The Extraordinary Mental Bending of Professor Taylor

Martin Gardner

No one can say that John G. Taylor, professor of mathematics at Kings College, University of London, is not a brilliant and colorful personality. He was born in 1931 at Hayes, Kent, the son of an organic chemist. After getting his doctorate at Cambridge University, he taught mathematics and physics at a number of colleges in England and the United States, including a stint as professor of physics at Rutgers University. His technical papers (more than a hundred) display a wide range of interests that include pure mathematics, particle physics, cosmology, and brain research.

There is another side to Professor Taylor that I can best characterize as that of a ham actor who thrives on crowd adulation and personal publicity. When in the United States, he studied acting at the Berghof Herbert Studio, in Manhattan, and for a while was "sex counselor" for *Forum* magazine. In England, his constant appearances on radio and television shows made him such a celebrity that in 1975, when the respected British magazine *New Scientist* conducted a poll of readers to determine the world's top twenty scientists, Taylor made the list. The magazine's cover ran his picture alongside Archimedes, Darwin, Einstein, Galileo, Newton, and Pasteur!

Taylor also enjoys writing popular books about science, of which his best known was the international best-seller *Black Holes* (1973). It is not a bad introduction to black-hole theory, but toward the end of the book Taylor indulges in lots of freaky conjectures. He thinks it quite possible, for example, that Earth was visited in the distant past by extraterrestrials, who may have come in spaceships driven by "black-hole power genera-

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tors." Saturn, he tells us, is the most likely planet that "high-gravity aliens" could have used as a way-station in their explorations of our solar system.

In his last chapter, Taylor considers the possibility that we have souls that are structured forms of energy capable of moving from one body to another. The universe, he reminds us, has two possible destinies. It may expand forever to die the familiar thermodynamic "heat death," or it may go into a contracting phase and eventually be crushed out of existence by a black hole. In either case, no matter will be left "which could realistically be said to be worth having a soul." However, the universe may bounce back from the big crunch. "The only chance of immortality then is in an oscillating universe. Even in that, everlasting life will not be of the usual form but one in which there may be no relation at all between one cycle and the next due to the enormous re-scrambling of matter in the collapsed phase. It could well be that souls will have to cast lots as to which of the variety of bodies they will inhabit in subsequent lives. That is, of course, unless the hand of God intervenes, his wonders to perform."

There is one other possibility of immortality. If one fell into a black hole, says Taylor, he might emerge in a parallel universe. This, however, has a big shortcoming. If two "close friends" fell into different holes, they could find themselves in separate universes with no possibility of reunion. "So there is always the chance that the immortality gained by falling through a rotating black hole may be a very lonely one."

In view of such quirky speculation, it was not surprising that in 1973, when Taylor appeared on a BBC television show with Uri Geller, he was so stunned by Geller's magic that he became an instant convert to the reality of ESP and PK. Geller did his familiar trick of duplicating a drawing in a sealed envelope. "No methods known to science can explain his revelation of that drawing," wrote Taylor with his usual dogmatism. The professor's jaw dropped even lower when Geller broke a fork by stroking it. "This bending of metal is demonstrably reproducible," Taylor later declared, "happening almost wherever Geller wills. Furthermore, it can apparently be transmitted to other places—even hundreds of miles away."

"I felt," said Taylor in his most often quoted statement, "as if the whole framework with which I viewed the world had suddenly been destroyed. I seemed very naked and vulnerable, surrounded by a hostile and incomprehensible universe. It was many days before I was able to come to terms with this sensation."

Although Taylor was supremely ignorant of conjuring methods, and made not the slightest effort to enlighten himself, he at once set to work testing young children who had developed a talent for metal bending after seeing Geller on television. Taylor's controls were unbelievably inadequate. Children, for example, would put paper clips in their pocket and

John G. Taylor, *Superminds*

One of the youngsters that Taylor, in *Superminds*, claimed could bend metal.

later take one out twisted. Nevertheless Taylor was persuaded that hundreds of youngsters in England had the mind power to deform metal objects. Curiously, Taylor never actually *saw* anything bend. One minute a spoon would be straight, later it would be found twisted. Taylor named this the "shyness effect." Metal rods were put inside sealed plastic tubes and children were allowed to take them home. They came back with the tubes still sealed and the rods bent. One boy startled Taylor by materializing an English five-pound note inside a tube.

So certain was Taylor that his high I.Q., combined with his knowledge of physics, gave him the ability to detect any kind of fraud that he rushed into print a big book called *Superminds* (published here by Viking in 1975). It will surely go down in the literature of pseudoscience as one of the funniest, most gullible books ever to be written by a reputable scientist. It is even funnier than Professor Johann Zöllner's *Transcendental Physics*, inspired by the psychic conjuring of the American medium Henry Slade. Taylor's book is crammed with photographs of grinning children holding up cutlery they have supposedly bent by PK, tables and persons floating in the air during old Spiritualist seances, glowing ectoplasmic ghosts, psychic surgeons operating in the Philippines, Rosemary Brown displaying a musical composition dictated to her by the spirit of Frederic Chopin, and numerous other wonders.

Not the least peculiar aspect of Taylor's volume was his argument that all paranormal feats, including religious miracles, are explainable by electromagnetism. "The Geller effect is a case in point. Will it ever turn out

that the miracles of Jesus Christ also dissolve in scientific speculation. ...This book has presented the case that for one modern 'miracle,' the Geller effect, there *is* a rational, scientific explanation. This explanation is also claimed to allow us to understand other apparently miraculous phenomena—ghosts, poltergeists, mediumship, and psychic healing. What, then, of other miracles? Can they too be explained by these newly discovered powers of the human body and mind, and the properties of matter broadly described in the book?"

After writing *Superminds*, of which let us hope he is now super-ashamed, Taylor slowly began to learn a few kindergarten principles of deception. When the Amazing Randi visited England in 1975, Taylor refused to see him; but Randi managed to call on him anyway, disguised as a photographer-reporter. You'll find a hilarious account of this in Chapter 10 of Randi's Ballantine paperback, *The Magic of Uri Geller*. Taylor proved to be easier to flimflam than a small child, and his "sealed" tubes turned out to be so crudely sealed that Randi had no trouble uncorking one and corking it again while Taylor wasn't looking. Randi even managed to bend an aluminum bar when Taylor's attention was distracted, scratch on it "Bent by Randi," and replace it among Taylor's psychic artifacts without Taylor noticing.

Another crushing blow to Taylor's naive faith in Geller was a test of the "shyness effect" by two scientists at Bath University. They allowed six metal-bending children to do their thing in a room with an observer who was told to relax vigilance after a short time. All sorts of bending at once took place. None was observed by the observer, but the action was secretly being videotaped through a one-way mirror. The film showed, as the disappointed researchers wrote it up for *Nature* (vol. 257, Sept. 4, 1975, p. 8): "*A* put the rod under her foot to bend it; *B*, *E* and *F* used two hands to bend the spoon... while *D* tried to hide his hands under a table to bend a spoon."

Slowly, as more evidence piled up that Geller was a charlatan and that the "Geller effect" never occurs under controlled conditions, Taylor began to have nagging doubts. After several years of silence, he suddenly announced his backsliding. Of course he didn't call it that. Instead, he and a colleague at Kings College wrote a technical article for *Nature*, "Can Electromagnetism Account for Extrasensory Phenomena?" (vol. 276, Nov. 2, 1978, pp. 64-67; also SKEPTICAL INQUIRER, Spring 1979, p. 3.)

In *Superminds*, after considering all possible ways to explain psi phenomena by known laws, Taylor concluded that only electromagnetism offered a viable possibility. The *Nature* paper reinforces this view. Electromagnetism, the authors decide, "is the only known force that could conceivably be involved." They then report on a series of carefully controlled

tests of ESP and PK using talented subjects. No psi phenomena occurred. When controls were eased, the phenomena did take place but the experimenters could not detect a whiff of electromagnetic radiation. Their conclusion is that all the phenomena they investigated, metal bending in particular, have normal explanations.

More was to come. In *Nature* (vol. 279, June 14, 1979) the same authors published a sequel to their first paper. In this sequel, titled "Is There Any Scientific Explanation of the Paranormal?" they again stress the fact that "on theoretical ground the only scientific explanation [for psi forces] could be electromagnetism." Their conclusion is that neither electromagnetism "nor any other scientific theory," including quantum mechanics, can explain dowsing, clairvoyance, or telepathy. "In particular there is no reason to support the common claim that there still may be some scientific explanation which has as yet been undiscovered. The successful reductionist approach of science rules out such a possibility except by utilization of energies impossible to be available to the human body by a factor of billions. We can only conclude that the existence of any of the psychic phenomena we have considered is very doubtful."

Now it is pleasant for skeptics like me, who also regard psi phenomena as possible but "very doubtful," to welcome Taylor back to our ranks. But surely his reasons are as shaky as those that converted him to the paranormal six years ago. The history of science swarms with observed phenomena that were genuine but had to wait for centuries until a good theory explained them. A lodestone's magnetism was sheer magic until the modern theory of magnetism was formulated, and even today no physicist knows why the acceleration of electrical charges inside atoms causes magnetic effects. It is not even known why electricity comes in units of positive and negative charge, or whether magnetic monopoles exist as theory seems to demand.

Kepler correctly decided, on the basis of confirmable correlations, that the moon causes tides; but in the absence of a theory, even the great Galileo refused to believe it. One could add hundreds of other instances in which a phenomenon was authenticated long before a theory "explained" it. On this I find myself in full agreement with J. B. Rhine and other parapsychologists who regard the lack of a physical theory as no obstacle whatever to the acceptance of psi.

Science cannot absolutely rule out the possibility of anything, but it can assign low degrees of probability to extraordinary claims. In my view, which is the view of most psychologists, the classic psi experiments are more simply and plausibly explained in terms of unconscious experimenter bias, unconscious sensory cuing, fraud on the part of subjects eager to prove their psychic powers, and, on rare occasions (such as those recently

disclosed about S. G. Soal), deliberate fraud on the part of respected investigators.

The central point is this. When science assigns a low degree of credibility to an extraordinary claim, it does so by evaluating the empirical evidence. Geller and the spoon-bending children are indeed frauds, but the reasons for thinking this have nothing to do with the fact that the supposed "Geller effect" is unsupported by an adequate physical theory. It is because the conjuring techniques for fraudulently bending metal are now well known, and because the metal invariably refuses to twist whenever the controls are commensurate with the wildness of the claim. •

Sidney Harris in *American Scientist*.
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