

Telecebo: Beyond Placebo to an Expanded Concept of Healing

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In 1909 two titans of modern psychology, Sigmund Freud (1856–1939) and Carl Gustav Jung (1875–1961), met in Freud's home in Vienna. As Jung writes in his autobiography, *Memories, Dreams, Reflections*, he wanted to know more about Freud's views on extrasensory perception or ESP, an area that fascinated Jung and toward which he was quite open. Although Freud later changed his position in favor of ESP, on this particular occasion he dismissed Jung's views with such shallowness, Jung said, "I had difficulty in checking the sharp retort on the tip of my tongue." As Freud continued to disparage ESP, Jung began to sense "a curious sensation. It was as if my diaphragm were made of iron and were becoming red-hot—a glowing vault. And at that moment there was such a loud report in the bookcase, which stood right next to us, that we both started up in alarm, fearing the thing was going to topple over on us. I said to Freud: 'There, that is an example of a so-called catalytic exteriorization phenomenon.'"

"Oh come," Freud protested. "That is sheer bosh."

"It is not," Jung replied. "You are mistaken, Herr Professor. And to prove my point I now predict that in a moment there will be another such loud report!" No sooner had Jung made this prediction than the same loud detonation occurred in the bookcase. Freud simply stared aghast at him.

Jung was baffled about what gave him this certainty, but he knew "beyond all doubt" that the phenomenon would occur again. Jung sensed that the incident aroused Freud's mistrust, and Jung felt he had "done something against him." Jung never discussed the event afterward with him.¹

Many interpretations have been offered to explain (or explain away) the close temporal sequence of Jung's internal feelings and the successive exploding sounds from the nearby bookcase. Among them are (1) random, accidental, unrelated happenings, "just one of those things"; (2) faulty observations (the sounds might have come from gunshots down the street); (3) synchronicity, an acausal connection of events that are highly meaningful to the individual involved; (4) precognition, the awareness of future events; and (5) psychokinesis, the causal influence of thought, feeling, and intention on the physical world. The first two possibilities reflect Freud's view that any connection between the detonations and emotion, thought, or intention was imaginary. Jung believed his interior feelings had somehow exteriorized and were connected with physical events outside his body.

Jung was no stranger to these curious happenings. Similar events had occurred previously in the Jung household. In 1898, while Jung was sitting in his room studying his textbooks, an event occurred that influenced him profoundly²:

In the adjoining room, the door to which stood ajar, my mother was knitting. That was our dining room, where the round walnut dining table stood ... about seventy years old Suddenly there sounded a report like a pistol shot. I jumped up and rushed into the room from which the noise of the explosion had come. My mother was sitting flabbergasted in her armchair, the knitting fallen from her hands The table top had split from the rim to beyond the center, and not along any point: the split ran right

though the solid wood. I was thunderstruck. How could such a thing happen? A table of solid walnut that had dried out for seventy years—how could it split on a summer day in the relatively high degree of humidity characteristic of our climate?

A few weeks later Jung arrived home at six o'clock in the evening and found the household—his mother, his 14-year-old sister, and the maid—greatly agitated. About an hour previously there had been another deafening sound, this time from the direction of the sideboard, a heavy piece of furniture dating from the 18th century. By the time Jung arrived, the other household members had inspected it thoroughly, as well as the surrounding area, and could find no evidence for a split in the wood. Jung repeated their inspection, again finding nothing. Then he looked inside. In the area containing the breadbasket he found a loaf of bread, with the bread knife beside it. As he describes³:

The greater part of the blade had snapped off in several pieces. The handle lay in one corner of the rectangular basket, and in each of the other corners lay a piece of the blade. The knife had been used shortly before at four-o'clock tea, and afterward put away. Since then no one had gone to the sideboard.

The next day Jung took the shattered knife to one of the best cutlers in the city. The expert examined the knife with a magnifying glass and said, "The knife is perfectly sound. There is no fault in the steel. Someone must have deliberately broken it piece by piece. It could be done, for instance, by sticking the blade into the crack of the drawer and breaking off a piece at a time. Or else it might

have been dropped on stone from a great height. But good steel can't explode. Someone has been pulling your leg."

For Jung, the suggestion that the shattered knife was faked was inadequate, and the notion that Freud's noisy bookcase and Jung's split dining table were just a coincidence "went much too far"—like saying that "the Rhine would flow backward just once, by mere chance"

MIND, INTERIOR AND EXTERIOR

The basic premise underlying mind-body medicine is that a patient's thoughts and emotions matter clinically, often greatly. As the mind-body field has evolved, the mind has become thoroughly *interiorized* inside a patient's body as a variable factor in perhaps all illnesses.⁴

Jung, however, was suggesting a more extensive role for the mind. He believed that mental-emotional events can become *exteriorized*—that is, they can escape an individual's body and act outside it, somehow "catalyzing" distant physical events. Today, however, as in Jung's time, this idea is often considered occult nonsense—Freud's "sheer bosh." Those who want to keep the mind safely interiorized inside an individual's cranium often respond to Jung's suggestion with mouth-foaming denunciation, as if science itself is under attack by demon-haunted, dark forces of unreason.⁵ This includes disciples of the moribund ideology of materialism, which asserts that consciousness is produced by the brain and is confined and limited to a single individual's brain and body.⁶⁻⁹ Nowhere is this issue more crucial than in the perennial debates surrounding the placebo response and the nature of healing.

THE PLACEBO EFFECT

"Placebo" is Latin for "I shall please." The term expresses a long-accepted goal in medicine. As Ambroise Paré, France's great surgeon of the 16th century, said, the duty of the physician is "to cure occasionally, relieve often, console always."¹⁰ In service of this duty, placebos were widely used in medicine as necessary deceptions in relieving and

consoling patients until the 20th century, when their use took on a derogatory quality.¹¹

The placebo effect is traditionally defined as the positive therapeutic results that arise following the administration of a harmless, inert substance or ineffectual treatment for a medical, surgical, or other condition. These results are customarily attributed to suggestion, expectation, and positive thinking on the part of the patient, which are enhanced by her faith and trust in the clinician who is involved.¹² Adverse, negative results called *nocebo* responses are the dark twin of placebo effects.¹³ They reflect a patient's negative beliefs, anxieties, and expectations of harm.

More sophisticated views of the placebo effect are being offered.¹⁴ Miller, Colloca, and Kaptchuk view the placebo effect as "interpersonal healing" that takes place in the clinical encounter between clinician and patient. Interpersonal healing may be activated by diverse behaviors, symbols, and rituals in the clinical encounter, through which a patient finds hope, trust, meaning, support, and empathy. This can result in therapeutic benefit by modifying the perceptions and experience of illness symptoms such as pain, anxiety, and fatigue, rather than by modifying the pathophysiology of disease. However, the placebo effect is not "all in the mind." Many studies show that placebo effects can elicit quantifiable changes in neurotransmitters, hormones, and immune regulators. Interpersonal healing is distinct from spontaneous natural healing, as well as from technological healing dependent on active pharmaceuticals or procedures.¹⁵

Placebos have been used for centuries.¹⁶ In 1807 Thomas Jefferson wrote that "one of the most successful physicians I have ever known has assured me that he used more bread pills, drops of colored water, and powders of hickory ashes, than of all other medicines put together."¹⁷ About a century later Richard Cabot, a distinguished physician of Harvard Medical School, described how he "was brought up, as I suppose every physician is, to use placebo, bread pills, water subcutaneously, and other devices."¹⁸

Even though placebos were acknowledged to bring comfort to patients, it

was assumed that they had no actual impact on pathophysiology.^{19,20} Moreover, they were believed to be more effective on the weak-minded.²¹ As de Craen and colleagues report in their historical review of placebos and their effects, "The value of placebo was thought inversely related to the intelligence of the patient; the use of a medical ritual was more effective and necessary for 'unintelligent, neurotic, or inadequate patients.'"²²

Secrecy and obfuscation have often been used by physicians to hide the use of placebos. A hospital pharmacist once told me that one of the most popular medications in his hospital was Lipragus—"sugar pill" spelled backward. Obe-calp, "placebo" spelled backward, has also been used.²³ (To find out if your medications are real medicine, go to a federal database of approved drugs by clicking on Food And Drug Administration.gov—Catalog of FDA-Approved Drug Products.)

In recent years several authorities have vigorously defended the use of placebos in clinical practice. As physician-ethicist Howard Brody stated in 1982 in a seminal article "The Lie That Heals: The Ethics of Giving Placebos"²⁴:

The 170-year-long debate in the medical literature about the ethics of prescribing placebos in medical therapeutics needs to be reevaluated in light of recent placebo research and improved understanding of the placebo effect as an integral part of the doctor-patient relationship. It has traditionally been assumed that deception is an indispensable component of successful placebo use. Therefore, placebos have been attacked because they are deceptive, and defended on the grounds that the deception is illusory or that the beneficent intentions of the physician justify the deception. However, a proper understanding of the placebo effect shows that deception need play no essential role in eliciting this powerful therapeutic modality; physicians can use non-deceptive means to promote a positive placebo response in their patients.

THE TELECEBO EFFECT

Both placebo and *nocebo* effects are considered limited to an individual

patient, simply because mental effects are regarded as originating in, and confined to, the brain and body of the individual experiencing them. In other words, my thoughts cannot directly affect your body, and your thoughts cannot directly affect mine.

This view of placebo responses is incomplete. Abundant evidence requires a place for what I wish to call the *telecebo* effect.

“Telecebo” is a neologism formed by combining the Greek *tele*, meaning far or distant, with the fragment *cebo* from “placebo.” Telecebo effects are not generated by a patient; they are an exteriorization of a clinician’s, nurse’s, therapist’s, or healer’s intentions and thoughts for a patient’s welfare. These mental efforts can directly influence a patient, no matter how distant, creating effects that can merge seamlessly with a patient’s own self-generated placebo responses in a cascade toward healing.

“Telecebo” expresses both kinship with, and difference from, the placebo response—kinship in that both telecebo and placebo effects arise from intentions, thoughts, and emotions; difference in that placebo responses arise from a patient, while telecebo effects originate from a clinician.

The telecebo phenomenon can be completely invisible to both clinician and patient, if both of them accept the taboo that these effects are forbidden in science and cannot exist. In this situation, the clinician may misinterpret telecebo effects as placebo responses originating within a patient’s own body, or perhaps dismiss them as the nonspecific results of the clinician’s empathy, compassion, or simply good bedside manner.

Even if a clinician is aware that telecebo effects exist, they can still be elusive, because in any given clinician–patient interaction it may be impossible to distinguish them from placebo responses originating in the patient.

So how do we know telecebo effects exist? We know because we can tease telecebo effects apart from placebo responses, as in hundreds of experiments and reports involving both humans and nonhumans, as we shall see. The data from experiments involving nonhumans are especially revealing. As far as we

know, nonhumans do not think positively nor engage in symbolic meaning to the degree of humans, so that if healing intentions are effective in lower animals, plants, microbes, or chemical reactions, the results are presumably not due to placebo effects but to the results of telecebo intentions from the healer.

This generalization requires qualification. There is abundant evidence that nonhuman animals can manifest placebo effects through operant conditioning. For example, Ader and Cohen paired an immunosuppressive drug (cyclophosphamide) with a neutral stimulus (a saccharine solution) in mice with a lupus-like disease. When only the neutral stimulus was later given, the result was immunosuppression, suggestive of a placebo response.^{25,26}

Moreover, there is a substantial body of research demonstrating the healthy effects in animals from visual and tactile contact from a human, involving rabbits, dogs, horses, dairy cows, and sows. In humans, placebo effects are believed to be mediated by the empathy, compassion, likeability, and trustworthiness manifested by a physician. Thus, veterinarian and placebo researcher F.D. McMillan, states, “To the extent that animals form such perceptions, ...it is reasonable to posit a similar influence of placebo effects in animal health care.”²⁷

How, then, can placebo responses be differentiated from our hypothesized telecebo effects? The reasons are straightforward. Many of the relevant studies do not involve animals at all, but cells, tissues, plants, microbes, and chemical reactions. Moreover, telecebo effects do not depend on proximity to a subject. Many of the experiments suggesting telecebo effects have been done remotely, beyond sensory contact. This suggests that a *nonlocal* phenomenon is at play, as opposed to the *local*, sensory-mediated mechanisms believed to underlie placebo responses in higher animals and humans. Therefore, if animals are not involved as test subjects, and if sensory-mediated contact is bypassed, placebo effects would appear to have been eliminated.

A comparison of placebo, nocebo, and telecebo responses is presented in Table 1.

THE EXTERIORIZATION OF INTENTIONS: THE ACHTERBERG FMRI STUDY

What is the evidence that one’s thoughts can exteriorize and affect a distant patient? There is an old folk saying: “If you want to hide the treasure, put it in plain sight. Then nobody will see it.” Telecebo effects are like that. Evidence supporting them has long been in plain sight, but we have been slow to notice.

Researcher Jeanne Achterberg, who was well known for her decades-long research in imagery, visualization, and healing intentions, moved to the Big Island of Hawaii in the early 2000s to investigate healing.^{28,29} She spent two years integrating with the community of native healers, who accepted her and shared their methods. After gaining their trust, she and her colleagues recruited 11 healers. Each healer was asked to select a person they had worked with previously with distant intentionality (DI), and with whom they felt an empathic, compassionate bond. The healers were not casually interested in healing; they had pursued their healing tradition an average of 23 years. They described their healing efforts variously—prayer, sending energy or good intentions, or wishing for the subject the highest good. Each recipient was placed in a functional MRI scanner and was isolated from all forms of sensory contact with the healer. The healers sent forms of DI related to their own healing practices at two-minute random intervals that could not be anticipated by the recipient. Significant differences between the experimental (send) and control (no send) conditions were found; there was less than approximately one chance in 10,000 that the results could be explained by chance happenings ($p = 0.000127$). The areas of the brain that were activated during the “send” periods included the anterior and middle cingulate areas, the precuneus, and frontal areas. This study suggests that remote, compassionate, healing intentions can be exteriorized from one individual to another to exert measurable effects on the recipient, and that an empathic, trusting connection between the healer and the recipient may be a vital part of the process.³⁰

Table 1. Placebo, Nocebo, and Telecebo Effects: A Taxonomy

	Placebo	Nocebo	Telecebo
Space-Time Characteristic	Local (effects confined or localized to specific points in space and time)	Local (effects confined or localized to specific points in space and time)	Nonlocal (effects <i>not</i> confined or localized to specific points in space and time)
Psychological Characteristic	Intrapersonal/interpersonal	Intrapersonal/interpersonal	Interpersonal/ transpersonal
Description	<p>Placebo effects are the <i>positive</i> actions of an individual's thoughts and intentions on his/her body following the administration of a harmless, inert substance.</p> <p>They may be activated by the interpersonal clinician-patient encounter, as a result of perceived trust, comfort, support, empathy, and compassion manifested by a clinician.</p> <p>These effects are often considered a result of positive thinking, suggestion, or expectation.</p> <p>Placebo interventions can evoke quantifiable fluxes in neurotransmitters, hormones, and immune regulators.</p> <p>There is little reliable evidence that placebos can actually cure disease by modifying pathophysiology. Most authorities believe that placebos have the power to ameliorate illness by relieving symptoms such as pain, anxiety, and fear, thereby helping patients cope with illness and suffering.</p>	<p>Nocebo effects are the <i>negative</i> actions of an individual's thoughts and intentions on his/her own body following the administration of a harmless, inert substance.</p> <p>In addition, these effects can result from a <i>negative</i> interpersonal encounter between a clinician and patient. They can be triggered, e.g., by dire predictions such as a dismal prognosis or careless language.</p> <p>These effects can be largely understood through the neural, biochemical, and humoral actions that are recognized as the body's response to perceived fear, dread, anxiety, and stress.</p>	<p>"Telecebo" is a neologism formed by combining the Greek <i>tele</i>, meaning far or distant, with the fragment <i>cebo</i> from "placebo."</p> <p>Telecebo effects represent an <i>exteriorization</i> of the intentions, thoughts, or emotions of a clinician toward a patient. They may be positive or negative.</p> <p>Telecebo effects can be initiated <i>de novo</i> by intention alone. They do not depend on the intermediary influence of a harmless, inert substance.</p> <p>These effects occur beyond the reach of the physical senses and are inexplicable by conventional exchanges of matter/energy.</p> <p>These effects have been demonstrated in a variety of subjects including humans, human tissue and cells, animals, microorganisms, plants, and chemical reactions.</p> <p>Telecebo effects demonstrate three essential characteristics of nonlocal phenomena: they are <i>unmediated</i> (by any known form of energy), <i>unmitigated</i> (their strength does not diminish with increasing distance), and <i>immediate</i> (instantaneous).</p>

Achterberg's experiment is not a one-off. Many similar studies utilizing simultaneous electroencephalographic (EEG) or fMRI recordings of distant individuals who are emotionally close show that when one person's brain is

stimulated, the distant individual's brain often responds similarly at the same time. References to the relevant experiments in this field can be found in the comprehensive book *Entangled Minds*³¹ by consciousness

researcher Dean Radin, Senior Researcher at California's Institute of Noetic Sciences, and on his blog site at <http://deanradin.blogspot.com/2010/03/brain-correlation-experiments.html>.

EVIDENCE

In a 2003 systematic analysis of healing intentions in general, Jonas and Crawford found:³²

... over 2200 published reports, including books, articles, dissertations, abstracts, and other writings on spiritual healing, energy medicine, and mental intention effects. This included 122 laboratory studies, 80 randomized controlled trials, 128 summaries or reviews, 95 reports of observational studies and nonrandomized trials, 271 descriptive studies, case reports, and surveys, 1286 other writings including opinions, claims, anecdotes, letters to editors, commentaries, critiques and meeting reports, and 259 selected books.

How good are the clinical and laboratory studies? Using strict CONSORT criteria (Consolidated Standards of Reporting Trials),³³ Jonas and Crawford gave an “A,” the highest possible grade, to studies involving the effects of intentions on inanimate objects such as sophisticated random number generators. They gave a “B” to the healing intention studies involving humans. A “B” was also given to laboratory experiments involving nonhumans such as animals, cells, and plants.

Many additional systematic and meta-analyses of healing intentions with positive findings have been published in peer-reviewed literature.^{34–43}

Scores of clinical trials have been published in the past few decades assessing the possible impact of a healer’s intentions on patients. Here are some examples involving humans—not a comprehensive survey, but intended only to convey what these experiments generally look like.

In 2009, Tsubono, Thomlinson, and Shealy conducted a randomized controlled trial that assessed the ability of a healer to relieve chronic pain. The researchers concluded, “The results showed that the treatment group was significantly improved compared to the control group even though both groups were kept blind to their group assignment. Moreover, many subjects in the treatment group were relieved of chronic pain after only two months of healing.

This suggests that healing can take place even from a distance, and distant healing can be a very effective treatment for chronic pain.”⁴⁴

In 2013, Kuwada reported a double-blind, randomized study evaluating the effect of Distant Intentionality Healing (DIH) on narcotic analgesic use. The author wanted to determine if there was any difference between the control group and the group receiving DIH on the total number of narcotic analgesics taken after foot and ankle surgery for three weeks after the operation. The study found that there was on average seven less narcotic analgesics taken by the DIH group than the control group. Analysis revealed a significant difference between the control group and the group receiving DIH at the $P = 01$ level.⁴⁵

In 2010 Brown, Mory, and McClymond evaluated the influence of intercessory prayer on auditory and visual impairments in 24 consecutive rural Mozambican subjects in a prospective study. They measured significant improvements in both auditory ($P \leq 0.003$) and visual ($P \leq 0.02$) functions following healing intentions in the form of prayer.⁴⁶

In a phase-1 pilot study, researchers assessed the influence of shamanic “journeying” and other shamanic healing techniques in 23 female patients with temporomandibular joint dysfunction and pain. Pain improved significantly and results were highly significant. At the end of the study, only four of the 23 patients merited the original diagnosis.⁴⁷

DISTANT MENTAL INTERACTIONS WITH LIVING SYSTEMS

In addition to studies in humans, telebo effects are further supported by a body of research known as DMILS—*d*istant *m*ental *i*nteractions with *l*iving systems. These experiments involve a wide variety of entities such as organs, tissues, microbes, plants, and animals. In these studies individuals have used their intentions to influence the growth rates of bacteria and fungi in test tubes and petri dishes, the rate of wound healing in mice, the healing of transplanted cancers in mice, the function of cells in tissue cultures, the germination rates of seeds, the growth rates of seedlings,

and many other phenomena. Two examples follow.

Gronowicz and colleagues assessed the effect of Therapeutic Touch (TT) on the proliferation of normal human cells in culture, compared to sham and no-treatment controls. This non-touch technique, which emphasizes healing intentions, was administered twice a week for two weeks. Compared to untreated controls, TT significantly stimulated proliferation of fibroblasts (cells that produce collagen and are important in wound healing), tenocytes (tendon cells), and osteoblasts (bone cells) in culture ($P = 0.04, 0.01, \text{ and } 0.01$, respectively). These data were obtained by sophisticated techniques such as immunocytochemical staining for proliferating cell nuclear antigen (PCNA). The researchers concluded, “A specific pattern of TT treatment produced a significant increase in proliferation of fibroblasts, osteoblasts, and tenocytes in culture. Therefore, TT may affect normal cells by stimulating cell proliferation.”⁴⁸

In 10 controlled experiments, Bengston tested the effect of “healing with intent” on cancerous laboratory mice. In eight of these experiments, mice were injected with mammary adenocarcinoma (breast cancer) cells. In two experiments, mice with methylcholanthrene-induced sarcomas were used. The fatality rate for both cancers in mice, if untreated, is 100%. The healers were faculty and student volunteers. Although they had no previous experience or belief in healing with intent and were often quite skeptical of such, they were drilled extensively in the healing technique. Treatment length was from 30 to 60 min, delivered daily to weekly until the mice were cured or died. They were successful in producing full cures in approximately 90% of the mice. When mammary adenocarcinoma cells were re-injected into cured mice, the cancer would not take, suggesting that an immune response had been stimulated during treatment. The proximity of the volunteer healers to the cages of the mice varied from on site to approximately 600 miles. Thus Bengston notes, “[T]hese effects were at times brought about from a distance that defies conventional understanding,” suggesting that a nonlocal process

was at work. This series of studies, conducted at several academic centers, suggests that healing through intent can be predictable, reliable, and replicable.^{49–52}

The DMILS field is too extensive to be reviewed here. These studies are described and summarized in readily available sources.^{32,52–62}

Studies in nonhumans permit us to differentiate between telecebo effects and placebo responses, as already mentioned. To reiterate, nonhumans such as cells, plants, microbes, and biochemical reactions presumably do not think positively or symbolically and are therefore not subject to suggestion and expectation. If in controlled experiments these entities respond to intentions, presumably the placebo response is not responsible and telecebo effects are likely at work, reflecting the influence of the thoughts and intentions of the healer.

EXTERIORIZATION IN TIME

Evidence further suggests that intentions can act not only at a distance in space, but also at a distance in time, outside the present. Many of these studies suggest retro-temporal phenomena, in which thought and intention appear to function in the past. Consciousness researcher William Braud reviewed 24 positive experiments involving retro-temporal influence on biological and inanimate systems.⁶³ The possibility of retro-temporal influence or backward causation is being taken seriously in certain areas within science. The theoretical and experimental evidence for such has been the subject of a symposium at the University of San Diego, sanctioned by the American Association for the Advancement of Science.⁶⁴

One peer-reviewed study suggests the influence of healing intentions on past medical events, even though these events are presumed already to have happened. In this randomized, controlled experiment, healing intentions in the form of intercessory prayer were offered to over 3000 patients with sepsis four to 10 years *after* they were hospitalized. The prayed-for group had a statistically better course regarding length of stay and the course of fever.^{65,66}

Moreover, dozens of so-called presentiment experiments from various

laboratories suggest that individuals can unconsciously anticipate and respond physiologically to future events, especially if such events are emotionally provocative. Some researchers suggest that this ability would confer a Darwinian advantage via the anticipation and avoidance of future threats.

Overall, these retro-temporal and presentiment studies suggest that the mind can exteriorize not only with respect to space but to time as well.^{57,67–71}

ESP REVISITED

Since Freud and Jung clashed over ESP, the experimental landscape surrounding this area has changed dramatically. In 2010 in the journal *NeuroQuantology*, consciousness researchers Patricio Tresoldi, Lance Storm, and Dean Radin analyzed the experimental database for extrasensory perception.⁷² They state:

The possibility that information can be acquired at a distance without the use of the ordinary senses, that is by “extrasensory perception” (ESP), is not easily accommodated by conventional neuroscientific assumptions or by traditional theories underlying our understanding of perception and cognition. The lack of theoretical support has marginalized the study of ESP, but experiments investigating these phenomena have been conducted since the mid-19th century, and the empirical database has been slowly accumulating. Today, using modern experimental methods and meta-analytical techniques, a persuasive case can be made that, neuroscience assumptions notwithstanding, ESP does exist. We justify this conclusion through discussion of one class of homogeneous experiments reported in 108 publications and conducted from 1974 through 2008 by laboratories around the world. Subsets of these data have been subjected to six meta-analyses, and each shows significantly positive effects. The overall results now provide unambiguous evidence for an independently repeatable ESP effect. This indicates that traditional cognitive and neuroscience models, which are largely based on classical physical concepts, are incomplete. We speculate that more comprehensive models will require new principles

based on a more comprehensive physics. The current candidate is quantum mechanics.

The “unambiguous evidence” that is referred to by these researchers deals with the correlation of brain activity between distant individuals. However, equally significant is evidence supporting the ability to *acquire* information beyond the reach of the senses, commonly called ESP. But as we have seen, robust evidence also supports our quarry, the ability to *insert* information *into* the environment at a distance, as the healers in the Achterberg experiment were able to do. Taken together, both vectors—the acquisition of information from the environment and the insertion of information into the environment—affirm the emerging concept of *nonlocal mind*—mind unconfined to specific points in space, such as individual brains and bodies, and mind unlimited to specific points in time, such as the present.⁷³

Telecebo effects between a clinician and a patient are examples of nonlocal phenomena because they demonstrate the three essential features that characterize all nonlocal happenings. They are *unmediated* (by any known form of energy), *unmitigated* (their strength does not diminish with increasing distance), and *immediate* (instantaneous).^{74,75}

INTRINSIC CONNECTEDNESS

You are me, and I am you.

Isn't it obvious that we “inter-are?”⁷⁶

—Thich Nhat Hanh, “Interrelationship”

What makes telecebo effects possible? Emerging evidence suggests that living creatures are intimately connected in astonishing ways. This intrinsic connectedness permits information exchanges within and between distant organisms, bypassing conventional mechanisms, previously thought impossible.

Entanglement, a sibling of the phenomenon of nonlocality, is a term coined by Nobel Prize-winning physicist Erwin Schrödinger in 1935 to describe an intimate connectedness between distant subatomic particles.^{77,78} This space-spanning intimacy has recently been

discovered in macroscopic systems as well. As physicist Vlatko Vedral reports in a seminal article in *Scientific American* in 2011⁷⁹:

Entanglement and nonlocality were originally believed to exist only in the subatomic world. Now they have become an issue for biology, medicine and healing The quintessential quantum effect, entanglement, can occur in large systems ... including living organisms These effects are more pervasive than anyone ever suspected. They may operate in the cells of our body The entanglements are primary.

Vedral specifically indicates the importance of these phenomena for “biology, medicine and healing.” Consciousness researcher Dean Radin, already mentioned, emphasizes the scope of these applications. He states, “[M]inds are entangled with the universe, so in principle minds can nonlocally influence anything, including a collection of other minds or physical systems.” Radin’s view is fully compatible with telebebo effects.⁸⁰

A similar view is expressed by the eminent theoretical physicist Henry P. Stapp, of University of California-Berkeley⁸¹:

The new physics presents *prima facie* evidence that our human thoughts are linked to nature by nonlocal connections: what a person chooses to do in one region seems immediately to effect what is true elsewhere in the universe [O]ur thoughts ... DO something (emphasis in original).

Evidence for an intrinsic, distant connectedness at the cellular level in humans continues to mount.⁸² In a series of experiments at DiBit Laboratories in Milan, Italy, researcher Rita Pizzi and her colleagues placed two batches of human neurons or neural stem cells in distant containers that were shielded to prevent any communication between them. When one group of cells was stimulated with laser light, the distant group of cells registered the same changes, although both were completely shielded. The researchers stated, “[O]ur experimental data seem to strongly suggest that biological systems present non-local

properties not explainable by classical models.”⁸³

In a laboratory experiment at Chicago’s Rush University Medical Center, physician–researcher Ashkan Farhadi and his colleagues separated two groups of human epithelial cells in such a way that they could not communicate by any known physical means. When they damaged the “inducer” group of cells with hydrogen peroxide, the “detector” cells were damaged in a similar way.⁸⁴

Victor V. Chaban and his colleagues at UCLA School of Medicine have demonstrated that neuroblastoma cancer cells can communicate with normal neurons when both are shielded, bypassing any known means of communication.⁸⁵

Why has this distant connectivity arisen in humans? What purpose might it serve? Johann Summhammer of the Atom Institute at the Vienna University of Technology, believes it may assist in our biological evolution and survival⁸⁶:

Entanglement would lead to a Darwinian advantage [It] could coordinate the behaviors of members of a species, because it is independent of distance and requires no physical link ... [Or] ... between members of different species, and even between living systems and the inanimate world.

UNPACKING THE RESISTANCE

This is the sort of thing I would not believe, even if it really happened.
—Skeptical scientist^{87,88}

Why do the above studies evoke such sharp criticism, as in the tense interchange between Freud and Jung? It is an article of faith in most scientific circles that the brain produces human consciousness, and that its effects are confined to the brain and body of an individual and to the present, as mentioned. Thus, it is widely assumed that conscious intentions cannot, in principle, be exteriorized and act remotely in space and time beyond the confines of the corporeal brain and body. The above studies evoke vigorous objections because they violate this prohibition.

Unfortunately, the depth and breadth of healing research remains little known among healthcare professionals, as well

as many of those outside of medicine—biologists, physicists, psychologists—who have offered critiques and analyses of it. These examinations are almost never comprehensive. Literature searches are piecemeal. Key studies are commonly omitted. Some critics identify one or two studies that are problematic, ignore the rest, and generalize to condemn this entire field of research. Crucial evidence from nonhuman studies is almost always ignored as if it is irrelevant or does not exist.

Critics often resort to philosophical speculation about whether healing intentions *ought* to work remotely or not. They often insist that these studies involve the supernatural because they invoke a transcendent, metaphysical agency or higher power, which places them outside the domain of empirical science. This is a straw-man argument, because researchers in this field almost never make assertions about entelechies, gods, or metaphysical agents in interpreting their findings. They are merely searching for correlations between intentions and observable effects in the world. They usually defer on the question of mechanism, which is an accepted procedure in science. And in any case, if these phenomena occur in nature, they presumably are natural, not supernatural.

Another frequent criticism of healing studies involves theoretical plausibility. Critics commonly maintain that these studies so radically violate the accepted canons of science and the known laws of nature that this places them completely off the scientific map. Therefore these experiments are so wrongheaded that they do not deserve consideration and should not even be done.

Eminent scientists say otherwise. Gerald Feinberg, the prominent Columbia University physicist, observed, “If such phenomena (so-called paranormal events) indeed occur, no change in the fundamental equations of physics would be needed to describe them.”⁸⁹ Henry Margenau, the esteemed Yale University physicist and member of Princeton University’s Institute for Advanced Study, agreed. Speaking of so-called paranormal events, he said, “Strangely, it does not seem possible to find the scientific laws or principles violated by the existence of (these phenomena).

We can find contradictions between (their occurrence) and our culturally accepted view of reality—but not—as many of us have believed—between (their occurrence) and the scientific laws that have been so laboriously developed.⁹⁰ The eminent physicist O. Costa de Beauregard similarly observed, “Today’s physics allows for the existence of ‘paranormal’ phenomena of telepathy, precognition, and psychokinesis The whole concept of ‘nonlocality’ in contemporary physics requires this possibility.”⁹¹ And, “Far from being ‘irrational,’ *the paranormal is postulated by today’s physics*” (emphasis in original).⁹²

Throughout the history of science, plausibility-based verdicts regarding new ideas and developments have often backfired. Many currently accepted concepts in medicine and science, such as the circulation of the blood, the importance of hand washing and sterile technique, and continental drift, were initially condemned by authorities because of their sheer implausibility, only later to be embraced as scientific understanding matured.^{93,94}

There are no inviolable laws of consciousness. As Sir John Maddox, the former editor of *Nature*, has said, “What consciousness consists of ... is ... a puzzle. Despite the marvelous successes of neuroscience in the past century ... we seem as far from understanding cognitive process as we were a century ago.”⁹⁵ Donald D. Hoffman, a respected cognitive scientist at University of California, Irvine: “The scientific study of consciousness is in the embarrassing position of having no scientific theory of consciousness.”⁹⁶ The above studies violate not laws of nature or consciousness but, it often seems, deep-seated prejudices.

We can be certain that we have not exhausted nature’s inventory, which means that even currently accepted scientific views always exist in a state of “Until Further Notice.” This may even apply to the so-called “ironclad laws of nature.” As one physicist said, “When I hear the word ‘ironclad,’ I want to get my acetylene torch.” And as Nobel laureate and physicist Max Planck, the founder of quantum physics, said, “We have no right to assume

that any physical laws exist, or if they have existed up to now, that they will continue to exist in a similar manner in the future.”⁹⁷ This is not a rationale for “anything goes” or playing fast and loose with the limitations of science, but a caution against a hide-bound, inflexible ideology.

Hufford and Dossey have offered a critique of the most common objections directed toward the field of healing intentions.^{98,99}

C.D. Broad, the eminent Cambridge University philosopher of science, unleashed a weaponized salvo against the critics of so-called paranormal phenomena at mid-20th century. Though harsh, his words still apply¹⁰⁰:

Anyone who should nowadays start to investigate these subjects, without first mastering the relevant parts of that literature, would be acting very unwisely, laying up trouble for himself which he might have avoided And anyone who at the present day expresses confident opinions, whether positive or negative, on ostensibly paranormal phenomena, without making himself thoroughly acquainted with the main methods and results of the careful and long-continued work may be dismissed without further ceremony as a conceited ignoramus.

Anyone who researches the nonlocal manifestations of consciousness learns soon enough that uninformed critics such as those described by Broad abound. How should one respond to them? J.B. Priestley, the British playwright-philosopher, in his important book *Man & Time*, offers facetious advice that is perhaps appropriate: “[O]f course if a man, with his theory at stake, makes up his mind not to *be* shown that queer things are happening, little can be done except to make a face at him and a rude noise.”¹⁰¹

USING TELECEBO EFFECTS CONSCIOUSLY

Evolving evidence requires a view of consciousness that is nonlocal in space and time, in which the effects of intention, thought, and emotion can exteriorize from a clinician’s or therapist’s mind to influence a patient. This view of consciousness transcends our usual

notion of the limited, confined self, which Buddhist scholar Alan Watts satirized as the “skin-encapsulated ego.”¹⁰²

I have called certain nonlocal mental actions telecebo effects because they commonly crop up in interactions between healthcare providers and patients, and because they have long been lumped together with placebo responses. However, the distinctions between telecebo and placebo are important. If we understand the differences between these categories, physicians, nurses, and other healthcare providers might lay claim to the telecebo effect and use it consciously, as healers throughout human history have always done. The consensus of shamans and medicine men and women was that intention, hope, meaning, and purpose can be exteriorized via a healer’s intentions, sometimes impacting a patient decisively, either positively or negatively. Thus the deliberate use of telecebo effects is an affirmation of the universal human endeavor called healing, which always employs compassionate intentions on behalf of someone who is sick and in need.

But in truth, employing telecebo effects is not optional, but obligatory. Doctor–patient interchanges are seldom emotionally neutral, because physicians are not emotion-free automatons. Therefore, we clinicians *will* use telecebo effects for good or ill with our patients, either consciously or unconsciously.

The materialistic straightjacket with which we have shackled consciousness should be removed. Some of the eminent founders of modern science have already done so, but their views have largely been ignored.¹⁰³ Many of them believed that the popular view that consciousness is an entity that is produced by the material brain, is limited to it, and perishes with it is simply wrong. They believed, rather, that consciousness is fundamental, that it cannot be derived from anything more basic, and that it can affect matter—an underlying premise of telecebo effects. None of these great scientists were more emphatic on this score than Planck¹⁰⁴:

I regard consciousness as fundamental. I regard matter as derivative from consciousness. We cannot get

behind consciousness. Everything that we talk about, everything that we regard as existing, postulates consciousness.

Nobel Prize-winning physicist Erwin Schrödinger, whose wave equations are at the heart of quantum physics, agreed^{105,106}:

Although I think that life may be the result of an accident, I do not think that of consciousness. Consciousness cannot be accounted for in physical terms. For consciousness is absolutely fundamental. It cannot be accounted for in terms of anything else If we have to decide to have only one sphere, it has got to be the psychic one, since that exists anyway.

In view of the evidence we have examined, should we not consider using telebebo effects deliberately? If not, why not? Because they are old-fashioned? Because there is no billing code for such a service? Because our colleagues might accuse us of “going mystic?” Because the moth-eaten, materialistic worldview with which we were dragooned in our educational years continues to persuade us that these phenomena cannot happen? Because of our willful blindness toward the abundant, replicated, biologically relevant, empirical evidence for the exteriorized actions of consciousness? Because we think it is “more prudent to keep quiet, to be a moderate defender of orthodoxy, or to maintain that all is doubtful, sit on the fence, and wait in statesmanlike ambiguity for more data?”^{6,107}

Opening to the centrality of consciousness recognized by Planck, Schrödinger, and other towering giants in science might assist us in removing our blinders, so that telebebo effects can emerge in full view and take their place alongside placebo responses as co-factors in healing.⁶

THE EVERYDAY

From the foregoing, it may appear that the exteriorization of intention and thought manifests mainly in medical environments, but as the emotion-charged exchange between Freud and Jung demonstrated, this is not always the case. These phenomena can erupt in

everyday life when emotional intensity is high, as in the following account reported by author Bill Sweet^{108,109}:

During the 1970s draft for the Vietnam War, my friend Richard got a notice to appear for a physical for the army draft. He hypnotized himself to get sick. It worked. He got out of the army draft temporarily for two months.

Richard joined the Navy Reserve. He did everything he could to communicate that he would not kill if so ordered. The sergeant sent him to the company psychiatrist. The psychiatrist determined that he was not potentially good material for the military and sent him to a counselor to see what could be done.

Before seeing the counselor, Richard decided he would tell her the truth—how nervous, anxious, fearful, disgusted, neurotic, worried, and freaked out he was about the prospect of learning to use a rifle to kill people. Richard walked into the counselor's office in a deplorable state of mind. The session lasted about 45 minutes.

On the counselor's desk was a plant with large leaves. As soon as the session began, the plant began to droop. The counselor and Richard could not help notice it sagging. As Richard continued with his negative thoughts, the plant kept wilting. By the end of the session, the leaves of the plant had bent over to half their original height.

The drooping plant freaked out the counselor. Her eyes followed it down, but she did not say anything. Richard acted like he did not notice it going down but inside thought it was really neat because the plant's descent, he thought, was obviously a reaction to his negative state of mind.

The counselor was sympathetic. Richard was released from his obligation to serve in the military.

Did Richard's thoughts exteriorize to negatively influence the plant, or was its collapse just a cute coincidence, “just one of those things?” I think I know what Jung would have said. But you decide. As you do, bear in mind the laboratory experiments in which individuals have demonstrated the ability to

harm living organisms through negative intentions.^{110–113}

VIENNA REVISITED

Although Freud vigorously disagreed with Jung about ESP in their Vienna confrontation, his opposition was not to last. Late in life he sanctioned Jung's view, stating, “I am not an out and out sceptic ... If I had my life to live over again, I would devote myself to psychical research rather than to psychoanalysis.”¹¹⁴ As Frank McLynn, one of Jung's biographers, explains,¹¹⁵

Freud was always interested in telepathy but feared it could be used for reactionary and superstitious purposes rather than to advance the understanding of the unconscious. It was for purely prudential reasons that he did not publish until late in his career the many strange cases of thought transference he had come across; he simply feared that until psychoanalysis was established beyond risk of destruction by ridicule, to exhibit open-mindedness was to hand enemies a weapon. In 1932 he wrote that he used to fear that science might be overwhelmed by spiritualism or mysticism if parts of the occultist canon were proved true, but he no longer felt like that and was, indeed, convinced that thought transference was a fact.

We may never know for certain why Freud's bookcase erupted twice with noisy detonations in Jung's presence, why Jung's old walnut dining table tore its guts out, or why his flawless steel bread knife committed suicide by exploding into several pieces. We can conclude, however, in view of abundant evidence, that in the main Jung got it right: emotions, thoughts, and intentions can exteriorize to affect the outside world. In the domain of medicine and healing, this manifests not as exploding furniture and cutlery, but as the telebebo effect.

Neither Freud nor Jung could have known the extent to which empirical evidence would eventually support the impact of exteriorized thought and intention. Our world is different than theirs: we know more; we have more data points. As a consequence, empirical

and ethical considerations require, I believe, that we cultivate and employ telecebo effects consciously, alongside the dazzling modern advances in the healing arts, and toward the end that Paré articulated five centuries ago: “to cure occasionally, relieve often, console always.”

A new era of healing is upon us, in which our tools include our mind in ways we have been hesitant to acknowledge. There is no going back. As novelist Arundhati Roy says, “Another world is not only possible, she’s on the way and, on a quiet day, if you listen very carefully you can hear her breathe.”¹¹⁶

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