Can We Really Tap Our Problems Away?

A Critical Analysis of Thought Field Therapy

Thought Field Therapy is marketed as an extraordinarily fast and effective body-tapping treatment for a number of psychological problems. However, it lacks even basic empirical support and exhibits many of the trappings of a pseudoscience.

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It is nothing new to find enterprising entrepreneurs seeking to profit from their novel inventions, which are often claimed to produce miraculous results for their users. The field of mental health is no exception. In fact, there has recently been a surge of putatively revolutionary treatments for various psychological problems that claim to be far superior to standard treatments in both effectiveness and efficiency. Known as "power" or "energy" therapies (Gist, Woodall, and Magenheimer 1999; Herbert et al. in press; Swenson 1999), these treatments are gaining widespread acceptance among mental health practitioners, despite their frankly bizarre theories and techniques, extraordinary claims, and absence of scientific support. One of the most

popular of these power therapies, known as Eye Movement Desensitization and Reprocessing (EMDR), involves a therapist waving his or her fingers in front of the patient's eyes while the client imagines various disturbing scenes that are thought to be related to the patient's problems. In fact, EMDR, a "power therapy" that alludes to neural networks instead of energy fields for its theoretical basis, has been described as a prototypical case of pseudoscience within mental health (Herbert et al. in press; Lohr, Montgomery, Lilienfeld, and Tolin 1999; Lilienfeld 1996).

There is another treatment approach on the rise that threatens to overtake EMDR as the premiere power therapy for the twenty-first century: Thought Field Therapy (TFT; Callahan 1985). Roger Callahan, TFT's inventor, claims that he can train therapists to be over 97% effective using his "revolutionary" procedures in treating a variety of common psychological problems including anxiety and depression. Since the history of psychotherapy is replete with treatments that failed to live up to their initial hype, it seems prudent to take a closer look at TFT.

Origins and Methods

Callahan (1997) states that he accidentally discovered TFT while treating a client named Mary, who had a severe fear of water. Inspired by an acupuncture class he was taking at the time, Callahan instructed Mary to firmly tap the area under her eye with her fingers, leading to a miraculous and immediate resolution of Mary's phobia. Callahan subsequently developed the comprehensive set of techniques and theory that is now known as TFT. The therapy is based on the idea that invisible energy fields called "thought fields" exist within the body (Callahan and Callahan 1997). Environmental traumas and inherited predispositions are theorized to cause blockages, or what Callahan terms "perturbations," in the flow of energy in these thought fields. Callahan theorizes that the commonly observed neurochemical, behavioral, and cognitive indicators of disorders such as depression are the result of these perturbations. In other words, the root cause of all psychological problems are blockages in energy fields.

In order to correct these perturbations, clients are directed by the TFT therapist to tap on the body's "energy meridians" in specific sequences, called "algorithms," which vary based on the particular problem being treated (Callahan and Callahan 1997). For example, the client may be instructed to tap at the corner of the eyebrow five times and then continue tapping on other parts of the body in a specific sequence as instructed by the therapist. In addition, the clients are told to roll their eyes, count, and hum a few bars of a song at various points during the treatment. Callahan states that when the thought field is "attuned," that is, when the person is thinking about the distressing event or image, perturbations are able to be located and corrected. The tapping is theorized to add energy to the system, which then re-balances the overall energy flow, thereby eliminating the distress at the source.

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Theoretical Underpinnings

The theory behind TFT is a hodgepodge of concepts derived from a variety of sources. Foremost among these is the ancient Chinese philosophy of *chi*, which is thought to be the "life force" that flows throughout the body. Beyerstein and Sampson (1996) argue that *chi* is more accurately conceptualized as a philosophy, not a science, and its existence is not empirically supported. In addition, they note that while acupuncture, a procedure used to correct the flow of *chi*, has been shown to provide some minor analgesic effects, its utility has not been demonstrated for treating illnesses or diseases. TFT also borrows techniques from a procedure known as Applied Kinesiology that is used to test muscles for "weaknesses" caused by certain food or chemical pathogens (Sampson and Beyerstein 1996). Applied Kinesiology is a scientifically discredited procedure. For example, Kenny, Clemens, and Forsythe (1988) found that those using the techniques did no better than chance in determining nutritional status using muscle testing. Finally, TFT even borrows some of its concepts from quantum physics. For instance, the idea of active information, in which small amounts of energy can affect large systems, is used to support the existence of perturbations (Bohm and Hiley 1993). There are obvious problems with the theoretical basis for TFT, not the least of which is the complete lack of scientific evidence for the existence of "thought fields."

TFT, as with other new "energy" therapies, is based on misconceptions or outright distortions of the concept of energy as it is used by scientists (Saravi 1999). In physics, energy is defined simply as the capacity to do work, and energy exchanges are observable and measurable. Energy therapists, in contrast, use the term to describe a kind of universal life force that influences health, but they provide no direct data to document the presence of such a force. Saravi concludes that "New Agers' and psychobabblers' 'energy' has only a remote relationship with its physical, scientific counterpart. For them, it is just a word conveniently invoked to explain phenomena whose very existence is far from certain" (47).

Extraordinary Claims of Success

TFT is marketed primarily through the Internet. To attract potential therapists to take TFT courses and to persuade prospective clients to pay for this therapeutic approach, amazing claims are presented on several TFT-related Web sites. For example, Callahan's primary Web site[1] claims that TFT allows individuals "to eliminate most negative emotions within minutes." In addition, Callahan asserts that TFT's effectiveness increases with higher levels of training. For example, another Web site[2] publicizes that therapists can achieve an 80 percent effectiveness rate from learning to use specific algorithms, a

90–95 percent effectiveness rate from using "Causal Diagnostic" techniques, and an over 97 percent effectiveness rate using a technique mysteriously termed "Voice Technology." Yet another Web site,[3] this one based in the United Kingdom, states that TFT is the only psychotherapy that can "genuinely claim to offer a cure." TFT claims to be able to "cure" people of a variety of psychological problems, including phobias, panic, post-traumatic stress disorder, addictions, sexual problems, pain, depression, anger, general distress, and even other less serious problems such as fingernail biting (Hooke 1998a). One noted TFT therapist even claims to have cured her dog of a fear of heights using the trauma algorithm (Danzig 1998).

Despite these miraculous assertions, no controlled studies have been published in peer-reviewed scientific journals to provide evidence for TFT's claims. Instead, testimonials and uncontrolled case studies are offered to support these astonishing declarations of success (Callahan 1995). The vast majority of these claims are made via Internet postings (Lohr, Montgomery, et al. 1999). Such anecdotes, however, do not constitute probative data on the question of TFT's efficacy. Callahan often claims that his public demonstrations of TFT on television shows such as *The Leeza Gibbons Show* (aired October 12, 1996) provide dramatic proof of success, thereby circumventing the need for empirical research. However, such vivid but uncontrolled presentations are not evidential, given the extraordinary demand characteristics (i.e., the implicit pressures engendered by the situation for clients to behave in accordance with their beliefs about what is expected of them) inherent in such settings, not to mention the lack of objective, standardized assessments of improvement in symptoms (Hooke 1998b). Given that Callahan claims to have been using his techniques for over twenty years, it is curious why no controlled studies have been conducted. It should be quite easy to demonstrate the effects of a treatment with a 97 percent effectiveness rate using accepted methods of clinical science.

The Limited Research Findings

TFT has recently attracted the attention of two Florida State University researchers. In considering their work, it is important to note that none of their findings have been published in peer-reviewed journals; instead they report their results in one of the researcher's self-published Internet "journal." Carbonell and Figley (1999) tested four controversial treatments for trauma, including TFT. Thirty-nine individuals who reported distress from having experienced a traumatic event were given one of the four treatments for up to one week. Overall, Carbonell and Figley reported that participants demonstrated some improvement in self-rated distress and on questionnaire measures from pre-treatment to six-month follow-up. This study is so seriously flawed, however, that the results are completely uninterpretable. The most critical flaw is the absence of any control for the passage of time. In the absence of a no-treatment or a placebo control group, there is no way to know if any observed improvement was a function of factors such as the natural remission of symptoms over time, statistical regression to the mean (i.e., the tendency for extreme scores on a measure to be less extreme upon retest), or placebo effects. This concern is heightened by the absence of measures taken immediately following treatment, as the only outcome measures were reported six months following treatment. Also, subjects were not diagnosed with post-traumatic stress disorder using standard diagnostic criteria, and it is not clear how much subjects were impaired by their traumatic experiences. Moreover, daily diaries and recordings of distress revealed that subjects appeared to have difficulty distinguishing distress associated with the normal ups and downs of life from distress associated with their trauma. For example, a participant who had suffered childhood abuse reported high distress, but upon query disclosed that this distress was due to her car getting a flat tire rather than her trauma, raising questions about the reliability of these subjective distress ratings (Huber 1997).

Furthermore, the authors did not report subjecting their data to statistical analysis, instead relying on their visual inspection of the data for interpretation. Interestingly, even these data do not support the large effect sizes claimed by TFT supporters. On the contrary, mean scores on the self-report questionnaires showed only relatively paltry changes in symptoms, far below the claims of miraculous improvement that Callahan and others have consistently claimed. Thus, Carbonell and Figley's (1999) study, which is the most serious research attempt to date, does not support the effectiveness of TFT. Nevertheless, the results of this study, originally presented at a 1995 symposium, are frequently cited by Callahan and others as providing evidence of TFT's efficacy (Callahan and Callahan 1997). The only other "research" on TFT is either presented in internally circulated publications such as Callahan's newsletter *The Thought Field*, nonscientific magazine reports (e.g., Shamis 1996), or on Web sites (e.g., Carbonell 1996; see Swenson 1999 for a review).

Alternate Explanations

Occam's Razor is a principle often applied in science indicating that, all things being equal, the most parsimonious explanation for a phenomenon is the preferred one. Applying this principle to TFT, there is little need for concepts such as energy fields and perturbations to explain any effects that TFT might show. TFT highlights specific tapping sequences as its proposed mechanism of action; however, other components of the treatment protocol may be responsible for any observed benefits. In addition to the absence of controls for spontaneous remission, no research has ruled out factors that are common—to greater or lesser degrees—in all psychotherapies. These include placebo effects resulting from the mere expectation for improvement, demand characteristics, therapist enthusiasm and support, therapist-client alliance, and effort justification (i.e., the tendency to report positive changes in order to justify the effort exerted; Lohr, Lilienfeld, Tolin, and Herbert 1999). Thus, despite the absence of empirical evidence to support TFT's claims of tremendous effectiveness, it would not be surprising to find that the pro-

cedure sometimes produces benefits for some individuals owing to these common mechanisms shared by all forms of psychotherapy. Serious psychotherapy innovators go to great lengths to conduct studies to demonstrate that the hypothesized active ingredients of their procedures outperform these so-called "nonspecific" effects. No such effort has been made by the promoters of TFT.

Callahan, however, dismisses the possibility that TFT could be explained by such mechanisms. He asserts that "clinical evidence" has ruled out the possibility of nonspecific or placebo effects accounting for TFT's results, but fails to support this claim (Callahan and Callahan 1997). He frequently states that placebo effects cannot be operative in TFT because some clients express skepticism that the tapping will work (Hooke 1998a). This argument demonstrates a misunderstanding of the placebo concept, which does not necessarily require the individual to fully believe in the practitioner's explanation for why a procedure works (Bootzin 1985; Dodes 1997). Callahan (1999) also reports case studies in which he claims to have observed a "re-balancing" of the autonomic nervous system after treatment with TFT, and that this somehow refutes the placebo explanation. In fact, it is well accepted that the autonomic nervous system, including phenomena such as pulse, blood pressure, and electrocardiogram changes, can be influenced by various psychological events, including placebos (Ross and Buckalew 1985).

In addition to nonspecific and placebo effects, TFT appears to incorporate procedures from existing, well-established therapies. TFT therapists instruct clients to focus repeatedly on distressing thoughts and images during the tapping sequences. Such repeated exposure to distressing cognitions is a well-known behavior therapy technique called imagery exposure (Foa and Meadows 1997). Furthermore, TFT therapists utilize cognitive coping statements throughout treatment (e.g., "I accept and forgive them for what they did"), which represent another established cognitive therapy technique. In short, any effects that TFT might show can be readily explained by known mechanisms, without invoking unfounded concepts such as "perturbations" and "thought fields" (Hooke 1998a).

TFT and EFT

Since the emergence of TFT, several therapists have recently developed offshoot therapies based on treating the body's energy fields. The most successful of these TFT derivatives was developed by Gary Craig. Craig (1997), who has a degree in engineering and formerly studied under Callahan, created what he calls Emotional Freedom Techniques (EFT). EFT is very similar to TFT, except that it employs one simplified and ubiquitous tapping procedure instead of applying different algorithms to treat different problems. On his Web site[4], Craig asserts that Callahan's reliance on differing algorithms is unnecessary because he has witnessed TFT therapists tap in the wrong order or apply the wrong algorithm to the particular problem and still obtain improvements. Craig's anecdotal evidence appears to contradict Callahan's anecdotal evidence. Furthermore, Craig extends his tapping therapy far beyond the realm of mental health, reporting testimonials from individuals who claim to have successfully used EFT to treat everything from autism to warts and various other medical problems with positive results. In the latest developments, Craig has reported on the positive effects of "surrogate tapping," in which therapists tap on themselves to treat the problems of others.

A scientifically minded investigator would have then taken Craig's observations a step further and tested a completely "placebo" algorithm which did not tap on any supposed energy meridians to see if it produced similar results. However, Craig reports that he has never carried out this simple experiment nor does he know of anyone who has (Craig, personal communication, January 14, 2000). Furthermore, Craig speculates that a placebo algorithm may be impossible because tapping anywhere on the body will affect the body's energy meridians. This position conveniently renders Craig's theory unfalsifiable and therefore outside the realm of science.

Pseudoscience in Psychotherapy

Lilienfeld (1998) argues that the proliferation of pseudoscience in psychotherapy is threatening the public welfare and damaging the reputation of psychology. Lohr, Montgomery et al. (1999) assert that the contemporary commercial promotion of treatments for the sequelae of trauma, such as EMDR and TFT, are commonly characterized by a host of pseudoscientific practices. In general, pseudoscience can be identified as consisting of "claims presented so that they appear scientific even though they lack supporting evidence and plausibility" (Shermer 1997, 33). For example, TFT incorporates scientific-sounding terminology by speaking of "bioenergies" and taking concepts from quantum physics out of context in an attempt to gain credibility. No empirical evidence is provided for the existence of central concepts such thought fields or perturbations, which are instead inferred through ad hoc, circular reasoning. For example, Callahan and Callahan (1997) state that perturbations are ultimately demonstrated through their effects, meaning that a perturbation in the thought field must have existed because after treatment the person no longer experiences distress.

The hallmark of a science is falsifiability (Popper 1965). A scientific proposition must specify, a priori, predictions that can be refuted, at least in principle. Callahan has not provided a framework by which his theory could be brought under scientific investigation. As is characteristic of pseudoscience, only confirming evidence of TFT is sought out and presented by advocates (Lohr, Montgomery, et al. 1999). Neither Callahan nor other proponents, including Carbonell and Figley (1999), have subjected TFT to controlled evaluation using accepted scientific methods and published results in peer-reviewed journals.

The objective of a pseudoscience is often persuasion and promotion, in lieu of responsible investigation of claims (Bunge 1967). Web sites advertise courses and multilevel training in TFT techniques for thousands of dollars. The highest level of training in TFT is called Voice Technology (VT), which supposedly allows the therapist to diagnosis perturba-

tions and treat clients entirely over the telephone by analyzing their voices. The effectiveness of VT is said to approach 100 percent (Callahan 1998). Callahan sells this technique for $100,000, and trainees must sign nondisclosure contracts that forbid them from discussing or revealing any aspects of the technique. Recently, the Arizona Board of Psychologist Examiners put a psychologist on probation for refusing to provide specific information about VT to back up his assertion of its high degree of effectiveness (Foxhall 1999; Lilienfeld and Lohr 2000). Interestingly, on his Web site[5] Gary Craig, who was trained in the method, stresses that the putative "secret" behind VT is readily available "in the public domain and can be learned at a weekend workshop for a few hundred dollars." The mystery surrounding VT only has the effect of obfuscating independent examination and investigation.

Finally, pseudosciences explain away or reinterpret failures as actually providing confirmatory evidence (Lakatos 1978). Callahan proposes the existence of a phenomenon termed "psychological reversal" to explain instances in which TFT fails to work. Psychological reversal is claimed to result in self-sabotaging attitudes and behaviors and is manifested in the reversed flow of energy that blocks the effects of the treatment (Callahan 1998). The prescribed treatment for such a condition involves reciting more cognitive coping statements (e.g., "I accept myself, even though I have this problem") that may alleviate distress independent of tapping. In addition, "energy toxins" are claimed to be substances that negatively affect the thought field, even if the person is not physically allergic to these supposed pathogens. These substances are proposed to cause a previously eliminated symptom to return (Joslin 1999). Using "muscle testing" procedures and VT, the offending pathogen can allegedly be identified, then removed until the treatment works again. Both psychological reversal and energy toxins are prime examples of post hoc reasoning and attempts to ignore disconfirming evidence by creating uncorroborated explanations of TFT failures.

Conclusion and Implications

Despite extraordinary claims to the contrary, TFT is not supported by scientific evidence. The theoretical basis of TFT is grounded in unsupported and discredited concepts including the Chinese philosophy of *chi* and Applied Kinesiology. Many of the practices of TFT proponents are much more consistent with pseudoscience than science. Controlled studies evaluating the efficacy of TFT will be required for the treatment to be taken seriously by the scientific community.

TFT is only now beginning to garner negative press, and critiques are starting to appear in the popular literature. For example, Swenson (1999) recently reviewed the extraordinary claims for TFT made by Callahan and others, and noted the absence of controlled research to support these claims. Recently in the SKEPTICAL INQUIRER, Lilienfeld and Lohr (2000) reported on the American Psychological Association's decision in late 1999 to prohibit its sponsors of continuing education programs for psychologists from offering credits for training in TFT, as well as the sanctioning of an Arizona psychologist for using TFT and Voice Technology within the practice of psychology.

Nevertheless, thousands of therapists from various professional disciplines continue to pay for TFT training courses. Much of TFT's marketing success can be attributed to the prevalence of pro-TFT Web sites that promote strong claims of its effectiveness. TFT therapists, some of whom have no traditional training in psychology or psychotherapy, appear to be satisfied with TFT's vivid anecdotal stories of success, and are not aware of or not bothered by the overwhelming lack of empirical support for the procedure. Englebretsen (1995), among others, points to the alarming rise of postmodernist attitudes currently permeating the mental health field, exemplified by the willingness of some clinicians to value compelling anecdotal stories over controlled empirical data. This postmodernist mindset promotes the notion that all truth is relative and contextual; science is only one of many modes of thinking, each of which is equally valid. Such attitudes render the mental health field fertile breeding ground for pseudoscientific therapies such as TFT and its derivatives. Healthy skepticism competes head-to-head with extraordinary claims and, as is often the case, many mental health clinicians choose to ignore the facts in favor of miraculous possibilities.

Notes

1. http://www.tftrx.com
2. http://www.thoughtfield.com
3. http://homepages.enterprise.net/ig/
4. http://www.emofree.com/scien-i.htm
5. http://www.emofree.com/about.htm

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Virologists do not question the physics involved in designing or operating their microscopes. Likewise, computer programmers question neither the mathematics they use nor the solid state physics that went into the design of computers. In sum, because all doubt is relative to some body of knowledge that is not being questioned at the moment, the discovery of every error reinforces a bunch of truths—those that function as benchmarks.

To be sure, it sometimes happens that researchers or practitioners in one field make use of findings in another that are eventually shown to be wrong. But such accidents are unavoidable, and, except when lives are involved, they can be corrected. And they do not prove that all knowledge is fallible, but only that some of it is—though the culprit cannot always be identified in advance.

Radical (or absolute) skeptics claim to believe that we should hold no beliefs—which is of course a self-destructive belief. By contrast, moderate skeptics hold that we should only propose plausible hypotheses, however counterintuitive, and be prepared to jettison the ones found to be false. Nobody can think, inquire, or act without holding some beliefs. What is wrong is not to hold beliefs but to cling to beliefs that have been amply refuted or that are incapable of being put to the test.

In conclusion, absolute skepticism is logically untenable and practically barren. The explorers in all walks of life need reasonable skepticism and constructive criticism, not nihilism, which is destructive by definition. Only the onlookers, who stay at home while the explorers face the risks of navigating uncharted seas, can afford to be absolute skeptics.

Radical or absolute skepticism does not help advance knowledge but, on the contrary, is an obstacle to inquiry. It is no coincidence that it thrives only in the faculties of arts and their vicinity. Mathematicians, factual scientists, engineers, medical researchers, jurists, management scientists, policy makers, and other knowledge workers are too busy searching for truth or efficiency to be able to indulge in wholesale skepticism. They know that, far from making every morning a fresh start, they build on past knowledge. They also know that, if they see farther away, it is because, as Bernard de Chartres said, and Newton repeated, they stand on the shoulders of giants.

In sum, in moderate doses, skepticism stimulates the search for truth; in immoderate doses, it inhibits such search. Should one therefore propose changing the title of this magazine into *MODERATE SKEPTICAL INQUIRER*? No, because the word *INQUIRER* makes it clear that, because all inquiry is based on some antecedent knowledge—if only to be able to state new problems or design new techniques—the skepticism in question is of the moderate and therefore constructive kind. □

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