

Larry Dossey

Interconnectedness

A Time Bomb Ready to Explode in Medicine?

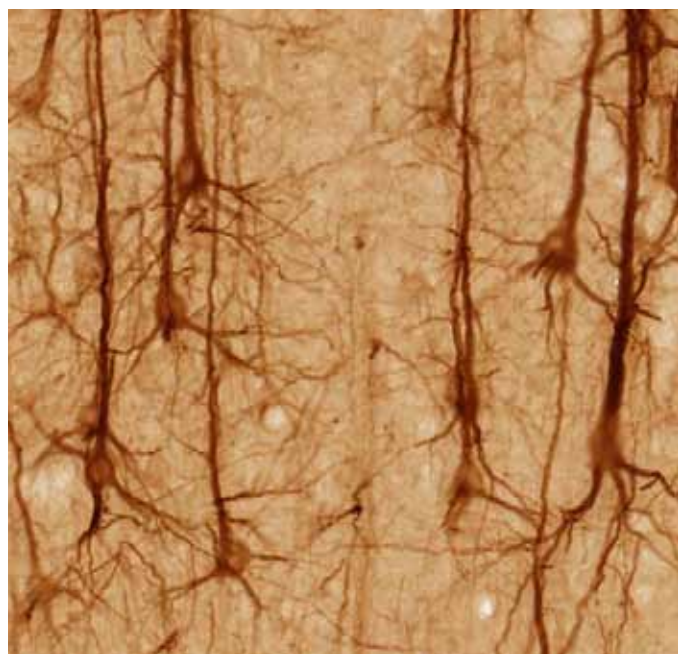
The notion of a separate organism is clearly an abstraction, as is also its boundary. Underlying all this is unbroken wholeness even though our civilization has developed in such a way as to strongly emphasize the separation into parts.¹

— David Bohm and Basil J. Hiley, *The Undivided Universe*

“I suddenly developed a severe headache in the back of my head,” the nurse said tearfully. “It was so painful I could not function and had to leave work. This was strange, because I never have headaches. When I reached home and was lying in bed, the phone rang. A relative told me that my beloved brother had been killed from a gunshot wound to the back of his head, the same place my terrible headache was located. I discovered that my headache began at the same time the shooting occurred.”

The woman was a prominent nurse leader at a major hospital in northern California. The occasion was a Q & A session following an address I had given to senior staff and directors of the hospital consortium to which her hospital belonged. My topic was the importance of empathy, compassion, and caring in healing and healthcare. I had reviewed empirical evidence suggesting that empathy and compassion are more than vaporous emotions that float in our bodies somewhere above our clavicles. They are part of our biological makeup, I suggested. Empathy and compassion function when we are in the presence of another person, I said, as when a nurse or physician is at the bedside of a patient. But evidence also suggests they also operate between individuals at a distance, beyond the reach

of the senses. Distant individuals often share feelings, sensations, and thoughts, particularly if they are emotionally close. These experiences, I said, are called “telesomatic events” (of which more later). Hundreds of such cases have been reported



Credit: Mediat/Wikipedia

over the years, but have been largely ignored. This discussion had prompted the nurse to reveal her extraordinary experience to several hundred of her colleagues in the audience. “Now I have a term for what happened between my brother and me,” she said. “Now I can talk about it.” Her story mesmerized the audience. When she finished, she was not the only individual in the room who was in tears.

Though ignored by the mainstream of science and medicine, the nurse’s story may not be all that surprising to some people. After all, it was her brother who was involved. If something like this were to happen, you might reason, it would make sense that it would happen between such emotionally bonded people. But this story only begins to unveil a much deeper connection between all of us.

Levels of Connectedness

Neuron to neuron

In 2009, a team of Italian researchers led by neuroscientist Rita Pizzi demonstrated that when one batch of human neurons was stimulated by a laser beam, a distant batch of neurons registered similar changes, although the two were completely shielded from each other.²

Brain to brain

In the 1960s, pioneer psychologist Charles Tart at the University of California-Davis and researchers Duane and Berendt demonstrated correlated patterns in the EEGs of distant individuals. The latter research involved identical twins. In order to test anecdotal reports that twins share feelings and physical sensations at a distance, even when far apart, they altered the EEG pattern of one twin and observed the effect on the other. In two of fifteen pairs of twins tested, eye closure in one twin produced not only an immediate alpha rhythm in his own brain, but also in the brain of the other twin, even though he kept his eyes open and sat in a lighted room.^{3,4}

The Duane and Behrendt twin study was published in the prestigious journal *Science*, and prompted enormous interest. Ten attempted replications followed, by eight different research groups around the world. Of the ten studies, eight reported positive findings, reported in mainstream journals such as *Nature* and *Behavioral Neuroscience*.^{5, 6, 7, 8, 9, 10, 11, 12, 13, 14}

In the late 1980s and 1990s, a team headed by psychophysicist Jacobo Grinberg-Zylberbaum at the University of Mexico published experiments that, like most of the previous studies, claimed to demonstrate correlations in the EEGs of separated pairs of individuals who had no sensory contact with each other.^{15, 16, 17} Two of the studies were published in the top journals *Physics Essays* and the *International Journal of Neuroscience*, and stimulated further attention to this unconventional field.^{18, 19, 20}

The studies became increasingly sophisticated. In one, Jiri Wackerman, an EEG expert from Germany's University of Freiberg, attempted to eliminate all possible weaknesses in earlier studies and apply a refined method of analysis, concluding, "We are facing a phenomenon which is neither easy to dismiss as a methodological failure or a technical artifact nor understood as to its nature. No biophysical mechanism is presently known that could be responsible for the

observed correlations between EEGs of two separated subjects."²¹

As fMRI brain-scanning techniques matured, these began to be used, with intriguing results. Psychologist Leanna Standish at Seattle's Bastyr University found that when they stimulated one individual in one room using a flickering light, there was a significant increase in brain activity in a person in a distant room.²²

In 2004, three new independent replications were reported, all successful—one from Standish's group at Bastyr University,²³ one from the University of Edinburgh,²⁴ and from researcher Dean Radin and his colleagues at the Institute of Noetic Sciences.²⁵

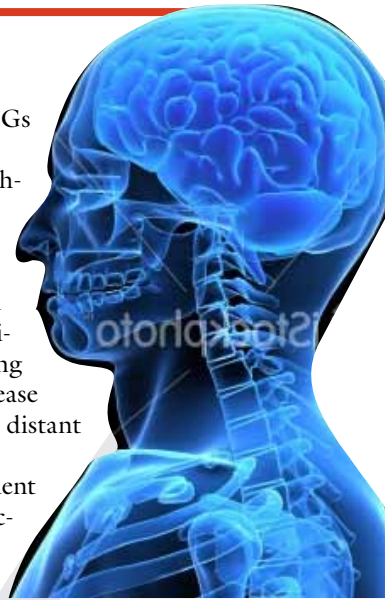
Person to person

Strong evidence that our thoughts, emotions, and behaviors may influence someone remotely may have surfaced in recent analyses of social networks. James H. Fowler, a political scientist at the University of California, San Diego, and Nicholas A. Christakis, a physician and social scientist at Harvard Medical School, published a provocative article in 2008 in the *British Medical Journal*, titled "Dynamic Spread of Happiness in a Large Social Network."²⁶ Christakis says, "[H]appiness is more contagious than previously thought." He explains, "Your happiness depends not just on your choices and actions, but also on the choices and actions of people you don't even know who are one, two and three degrees removed from you.... Emotions have a collective existence—they are not just an individual phenomenon."²⁷

From 1983 to 2003, Fowler and Christakis collected information from 4,739 people enrolled in the landmark Framingham Heart Study and from several thousand other individuals with whom they were connected—spouses, relatives, close friends, neighbors and co-workers. They found, says Fowler, that, "[I]f your friend's friend's friend becomes happy, that has a bigger impact on you being happy than putting an extra \$5,000 in your pocket." The idea that the emotional state of your friend's friend's friend could profoundly affect your psyche naturally created a sensation in the popular media. As a *Washington Post* journalist put it, "[E]motion can ripple through clusters of people who may not even know each other."²⁸

It's not just happiness that gets around. The team also found that depression, sadness, obesity, drinking and smoking habits, ill-health, the inclination to turn out and vote in elections, a taste for certain music or food, a preference for online privacy, and the tendency to think about suicide are also contagious.^{29, 30} What is going on?

Christakis and Fowler published their findings about the spread of obesity in large social networks in the *New*



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England Journal of Medicine, widely considered the most influential medical journal in the world. They showed that obesity in people you don't know and have never heard of can ricochet through you. They attributed the contagiousness of obesity to a "social network phenomenon" without proposing any specific physiological or psychological mechanism.³¹ To label something, however, is not to explain it, and to merely call this sort of contagiousness a "social network phenomenon" has all the explanatory value of saying "what happens happens." In the commentary that accompanied their *NEJM* article, the experts who weighed in took the same tack. They discussed the genetic factors that influence obesity and the connections within and between cells that may contribute to overweight, but they too were mute about how distant humans might influence each other when they are beyond sensory contact.

Some suggest that the ripples work through the action of mirror neurons, which are brain cells believed to fire both when we perform an action and when we watch someone else doing it. But when people are remote from each

other, there is no one to watch, and therefore no stimulus for the mirror neurons to fire. Others suggest that the spread is through mimicry, as when people unconsciously copy the facial expressions, body language, posture, and speech of those around them. But again, the involved individuals are often out of sight of one another; who is there to mimic? When all is said and done, Fowler and Christakis say they don't really know the mechanism by which happiness spreads.³²

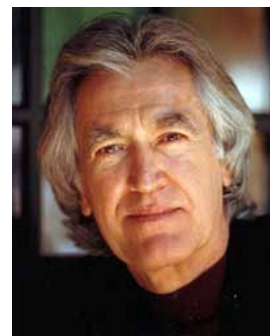
There is a hint of desperation in the attempts to find some sneaky, person-to-person factor that mediates changes between distant individuals through some physical mechanism. The attempt may succeed, but so far it's batting zero.

The fact that your friend's friend's friend, someone you've neither seen nor heard of, is affecting your health has begun to rattle many of the gatekeepers in medicine. This field may be a bomb with a delayed fuse that is getting ready to explode in the very heart of materialistic medicine. A few medical insiders are already raising the possibility that something radically

different than usual may be going on, something possibly related to a collective consciousness linking distant individuals. Among those suggesting a role for consciousness in social network phenomena is Dr. Robert S. Bobrow, clinical associate professor in the Department of Family Medicine at New York's Stony Brook University. In discussing the spread of obesity in his 2011 article in *Explore*, "Evidence for a Communal Consciousness," he says, "Frankly, obesity that develops from social connection, without face-to-face interaction, suggests emotional telepathy."³³

If these experiments don't take your breath away, they should. They suggest that the notion of human isolation is a myth. Human consciousness can manifest in the world beyond the brain. We are linked, united, entangled. For better or for worse. Until death do us part. And perhaps even then...

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