COMMENTARY

New-Paradigm Research in Medicine: An Agenda

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Abstract—Critics of Western medicine have long heralded a "new paradigm" opposed to the reigning materialistic worldview of biomedical science and allopathy. This new paradigm has undergone several name changes (e.g., holistic, alternative, complementary, integrative) and presumably advances a radically new worldview. On closer inspection, it looks more like the opposite pole of the same dualistic worldview and not a radical break with the past. A truly new paradigm prepared to jettison tacit conceptual assumptions would have significant implications for medical research, provided that institutional and professional constraints not inhibit the studies to follow. A research agenda is proposed comprising possible jumping-off points for investigators comfortable with working around the reigning assumptions both of current medical thinking and of a rapidly institutionalizing integrative-medicine worldview. These include proposed medical research on spirituality, alien abductions, hierophanies, thought forms, placebo pharmacology, radionics, arcane medical wisdom, prenatal ensoulment, and musical genetics.

Keywords: medicine—research—paradigms—spirituality

Introduction

Over the past few decades, proponents of a "new paradigm" in medicine have heralded the emergence of a way of healing radically at odds with the materialistic paradigm of biomedical science and allopathy. Commentators even have used the words heresy or heretic to describe this critique of Western medicine (e.g., Stambolovic 1996, Wolpe 1990). Concomitant to the rise of this new school of medical thinking has been a flowering of buzzwords, some neologistic and others redefined versions of longstanding terms: holistic (or wholistic), wellness, bodymind, noninvasive, whole-person care, bioenergy, consciousness, alternative, complementary, integrative, and more. Early proponents conceived of this new wave in medicine as an ascendant movement poised to overthrow the old worldview through "paradigmatic retransformation" (Ferguson 1980)—replacement of the

reigning medical model with a new consensus, defined and contextualized by leaders of this new medicine.

Largely uncommented upon since this discourse began is the observation that the seminal charismatic spark which ignited this movement may have become routinized, in the sense that Weber (1922) used the word, subject to co-optation by the mainstream of medicine, and the most innovative features of this new model discarded. Another observation: The rewards of "normal science," as described by Kuhn (1970), are quite magnetic, and a field of integrated, wholistic, noninvasive, meta-concerned physicians was always at risk to develop into no less an intellectual lacuna and top-down orthodoxy than what Western biomedicine is presumed to be. More ironic is the striking similarity of the foundational assumptions and values of this so-called emergent paradigm to those of the supposedly outdated biomedical view that is still dominant.

Of the many commentators on these developments, Dossey (1984) has been almost alone in identifying this functional equivalence of the old and new paradigms. He made these observations early on in the new-paradigm discussion. To Dossey, the holists' attribution of the radix of pathogenesis and therapy to a mental "level" is just as reductionistic and dualistic as the mechanistic positivism imputed to their adversaries who, the holists claim, err by limiting their focus merely to the physical level (see Levin 1988). In other words, biomedicine and holism as medical paradigms are each myopic, in their own unique ways, and could perhaps be viewed as "mirror images of each other" (Levin 2009:484).

As the new paradigm is so consonant in its basic assumptions with the prevailing paradigm in medicine, it might be more instructive to think of these competing perspectives as representing two poles of a single worldview, one characterized by shared dualistic assumptions. With a fundamental view of people as conglomerations of matter unconnected in space—time, other components of this common perspective follow: disease as a substantive phenomenon (whether a material entity, as the traditionalists say, or a psychosocial/biobehavioral process, according to the holists); disease as a deleterious status (whether an enemy to be defeated or a step to be climbed on a ladder of wellness); professional and patient as separate role-identities (whether hierarchically or cooperatively arranged); healing as a managed intervention (whether comprising technological or natural means); the mind as a separate factor in illness and healing (whether secondary to the body or more dominant or interacting in some manner).

In *The Aquarian Conspiracy* (Ferguson 1980), additional features of this common perspective were outlined in detail, although unknowingly so, as the old and new paradigms were presented as starkly contrasting:

e.g., patient is dependent vs. patient is autonomous; reliance on quantitative medical data vs. reliance on qualitative medical data; emphasis on eliminating disease or symptoms vs. emphasis on achieving wellness or "meta-health." In proposing to chart such alleged divergences, however, much more revisionary propositions were overlooked: the concept of patient is itself outdated and inhibits healing; healing is attainable without reliance upon any data whatsoever; symptoms, disease, wellness, meta-health, and so on are just conceptual categories created for heuristic purposes by those who see life only in terms of matter and measurable states of one sort or another moving forward in linear time.

Almost as soon as it was identified, this putative new paradigm was seen as having made an identifiable impact on the practice of medicine, to the benefit of patients. This has become an article of faith among both practitioners of integrative medicine and New-Age-oriented patients. Thirty years ago, a well-known trance-channel and author noted, "Physicians who once regarded the body as a mere machine are now . . . advocating such previously arcane practices as meditation for reduction of blood pressure" (Montgomery 1986:234). This may be an unconventional and no doubt welcomed development, but is it really paradigm-busting? Or, rather, does it represent an unorthodox practice marshaled to serve as a medically prescribed therapy directed against a defined disease entity—a treatment course directed by a physician to a patient diagnosed with hypertension? All the contingencies of the old paradigm are manifest: the conceptual segregation of healer and healee; the assumption of informational hegemony on the part of the physician; the definition of the healing agent as a thing given by an authority figure to a passive recipient. To be clear, this is not to dispute the efficacy of meditation for cardiovascular health or to disparage meditation. But by conceiving of this ancient practice as just another treatment to be prescribed at the credentialed professional's discretion for conditions he or she alone defines, florid claims of paradigmatic transformation are overstated.

Perhaps it is unnecessarily critical to underscore the mundane holism characteristic of the New-Age conspirators. After all, we do exist within physical bodies in a world of matter and, whether materialists, humanists, positivists, religionists, Theosophists, idealists, fundamentalists, mystics, or whatever, it is little comfort to be told that our angina pectoris or breast cancer or AIDS or depression is *maya* (illusion) when we are hurting. But, because so many people do suffer, is it not just as mean-spirited to confront this suffering with jargon-laden dismissals of sincere allopaths and self-congratulatory talk of a new paradigm which differs only marginally from the traditional practice of medicine? Forgive the cynicism, but the

proliferation of conferences, symposia, tape series, websites, talk-show appearances, newsletters, and assorted networking activities may be speak more a collective desire to establish new fiefdoms or brands than a thirst to search for and apply genuinely revolutionary knowledge. What is being called a new paradigm may be more an old paradigm in a new wrapper.

A signpost of truly paradigm-shifting paths of scientific investigation is a pressing forward into the unknown—not merely to the outer limits of the known. It is the asking of questions that people do not realize can be asked, much less answered. A worldview-changing innovation in science does not necessarily manifest as a popular movement or fashionable trend, its proponents commanding exorbitant lecture fees and receiving lucrative, mass-market book contracts. Rather, it is often the work of a lone wolf whose ideas are seen as so crazy or threatening to the institution of science and the security of those who control it that the innovator is ritually banished from the clinical or scientific community and often from society itself. From Copernicus to modern-day heretics such as Reich, Velikovsky, Leary, and Sheldrake, the work of paradigmatic retransformation may be a lonely and even life-endangering business.

In ages past, challengers of existing scientific paradigms were tortured or burned, and, sadly, only the means of punishment are different today. Since the 1950s, Reich was imprisoned, his papers torched, and his equipment confiscated and purportedly destroyed; Velikovsky suffered an organized attempt by academic scientists to suppress the publication of his research and writing (Velikovsky 1984); Leary was imprisoned (in solitary confinement at Folsom State Prison) and effectively anathematized among academicians; and, the editor of *Nature* famously declared that Sheldrake's *A New Science of Life* (Sheldrake 1981) was "the best candidate for burning there has been for many years" (Maddox 1981:245). Who can say how many other innovations have been crushed so completely in utero that they have never publicly been aired?

Most unfortunate in this suppression is not just that scientific innovation is discouraged, although this is surely bad. Nor is it just that careers and lives are destroyed; although this, too, is bad, most innovators seem to recognize that it comes with the territory. Rather, the greatest loss lies in the expunging of those wild stabs in the dark whose often serendipitous outcomes dot the history of medicine, from the discovery of penicillin to the observation of hair-growing side effects of minoxidil use. For biomedicine, the implications of such unexpected breakthroughs can profoundly and directly impact the human condition. Provided an idea is even partly falsifiable, it should not be laughed off nor its proponents scorned, especially as the lives of many suffering people may hang in the balance. In formulating truly new-

paradigm ideas, the step-sequential, inductive march of scientific progress we learn about in school may not apply. It is instead the creative, artistic spark—of genius or lunacy—which is essential. If an idea sounds crazy, the best defense of scientific integrity is simply to test the cursed thing and see if it can be disproved. But, to dismiss a promising scientific idea outright and persecute its originator is to condemn and suppress the creative essence of the human soul.

An Agenda for New-Paradigm Research in Medicine

These prefatory comments should not be construed to suggest that the present author sees himself as a herald of a *real* new paradigm in medicine. That would be no less self-congratulatory than what just has been described. One cannot vouch for the fruitfullness of any of the lines of research about to be proposed, nor can one guarantee that truth lies waiting down any of these paths. Much of what follows is admittedly off-the-wall, and it is not suggested that any of these ideas are as substantial as those of the visionaries mentioned earlier. But they are a start.

In light of these comments, a rough sketch is now proposed for a research agenda that may be challenging to some of the reigning assumptions of biomedical science and allopathic medicine (see Table 1). Granted, the following issues are not equally amenable to empirical investigation for at least a couple of reasons. First, as just discussed, heresy has its consequences. For example, an issue may be so outside the pale of current conceptual, theoretical, or disciplinary bounds as to appear to be lunacy; external funding for such research may be lacking; colleagues may be few or nonexistent, and others may be generally hostile, disbelieving, or merely reticent; and, publication outlets may be nil. Second, the tools required to conduct such research simply may not exist at the present time—and, for issues positing currently "superempirical" effects or pathways, may exist only well into the future.

These provisos aired, what follows is a wild stab at delineating a list of topics and study questions for which answers—or, more likely, the process of searching for answers—may prove enlightening for interested investigators. These issues are listed in no particular order, and they broach matters ranging from the metaphysical to the subatomic and to regions in between and beyond. Even those who conduct "alternative" or "new-paradigm" research in respective fields within medicine may believe that some of what follows is going too far. But that is the purpose of the present paper: to identify new cutting edges, now that the old ones (e.g., psi, alternative medicine, quantum physics, mind—body healing) may not be so envelope-pushing anymore.

TABLE 1 An Agenda for New-Paradigm Research in Medicine

The epidemiology of spiritual experience

The therapeutic sequelae of alien abduction

The psychophysiology of hierophanies

The risk or protection derived from thought forms

The pharmacology of placebos

The use of radionics in population-wide intervention

The collation of medical wisdom from arcane traditions

The mapping of prenatal ensoulment

The use of sound and music in genetic engineering

1) The Epidemiology of Spiritual Experience

Beginning in the mid-1980s, a cohort of investigators uncovered a neglected treasurechest of unusual findings lying hidden at the fringes of the medical research literature (see Koenig, King, & Carson 2012, Levin 2001, Levin & Koenig 2005). By now, thousands of clinical, biomedical, epidemiologic, and behavioral studies have identified statistically significant associations between various religious indicators (e.g., attendance at religious services, subjective religiosity, belief in God, religious membership) and rates of morbidity or mortality due to almost every physical or psychiatric affliction (ischemic heart disease, uterine cancer, hypertension, colitis, infectious diseases, genetic diseases, physical symptomatology, infant mortality, functional disability, psychopathology, and others). The field of study that since has grown up around this body of data has been termed the "epidemiology of religion" (Levin & Vanderpool 1987) and seems to raise more questions than it answers, central of which is the possibility of associations between spiritual and somatic states (see Levin 1994). While existing population studies cannot address this issue directly, they seem to intimate that specific experiences that are currently classified as spiritual or numinous may have measurable effects on the flesh.

For the most part, this research has emphasized population-wide trends between respective measures of public or private religious behavior and particular disease outcomes. These studies tell us, for example, that more frequent attendance at religious services is associated, on average, with lower rates of depression or anxiety within particular populations. Such findings, focused mostly on religious behaviors or attitudes, do not say much of anything about spiritual belief or experience; nor do the outcomes under study tell us much of anything about impacts of these constructs on human physiology, psychophysiology, pathophysiology, or healing. This research is often misinterpreted as providing information on such associations, but it does not. This is unfortunate, as the possibility of validated physiological or healing impacts of religious, spiritual, or numinous states or experiences has long been identified as a cutting edge for this field (see Levin 2011), but one that remains in its infancy, save for a growing literature of studies on meditation (Murphy & Donovan 1997). Research questions addressing outcomes of more esoteric spirituality have been too marginal to attract much attention or funding.

Any of the following seemingly off-the-wall queries might be good places to begin to take things a step further, metaphysically speaking: Does the opening or balancing of, say, the heart *chakra* have salutary cardiovascular effects? Do reports of out-of-body experiences (OBEs) or theophanies (hearing or seeing God) correlate significantly with certain health-related improvements or declines? Is the visualization of certain colors of light (e.g., blue) during meditation therapeutic for certain "totemic" conditions (e.g., sore throat)? Are particular spiritual affirmations (e.g., the Jesus prayer; chanting *Om Sri Ram*; certain *mantras*) associated with protection against or healing of disease? Or, as an editorial in the *British Medical Journal* wondered, "Born again and live longer?" (Review 1980).

These examples do not begin to exhaust the sorts of questions that might be posed. As strange as these questions may appear to Western scientists or medical practitioners, such a descriptive and exploratory search for underlying patterns in unusual data is a well-tested empirical approach recalling the early work of pioneers in mind-body medicine, which led to the fields of stress research (Selye 1950), psychosomatic medicine (Alexander 1962), and psychosocial epidemiology (Cassel 1974), three not-so-ancient heresies. The objective here is to move beyond a limited focus on observed religious behaviors (e.g., frequency of church attendance) that has characterized research on spirituality and health (see Levin 2011) to engage more existential and experiential aspects of human spirituality in relation to assessments of real disease processes, not just subjective self-reports of general well-being.

2) The Therapeutic Sequelae of Alien Abductions

Thousands of individuals have reported contact with alien or discarnate entities through UFO experiences (e.g., being taken aboard spaceships and medically examined or implanted), through encountering or becoming "walk-ins" (i.e. undergoing a sort of ego substitution where the inborn soul allegedly leaves and another replaces it), through travels to different vibrational octaves or dimensions (during meditation or sleep or subtlebody projection), or through trance-channeling experiences (see summaries of contactee experiences in Jacobs 1992, Mack 1994, Leir 2000). Setting aside for now the veracity of such accounts, it would be of inestimable value to catalog the health advice provided through such contacts, perhaps in the form of a comprehensive *materia medica esoterica*. The followers of the late seer Edgar Cayce have done just that on a smaller scale through the maintenance of files of his trance readings in Virginia Beach, Virginia, and publication of compilations such as their *Encyclopedia of Healing* (Karp 1986).

Efforts have been made to cumulate if not catalog accounts of anomalous or inexplicable healings resulting from alien contact (e.g., Dennett 1996, Dvir 2003). But nothing like a true population sample is currently able to be drawn for surveying, for obvious reasons. Conspiracy theorists believe that such information already exists in the archives of some unnamed government agency, but, if true, these data are not accessible to investigators. The best that one can do for now, absent the requisite security clearances, is make use of existing survey data on beliefs or attitudes from recruited or non-probability samples, as in a recent report published in JSE (Levin 2012), or from surveys conducted for other purposes. Such data tell us, for example, that contactee experiences may involve up to 0.5% of the U.S. population (ABC News/Washington Post 1994) and that most clergy (Levin 2012) and about 88% of the general population (RoperASW 2002) do not believe that a crisis of faith would ensue from the government coming clean about such reports, if indeed they are true. The latter point remains the subject of polarizing controversy (see Alexander 2011).

Setting aside the physical reality of such claims, subjective perceptions of such are apparently widespread enough to merit more systematic exploration. If a resourceful scholar with the requisite multidisciplinary background could produce a volume comprising references from all such sources, this would represent one of the cardinal intellectual achievements in medicine. While the skeptic might substitute the word psychiatry for medicine, the contribution of such a study would be no less significant. Here, presumably, would be an archive of reports of anomalous healings experienced by a cross-section of the global population involving sources

that are literally (or are perceived to be) out of this world. If there is anything to learn here about etiology, treatment of disease, or human pathophysiology or healing—and information on these subjects has been reported by contactees—then such a compendium would be worth pursuing.

3) The Psychophysiology of Hierophanies

Aside from compiling any nuggets of wisdom received through such experiences, UFO-related or otherwise, equally important would be identifying actual patterns of physiological response to such close physical encounters with the numinous or supernatural—hierophanies, as historians of religions refer to intersections of human life, sacred space, and transcendental experience. There are many useful sources of data for such analysis: the *Torah*, synoptic Gospel accounts of Jesus' ministry, accounts from other religious traditions, anthropological reports of shamanic rituals in primitive *culti*, and any of the array of more modern *esoterica* (somatic reactions to or sequelae of UFO abductions, past-life readings, trance-channeling sessions, etc.).

Central to this line of research would be to identify how people cope with coming face to face, so to speak, with *noumena*, or manifested truths of arcane teachings. Scriptural and popular depictions provide a nearly endless list of claimed physiological and psychophysiological reactions: shock, paralysis, "falling out," sudden personality change (e.g., Paul's Damascus experience), ego substitution or walking-in, salutary transformation or regeneration of gross anatomical members (such as extremities), death, resurrection, arrest or reversal of chronic and acute morbidity, and more. Validation of these phenomena would be a helpful first step—however that might conceivably be done—followed by correlation with antecedents.

The challenge here is to take the next step beyond simply cataloguing such data. Researchers including Vallee (1975), Gowan (1980), Watson (1987), and Murphy (1992) already have begun this task. What is now required is a search for latent patterns—for connections of particular hierophanies or classes of hierophanies with particular therapeutic responses or classes of responses. Such a research program would require collaboration among scholars from across disciplines and fields: Biblical scholars, Orientalists, religious historians, physicians, epidemiologists, neurophysiologists, transpersonal psychiatrists and psychotherapists, parapsychologists, ufologists, military intelligence officers, sensitives, and perhaps others. Considering how hard it is to convene sociologists and psychologists—even variant species of psychologist—it does not appear likely that the modern university with its departmental and disciplinary boundaries could serve as the locus for such research. Perhaps deep within

the ultra-compartmentalized black projects of the Department of Defense or unpublicized military contractors such investigations are already ongoing.

4) The Risk or Protection Derived from Thought Forms

Returning from the etheric realms to a more grounded arena—thought and belief—might particular belief systems or ideologies be associated with particular patterns of somatic pathology? More specifically, might certain thoughts be etiologically significant for certain illnesses, exacerbate extant conditions, or cure or engender remission of certain diseases? Researchers have known for decades that aspects of belief, personality, and cognition are salient influences on the course and prevention of disease—for example, the early work on the Type A or coronary-prone behavior pattern (e.g., Friedman & Rosenman 1971) and on the health belief model (see Rosenstock 1974). The former was derived from observations of heart patients; the latter was developed as a theory for predicting preventive health behavior. But can we be more precise? Can specific thoughts be implicated in the etiology or cure of specific diseases?

Many spiritual healers recommend a positive attitude as therapeutic. Some, such as Hay (1984), go further by outlining precise thoughts and concomitant somatizations, as well as thoughts that can remedy particular diseases. Medical clairvoyants and intuitive diagnosticians likewise attach certain thoughts to increased risk of certain medical diagnoses (see, e.g., Shealy & Myss 1993). For example, rheumatoid arthritis is believed to be "generated by a combination of chronic anger and resentment as though he or she is being held in emotional bondage with no alternative available for emotional release other than to internalize it" (Shealy & Myss 1993:237), a reaction, in turn, that restricts movement within the joints. One could imagine both physiological and metaphysical mechanisms of action: respective cognitions and affects translate into health-impacting etiologic factors via a network of neurological, endocrinological, and immunological pathways (see, e.g., Ader, Felten, & Cohen 1991); or such ideations invoke higher-order forms which "precipitate" down into denser realms thus impacting on the physical body.

The latter hypothetical mechanism borrows on the Theosophical and mystery-school conception of thought forms—semi-material forms generated by thought and existing in the mental plane, a dimension which vibrates at a higher frequency than the physical plane (where our bodies materially precipitate into sense-able manifestation) or the astral plane (the dimension of emotions, where, it is believed, people typically first arrive when they project out of their physical vehicle during an OBE or

immediately after death) (see Besant & Leadbeater 1975). Esotericists have proposed that thought forms have tangible effects in the physical plane, including on the functioning of the human body, a cornerstone tenet of occult healing (see Burnett 1918). This has been validated, to a degree, via observations made by energy healers during the energy-field scanning or diagnostic phase of their work (e.g., Batie 2004).

For sure, any bench research on this subject would require subtle instrumentation capable of measuring such thought forms. Interestingly, photographic techniques developed around the turn of the 20th century have shown promise in this regard (Krippner & Rubin 1973). Western biomedical scientists and clinicians might be surprised to learn that discussions of practical applications of methodologies to assess subtle-energy fields are not limited to parapsychologists but have occurred within engineering (e.g., Tiller 1976), biology (e.g., Oschman 2016), physics (e.g., Rubik 2004), and medicine (e.g., Rosch 2009).

5) The Pharmacology of Placebos

In recent years, much has been written about placebos. According to the National Library of Medicine's PubMed search engine, more than 5,500 journal articles (at the time of this writing) match on the phrase "placebo effect," dating to 1948. Yet, as Weil has noted (1988), Western medicine continues to treat placebos as a sort of ash heap—a valueless residual category in double-blind clinical drug trials. That is, if Drug A cures Disease B in 38 percent of cases and a placebo pill made of milk-sugar does so in, say, 35 percent of cases, and if based on sample size and statistical power there is no significant difference between the two cure rates, then the trial is said to have failed. What seems to be overlooked is the startling effectiveness of milk-sugar pills. If one were to re-collate all of the thousands of negative findings from the archives of double-blind clinical drug trials, one might discover that a concoction of milk-sugar or whatever else is used has apparently cured almost every known affliction. Instead of decrying this, one would think that by now someone would have bottled the stuff and made it available. Ironically, homeopaths do just that and (possibly) more, yet are accused of quackery by allopaths and skeptics.

The challenge here for biomedical science is no less than to study the pharmacology of placebos. Such research actually has been ongoing since the early 1950s (e.g., Wolf 1950), with findings published in mainstream medical journals. The U.S. National Institutes of Health convened an expert panel to examine the issue of placebo and non-specific effects more than 20 years ago. The chair of the panel later stated that he prefers "meaning

response" to "placebo effect" (Moerman 2013), since placebos, being inert, are incapable of effects but the meaning attached to their administration may point to a mechanism of action. Despite decades of scientific research and writing on this subject, the promise of placebos—or meaning therapy—as legitimate first-line medical treatment has not gotten very far.

A renewed effort to study placebos and their mechanism(s) of effect would best be done in a multidisciplinary setting, through collaboration among pharmacologists, biochemists, biostatisticians, and clinical scientists, and perhaps a few (secretive) consults with homeopaths. Besides the difficult issue of mechanisms, the most clinically relevant questions include: Might certain afflictions be more amenable to this therapy than others? Does a dose-response relationship operate? Are certain presumably inert substances less inert than others? Do interaction effects exist between placebos and certain pharmaceutically active agents? Can placebos ever be therapeutically dangerous (over and above the possibility that they may not work)? Can such treatments be standardized?

These are empirical questions which require scientific investigation. None necessarily posit mechanisms or pathways as far out as those noted earlier in discussion of UFOs, trance channels, thought forms, and other mysteries; this is a job for clinical and bench science. These questions, however, may represent a profound threat to what has been termed "pharmaceutical hegemony" (Radelet 1979)—pharmaceutical conglomerates acting as agents of medical social control (see Conrad 1979) by working in tandem to suppress non-pharmaceutical cures or treatments of prevalent diseases that constitute a large global market for such firms. In light of the conjecture of some on the far left and the libertarian right that the U.S. pharmaceutical industry may be complicit in the coup that toppled the Allende government in Chile (see, e.g., Modell & Waitzkin 1974-1975), it may be that such avenues of scientific research will be blocked. Nevertheless, collaboration between bench scientists and clinicians has much to offer if the promise of placebos is to move from speculation to inquiry.

6) The Use of Radionics in Population-Wide Intervention

Radionics is a psionic or psychotronic healing modality intended for the diagnosis and treatment of medical problems (see Tansley 1984). Through combining the diagnostic use of psychic intuition (e.g., by the oracular use of a crystal pendulum) with the imbuing of salutary vibrational energies projected to the healee either through an ingested medium (e.g., water) or by absent healing, a therapeutic transaction occurs outside of the currently accepted bounds of material culture and empirico—positive measurement.

In less abstruse terms, radionics is a form of absent or invisible or nonlocal healing, one step removed even from homeopathy, in that the latter does not conventionally incorporate absent-healing methods. Thus, to the orthodox allopath, radionics is an even greater heresy than homeopathy and must be quackery (see Belden-Adams 2012).

Setting aside for now the reservations of the biomedical establishment, radionics—accepting at face value the claims of proponents—would seem to offer a therapeutic avenue by which communicable diseases, such as AIDS, could be cured or even eradicated at a population-wide level. While it should not be presumed that most radionics practitioners would necessarily endorse such a claim, several pieces of information support this idea. First, radionics has already been used successfully by farmers to eliminate agricultural blight caused by certain organisms (Diver & Kuepper 1997). Second, a means to defeat an infectious agent, such as the HIV virus, may be "implicate" in the order of things (e.g., Bohm 1980)—although perhaps outside the consensus bounds of the space—time coordinate system that now define and limit the focus of our conscious attention. Third, this could be operationally conceived of as a "morphogenetic field" (Sheldrake 1981)—a sort of Platonic form lying dormant, waiting to be tapped and then triggered by something akin to a "hundredth monkey phenomenon" (Keyes 1982).

Granted, liberties have been taken in characterizing and concatenating these ideas. But in conjoining them in an experimental setting with, say, a couple hundred HIV-positive subjects, might one hypothesize a sequence of events that could trigger eradication of the HIV virus throughout the world (provided, first, that each of the above theories is correct, and, second, that they can be operationally synthesized in such a fashion)? At worst, if there is therapeutic efficacy in such a radionic remedy, the trial might help or cure a couple hundred people radionically. Unorthodox? Of course. Unscientific? Not at all. Still, as with medical studies of UFO contacts and trance-channels and the rest, it is hard to fathom that the requisite financial support for such a project would be forthcoming from conventional public funding sources, no matter the promised cost-effectiveness and immensity of its potential payoff.

7) The Collation of Medical Wisdom from Arcane Traditions

Continuing with the topic of absent healing, various modalities are reputedly familiar to initiates of mystery schools and esoteric brotherhoods (see Levin 2008). As with the suggestion concerning extraterrestrial healing methods described earlier, these methods, too, could be catalogued and codified. Much of the highest, most advanced scientific wisdom of the ages is said to be contained within secret teachings of initiatory orders (see Hall 1977).

Much of this wisdom concerns healing (Hall 1972). Some scholars (e.g., Smith 1976) contend that these secret teachings comprise a common inner path, a "perennial philosophy," fundamentally identical across outwardly divergent faith traditions. That is, the healing philosophies and methods of Kabbalists, Sufis, Tibetan lamas, Zen masters, Rosicrucians, Theosophists, Christian mystics, adept yogis, initiates of arcane Masonic rites, and others privy to as yet largely unpopularized mysteries may converge about a singular set of truths universal to our species.

An obvious stumbling block to retrieving and collating this wisdom is that many of these teachings are protected by oaths—vows of secrecy that prevent their transmittal to the uninitiated. While currently egalitarian sensibilities may bristle against this discrimination, apparently some things are not meant to be revealed to the intellectually and spiritually unprepared. The bearers of esoteric knowledge (religions and secret orders alike) seem united on the necessity of initiation (e.g., Bailey 1953). Perhaps, scientists are best encouraged to gain initiation into the mysteries and then, like esotericists of old, allow bits of the arcane learning to spill out into their writings, while the more complex teachings rustle about in their minds, supplying the substance by which intuition and divine guidance can provide a higher collation and lead to formulation of new research agendas to recover eternal truths seemingly lost to time.

8) The Mapping of Prenatal Ensoulment

Such a process might produce many highly unusual research questions. One such question, which has plagued theologians and philosophers for eons and Western politicians and bioethicists for decades, has to do with when, exactly, the soul first enters the physical body. Many answers have been proposed, each with ideological devotees, the three most popular being at conception, at birth, or never, the latter common among secular humanists as a direct corollary of their belief that no such thing as a soul actually exists (Minsky 1976). As every reader is aware, this issue is not just a matter of intellectual and religious debate, but of highly contentious political dispute due in part to its relation to longstanding policy discussions regarding abortion, stem cells, and cloning (see Dolgin 2004).

In some metaphysical circles, such as according to psychic channels, a much more complicated hypothesis emerges: The soul incarnates into the embryo or fetus at variable points in its prenatal development, and may come and go at will until birth or perhaps beyond (e.g., Newton 1994). A more concrete understanding of this phenomenon would help resolve one of the great ethical dilemmas of our day, namely abortion. Barriers to such a conversation may be omnipresent, however, due to ongoing hostilities

between proponents of respective viewpoints prioritizing female autonomy or human life.

There is some danger for medical science to wade into such a highly charged political and ideological debate. For one, each side is convinced that it is morally in the right, an absolutism that fuels mischaracterizations of its normative position by opponents. Accordingly, pro-choice proponents are recast as baby-killers; pro-life advocates likewise are spun into oppressors of women. The debate is so polarized that its construction precludes alternative positions, the more metaphysically grounded of which might require engagement of ideas such as reincarnation, astral projection, the existence of subtle bodies, and nonlocality of consciousness outside of individual physical bodies—concepts that may require abandonment or modification of prevailing worldviews and challenge established bases for political activism.

Moreover, because of the possibility of affront to the ideologically charged temperament of partisans on both sides, such research may be dangerous to the well-being and livelihood of scholars whose views are located outside of these two positions. It is well to recall the reaction of leaders of the skeptical "new inquisition" (see Wilson 1987) to paradigmchallenging research at the Stanford Research Institute (SRI). Not only was the innovative physics research of SSE members Puthoff and Targ on remote viewing derided as having dared to violate the revealed tenets of materialism—which the debunkers "knew" to be true—but they went as far as to label such research and the spectre of further such explorations at SRI and elsewhere as incompetence, quackery, and even fascism (see Schnabel 1997, Targ & Katra 1999, Targ & Puthoff 1977). Whatever one may think of the idea of research on prenatal ensoulment, however such studies might possibly be done—and the present author has no helpful suggestions here—it pays to keep in mind the hostile and programmed response of the skeptical community to highly innovative research in theoretical physics, a field considerably more mainstream than esoteric obstetrics.

9) The Use of Sound and Music in Genetic Engineering

The final proposal in this new-paradigm research agenda may be the most unusual and promising. The late Dr. Susumu Ohno, distinguished molecular biologist, devised a peculiar new alchemy: transubstantiation of portions of genetic code into musical melodies and vice versa (Associated Press 1988). Each of the four basic nucleic acids, the building blocks of DNA, were assigned musical notes and written out in the sequence in which they appeared in a particular gene. The result was a musical score encoded from mouse RNA, rainbow trout, slime mold, a chicken's eye, and so on. The

scientifically and metaphysically significant element in this exercise was the remarkable resemblance of the resultant music to the intrinsic essence or soul of the seed DNA sequence. That is, mouse RNA sounded like an uptempo waltz, the lens of the eye sounded light and airy, an oncogene sounded somber. In reverse, the same correspondence held; for example, a funeral march by Chopin, decoded, resembled a human cancer gene.

Perhaps the results of this truly inspired work are not all that remarkable given the well-known esoteric principle of "as above, so below." The microcosm reflects the macrocosm, and both reflect a higher form, and all such forms reflect the essence—the ultimate monad, the One (see Blavatsky 1970). Esotericists across traditions have been making this observation for ages (see Faivre 1994). On the other hand, according to "some experts," reported the Associated Press, this work "has no practical application" (Associated Press 1988).

On the contrary, one may envision all manner of fantastic applications of this process, building on the principle that sound and music, being vibrational frequencies, can interact with and physiologically and morphologically affect the physical and subtle bodies, being conglomerations of frequencies themselves. And these applications extend far beyond typical bench-science experiments. Does the patient have an infection? Then take a sound bite of the appropriate antibiotic. No cost, no toxic side effects, no pharmaceutical profits. On the downside, want to harm a large population—an incurable disease or agricultural blight, perhaps? Then how about a form of mutagenic terrorism—the introduction of a genre of music into a culture or society which can precipitate disease through wreaking genetic mutations?

These sorts of scenarios may not be so far-fetched. Evidence suggests that the genre of New-Age music has effects on the body, mind, and emotions (e.g., Kemper & Danhauer 2005). Jim Oliver, for example, has gone one step further than most by creating musical compositions specifically for purposes of engendering physical healing (Bartoo 1988). Using a bank of wave forms, thousands of different sounds were tested in hundreds of client sessions—an empirical program not unlike the "provings" of the early homeopaths (see Jonas & Jacobs 1996). Specific tones have been identified to replace dental anaesthesia, realign vertebrae, stimulate acupuncture meridians, and even provide a sort of massage (Bartoo 1988). One interesting side-effect in many clients was stimulation of intuition coupled with fortifying the will to improve one's life.

In sum, this interplay among sound, music, genes, disease, and human bodies promises a comprehensive new *materia medica* linking sound vibrations to specific states of health and disease. Combined with evidence of healing through the use of light, color, and visually detectable vibrations

due to correspondences with respective *chakras* (Hunt 1971), we have the makings of an entirely new, yet ancient, therapeutic approach: totemic medicine. Each disease, each cure, each organ, each *chakra* is part of a vast family with its respective musical note, color, planetary influence, herb, emotion, archangel, Kabbalistic *sefira*, gemstone, element, visual symbol, Hebrew letter, flower, Ray, etc. By marshalling the appropriate members of the target-state totem, perhaps a salutogenic response is hastened. This concept is not dissimilar to the efforts of shamans and practitioners of sympathetic magic—indigenous healers from across global cultures whose work has been ongoing since long before Western medicine came into being (see Murdock 1980) and which may remain with us after its demise.

Conclusions

Spirituality, alien abductions, hierophanies, thought forms, placebo pharmacology, radionics, arcane medical wisdom, prenatal ensoulment, and musical genetics—these are not exactly the stuff of medical school curricula and externally funded research grants. But, why not? Each topic has been framed in terms amenable to investigation via the accepted hallmarks of the scientific method-statements of theory, hypothesis formulation, empirical testing through data collection, and so on—and each may have meaningful, if currently unrecognized, clinical and therapeutic applications. The principal barrier to such investigations cannot be a lack of some intrinsic qualities that might lead opponents to label these ideas "unscientific." They are entirely scientific—that is, amenable to empirical testing leading to validation or rejection. Rather, these agenda points broach issues and concepts that may violate the worldview or dominant ideology of the majority of those individuals who call themselves biomedical scientists. But, this is not the same as saying that these ideas violate the underlying tenets or methods of science.

This confounding of what biomedical scientists and allopathic physicians believe as people and what the current state of their professions' knowledge base propounds is mirrored in other intellectual disciplines. For example, sociology can be defined simply as the study of society or of social institutions and social behavior. Yet to variant breeds of sociologist—functionalists, symbolic interactionists, conflict theorists, or others (see Parsons et al. 1961, Wallace 1969)—alternative definitions of sociology are likely to go on for paragraphs and include a menagerie of unusual words and phrases: behavior, objective study, regularities in conduct, heuristic knowledge, scientific, human environment, the socius, uniformities in group behavior, the processes of companionship, general laws of social change, and more. Each collection of words helps justify a narrow conception of

the field that places borders around acceptable research questions and even around acceptable conclusions.

It is not hard to see this same process at work in Western medicine, except that it is so pronounced and ubiquitous as to be nearly invisible. It is a common observation among social science faculty in medical schools that medical students (and some clinical faculty) are largely unaware that their study and practice is limited to one particular historical school of medical philosophy; indeed, many students and teachers have never even heard of the term "allopathic." At least a structural–functionalist sociologist is aware of symbolic interactionists and others; and transpersonal psychologists are aware of behaviorists, experimentalists, and their social, cognitive, and psychodynamic counterparts. In the mainstream biomedical world, however, the current state of professional knowledge is elevated to the status of revealed doctrine, and research questions that do not build on current programs and pay homage to the operant worldview are so marginalized that they rarely ever get formally asked.

A promise of the holistic or alternative or complementary or integrative medicine community is the engendering and support of individuals who ask such off-the-wall questions. But, sadly, holistic medicine has taken on many of the trappings of mainstream medicine. In addition to the obvious social and professional similarities described earlier, many holistic or New-Age therapies are no less reductionistic than Western medicine. To its credit, the allopathic approach at least focuses on the whole person, or, rather, the whole physical person. As long ago noted by Vanderpool (1984), Velimorovic (1984a, 1984b), and others (e.g., Levin & Coreil 1986), certain alternative specialties are even more narrowly focused than the most vilified Western subspecialties. Entire systems of treatment and/or diagnosis are based on the *chakras* or the iris or the tongue or the spine or the etheric body or the *nadis* or the foot. Therapy, as well, may be limited to a single modality: laying-on-of-hands, breathing, fascial manipulation, the use of quartz crystals, application of transcribed messages from channeled entities.

This is not to discredit any of these alternative therapies. There appears to be great efficacy for many of them (to which the present author can attest through personal experience), and, in certain situations, they may be of greater benefit to suffering people than medicine as currently envisioned and practiced. Yet the continued reification of Western disease categories, compartmentalization of people into a sick role, and fragmented professional treatment of parts of the body (physical or subtle) hardly herald the coming of a new medicine. It is as if for all the inspired talk of new paradigms, changing medical consciousness, and societal transformation, many of the reigning theorists of integrative medicine are fearful of breaking with the

past and proposing theories, treatments, or research protocols that are truly revolutionary. This sensitivity to overstepping the bounds of good judgment suggests that, as with allopathy and its allied biomedical sciences, the early idealism and radical adventuresomeness of holism have given way to the hegemony of a dominant, common ideology which may be, at best, a modest derivative of the prevailing materialist worldview of modern medicine. The unorthodox risk becoming a new orthodoxy, their dogma no less reductionistic than the old orthodoxy.

How then does one engender the radical new approach to healing that is so needed? Throughout history, such changes—such paradigm shifts—such overthrows of one system by another—have been driven by the research findings of solitary figures working alone, like mad artists, seeing the world through open eyes. For the most fortunate of these, discoveries are made that are disregarded in their day but which eventually seep into the tacit truths of some later time. Sometimes the lag period is brief—a few decades—while other times it is centuries. It is hoped that the many unusual research programs proposed here, by one securely niched in academic science, can serve to encourage and jump-start the explorations of the brave medical scientists and healers who have quietly seen the future.

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References Cited

ABC News/Washington Post (1994). ABC News/Washington Post Poll, May 1994 [Computer file]. ICPSR 06625-v.2. Radnor, PA: Chilton Research Services [producer]. Ann Arbor, MI: Inter-University Consortium for Political and Social Research [distributor], 2007-11-20.

Ader, R., Felten, D. L., & Cohen, N. (1991). *Psychoneuroimmunology*, second edition. San Diego: Academic Press.

Alexander, F. (1962). The development of psychosomatic medicine. *Psychosomatic Medicine*, 24:13–24.

Alexander, J. B. (2011). *UFOs: Myths, Conspiracies, and Realities*. New York: Thomas Dunne Books. Associated Press (1988). From genes, melodies of life. *Ann Arbor News*, (January 29):B1.

Bailey, A. A. (1953). Esoteric Healing. New York: Lucis Publishing.

Bartoo, P. (1988). Healing harmonies: This composer creates works to unstress you. *Santa Fe Reporter Transformations*, 21(Summer):13–15.

Batie, H. F. (2003). *Healing Body, Mind, & Spirit: A Guide to Energy-Based Healing*. St. Paul, MN: Llewellyn Publications.

Belden-Adams, K. (2012). Quack, quack!: Photography as a remote radionics healing agent. International Journal of Technology, Knowledge & Society, 8(4):25–32.

Besant, A., & Leadbeater, C. W. (1975). *Thought-Forms* [1905]. Wheaton, IL: Theosophical Publishing House.

Blavatsky, H. P. (1970). The Secret Doctrine: The Synthesis of Science, Religion, and Philosophy [1888]. Pasadena, CA: Theosophical University Press.

- Bohm, D. (1980). Wholeness and the Implicate Order. London: Routledge & Kegan Paul.
- Burnett, M. W. (1918). The Principles of Occult Healing: A Working Hypothesis Which Includes All Cures: Studies by a Group of Theosophical Students, second edition. Los Angeles: Theosophical Publishing House.
- Cassel, J. (1974). An epidemiological perspective of psychosocial factors in disease etiology. American Journal of Public Health, 64:1040–1043.
- Conrad, P. (1979). Types of medical social control. Sociology of Health and Illness, 1:1–11.
- Dennett, P. E. (1996). *UFO Healings: True Accounts of People Healed by Extraterrestrials*. Mill Spring, NC: Wildflower Press.
- Diver, S., & Kuepper, G. (1997). Radionics in agriculture. Currents Topics publication, ATTRA Project.
 - http://www.docfoc.com/steve-diver-and-george-kuepper-radionics-in-agriculturepdf
- Dolgin, J. L. (2004). Embryonic discourse: Abortion, stem cells and cloning. *Issues in Law and Medicine*, 19:203–261.
- Dossey, L. (1984). Beyond Illness: Discovering the Experience of Health. Boston: Shambhala.
- Dvir, A. (2003). X3, Healing, Entities, and Aliens (with CD). Rishon LeZion, Israel: Dvir Publisher.
- Faivre, A. (1994). Access to Western Esotericism. Albany, NY: SUNY Press.
- Ferguson, M. (1980). *The Aquarian Conspiracy: Personal and Social Transformation in the 1980s*. Los Angeles: J. P. Tarcher.
- Friedman, M., & Rosenman, R. H. (1971). Type A behavior pattern: Its association with coronary heart disease. *Annals of Clinical Research*, 3:300–312.
- Gowan, J. C. (1980). Operations of Increasing Order. Westlake Village, CA: Gowan.
- Hall, M. P. (1972). Healing: The Divine Art. Los Angeles: Philosophical Research Society.
- Hall, M. P. (1977). The Secret Teachings of All Ages: An Encyclopedic Outline of Masonic, Hermetic, Qabbalistic and Rosicrucian Symbolical Philosophy [1928]. Los Angeles: Philosophical Research Society.
- Hay, L. L. (1984). Heal Your Body, revised edition. Santa Monica, CA: Hay House.
- Hunt, R. (1971). The Seven Keys to Color Healing: Diagnosis and Treatment Using Color. San Francisco: Harper & Row.
- Jacobs, D. M. (1992). Secret Life: Firsthand Accounts of UFO Abductions. New York: Simon and Schuster.
- Jonas, W. B., & Jacobs, J. (1996). Healing with Homeopathy: The Complete Guide. New York: Warner Books.
- Karp, R. A. (1986). Edgar Cayce Encyclopedia of Healing. New York: Warner Books.
- Kemper, K., & Danhauer, S. C. (2005). Music as therapy. Southern Medical Journal, 98:282–288.
- Keyes, K., Jr. (1982). The Hundredth Monkey. Coos Bay, OR: Vision Books.
- Koenig, H. G., King, D. E., & Carson, V. B. (2012). *Handbook of Religion and Health*, second edition. New York: Oxford University Press.
- Krippner, S., & Rubin, D. (1973). *Galaxies of Life: The Human Aura in Acupuncture and Kirlian Photography*. New York: Gordon and Breach.
- Kuhn, T. S. (1970). The Structure of Scientific Revolutions, second edition. Chicago: University of Chicago Press.
- Leir, R. (2000). Casebook: Alien Implants. New York: Dell.
- Levin, J. S. (1988). Book Review of *Beyond Illness: Discovering the Experience of Health* by Larry Dossey. *Journal of Religion and Health*, *27*:329–330.
- Levin, J. S. (1994). Religion and health: Is there an association, is it valid, and is it causal? *Social Science and Medicine*, 38:1475–1482.
- Levin, J. (2001). *God, Faith, and Health: Exploring the Spirituality–Healing Connection*. New York: John Wiley & Sons.

- Levin, J. (2008). Esoteric healing traditions: A conceptual overview. EXPLORE: The Journal of Science and Healing, 4:101–112.
- Levin, J. (2009). Restoring the spiritual: Reflections on arrogance and myopia—allopathic and holistic. *Journal of Religion and Health*, 48:482–495.
- Levin, J. (2011). Transcendent experience and health: Concepts, cases, and sociological themes. In *Toward a Sociological Theory of Religion and Health* edited by Anthony J. Blasi, Leiden, Netherlands: Brill, pp. 69–93.
- Levin, J. (2012). Revisiting the Alexander UFO Religious Crisis Survey (AUFORCS): Is there really a crisis? *Journal of Scientific Exploration*, 26:273–284.
- Levin, J. S., & Coreil, J. (1986). "New age" healing in the U.S. Social Science and Medicine, 23:889–897.
- Levin, J., & Koenig, H. (Editors) (2005). *Faith, Medicine, and Science: A Festschrift in Honor of Dr. David B. Larson*. New York: Haworth Pastoral Press.
- Levin, J. S., & Vanderpool, H. Y. (1987). Is frequent religious attendance *really* conducive to better health?: Toward an epidemiology of religion. *Social Science and Medicine*, 24:589–600.
- Mack, J. E. (1994). Abduction: Human Encounters with Aliens. New York: Scribners' Sons.
- Maddox, J. (1981). A book for burning? Nature, 293:245-246.
- Minsky, M. (1976). The Society of Mind. New York: Simon and Schuster.
- Modell, H., & Waitzkin, H. (1974–1975). Medicine and socialism in Chile. *Berkeley Journal of Sociology*, 19:1–35.
- Moerman, D. E. (2013). Against the "placebo effect": A personal point of view. *Complementary Therapies in Medicine*, 21:125–130.
- Montgomery, R., with Garland, J. (1986). *Ruth Montgomery: Herald of the New Age*. Garden City, NY: Doubleday/Dolphin.
- Murdock, G. P. (1980). *Theories of Illness: A World Survey*. Pittsburgh: University of Pittsburgh Press. Murphy, M. (1992). *The Future of the Body: Explorations into the Further Evolution of Human Nature*. New York: Jeremy P. Tarcher/Putnam.
- Murphy, M., & Donovan, S. (1997). The Physical and Psychological Effects of Meditation: A Review of Contemporary Research with a Comprehensive Bibliography 1931–1996, second edition. Sausalito, CA: Institute of Noetic Sciences.
- Newton, M. (1994). *Journey of Souls: Case Studies of Life Between Lives*. St. Paul, MN: Llewellyn Publications, pp. 263–272.
- Oschman, J. L. (2016). Energy Medicine: The Scientific Basis, second edition. Edinburgh: Elsevier.
- Parsons, T., Shils, E., Naegele, K. D., & Pitts, J. E. (Editors) (1961). *Theories of Society: Foundations of Modern Sociological Theory*. New York: The Free Press.
- Radelet, M. (1979). Pharmaceutical hegemony. Paper presented at the Annual Meeting of the Midwest Sociological Society, Minneapolis.
- Review (1980). Born again and live longer? British Medical Journal, 281:1661.
- RoperASW (2002). UFOs & Extraterrestrial Life: Americans' Beliefs and Personal Experiences. Roper Number: C205-008232. http://rr0.org/time/2/0/0/2/09/RoperPoll/index.html
- Rosch, P. J. (2009). Bioelectromagnetic and subtle energy medicine: The interface between mind and matter. *Annals of the New York Academy of Sciences*, 1172:297–311.
- Rosenstock, I. M. (1974). Historical origins of the Health Belief Model. *Health Education Monographs*, 2:328–335.
- Rubik, B. (2002). The biofield hypothesis: Its biophysical basis and role in medicine. *Journal of Alternative and Complementary Medicine*, 8:703–717.
- Schnabel, J. (1997). Remote Viewers: The Secret History of America's Psychic Spies. New York: Dell. Selye, H. (1950). The Physiology and Pathology of Exposure to Stress. Oxford, UK: Acta.
- Shealy, C. N., & Myss, C. M. (1993). The Creation of Health: The Emotional, Psychological, and Spiritual Responses That Promote Health and Healing. Walpole, NH: Stillpoint Publishing.
- Sheldrake, R. (1981). A New Science of Life: The Hypothesis of Formative Causation. Los Angeles: J.

- P. Tarcher.
- Smith, H. (1976). Forgotten Truth: The Primordial Tradition. New York: Harper & Row.
- Stambolovic, V. (1996). Medical heresy—The view of a heretic. *Social Science Medicine*, 43:601–604.
- Tansley, D. (1984). Chakra-Rays and Radionics. Saffron Walden, UK: C. W. Daniel Company.
- Targ, R., & Katra, J. (1999). Miracles of Mind: Exploring Nonlocal Consciousness and Spiritual Healing. Novato, CA: New World Library.
- Targ, R., & Puthoff, H. E. (1977). *Mind-Reach: Scientists Look at Psychic Abilities*. New York: Delacorte Press.
- Tiller, W. A. (1976). Kirlian photography as an electro-therapeutics research tool. *Acupuncture & Electro-Therapeutics Research*, 2:33–42.
- Vallee, J. (1975). The Invisible College: What a Group of Scientists Has Discovered about UFO Influences on the Human Race. New York: Dutton.
- Vanderpool, H. Y. (1984). The holistic hodgepodge: A critical analysis of holistic medicine and health in America Today. *Journal of Family Practice*, 19:773–781.
- Velikovsky, I. (1984). Stargazers & Gravediggers: Memoirs to Worlds in Collision. New York: Quill.
- Velimorovic, B. (1984a). Traditional medicine is not primary care: A polemic. Curare, 7:61–79.
- Velimorovic, B. (1984b). Alternative medicine, dried lizards and holistic fad: A polemic, part 2. *Curare*, 7:85–93.
- Wallace, W. L. (Editor) (1969). Sociological Theory: An Introduction. Chicago: Aldine.
- Watson, L. (1987). Beyond Supernature: A New Natural History of the Supernatural. Toronto: Bantam Books.
- Weber, M. (1922). Wirtschaft und Gesellschaft. Tubingen: Mohr (Sieback).
- Weil, A. (1988). Health and Healing, revised edition. Boston: Houghton Mifflin Company.
- Wilson, R. A. (1987). Wilhelm Reich in Hell. Phoenix: Falcon Press.
- Wolf, S. (1950). Effects of suggestion and conditioning on the action of chemical agents in human subjects; The pharmacology of placebos. *Journal of Clinical Investigation*, 29:100–109.
- Wolpe, P. R. (1990). The holistic heresy: Strategies of ideological challenge in the medical profession. *Social Science and Medicine*, 31:913–923.

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