with our attentions and intentions.

The idea that the mind is more extensive than the brain is not a new idea, but is found in the ancient philosophies of Greece and India and in Buddhist traditions. It is something Theosophists have been talking about for a long time as well.

The conventional scientific view is that the mind is the brain or mental activity is only activity in the physical brain—in other words, that it is all inside the head. This is what many of my scientific colleagues take for granted. (At least when they are at work.) It is also the view on which billions of dollars are spent every year in medical and brain research, and it is what is taught in schools and universities. It is the mainstream assumption of our culture. However, it is just an assumption. It is a theory that hasn't been properly tested because it has not been questioned. We can actually test this theory and refute this assumption by means of fairly simple experiments.

As soon as we accept the theory that the mind is more extensive than the brain, a whole range of unexplained phenomena begin to make sense. These include the sense of being stared at, telepathy, and a whole range of even more mysterious phenomena like premonitions. All of these things are normal: normal in the sense that they are common, many have experienced them, they actually happen, and they are part of nature. Yet they are all considered taboo from the point of view of conventional institutionalized science because they do not fit in with the materialistic view of the mind being inside the head. Most scientists prefer not to discuss these phenomena and consider their existence impossible. In fact, some skeptics get extremely angry at the mere mention of things like telepathy, and there are organized groups of skeptics who serve as vigilantes, policing the frontiers of science and trying to suppress discussion and research on these topics. As I am one of their primary targets, it has caused me to reflect on why people get so angry about this. I think it is because these phenomena are anomalies that threaten the prevailing material worldview. Many people accept the material worldview and have made it something of a religion. Evangelical materialists are terrified that if any of these theories are accepted, science and reason will crumble into dust and that civilization will be overrun by what Freud called “the black mud of superstition.” These things are so frightful to some that they feel these theories must be kept at bay at all cost.

Rather than dogmatically denying them outright, testing these phenomena openly would be in the true spirit of scientific inquiry. All science is based on critically examining evidence to see if there could be alternative explanations. This is how organized science works.

VISION

To get a sense of the extended mind, we can use the nature of vision as an example. Vision is absolutely fundamental to the experience of humans and most animals. The usual view of vision is that light travels through the electromagnetic field after reflecting off an object and enters your eyes, inverted images appear on your retina, changes occur in the cone cells, electrical impulses go through the optic nerve, and then complex electrical and chemical patterns of activity occur in the brain. All this has been studied using neuro-physiological methods. But then something very mysterious happens that science cannot explain: you become conscious of what you are seeing.

Consciousness itself is the biggest mystery of science. There is nothing about consciousness in physics, chemistry, or biology textbooks. Yet it is the basis of all our experience in science itself. The fact that you have become conscious of your experience is still a mystery.

An even greater mystery is that the experience you have happening before you is meant to be happening inside your brain, but you don't experience it as being inside your brain. You experience the image you see before you as being in front of you! I

propose that the image you have of an object is located right in front of you. It is not inside your brain. Vision involves a two-way process: inward movement of light and an outward projection of images. So everything you see around you is where it seems to be. These images are projected out by the mind. They are in the mind because they are interpreted by your mind, produced by the mind, but they are not inside the brain.

In other words, our minds reach out to touch what we are looking at. The images we project out coincide with what we are seeing. If they didn't, we would be bumping into things all the time. (This would obviously be a disadvantage from the survival point of view.) The fact that everything goes along smoothly and we are not crashing into things is something we take for granted. This two-way vision is much more in accordance with our experience. It is what Hindus, Buddhists, sages, and Tibetan Masters believe and also what children, usually under the age of ten, believe.

According to the Swiss developmental psychologist Jean Piaget's studies on children's intellectual development before the age of ten, the average child believes that vision involves the outward movement of influences from the eyes. After the ages of ten or eleven, Piaget remarks, that the average child learns the "correct view," which is that thoughts and images are invisible things located inside the head.

Most of us have been brought up with this idea. It is part of the standard assumptions of our culture. Most people, when they assimilate this idea, are too young to challenge what is actually a philosophical theory that has become an integral part of our culture. The idea that all thoughts exist solely in the brain started as an eccentric philosophical theory in the seventeenth century and has now become a predominant theory throughout the Western world. It has never been the dominant theory in other cultures.

If our minds do reach out to touch what we are looking at, this has rather amazing implications. It means we can affect what we look at just by looking at it, and the way we look at it may affect it also. This also means our minds can reach out over enormous distances. For example, if we are looking at an enormous mountain quite a distance away, our minds reach out that distance. If we look at a star, many light years away, our minds literally reach out over astronomical distances into the universe.

If I am not just playing with words, then our minds reaching out and touching things should have a measurable effect on what we look at. When I first thought of this, I thought that it must be pretty implausible because otherwise it would have already been noticed and documented. Then I realized that people do notice it. Most of us have had the experience of turning around and finding that someone has been looking at us; we have the sense of being stared at. Most of us have also had the experience of looking at others and making them turn around. Ninety percent of the people I surveyed had experienced this phenomenon. Surveys completed by Gerald Winer and his colleagues from the University of Ohio have given even higher figures of about 95%. There is a difference in the results between men and women, however.

More women than men have experienced the sense of being looked at while more men than women have done the looking, making others turn around.

These are very common experiences. What does science have to tell us about them? Practically nothing. The total number of papers published on this phenomenon between 1890 and 1990 amounted to four. Oddly enough, even parapsychologists have ignored this phenomenon, while most scientists will try to dismiss the results, stating it is coincidence or a matter of chance. But what is the evidence that this is so? In order to examine what the evidence is, we need to do statistical experiments. I have developed an extremely simple experimental method for testing this phenomenon. It is so simple that thousands of school children have done it. I conduct these experiments in schools because children tend to be more sensitive than adults, and I found school teachers are interested in them because most school teachers use the power of the gaze as their stock in trade for controlling unruly children!

The experiment includes two people and a blindfold worn by one of them. The person with the blindfold—the subject—sits in front of the other person. A signal, such as a bell, is used to let each person know the experiment is beginning. The subject must guess whether they are being looked at or not. The subject says “looking” or “not looking” and he or she is right or wrong. If the subject is guessing, they would be right 50% of the time, but the actual score of this experiment is over 50%. When the experiment is done over and over again, the percentage increases significantly. In the “looking” trials the results are 60% correct and 40% wrong. In the “not looking” trials, the results are about 50-50.

Interestingly, when the data is plotted subject-wise, there is a significant change in the results between “looking” and “not looking.” When someone is looking at them, there are more people who are right than wrong. This makes perfect sense. In the “looking” trials, people have a sense of being looked at, which is when you would expect the experiment to work. In the “not looking” trial people are being asked to do something that is totally unnatural. We don’t have a sense of not being stared at and under those conditions people are just guessing. (The only people who might be conscious of not being stared at are people who are exceptionally vain. But for most people, not being stared at is not something nature has equipped us to sense.) We also know that it is not a matter of subtle clues which allows these results to happen. We have found that the same effect takes place when using a one-way mirror or by having someone stare through a window. Skeptics have repeated these experiments and to their surprise got the same results. [These results can be found in Dr. Sheldrake’s book, *The Sense of Being Stared At*, or on his website at www.sheldrake.org.]

Similar experiments have been done in a number of universities and institutes using closed circuit television (CCT). For example, Marilyn Schlitz from the Institute of Noetic Sciences has shown that people can sense when they are being looked at even when it is through CCT. In her experiments people are not asked to guess whether they are being looked at or not, but instead electrodes are placed on their fingers and

their skin resistance is measured. This is much like a lie detector test. When a person is emotionally aroused, a certain amount of adrenaline is secreted into the bloodstream making a person sweat and changing the skin resistance. Schlitz had subjects sit in a room with a video camera on them while the monitor was in another room, sometimes a great distance away. When the subject's images on the television screen were looked at, their skin resistance changed.

The reality of the CCT experiment led me to look into the experience of those who watch people for a living. I interviewed dozens of security guards, private detectives, the drug squad at Heathrow Airport, and store detectives at Harrods and other shops in London, all of whom look at people through CCT monitors. Most people who work in those fields are convinced that people can tell when they are being looked at even through CCT.

Many people have found that animals can sense when they are being stared at. Pet owners have found that they can wake their dog or cats by staring at them and that they can tell when their pet is watching them. This shows that the feeling of being watched crosses species boundaries. In fact, when you reflect on this you will see it could have enormous implications in the animal kingdom.

I would like to suggest that all animal vision involves the art of projection of images and the contact of what is being looked at. If prey can tell when predators are looking at them, they can get out of the way. This would be of value to survival behavior of natural selection. This basic ability could have an evolutionary history. What looks like a quirky phenomenon on the margins of human psychology may be an everyday occurrence in the animal kingdom.

In this light, it is interesting to reflect on the popular folklore behind the power of the gaze. In India, for example, it is believed that if a holy person looks at you, the look is a great blessing; however, there is a negative effect if one looks at another in anger or envy. People believe in the "evil eye" in Southern Europe, the Arab world, Turkey, Greece, India, and many other parts of the world. Many people try to protect themselves against such looks with amulets or special prayers.

These beliefs also were common in England until the seventeenth century, when skepticism suppressed such thoughts, but in Greece, as mentioned before, this belief is still very common. A research assistant of mine in Athens, appropriately named Socrates, surveyed people in Greece about the evil eye and found that this belief is almost universal. Most modern Greeks who had an education, especially in science or engineering, felt that they shouldn't believe such a thing is true and have a veneer of rational thought, but not very far beneath it is the traditional belief in the evil eye. I have no experimental evidence to show that envy does in fact bring about harm, but I think that a belief in the power of the gaze shows that people implicitly believe in the mind reaching out to affect what is looked at. When one thinks of this in the context of the predator-prey relationship, then the evil eye makes a lot of sense. It is frightening

to be looked at by someone who is envious because it involves a kind of predatory attitude.

CONCLUSION

There is a huge amount that we don't understand about the mind, but I do think we can tackle each phenomenon scientifically with relative ease. Some people ask me why I waste my time trying to prove things that everyone knows exist. In a sense this is true. All of us have experienced these things and know they exist. On the other hand, we have an official system of knowledge in institutional science that has been denying these things for a very long time because of the materialistic paradigm. I think as we move beyond the materialistic belief to the belief of the extended mind, we will simply expand the scope of science. This won't involve abandoning science and reason, but it will be good news for science and reason because people will no longer have to go on irrationally denying phenomena that do not fit into their worldview. I think this will be quite liberating even for materialists. None of this comes as a surprise to Theosophists who have studied these concepts for more than one hundred years, but it will make a big difference when these ideas are accepted by institutionalized science for both our understanding of the mind and the implications this understanding will have in fields like alternative medicine (the impact of mental intentionality on healing), psychology (the impact we have on other people and they on us), and our relationship to the animal kingdom.