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Explorations

Love and healing

I do not ask how the wounded one feels,
I, myself, *become* the wounded one.
~ Walt Whitman, *Leaves of Grass,* 1855 •

One of the wisest lessons I learned in my medical education came not from a professor or a textbook but from graffiti. The message was scrawled on the inside door of the men's room in the interns' on-call quarters at Parkland Memorial Hospital in Dallas. Sitting on the toilet, the words stared you in the face: THE SECRET TO PATIENT CARE IS CARING FOR THE PATIENT. [I learned later that this aphorism is attributed to Sir William Osler (1849-1919), who is known as the father of American medicine.] The first time I saw this graffito I was stunned. I had never heard anyone in medical school talk about the importance of love and caring. Which of my colleagues had had this insight? Why had he taken the trouble to scribble these words? It was ironic that he had announced his observation about caring in the secrecy of a men's room. Was a restroom wall the only place in this huge hospital where he could express a matter of the heart? Was caring so controversial that it was being driven into the toilet?

Love may be the most overworked term in our culture; but remove it and its relatives — caring, empathy, compassion — from medicine, and our hospitals and clinics become houses of horror.

"During the 1930s, my grandmother saw a specialist about a melanoma on her face," writes medical ethicist E.J. Cassell. "During the course of the visit when she asked him a question, he slapped her face, saying, 'I'll ask the questions here. I'll do the talking.' Can you imagine such an event occurring today? Melanomas may not have changed much in the last fifty years, but the profession of medicine has."[1]

A similar example was related to me by my wife Barbara, who is a cardiovascular nurse, educator, and author. She was taking care of an eighty-year-old man had been admitted to the coronary care unit for what proved to be a fatal heart attack. An hour following his admission, his no-nonsense cardiologist stormed through the swinging doors into the waiting area where the patient's elderly wife, realizing her husband was dying, sat weeping. The doctor was in a rage. "Your husband is doing terribly!" he blustered. "He refuses to cooperate with anything I'm doing for him!" The woman did not know how to respond. Eventually she managed to offer through her tears, "Doctor, I'm sure he doesn't mean it. He's such a good man! Please don't feel badly toward him."[2]

Hospitals should ideally be temples of compassion. But in the frenzy of high-tech medicine, we physicians who work in them too often take our eyes off love — with disastrous results, as in the following case from an article with the intriguing title "Death by Destruction of Will," reported in the prestigious *Archives of Internal Medicine*:[3]

A 93-year-old woman was admitted involuntarily to a psychiatric hospital's geriatric unit for increasing impairment in memory and deterioration of the conditions of her home, where she lived alone. She was functionally independent in the unit, and was bright, cheerful, and loving toward the staff. After 2 uneventful weeks in the unit, she was moved to a medical hospital for evaluation and management of anemia and stools positive for occult blood. When seen by the examining team, she denied symptoms of illness, telling them, "I'm as healthy as you are." Findings from the physical examination revealed a hard, 4-cm abdominal mass in the right lower quadrant.

Laboratory investigations revealed [significant anemia] ....

Plans were made for a [colon Xray] and transfusion. Almost immediately, problems began to develop with the patient's desire to move about and her tendency to forget about her intravenous lines. A vest restraint was first applied, which led to agitation and struggling.... Leather restraints were applied to her hands and feet. ...[A]n altercation occurred when [she] got out of her restraints, bit her intravenous line in two, and moved quickly down the hall. Security guards were called... and she was subdued after a significant struggle. She was again placed in four-point restraints.

After this altercation, a dramatic change in her affect and demeanor was noted. She appeared despondent and broken. She told the house officer she was dying "because God willed it." The next morning, her restraints were removed, her medical orders were revised, and a sitter was hired to eliminate the need for restraints. Her son visited that day and was distraught at the psychological change he saw in his mother. [He] stated that he believed that the hospital was killing her, and that she had lost her will to live.

Later on the third hospital day, an initial attempt at a barium enema was unsuccessful.... [She was transfused].... [A] repeated chest [Xray] showed an [abnormal area] in the right upper lobe with a suggestion of cavitation [suggesting tuberculosis]. The patient was then placed in isolation, and ... empiric treatment for possible pulmonary tuberculosis [was suggested].

...She seemed minimally ill and was eating reasonably well and moving about in her room. On the fifth hospital day...however, her statement...was, "I am going to die." She was found without pulse and respiration [three hours later]...; cardiopulmonary resuscitation was attempted but was unsuccessful.

At autopsy, a...carcinoma of the cecum was identified without evidence of local or remote spread. A small area of consolidation was identified in the right upper lobe of the lung...[C]ultures...were negative.... No evidence of heart disease was found. Examination of the brain revealed no occlusions, softening, tumor, or hemorrhage.

When the case was later discussed, the members of the house staff involved in her care demonstrated no awareness of any potential link

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between the events of her treatment, her changes in affect and behavior, and her death [emphasis added].

Tampa physician Bruce E. Robinson, the author of this report, concludes with the sobering comment, "This woman's story serves to remind us of the critical link between mind and body, and of the mortal consequences that are possible when we forget." And we will keep on forgetting unless we are able to make a place in healing for love and empathy.

Empathy "refers specifically to the ability of physicians to imagine that they are the patient who has come to them for help."[4] It is the ability to share in another's emotions and feelings. If empathy had been present, it would have allowed the team caring for the 93-year-old woman to ask, What did *she* want? What was the hospital experience like for *her*? Would it have been more compassionate to allow her to pass her remaining days peacefully and not subject her to the rigors of a "workup"? Because the house staff was unable or unwilling to share her feelings, their evaluation took on all the sensitivity of a runaway freight train.

There is a tendency in modern medicine to view love as a frill or luxury, or as something that gets in the way of a rational approach to patient care. This is a serious miscalculation. The presence or absence of love can involve life-or-death consequences. This was dramatically demonstrated in a report from the Oklahoma Medical School Hospital, where Drs. Stewart Wolf and William Schottstaedt were conducting metabolic studies examining the role of human interaction on serum cholesterol levels. One of their patients was a 49-year-old man who had had several heart attacks and a history of chaotic relationships. During the hospitalization,

> ...the patient seemed happy and reasonably relaxed, although very eager to please during the first few days of the study while receiving daily visits from his new woman friend. When she left town for a few days without telling him, however, he became anxious. Serum cholesterol concentration rose somewhat until she returned, revisited, and reassured him. During this visit, however, she had met another man whom she preferred. Her daily visits to the patient fell off and... she told him that she had abandoned the plan to marry him and would not see him again. He became intensely depressed. Again the serum cholesterol rose and the following day he had a recurrent myocardial infarction. Four days later he died.[5]

A lesson in love

Of course, it isn't just physicians who forget the importance of love and empathy; educators, lawyers, politicians, law enforcers, and perhaps every other professional group could be added to the list. In spite of our frequent lapses in love, I believe medicine remains one of the most caring professions in contemporary culture. There continues to exist an unbroken lineage of healers in medicine who have always known the importance of love and compassion in healing.

I was given a lesson by one of them during my training in internal medicine at a very large Veterans Administration teaching hospital. The work load was burdensome — a steady stream of new patients, day and night, without end. After a particularly grueling day, I bumped into a fellow intern around two a.m. in the on-call room as we were collapsing into bed. Blind with fatigue and in a foul mood, I began to complain about how the patients used the hospital as a revolving door. After they were discharged following treatment for a particular medical problem, they would resume destructive behaviors such as unbridled smoking and drinking, which would lead inevitably to further hospitalizations for heart disease, emphysema, cirrhosis, and worse. My colleague listened patiently while I vented. When I finished, he said thoughtfully, "You're right; they *are* unredeemable. But I *love* them. In fact, I could work here all my life." I was speechless. Had sleep deprivation overcome his good judgment? "I like the old patients the best," he continued. "Even their little problems. Their hemorrhoids are just as important to me as their heart failure. When their bowels won't work right, I'll be there to help. When their nails get too long, I'll trim them. If they need a haircut or a bath, I'll make sure they get it." I was beginning to feel like a sinner in the presence of a saint. "Some of them will never change their habits. They'll always keep coming back. It doesn't matter. They're wonderful."

When we completed our training, my colleague and I went into medical practice together. He has remained for me an icon in many ways — the consummate physician who embodies not just technical competence but also wisdom, compassion, empathy, love.

Love and chocolate

> Where are love hormones?
>
> ~ Question raised by a graduate student in nursing school[6]

We have no "emotion meters" that can measure our feelings directly, yet we know that our emotions affect our body. We *feel* rage, hostility, and anxiety; we *know* when these emotions flood our bloodstream with hormones, and when showers of electrical signals impact various organ systems. Love is also linked to biochemicals in the brain — norepinephrine, serotonin, and phenylethylamine. Interestingly, the latter chemical is found in high concentration in chocolate. This is the reason, some unromantic materialists say, why we purchase chocolates on Valentine's Day and give them to those we want to love us. We're trying to influence them chemically: love as a drug deal.

We want to believe that the passion of Romeo and Juliet is more than endocrinology. But are we fooling ourselves through wishful thinking?

One of the greatest mysteries surrounding the chemical view of emotion is why we should feel anything at all. David J. Chalmers, a mathematician, philosopher, and cognitive scientist, points out that no one knows why electrochemical events in the brain give rise to any conscious experience whatever — to love or any other emotion.[7] There need be no "feeling" to chemical reactions. When chemicals interact in a test tube, presumably the test tube doesn't feel them. Why doesn't the brain do its job without feelings of any sort, like a computer? An unfeeling machine would be more efficient and predictable than one that sulked, became manic, or fell in love.

When my colleague was confronted with his patients' myriad problems, why did he experience love? Why not simply attend to the hemorrhoids and heart failure automatically, like an unconscious machine? The tendency in modern medicine has been to ignore questions of this sort and to replace the idea of consciousness and emotional experiences with brain chemistry. A sampling of this point of view comes from psychologist Lawrence LeShan's book *The Dilemma of Psychology*: "A leading psychotherapist, Lawrence Kubie, writes, 'Although we cannot get along without the concept of consciousness, actually there is no such thing.' A leading neurophysiologist, Karl Lashley, puts it: 'The knower as an entity is an unnecessary postulate.' A leading psychologist, D. O. Hebb, writes: The existence of something called consciousness is a venerable *hypothesis*, not a datum, not directly observable....'"[8]

For an increasing number of thoughtful scientists, however, consciousness cannot so easily be dismissed. An example is Nobel physicist Steven Weinberg, who writes about a "theory of everything" from which all there is to know about the universe can be derived. Weinberg concedes there is a problem with fitting consciousness into a "theory of everything," because consciousness does not seem derivable from physical laws. Since consciousness won't fit, a physically based theory of everything cannot be complete. So a final theory must contain some additional fundamental element. "Toward this end," Chalmers states, "I propose that conscious experience be considered a fundamental feature, irreducible to anything more basic."[9] Chalmers and others have proposed that consciousness take its place alongside matter and energy as fundamental features of our universe. These developments in contemporary thought are crucial for medicine — for unless we can go beyond brain chemistry and find a place

for consciousness, love will never have a home in our modern models of healing.

There are some very practical reasons for taking consciousness seriously in medicine, aside from the fact that we *feel* conscious. For the past several decades, evidence has gradually accumulated that conscious mental intent can influence events not just in the body, but also in "the world out there" — and that these events can be empowered by love.

Love in the lab

In the late 1960s and early 1970s, pioneering work began in the field of biofeedback. Researchers soon discovered that quite ordinary individuals could learn to control their heart rate, muscle tension, and skin temperature if given moment-to-moment feedback by electronic instruments that were measuring these events. Although biofeedback is now considered commonplace, at the time it was heretical. It contradicted the conventional wisdom that these bodily events were autonomic, always silent and uncontrollable by the mind.

Soon reports began to surface from various biofeedback labs that something strange was going on. When researchers asked subjects "how they did it," they were unable to explain. But when subjects were asked *how they felt* when they were successful, they often responded with statements such as, "I felt at one with the instruments." Some went further, saying they felt inseparable from the instructor, the room, "and everything else." Some researchers realized the subjects were expressing the universal experience of mysticism, which has been defined as "becoming one" or uniting with everything there is.[10]

Falling in love with a machine

Similar observations have cropped up in other types of laboratories as well. The late Robert G. Jahn, former dean of engineering at Princeton University and director of the Princeton Engineering Anomalies Research (PEAR) laboratory, and his team have observed millions of trials in which individuals attempt to influence the performance of sophisticated electronic instruments. Their results indicate that ordinary individuals can mentally influence the machines' performance under controlled conditions. How do they feel when they do it? Jahn:

> The most common subjective report of our most successful human/machine experimental operators is some sense of "resonance" with the devices — some sacrifice of personal identity in the interaction — a "merging," or bonding with the apparatus. As one operator put it: "I simply fall in love with the machine." And indeed, the term "love," in connoting the very special resonance between two partners, is an apt metaphor [11]

Some scientists believe love has no place in objective science. Jahn disagrees. "[A]llusions to [love] can be found in scientific literature, none more eloquent than that of Prince Louis de Broglie, one of the patriarchs of modern physics"[12] — who said,

> If we wish to give philosophic expression to the profound connection between thought and action in all fields of human endeavor, particularly in science, we shall undoubtedly have to seek its sources in the unfathomable depths of the human soul. Perhaps philosophers might call it "love" in a very general sense — that force which directs all our actions, which is the source of all our delights and all our pursuits. Indissolubly linked with thought and with action, love is their common mainspring and, hence, their common bond. The engineers of the future have an essential part to play in cementing this bond.[13]

Love and resonance

Resonance is a widespread feature in nature. Jahn states,

> All manner of physical systems, whether mechanical, electromagnetic, fluid dynamical, quantum mechanical, or nuclear, display capacities for synergistically interactive vibrations with similar systems, or with their environment. Coupled harmonic oscillators, all common musical instruments, radio and television circuitry, atomic components of molecules, all involve this "sympathetic" resonance, from which strikingly different properties emerge than those that characterize their isolated components.[14]

What does it mean to say that all manner of physical systems are in "sympathetic resonance" with each other or their environment? "Sympathy" comes from the Greek *sympatheia,* "feeling together," and "resonance" is derived from the Latin *resonantia,* an "echo." Is the universe one immense echo of feeling and sensitivity?

Biologist Lyall Watson suggests that a general kind of resonance may pervade the natural world to an almost unthinkable degree. He describes how inanimate objects and lower organisms — stones, cars, bacteria — may "resonate" with humans by taking on our "emotional fingerprints," as he puts it, as a result of prolonged, intimate contact with us. When they do so, they may behave in surprisingly lifelike ways and lead to what Jung called synchronicities — those meaning-filled, unpredictable events we often call "funny coincidences."[15]

Love is nonlocal

> I love you in a place where there's no space or time.
>
> ~ Leon Russell, *A Song for You* [16]

The resonance referred to by Jahn, Watson, and others has unusual qualities. It appears to operate without regard for distance. In the controlled experiments Jahn and his team performed, the subjects are sometimes separated from the apparatus they are trying to influence by global distances — situated literally on the other side of Earth. The findings are consistent: the effects of mental efforts do not diminish with increasing spatial separation. These experiments, and scores of others conducted in laboratories around the world, point to a *nonlocal* quality of consciousness — some aspect of the mind that is not confined to specific points in space (or time, as suggested in other studies).

Love is often involved when the mind behaves nonlocally. One of the commonest examples is the loving resonance that exists between humans and their pets, which defies distance. Researchers J.B. Rhine and Sara Feather collected dozens of accounts of returning animals — pets who find their way back to their owners, sometimes across colossal distances.[17] These instances cannot be explained by "homing"; the animal often returns to places she has never been. An example is that of Bobbie, a collie, who was traveling with a family en route from Ohio to their new home in Oregon, where Bobbie had never been. During a stop in Indiana, Bobbie got lost. After a diligent attempt to find her, the family finally gave up and proceeded westward. Months later, Bobbie appeared at the new home in Oregon. This was not a lookalike animal; she still had her name tag and several identifying marks and scars.

I am particularly fascinated by instances in which animals find their way to owners who are ill. These cases suggest that the capacity to love and care for someone who is sick is not just a human trait, but is widespread in other species as well.

> A boy named Hugh Brady, who kept homing pigeons as pets, once found a wounded pigeon in the garden of his home. He nursed the bird back to health, ringed him with identity tag no. 167, and kept him.

The following winter Hugh was suddenly taken ill and rushed to a hospital 200 miles away, where he underwent an emergency operation. He was still recovering when, on a bitter, snowy night, he heard a persistent tapping at the window. He called for the nurse and asked her to open it. When she did, a pigeon flew in and landed with a joyful flutter of wings on Hugh's chest. Hugh knew immediately that the visitor was his bird and a look at the number on its tag confirmed it.

Pigeons are famous for their homing instincts, but on this occasion the bird wasn't returning home — he had tracked his master down to a place he had no knowledge of and had never been to before. How he did it remains a mystery.[18]

Dr. Gustav Eckstein describes a small spitz dog who doubled as a night nurse for his mistress, who was a diabetic. Each night the little dog would curl up in the angle of the woman's arm. He would awaken immediately if her breathing pattern changed, which is one of the telltale signs of ketoacidosis, one of the most dreaded complications of diabetes.[19] Though not a nonlocal, distant event (the dog was in sensory contact with his owner), this event illustrates what every pet owner knows: love and caring are not confined to *Homo sapiens.*

If we are to understand how love functions in healing, we shall have to confront the concept of *nonlocality*. Although this idea is little appreciated in modern medical science, physicists have gradually made their peace with this concept in recent decades. Rigorous experiments over the past half century have confirmed the existence of nonlocal phenomena in the subatomic domain. For example, if two particles that have once been in contact are separated, a change in one results in a change in the other — immediately and to the same degree. The degree of separation between the particles is arbitrary; they could theoretically be placed at opposites ends of the universe. Apparently no energetic signal passes between them, telling one particle that a change has taken place in the other, because the changes are instantaneous; there is no time for signaling. The distant particles behave as if they are united as a single entity — paradoxically separate but one.

Telesomatic events: the tug of love

F.W.H. Myers, one of the outstanding scholars and researchers in the budding field of parapsychology around the turn of the century, was impressed by how often love seemed to be involved when individuals communicated across great distances. "Love is a kind of exalted but unspecialized telepathy," he said, "the simplest and most universal expression of that mutual gravitation or kinship of spirits...."[20]

Love has an adhesive quality. It functions as a veritable glue that binds together distant individuals under certain circumstances. This is nowhere more evident than in "telesomatic" events — a term coined in 1967 by neurologist Berthold E. Schwarz[21] to describe events he observed in the lives of his patients. "Telesomatic" comes from words meaning "the distant body." The term is appropriate because distant individuals often behave as a single body and mind, sharing emotions and physical symptoms at remote distances. When these events occur, the distant individuals are ignorant of what is happening to each other, which makes these events impossible to explain in terms of expectation and suggestion.[22]

Scwharz himself collected around 300 telesomatic cases. Hundreds have cropped up in a variety of publications over the years, some reported in medical journals. Examples:

- A mother who was writing a letter to her daughter, who was away at college. Suddenly her right hand started to burn so severely she could not hold the pen. Less than an hour later, she received a phone call from the college telling her that her daughter's right hand had been severely burned by acid in a laboratory accident, at the same time she (the mother) had felt the burn.[23]
- A man and his wife were attending a football game in Berkeley, California. He got up suddenly in the middle of the game and said they had to return home at once because their son had been hurt. When they arrived home they discovered they boy had shot a B.B. into his thumb, requiring emergency surgery to have it removed.[24]
- A woman suddenly doubled over, clutching her chest as if in severe pain and said, "Something has happened to Nell, she has been hurt." Two hours later the sheriff came, stating that Nell had died on the way to the hospital. She had been involved in an auto accident, in which a piece of the steering wheel had penetrated her chest.[25]

Telesomatic events don't qualify as lab science. They crop up unpredictably in people's lives and cannot be engineered and studied at our convenience. Why take them seriously? There are two main reasons. First, they are quite common; almost everyone seems to have either experienced them, or knows someone who has. Second, they demonstrate an internal consistency that is simply striking. Not only do they occur between individuals at a distance, they take place between persons who are loving and empathic with each other — parents and children, siblings (particularly identical twins), spouses, and lovers.

Telesomatic events are nonlocal expresssions of consciousness. They demonstrate the ability of love to reach out through space and time and unite us as one. They show that "connectedness" and "becoming one" are not just poetry or metaphor but concrete reality. They reveal that, at some level of the mind, unity — not separation — is fundamental.

Although we cannot compel telesomatic events to happen so they can be studied under controlled situations, something very much like them *can* be observed under laboratory conditions. In a series of experiments, the encephalograms or EEGs of distant individuals are measured and compared. In the baseline state there is no correlation between the two EEG patterns. But when the researchers ask the distant subjects to allow a feeling of empathy to develop between them, the EEG patterns frequently take on striking correlations, often becoming almost identical.[26,27] Similar findings have been found in simultaneous fMRI brain scans between healers and healees.[28–30]

Whether we call these shared feelings resonance, empathy, or love, these findings seriously challenge what it means to be an individual — indeed whether, at some levels of mind, there is such a thing.

The power of shared love

Hate is not the opposite of love.
The opposite of love is individuality.

~ D. H. Lawrence [31]

People who share love and affection may be able to accomplish things that are impossible when acting alone. This is the implication of data from the Princeton Engineering Anomalies Research lab. As mentioned, Jahn's team correlated the ability of specific individuals to influence the digital output of electronic random event generators with their psychological states. The highest scores are seen when emotionally bonded couples, who share unusually deep love and empathy, interact *together* with the electronic devices. They achieve scores up to eight times higher than those of individuals who try to influence the devices alone.[32]

A universal spectrum of love?

One of the greatest discoveries of our century — perhaps of any century — may be the nonlocal connectedness that exists between the spectacular variety of entities that make up our universe. This

connectedness manifests, as we've seen, between subatomic particles, mechanical systems, humans and machines, humans and animals, and humans themselves. When this nonlocal bond operates between humans, we call it "love." When it unites distant subatomic particles, what should we call this manifestation? Should we choose a safe, aseptic term such as "nonlocally correlated behavior," or bite the bullet and call it a rudimentary form of love? I am not suggesting that electrons and humans experience love and empathy to the same degree; but we are free to wonder whether the unity of distant subatomic particles may be a primordial kind of empathy — a protolove — which swells in intensity with increasing biological complexity, emerging fully formed as love and compassion in humans. Is there a spectrum of love spanning the entire organization of the physical universe, from the subatomic to the macroscopic, human dimension? (See Figure One).

THE UNIVERSAL SPECTRUM OF LOVE

Interacting Systems	Evidence of Interaction	Expression of Interaction
Humans and humans	Humans interact with each other nonlocally — at a distance, without benefit of sensory- or energy-based exchanges of information. Many controlled studies of distant healing intentions and hundreds of telesomatic events and remote viewing have been reported.	Love, empathy, compassion, caring, unity; collective consciousness; the Universal or One Mind; god, Goddess, Allah, Tao, the Absolute
Humans and animals	Scores of studies involving various types of distant healing intent have been done using higher animals as subjects. Lost pets return to owners across vast distances to places they have never been	Love, empathy
Humans and living organisms	Scores of controlled studies have dealt with the distant effects of prayer and other types of positive, distant healing intent, in which various "lower" organisms — bacteria, fungi, yeasts — are the subjects, as well as seeds, plants, and cells of various sorts.	Love, empathy
Humans and complex machines	Humans can mentally influence the behavior of sophisticated electronic biofeedback devices, affirmed by the collective record of over 40 years of biofeedback research in hundreds of laboratories. Humans can also mentally influence random event generators and other electronic devices at a distance, demonstrated at the Princeton Engineering Anomalies Research (PEAR) lab and other institutions.	"Becoming one" or "falling in love" with the machine; interconnectedness; unity
Humans and simple machines	Humans can interact with and influence the behavior of freely swinging pendulums, mechanical cascade devices, and other relatively simple apparatuses at a distance — affirmed by studies conducted at the Princeton Engineering Anomalies Research (PEAR) lab and elsewhere.	"Becoming one" or "falling in love" with the machine; interconnectedness; unity
Complex physical devices/systems	According to commonly accepted principles in physics, coupled harmonic oscillators, all common musical instruments, and radio and television circuitry interact and resonate with each other. In general, all manner of physical systems — whether mechanical, electromagnetic, fluid dynamical, quantum mechanical, or nuclear — display synergistically interactive vibrations with similar systems or with their environment.	Sympathetic or harmonic resonance
Subatomic particles	Subatomic particles such as electrons, once in contact, demonstrate simultaneous changes — no matter how far apart — to the same degree. Bell's Theorem, the Aspect experiment, and many others affirm these phenomena.	Nonlocally correlated behavior; rudimentary or proto-love?

Figure One.

Are love and empathy innate?

Not everybody believes that love is innate in nature. Storms of controversy have existed for decades in psychology, for example, about whether our capacity to love and empathize is inborn, or whether these are learned behaviors that develop in response to challenges from our environment. Henry Dreher, in his admirable book *The Immune Power Personality,*[33] has reviewed recent evidence that our capacity for love and empathy, although influenced by learning and environmental factors, has a biological basis. Jean Piaget, the influential Swiss psychologist, contended otherwise. He maintained that children did not feel empathy until their brains were sufficiently developed until around age seven or eight. Before this time, he maintained, they could not make sense of other people's experiences. But beginning in the 1970s and '80s, evidence began to accumulate that Piaget may have been wrong. Psychologist Martin L. Hoffman of New York University showed that newborn babies will cry in response to the cries of another infant — but that they barely respond to equally loud computer simulations of babies' cries or even to tape recordings of their own cries. "Virtually from the day they are born, there is something particularly disturbing to infants about the sound of another infant's cry," Hoffman states. "The innate predisposition to cry to that sound seems to be the earliest precursor of empathy."[34,35]

Carolyn Zahn-Waxler, a developmental psychologist at the National Institute of Mental Health, brought together mothers and their infants or toddlers in the lab to observe the children's responses when the mothers or other children were distressed. She asked the adults to drop things or bump their heads to see if the children would comfort them. In a variant of this study, conducted in the home, she trained mothers to simulate pain, fake a cough, act angry or cry, and then rate their own children's reactions. In every instance, children acted upset, and with sounds and gestures tried to comfort their distressed parents. Zahn-Waxler: "We couldn't be sure whether the one-year-old was giving reassurance or seeking it, or both. But in children only a few months older we'd see unmistakable expressions of concern for the other person. The floodgates of altruism open along with the development of language." Summarizing these findings, Dreher states, "What begins in infancy as a reflex develops into the fully formed response we call empathy — a complex cluster of feelings, thoughts and actions... [B]y the second year of life, children demonstrate not only empathy but the altruistic behavior that follows."[36]

The capacity for empathy and love, it seems, is written into our biology.

LOVE'S LARGER LESSONS

> Man can try to name love, showering upon it all the names at his command,
> and still he will involve himself in endless self-deceptions.If he possesses
> a grain of wisdom, he will lay down his arms and name the unknown by
> the more unknown ... by the name of God.
>
> ~ C.G. Jung, *Memories, Dreams, Reflections*[37]

As we ponder the place of love in in our own health, we should bear in mind a few cautions. Love is undeniably useful in healing. It alleviates pain and suffering, and it sometimes sets the stage for physical improvement or cure. As a result of these effects, there is a frequent tendency to try to "put love to work" in the service of healing. But problems can arise as a result of this utilitarian approach. Love's larger lessons can be obscured — lessons which, in my opinion, dwarf whether or not love can be "used" to diminish pain, cure a heart attack or cancer, or heal relationships.

A far greater benefit is that *love provides evidence of who we are.* Love unmasks the illusion of isolation. It often catalyzes the experience of a collective, unitary consciousness — what Nobel physicist Erwin Schrödinger called the One Mind, as described in my books *Recovering the Soul* and *One Mind.*[38,39] Through love we see that at some level human consciousness is unbounded and therefore *nonlocal* — unconfined to specific points in space such as brains and bodies, or to specific moments in time such as the present moment. Love, thus, shows us that in some sense we are infinite, eternal, immortal, and one. As Jan van Ruysbroeck (1293-1381), one of the most sublime mystics the world has ever known, said, "When love has carried us above all things...we receive in peace the Incomprehensible Light, enfolding us and penetrating us. What is this Light, if it be not a contemplation of the Infinite, and an intuition of Eternity?"[40]

The mystery remains

Just as the finger that points to the moon is not the moon, all our scientific papers and ruminations will never really capture love. The more we explore it, the more its mysteries deepen. No one knew this better than Jung, with whose words I close: "In all my medical experience as well as in my own life I have again and again been faced with the mystery of love, and have never been able to explain what it is.... No language is adequate....Whatever one can say, no words can express the whole. To speak of partial aspects is always too much or too little, for only the whole is meaningful. Love 'bears all things' and 'endures all things' (1 Cor. 13:7). These words say all there is to be said; nothing can be added to them."[41]

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