



Therapeutic Intention: Into the Next Generation

| Stephan A. Schwartz |

The belief that one organism can affect the well-being of another through therapeutic intention (TI) alone is ancient; no one knows how old because the oldest data about belief we have show it. Across time and geography this conviction can be found in every human culture.

Usually it is framed in a religious context so it is not the individual intender, or even a congregation of intenders, but an intervening deity, god, or spirit that is responsible for success, if it occurs. This allows a measure of disassociation—it was not me but (fill in the name of the god) that did this thing and, because it works with surprising regularity, it conveys acknowledged authority to the deity, and this strengthens group faith.

It should be noted that the same effect seems to work whether one is praying to the Buddha, Jesus, Allah, or the tree spirits—or with no religious context at all. Consider Therapeutic Touch which by design is non-religious and used by nurses throughout the country.

But for some scientists and physicians that is not enough. So the question remains, “Is this just magical thinking or coincidence?” Is it possible in principle, critics ask, for an individual, or individuals, to influence at a distance the physiological function of another living organism? I think the answer is, yes.

The Schwartzreport tracks emerging trends that will affect the world, particularly the United States. For EXPLORE it focuses on matters of health in the broadest sense of that term, including medical issues, changes in the biosphere, technology, and policy considerations, all of which will shape our culture and our lives.

Therapeutic intention has been demonstrated in both casual conditions and under the most rigorous methodological parameters that can be devised. Randomization and blindness may comfort scientists, but the truth is that TI has been observed to be pretty much the same whatever the conditions of experimentation or ritual.

In the second decade of the 21st century I think an open-minded assessment says we crossed the threshold; therapeutic intention is real and nonlocal. Many readers will be familiar with recent human studies, a number of the best of which have been published in the pages of *Explore*. These human studies are how we know TI is not magical thinking, but a fairly robust nonlocal intention effect.

Now on the other side of the threshold I think the relevant question is: what do we know about TI?

In 2002 physician and researcher Wayne Jonas, after leaving as director of the Office of Alternative Medicine at the National Institutes of Health in 1998, decided to survey all the TI studies he could track down in the formal peer reviewed literature. He found 2,200 such reports. Among them 122 were laboratory studies, 80 were randomized controlled trials, 128 with summaries or reviews, 95 were observational studies on non-randomized trials, and 227 were descriptive studies, case reports, or surveys.

Just as would be done in any other medical treatment assessment, he used for this evaluation the 25-item checklist, Consolidated Standards of Reporting Trials (CONSORT).

He reported that mind-matter interaction studies rated as “A” or good; studies involving prayer explicitly

ranked “B” or fair; and studies done by religious groups seeking confirmation of assumed effects rated “D.”¹

In 2015, English researcher Chris Roe headed a team that searched eight major medical databases—Swets-wise, ASSIA, PsychNET, Web of Science, Cochran Library, British Nursing Index, Cinahl FullText, and Informaworld. They restricted themselves only to studies published in the English language. All the studies had to “examine the effects upon a biological system of the explicit intention to improve the well-being of that target.” Their search produced 49 non-whole human studies from 34 article and 57 whole human studies across 56 articles.² They concluded: “Results suggest that subjects in the active condition exhibit a significant improvement in wellbeing relative to control subjects under circumstances that do not seem to be susceptible to placebo and expectancy effects. Findings with the whole human database suggests that the effect is not dependent upon the previous inclusion of suspect studies and is robust enough to accommodate some high profile failures to replicate.”

How does the TI effect compare with other kinds of treatments? Overall we don’t know because no one has yet done the equivalent study to what Jessica Utts, departmental chairman and professor of statistics at University of California, Irvine, and perhaps the most sophisticated mathematician assessing nonlocal research, did comparing nonlocal perception to the famed 81 mg aspirin regime prescribed by physicians in the U.S. and other nations.

Utts compared databases from two protocols, remote viewing and Ganzfeld, against the aspirin database and said:

"In summary, how are the remote viewing and Ganzfeld results different from the antiplatelet and vascular disease conclusions?

- The psi experiments produced stronger results than the antiplatelet experiments, in terms of the magnitude of the effect. There is a 36% percent increase in the probability of a (result) over chance, from 25–34%. There is a 25% reduction in the probability of a vascular problem after taking antiplatelets.
- The antiplatelet studies had more opportunity for fraud and experimenter effects than did the psi experiments.
- The antiplatelet studies were at least as likely to be funded and conducted by those with a vested interest in the outcome as were the psi experiments.
- In both cases, the experiments were heterogeneous in terms of experimental methods and characteristics of the participants. All of this leads to one interesting question: Why are millions of heart attack and stroke patients consuming antiplatelets on a regular basis, while the results of the psi experiments are only marginally known and acknowledged by the scientific community? The answer may have many aspects, but surely it does not lie in the statistical methods. On the evidence I think it is clear the same can be said of the statistical protocols in TI studies."³

At this point I think the relevant question is not does TI exist but how does this expression of nonlocal intention operate?

To answer that I want to focus on some earlier studies that are simpler because their simplicity in this instance is of benefit. For the most part, these are not human studies with all of the complexities such high order mammalian systems entail. These are simple studies using fungus, or bacteria, or simpler mammal systems like mice and, I suggest they provide insights into how TI works, and what variables we can use to increase its effectiveness. I want to stress that I could have offered up dozens of other studies, but chose these because they made clear points.

Let's start very small. In 1968, research physician Jean Barry of L'Institut

Métapsychique carried out an experiment using Violet Tooth fungus cultures which had been cultivated under optimal conditions: 10 petri dishes with the culture for each participant. It became a total of 195 dishes. There were 10 participants, each of whom carried out nine sessions expressing TI. Their task was to inhibit the growth of the fungus cultures. To do this they concentrated for 15 minutes from a distance of about four feet (1.2 M) away, never touching the cultures. After TI treatment 151 showed retarded growth.⁴

What makes this study particularly interesting is that while most therapeutic intention studies are focused on improving the function of the organism that is the target of the intention, a number successfully measure a negative effect, showing that Therapeutic Intention works both ways. Perhaps because it is something you could never test in humans; this is not widely considered in science.

Culturally, however, for millennia, throughout the age of empirical science, negative TI was recognized. Voodoo's evil eye, the concept of curses; there are hundreds of cultural variants of the concept that the consciousness of one person could negatively affect the well-being of a target organism. The echoes of this earlier time are still with us.

In 1973, Icelandic researchers Erlendur Haraldsson and Thorstein Thorsteinsson carried out a study of yeast. Two hundred and forty test tubes were prepared, and randomly distributed into two populations, 120 to be the target of TI and 120 to be controls. Seven participants, a cohort made up of one physician who believed in healing (TI), two people who defined themselves as being healers, and four naïve students with neither experience nor interest in TI, took part in the study. Their task was to increase the growth of yeast cultures in test tubes "by the mental method of (their) choice."

The physicians and the spiritual healers produced quite significant results ($P < .00014$). The students produced chance results.⁵

I think this is a second lesson about variables that can affect outcome: The attitudes and expectations of all those in a study involving nonlocal consciousness become linked in a contract of intent.

This has been found to be true in all nonlocal performance tasks—remote viewing, presentiment, nonlocal perturbation of random number generators (RNGs), and the like.

Similarly, those who develop the discipline of attaining and sustaining intentioned focused awareness do better than those who do not. As an example, study after study shows meditators do better than non-meditators.

In 1981, William Tedder and Melissa Monty did a replication of Barry's fungal study in 1968. This time the participants were 1–15 miles from the site where the yeast cultures were kept. In 16 of 16 trials they were successful.⁶ Other TI studies have confirmed that distance is not a factor in expressing TI, which conforms with other nonlocal consciousness task databases, from remote viewing to the Global Consciousness Project, and has been confirmed by them all.

Distance does, however, have significance in TI when one considers the role of energy in Therapeutic Intent. But I'll address that in moment. For now, I want to stay focused on the power of TI to change the most fundamental life processes.

In 1982, and again in 1984, biologist and parapsychologist Carroll B. Nash at St. Joseph's College carried out two studies using a particularly elegant protocol. He recruited 60 participants from the university community, and asked them to alter the ability of a strain of bacterium, *Escherichia coli*, contained in test tubes to use lactose by changing its known mutation rate in a designated way, either from "lactose negative" to "lactose positive" or the other way round. The bacteria mutated in the desired direction. The controls showed no influence.^{7,8}

Nash's work stands out because it tells us that not only can TI achieve a psychophysical effect immediately, it can also fundamentally change mutation, which means long term effects.

Quantum biologist Glen Rein, took Nash's work to its logical conclusion and asked: Can TI alter the DNA of another organism? Beginning in 1992 Rein started "to study and compare the biological effects of different images, thoughts, and intentions. The growth of tumor cells in culture was chosen because it could be monitored

quantitatively using state of the art biochemical techniques and because the outcome was highly relevant clinically. The protocol involved measuring DNA synthesis by quantifying its ability to incorporate radioactive thymidine using standard biochemical techniques. The rate of DNA synthesis was determined relative to the total number of cells which were counted in a hemocytometer.⁹ And again, Rein looked both ways.

He found, "These results indicate that focused human intention can influence the growth of tumor cells by modulating the rate of DNA synthesis. The effects observed here on DNA synthesis were shown to be dependent on the intention of the healer with some intentions producing larger effects and others producing effects in the opposite direction. It was also demonstrated that imagery as well as intention was a critical component of the states of consciousness which produced biological effects."⁷

Brenio Onetto and Gita Elguin at the University of Chile added another piece to the puzzle. In a study they did in 1966 they injected 60 mice with a tumoral suspension. The mice were randomly assigned to one of two populations, treated or control. The treated half were the focus of intentioned awareness. The intention being to negatively affect the growth and development of the tumors by daily healing treatments.

To assess the action of TI they measured the weight and volume of the tumor growth. They found that the average tumor area was significantly smaller in the treated group than in the controls after 16 and 22 days ($P < .001$), and following sacrifice of the mice at 23 days, direct measurements of the tumors confirmed a significant difference ($P < .01$).¹⁰

William Bengston and David Krinsley in 2000 took the demonstration of mutation and evolution another step forward. In their study 29 of 33 experimental mice (87.9%) were cured of cancer versus 18 of 26 site control mice (69.2%) and zero of eight off-site controls.

But here is the important part. Later reinjections of tumor cells in the treated and cured mice did not retake. They did not get cancer. They reported, "the mice retain an immunity to the same cancer after remission."¹¹

All of this research puts one in mind of a 2008 study for which Dean Ornish was the Principal Investigator. The protocol called for men with diagnosed prostate cancer to go on a vegan diet, while receiving stress management training, doing aerobic exercise, and participating in a support group of other men with prostate cancer for three months. The assessment was telomerase activity. They chose this because telomerase is the enzyme that maintains telomeres by adding DNA to the ends of our chromosomes.¹²

In 2013, Ornish did a second follow-up study also using men with prostate cancer and found once again that these life-affirming lifestyle interventions are associated with longer telomeres. Telomeres are stretches of DNA that cap our chromosomes and help prevent chromosomal deterioration—biology professors often liken them to the plastic tips on shoelaces. Shortened telomeres aren't known to cause a specific disease per se, but they do whither with age and are shorter in people with cancer, diabetes, heart disease, and high stress levels.

THE ORNISH TEAM REPORTED

"Relative telomere length increased from baseline by a median of 0.06 telomere to single-copy gene ratio (T/S) units (IQR: 0.05–0.11) in the lifestyle intervention group, but decreased in the control group (−0.03 T/S units, −0.05 to 0.03, difference $P = .03$). When data from the two groups were combined, adherence to lifestyle changes was significantly associated with relative telomere length after adjustment for age and the length of follow-up (for each percentage point increase in lifestyle adherence score, T/S units increased by 0.07, 95% CI: 0.02–0.12, $P = .005$). At five years, telomerase activity had decreased from baseline by 0.25 (−2.25 to 2.23) units in the lifestyle intervention group, and by 1.08 (−3.25 to 1.86) units in the control group ($P = .64$), and was not associated with adherence to lifestyle changes (relative risk = 0.93, 95% CI: 0.72–1.20, $P = 0.57$).

Their interpretation of their study was, "comprehensive lifestyle intervention was associated with increases in

relative telomere length after five years of follow-up, compared with controls."¹³

Even more recently a Canadian research team headed by Linda E. Carlson, who holds the Enbridge Research Chair in Psychosocial Oncology at the University of Calgary looked specifically at whether meditation/mindfulness could alter a practitioner's DNA? The assessment in this study was Telomere length.

Working with breast cancer patients, who were taught a form of Buddhist meditation, participants were divided into three groups. The first group was randomly assigned to an 8-week cancer recovery program which involved the participant in meditation and low stress Hatha yoga; the second group received 12-weeks of group therapy, whose goal was to allow the women to process with others in the emotions and experiences of having breast cancer. The third group acted as the controls. They received a six-hour stress management course. Eighty eight women completed the study and had their blood analyzed for telomere length before and after the interventions. Telomeres were maintained in both treatment groups but shortened in controls.

The results:

"Eighty-eight distressed breast cancer survivors with a diagnosis of stage I to III cancer [using the American Joint Committee on Cancer (AJCC) TNM staging system] who had completed treatment at least 3 months prior participated. Using analyses of covariance on a per-protocol sample, there were no differences noted between the MBCR and SET groups with regard to the telomere/single-copy gene ratio, but a trend effect was observed between the combined intervention group and controls ($F [1,84], 3.82; P = .054; \eta^2 = .043$); TL in the intervention group was maintained whereas it was found to decrease for control participants."¹⁴

I think all this research is telling us that through our own intentioned focused awareness we can control our physical beings down to the DNA level, even when there is no real cognitive awareness of how that might be accomplished. And this is further supported by thousands of placebo drug trials, in which 35–40% of participants get a result as good or better than those taking the medication.

It also appears that this same effect down to the DNA level can be produced by one organism focusing therapeutic intention on another. Consider the clinical applications of that fact for medicine in coming years.

We also know, thanks to the work of Israeli epidemiologist Leonard Leibovici, that just as with spacial distance, time is not a limitation.

Leibovici wanted a study in which nothing by TI could be causal. His protocol was a hospital sited retroactive intercessory TI study, only a retrocausal one.

His protocol was a “double blind, parallel group, randomized controlled trial of a retroactive intervention [emphasis added].”¹⁵ He also designed it to have a large enough *n* to have some gravitas.

In July 2000, Leibovici identified 3,393 adult patients each of whom had suffered from a serious bloodstream infection with a high mortality rate, which was detected while they were in the Rabin Medical Center in Israel, between 1990 and 1996—4–10 years earlier. All patients were long out of the hospital or dead. The patients were randomly assigned to one of two groups: 1,691 in one group and 1,702 in the other. Then a second randomization determined which group would be what Leibovici called the “intervention” population—those individuals who were the focus of therapeutic intention—while the other group constituted the controls. That was the 1,691 group.

The therapeutic intention practitioners were given only the first names of the people in the intervention group, and were asked to focus on the names and to say “a short prayer for the well-being and full recovery of the group as a whole. There was no sham intervention for the control group.”¹¹

Remember, these patients had all been in the hospital 4–10 years in the past, were long ago dead or discharged, and they knew nothing of this study.

Leibovici settled on three primary outcomes to be compared: the number of deaths in hospital, length of time the patient was in hospital “from the day of the first positive blood culture to discharge or death, and duration of fever.”¹¹ A patient was defined as having a fever on a specific day “if one of three temperature measurements

taken on that day showed a temperature of $>37.5^{\circ}\text{C}/99.5^{\circ}\text{C}$.”¹¹

Treatment consisted of, “A remote, retroactive intercessory prayer ... said for the well-being and full recovery of the intervention group.”¹¹

Mortality for the intervention group was 28.1% (475/1,691). For the controls it was 30.2% (514/1,702) (*P* for difference = .4, non-significant). But “time in hospital and duration of fever were significantly shorter in the intervention group than in the control group (*P* = .01 and *P* = .04, respectively).

Leibovici concluded, “Remote, retroactive intercessory prayer said for a group is associated with a shorter stay in hospital and shorter duration of fever in patients with a bloodstream infection and should be considered for use in clinical practice.”¹¹

I go into some length about this study because it suggests that time is not the limitation one would assume in TI, a conclusion that is again reinforced by a wide range of other nonlocal task protocol studies. But more than that, the time issue directly addresses what I think is a central misunderstanding in TI research. Is TI an energetic process or something else?

A great many books and articles argue for the energy model. This is what I thought, indeed so far as I know I coined the term “subtle energies” and even named a journal by that name. But I think closer examination suggests that this is not a viable explanation.

To begin with if it were energy Leibovici’s study could not have succeeded. The second law of thermodynamics does not permit sending energy back in time. More than that, the kind of energy that would be required to get a signal the distances reported in TI studies is not available to the human brain.

The brain contains ≈ 80 billion neurons, 1% of which are firing at any given moment = 800 million neurons generating 0.085 W. To give some sense of proportion, my iPhone battery has 5.74 W hours, so a 1% neuron trickle charge would take 285 days to charge the battery. Basically our brains could dimly light one low power LED. And to send a signal it would be subject to the Inverse Square Law of EM propagation. So:

(1) How does the signal register thousands of miles away? And why

doesn’t the existing research data show a distance correlation?

- (2) How does the signal sender locate and direct their signal to a single receptor for which they have only a first name, or no name at all just a sealed envelope containing a picture of the target person? Or that is a bacterium? And yet that is what the data shows happens.
- (3) How does one send energy to recode DNA, and how is it targeted? Yet, again, that’s what we see in the study results.

I want to propose that what the nonlocal consciousness research protocols, each of which has reached a six sigma effect size—1 in 1,000,000,000—are telling us is that this is not an energy phenomenon, but an informational one.

In TI, I do not think energy is the explanatory model for the reasons I have already outlined. Only information transfer, accommodates the data. Space and time don’t matter, and the targeting mechanism is intentioned attention. That the process is not one of sending, but of opening to that aspect of consciousness which, as Planck said “is fundamental,” and that it is expressed through the manipulation of information.

This issue of information is a growing concern in several disciplines. One of the leading information theorists, Thomas Cover, professor jointly in the Electrical Engineering and Statistics at Stanford, and Joy Thomas, Chief Scientist at Stratify, Inc., a Silicon Valley start-up specializing in organizing unstructured information, while not directly addressing the idea of nonlocal consciousness, or indeed consciousness at all, provides one model worth pursuing.

They approach it this way: “The concept of information is too broad to be captured completely by a single definition. However, for any probability distribution, we define a quantity called the entropy, which has many properties that agree with the intuitive notion of what a measure of information should be.” And then treating a datum of information as a measure present the mathematics of how information works.¹⁶

Monendra Grover, a quantum biologist heading a research team at the Centre for Agricultural Bioinformatics

in New Delhi asked: If consciousness is fundamental could it be possible to create a living organism from inorganic material? Will it be possible for science to create life?

This was how they saw it: "Living organisms are reduced dimensions of elementary form of consciousness ... the elementary field of consciousness is (the) only thing which is. So all divisions, we humans make in this universe are the product of our limited cognition. In essence the reality is one undivided whole"¹⁷ It is a very Planckian view.

They go on to argue, "In fact organisms from artificially synthesized DNA have been created. So our guess is it may not be impossible to create living organisms, but for creating sophisticated multicellular organisms we may need more than artificially synthesised DNA.... we have to learn to manipulate (the) elementary field of consciousness. But there may be a limit imposed by laws of consciousness."¹⁵

I am not so sure that I agree that science can create life, or will be able to. Ultimately that seems to me too physicalist a view. But I will go where the data does, as I have done, which is what has gotten me to my present understanding. I do agree that there are laws of consciousness, and that it behooves us to learn them.

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