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Fringe Psychotherapies: The Public at Risk.

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> Knowledge consists in understanding the evidence that
> establishes the fact, not in the belief that it is a fact.
> —*Charles T. Spraling*

From Hippocrates to the present, the first duty of the helping professions has been "Do no harm." Unfortunately, a widening gap between science and the further reaches of psychotherapy has allowed certain practices to flourish that have the potential to do much harm. Although the vast majority of counselors who engage in "talking therapies" continue to act responsibly, the profession has not always been as quick as it should in curtailing fringe practitioners whose antics put the unsuspecting public at risk. At the outset, it must be said that although fringe practices such as "rebirthing" and Neurolinguistic Programming are based on what Richard Rosen[1] has aptly dubbed "psychobabble," most of them probably do little damage in the long run—providing we overlook the costs of pandering to the narcissistic irrationalism of society's more affluent worriers. Despite their absurd premises, these therapeutic outliers at least provide clients of a certain metaphysical bent with comforting mythologies that explain why their lives are not as fulfilling as they had expected. Indirectly, these quaint rituals can supply existential support, emotional consolation, and even some useful spurs to change troublesome habits. Thus, on balance, psychotherapies founded on ill-conceived assumptions may still prove beneficial if they furnish needed reassurance in an atmosphere where clients can mull over solutions to their dissatisfactions in life.

That said, the dangers posed by fringe therapists arise principally in three ways. One is the potential for manipulation and fraud. Cult-like pseudo-therapies can prey on the dependency needs of vulnerable people while extracting unconscionable sums of money. The nonsensical prattle of Scientology is but one example.[2] [3] [4] Other fringe operators have been known to victimize clients sexually as well as monetarily. All told, these victims could have been helped much more ethically, effectively, and cheaply by scientifically-trained counselors who would target specific, tractable problems in their lives. Another concern is that inadequately trained therapists may fail to recognize early signs of serious psychopathologies that, left untreated, could prove disastrous. And finally, much hardship has been created, albeit often with the best

of intentions, by ill-informed counselors who encourage their clients' delusions while claiming to "recover" repressed memories of childhood sexual abuse, ritual satanic abuse, or abduction by extraterrestrials.[5]

How did this state of affairs come about?

As scientific psychology emerged from wholesale reliance on intuition and folk wisdom, its pioneers argued that the best way to train psychotherapists was the so-called "scientist-practitioner" model (also called the "Boulder model" after the Colorado campus whose psychology department was an early proponent). It was assumed that if therapists had a strong background in behavioral research, they would base their professional activities on a valid understanding of human memory, cognition, emotion, motivation, personality, and brain function. Sad to say, this linkage has become increasingly strained as an assortment of new players has been drawn into the lucrative therapeutic-industrial complex. The practice of psychotherapy is drifting further from its scientific underpinnings as a growing percentage of the therapeutic workforce is graduated from stand-alone schools of professional psychology and a variety of programs in schools of social work and nursing.

To make matters worse, a number of for-profit, non-accredited diploma mills have sprung up, offering degrees of questionable quality to aspiring psychotherapists on the run. And with the growth of the "New Age" movement, the market has also been flooded by a growing cadre of therapists with little formal training but an immense investment in pop-psychology and "post modernist" psychobabble. In most jurisdictions, these entrepreneurs cannot call themselves psychologists or psychiatrists because licencing statutes restrict these titles to professionals with specified credentials and training. They can, however, offer their services (where local laws permit) by appropriating unreserved titles such as counselor, psychotherapist, psychoanalyst, sex therapist, pastoral counselor, Dianetics auditor (one of several pseudonyms for Scientology), New Age guide, relationship advisor, mental therapist, etc.

To the extent that many of these people are kind, empathetic individuals possessed of some common sense, they undoubtedly help more than a few troubled clients. This, of course, is all to the good and, as Dawes[6] points out, research shows that, for most everyday psychological difficulties, there is not much evidence that therapists with extensive professional training have greater rates of success than these sympathetic listeners armed with the conventional wisdom of the ages. The dangers arise, however, when their lack of training makes untutored advisors more likely to venture into the risky pursuits discussed below. There is also the possibility that bad advice could exacerbate rather than alleviate clients' complaints. The public is generally unaware of the fact that regulations in most jurisdictions governing who can perform psychotherapy are fairly weak. This invites increasing numbers of self-styled entrepreneurs whose training is of the "watch one, do one, teach one" variety. Unless he or she checks in advance, the average client arriving at the clinic door will have little way of knowing which brand of therapist the luck of the draw will provide.

The thinning of the bond between psychotherapy and empirical research is reflected in the fact that even the more respectable stand-alone professional schools generally offer a "Psy.

D." (Doctor of Psychology) degree rather than the traditional Ph.D. The Ph.D. is a research degree, requiring competence in experimental design and statistics and the ability to understand and criticize, if not actually contribute, to the scientific literature. In the scientist-practitioner model, critical thinking skills are honed as trainees acquire a grounding in the science of psychology at the post-graduate level before specializing in psychodiagnostics and psychotherapeutics. In this way, the need for impartial follow-ups to gauge the effectiveness of therapeutic techniques is impressed upon would-be providers. Most stand-alone professional psychology schools, catering to the demands of those eager to achieve professional status with less of this tedious exposure to the science of psychology, have reduced that portion of their curriculum in favor of an apprenticeship approach where particular therapeutic techniques are assimilated by rote. Even in many university-based clinical psychology programs that still require the methodology courses and research participation, there has been a growing tendency for clinical training to become isolated from other parts of their departments where the bulk of the theoretical and experimental work is done. One result of this estrangement has been that many clinical trainees leave these programs insufficiently committed to the idea that therapeutic interventions should be tied to research that supports their safety and effectiveness.

This failure to instill a self-critical attitude in many therapists-in-training was deplored by Paul Meehl[7], a former president of the American Psychological Association, over a decade ago:

> When I was a student, there was at least one common factor present in all of the psychology faculty ... namely, the general scientific commitment not to be fooled and not to fool anyone else. Some things have happened in the world of clinical practice that worry me in this respect. That skepsis, that passion not to be fooled and not to fool anyone else, does not seem to be as fundamental a part of all psychologists' mental equipment as it was a half century ago. One mark of a good psychologist is to be critical of evidence ... I have heard of some psychological testimony in court rooms locally in which this critical mentality appears to be largely absent.

At the highest levels of the profession, the erosion of the linkage between science and clinical practice was further aggravated in recent years when many research psychologists left the American Psychological Association (APA) to form the rival American Psychological Society. The defectors felt that the APA was undervaluing the scientific side of its mandate as it devoted more effort to lobbying and other professional issues primarily of concern to clinicians. Many also felt that the APA had been too timid in disciplining those of its members who engage in scientifically dubious practices. On several occasions, I have witnessed this reluctance to chastise peddlers of outlandish wares myself. My disappointments sprang from fruitless attempts to get various psychological associations to rein in their members who charge clients for scientifically discredited services such as subliminal audiotapes, graphology (handwriting analysis), dubious psychological tests, bogus therapy techniques, and various so-called "rejuvenation" techniques for recovering supposedly repressed memories. I continue to be appalled to see journals of various psychological associations with advertisements for courses carrying official continuing education credits for therapists that promote this kind of pseudoscience. The political will to sanction well-connected, dues-paying mavericks is

obviously weak.

In the case of psychiatry, one would have hoped that, as a specialty of medicine, the basic science taught in the pre-medical curriculum, and medical training itself, would make practitioners less susceptible to pseudoscience. Unfortunately, many departures from science-based theories have been perpetrated by psychiatrists.[8] For example, there are well-known psychiatrists among those who advocate treating current maladjustments by encouraging patients to "re-live" mental trauma that supposedly occurred *in utero*, during birth, or even in previous incarnations.[1, 9] There are others who still support the discredited views of "hidden memories" criticized below, and the most prominent advocate of the "alien abduction" hypothesis is John Mack, a professor of psychiatry at the Harvard Medical School.[10] Modern biologically-oriented psychiatrists overwhelmingly reject such views, but many in the older generation of psychodynamically-trained (i.e., Freudian) analysts cling to other diagnoses and therapies based on scientifically-dubious rationales.[11]

Summarizing the foregoing trends, Lilienfeld[12], a model for the hard-nosed scientist-practitioner, concluded that many cherished assumptions "taken for granted by most [clinicians] are little more than pseudoscientific beliefs built upon an edifice of myth and misconception." Let us now examine some of those myths.

Psychotherapeutic Fictions.

Mainstream psychotherapies are highly successful. Scientific understanding of how best to alleviate emotional distress and other problems of living has been steadily accumulating, but those who specialize in talk therapy still have much to be modest about. With respect to the effectiveness of psychotherapy in general, Dawes[6] summarized several meta-analyses of the therapy outcome literature. Meta-analysis is a mathematical technique for combining and differentially weighting the results of many individual studies in a way that can provide a more reliable estimate of the effects of the manipulation in question than simply tallying up the number of studies "for and against." As Hagen[13] points out, however, meta-analyses can be misleading, especially in the realm of psychotherapeutic outcome research. The conclusions drawn from a meta-analysis are only as sound as the studies that were included in it and the judgment of the reviewer who chooses and weights them. It is the contention of Epstein, in this issue of *SRAM*, that even the modest claims of therapeutic efficacy conceded by Dawes[6] Lilienfeld[12,] the Consumer Reports survey,[14] and others are overstated because the methodologies employed in most of the studies of therapeutic outcome suffer from substantial defects.

Be that as it may, Dawes[6] argues that when psychotherapists base their interventions on the reliable research at their disposal, there is reason to believe that recipients will be helped—though not to the extent that many assume and all would wish. While research shows that there is a tendency for psychological complaints to get better, even if they are not treated, and that there is a placebo effect with psychological interventions, just as with medical treatments, there is some evidence, that psychotherapy has more than just a placebo effect. The upshot is that the

process of interacting with a sympathetic mentor in all but the most nonsensical psychotherapeutic settings can promote real, albeit often modest, improvements in emotional adjustment. While these data provide some comfort to treatment providers, the same studies consistently indicate that the effectiveness of treatment is unrelated to specific type of training the therapist has had or the length of time he or she has been practicing. Looking at the same data, Lilienfeld[11] concluded, "there is no compelling evidence that clients need to pay high-priced professionals to enact psychological change; relatively straightforward behavioral interventions implemented by para-professionals will often suffice."

Even if minimally-trained therapists can do some good, there remains the danger that they will divert clients from treatments that would help them more. More worrisome is the possibility that their limited knowledge will lead them to apply risky procedures that can exacerbate existing conditions or even create serious problems of their own. When such malpractice occurs, these uncertified therapists have no professional associations and disciplinary boards to whom dissatisfied customers can turn. It is when therapeutic fads emerge from a research vacuum and treatments lack proper outcome evaluations to back them up that these safety concerns arise.

Clinical Judgment. One of the most prevalent misconceptions in the field of psychotherapy is that "clinical judgment" is a reliable basis for deriving predictions about clients' behavior (e.g., regarding recidivism, violence-proneness, etc., or even job suitability). In fact, the kind of reasoning involved in these judgments tends to be quite fallible.[15 16 17 18] As Dawes[6] concluded in his devastating review, predictions based on simple statistical formulas almost always outperform those based on the *ad hoc* reasoning touted as "clinical intuition." Research also indicates that increased experience or specialized training in the field is unlikely to improve a clinician's hit rate for such judgments. Dawes goes so far as to assert that the clinician's role in making these predictions should be restricted to gathering the raw data that researchers will use for deriving reliable statistical decision-making rules. Once these rules have been formulated, their strict application will produce far better predictions than therapists' subjective impressions.

Psychoanalysis. Psychoanalysis, the system invented by Freud and developed by followers such as Jung, Adler, Fromm, Reich, and Sullivan is almost synonymous with psychotherapy in the public mind. Its concepts are so ingrained in literature, cinema, and everyday discourse that most laypersons are surprised when they hear that psychoanalysis has been widely attacked as a non-falsifiable pseudoscience.[11 19 20 21 22] Its detractors also point to its culture-bound and misogynistic views of personality, the excessive duration and cost of its treatments (weekly, over many years), and its poor track record in helping any but the mildest of psychological complaints. The psychoanalytic movement has also been largely responsible for perpetuating several popular misconceptions, discussed below. Among these dubious conjectures are: (a) that most psychological problems in adults stem from trauma or abuse in childhood, (b) that people are inevitably damaged, psychologically, by tragedies that befall them, (c) that the mind routinely "represses" memories of events that would be too disconcerting if allowed to enter awareness, and (d) that the mind, when traumatized, readily "splits" to form multiple,

experientially-isolated personalities.

The Trauma/Psychopathology Connection. With respect to the causes of emotional dysfunction, much personal and societal harm has resulted from the uncritical acceptance (among some therapists, as well as the public) of the assumption that most psychological problems stem from trauma or maltreatment early in life. In an excellent critique of this supposition, Pope[23] points out that, alongside those who *were* mistreated and *do* bear emotional scars in later life, there are many others who were abused as children but grew into surprisingly well-adjusted, high-achieving adults. On the other hand, there are many people who enjoyed a loving, supportive upbringing but nonetheless suffer great emotional torment as adults. The conjecture that psychopathology necessarily results from past trauma is easy to accept because it fits our intuition that horrible problems should have horrible causes and because clinical practice typically lacks the appropriate control groups for sorting out such causal attributions. [15 16 17 18] Once again, familiarity with scientific psychology would alert people to the fact that, as far as general happiness or unhappiness with one's lot in life is concerned, inherited constitutional factors account for more variance than one's objective situation.[24] Because abuse sometimes does lead to psychopathology, there is also a tendency to jump to the conclusion that mistreatment necessarily underlies most cases of maladjustment. Many unsuspecting persons, seeking help for vaguely-focused problems of living, have stumbled upon recovery-obsessed therapists who assume (and sometimes aggressively suggest) that the cause of the client's unhappiness must lie in forgotten abuse at the hands of family, friends, satanic cults, or visitors from outer space. In their zeal to uncover this mistreatment, these counselors have been known to create false beliefs in their clients that they were victimized.[5 23 25 26]

In a related vein, concern has been raised about the growing number of doubtful diagnoses of Post-Traumatic Stress Disorder (PTSD).[27] With the aid of well-meaning therapists, many people are now seeking compensation for emotional difficulties supposedly caused by incidents that are little more than what used to be considered the vicissitudes of life. In fact, most people are far more resilient than is generally believed and this mounting number of questionable demands for compensation is beginning to threaten the solvency of some insurance plans. As with the aforementioned survivors of abusive childhoods, Bowman[18] has shown that there are substantial individual differences in how people react to major adversity in their lives. Once again, the problem arises from the lack of appropriate comparison groups for forming clinical judgments. Just as someone who spends too much time in the vicinity of the divorce courts might be hard pressed to believe that anyone has a successful marriage, reliance on clinical experience alone can produce an inflated estimate of the likelihood that PTSD will follow a personal misfortune. According to Bowman[18], many clinicians develop a faulty baseline for making such diagnoses because they typically see only a subset of those who survive catastrophic events, i.e., the ones who subsequently seek help for protracted emotional disturbances. The rest, who overcome their horrific experiences in one way or another, get on with their lives and do not show up in therapists' offices, and hence in clinicians' subjective tallies. Consequently, therapists who do not read beyond their narrow professional specialties are in danger of developing unrealistically high expectations that emotional debility will follow a cataclysmic event. This, in turn, can foster an undue willingness to support those who claim to

suffer PTSD after relatively mild incidents.

This inclination can be magnified if the therapist is insufficiently mindful of the base rate of similar symptoms in the population at large. In fact, the sorts of difficulties typically attributed to PTSD (mood swings, fatigue, headaches, rotating bodily pains, and difficulties with concentration, memory, sleep, digestion, etc.) are fairly prevalent in those who suffered no comparable trauma.[18 28] To assume automatically that the symptoms one sees are necessarily the result of past trauma is to commit the logical fallacy known as *post hoc, ergo propter hoc* ("after this, therefore because of this"). The trauma and symptoms may be causally connected, but not necessarily.

Multiple Personality. If proof were needed that conventionally-trained psychotherapists can succumb to pseudoscientific thinking, a case in point would be the current diagnostic fad, "Multiple Personality Disorder" (MPD), also known as "Dissociative Identity Disorder."[8] The mere fact that a psychological syndrome could rocket from obscurity to near epidemic proportions in a remarkably short interval should, in itself, raise suspicions of an iatrogenic component. The MPD fad could only have taken hold where proponents lacked a firm grasp of the relevant empirical literature and insurance carriers were willing to pay for the prolonged treatment proponents say is required. The modern advocates who revived the formerly-discarded diagnosis of MPD seriously underestimated the power of social conditioning in conjunction with the high suggestibility of some individuals to *create* rather than *reveal* apparent multiple personalities. These misconceptions spread rapidly by way of plots in novels and movies, uncritical media reports, and an endless parade of "pop psychology" books aimed at the general public.[29]

The history of the MPD craze has been analyzed in a penetrating volume by the late Nicholas Spanos.[30] It shows how patients with a weakly developed sense of self can interpret the complex, ambiguous communications of therapists in ways that engage imaginal and other cognitive skills to create the subjective experience of as many "alternate" personalities as the therapist will unwittingly reward. In earlier times, these patients would probably have been diagnosed as suffering from hysteria. Like the excellent hypnotic subjects that they are, these "multiples" become totally absorbed in the personas they concoct, focusing on them one by one, as the setting demands.[31]

Unfortunately, Spanos did not live to see a revealing interview with Borch-Jacobsen[29] given by the Columbia psychiatrist Herbert Spiegel. In it, Spiegel revealed for the first time how, in the 1960's, a fellow psychiatrist, Cornelia Wilbur, essentially created the diagnostic category of MPD out of whole cloth. A highly suggestible patient of Wilbur's, whom Spiegel felt was suffering from hysteria, was depicted instead by Wilbur as a "multiple personality." With the help of Flora Schreiber, a popular writer, Wilbur sensationalized the case in a resulting book, *Sybil*.[32] Predictably, it became a run-away best-seller and highly popular movie. Although Spiegel declined Wilbur's offer of co-authorship, because he disbelieved her account, *Sybil* engendered a thriving cottage industry among therapists and self-diagnosed sufferers who believed its far-fetched speculations.

Passing familiarity with the work of T. X. Barber[33] and his colleagues on "fantasy-prone personalities"and other hypnosis-like phenomena[34] would have prompted a greater awareness that social conditioning and compliance with the implied suggestions of an authority figure can create not only "alternate personalities," but also vivid pseudomemories of abduction and sexual molestation by Satanic covens or space aliens. Although client sincerity is not at issue in these cases, there is no reason to believe these experiences are anything but constructions of their own minds.[35]

Ignorance of research into the nature of memory and social influence: "Recovered" Memories of Childhood Abuse, Satanic Ritual Abuse, or Alien Abduction. Nonsensical beliefs cease to be merely amusing when pseudoscientific theories destroy the lives of innocent people. Ignorance of modern research in the areas of memory and interpersonal influence misguides the efforts of counselors who are persuaded by books such as Bass and Davis' *Courage to Heal*.[36] Neither author of this best-selling tome of the recovery movement has any psychological credentials, a fact they proudly proclaim along with their questionable practices for uncovering supposedly repressed memories of sexual abuse.

Sexual abuse of children is a social problem of greater magnitude than most professionals used to think. Nonetheless, in the belated rush to curtail this evil, the pendulum may have swung too far in the opposite direction, fomenting witch-hunts wherein unfounded accusations, based on allegedly "recovered" memories are automatically believed. As a result, jobs have been unfairly lost, reputations destroyed and family ties shattered. More than a few innocent people have been sent to jail and a few were even driven to suicide. [5 23 26 37 38] It is a concern that, as more of these false accusations become widely known, a backlash might develop that would threaten many of the salutary reforms achieved by those who have led the crusade against real, as opposed to imagined, sexual abuse. An organization has been founded for purposes of helping people who claim to be falsely accused in this way and promoting more scientific views of memory and psychopathology: The False Memory Syndrome Foundation: 3401 Market St.(Ste. 130), Philadelphia, PA 19104-3315.

It is doubtful that the "hidden memory" craze could have gained the momentum it did if proponents in the "recovery movement" had been familiar with the relevant research on human memory. Many of their practices are predicated on outmoded views, such as the misconception that memory records every aspect of every experience, much like a videotape that is simply "replayed" verbatim when an event is recalled. In fact, memory is much more abbreviated, inferential, and reconstructive than it feels like when we experience it.[5 25 39] As a result, it is also much more prone to confabulation and error than many people believe.

Moreover, as with the credulous espousal of MPD, many in the recovery movement were also unaware of research on suggestibility and interpersonal influence that shows how easy it is to implant false memories, quite unintentionally, during therapy. This, in conjunction with the questionable views about the etiology of psychological distress discussed earlier, led many recovery-oriented counselors to use scientifically unsupportable techniques in ill-advised attempts to ferret out the memory traces they were sure must be hidden in their clients' minds.

Clients' denials of initial suggestions that they had been abused were often ignored because most therapists of this persuasion also subscribe to dubious notions of repression. I.e., that traumatic memories are forcibly kept from awareness until they are "recovered" in therapy. It is supposed that a subconscious censor actively keeps troublesome memories out of consciousness until the barrier can be circumvented by special therapeutic techniques. This idea of "strong repression," is also derived from Freudian speculation that has never enjoyed much empirical support.[23 25 39 40] Unfortunately, much research shows that the methods advocated for breaking through the repressive wall are the very ones likely to create false memories. These risky "rejuvenation" techniques include hypnosis, guided imagination, role playing, dwelling on childhood photos and mementoes, and participation in exhortative "recovery group" sessions. Misuse of the much over-rated technique of hypnosis in this regard has been widely documented [30 31 41] The ability of subtle suggestions and probing techniques to create highly convincing pseudomemories has been demonstrated repeatedly. The initial comeback of many in the recovery movement was that only a few "bad apples" in the profession lead their clients in this fashion. However, a large-scale survey of relevant beliefs among doctorate-level psychotherapists disputes this.[42 43] The level of belief in the foregoing misconceptions was found to be very high. Similar pseudomemories can be created when therapists encourage clients' fantasies that they have been abducted and mistreated by extraterrestrials[44] or by underground satanic cults[45].

A more pernicious side of this mutual delusion of patient and therapist is that many self-professed victims are led to believe that, in order for them to recover, some suspected (often innocent) abuser must pay. In the "satanic ritual abuse" version of this scenario, the abuse supposedly occurs during orgiastic rites of devil worship, sexual perversion, torture, and human sacrifice. Concerted efforts by law enforcement agencies around the world have failed to find any evidence that these allegedly pervasive satanic conspiracies exist.[45] This has not prevented charges being laid and convictions being obtained, however.[46] The fact that supporters of alleged victims of satanic abuse and extraterrestrial abduction firmly believe their "memories," despite the implausibility of such events, should give pause to therapists and prosecutors who accept virtually every patient "recollection" of abuse at face value.

From a purely practical standpoint, encouraging patients' to dwell on early traumas, even if they are undeniably real, is questionable in that there is little research to show that it helps victims get better. Instead of pressing patients to ruminate incessantly about tragedies from long ago (which may well exacerbate rather than alleviate their emotional distress), they would probably be better served by sympathetic, practically-oriented counselors who will help them pick up the pieces in the here-and-now and aid them in finding workable strategies for achieving a more satisfying future.[18]

Ignorance of modern brain research. There are a variety of devices, exercises and potions vigorously marketed by entrepreneurs who claim they can improve well-being and performance by "reprograming" or improving the chemical efficiency of the brain. Most proponents have little or no understanding of modern neuroscience and offer even less evidence for their wares.

Descriptions and critical reviews of these New Age sellers' claims can be found in the following references.[47] [48] An example of how even well-trained professionals can fall prey to "neurobabble" and thus promote highly questionable therapies based on outdated notions about brain function is contained in the critical review by Hines in this issue of *SRAM.*

In a similar vein, questionable notions about brain biochemistry have spawned a large industry selling herbs and supplements that are alleged to have therapeutic effects for various neurological conditions and/or to improve brain function in normal people.[48] In this issue of *SRAM*, Brue and colleagues report on a test of one such combination of products claimed to alleviate the symptoms of attention deficit hyperactivity disorder in children. While the authors find some reason to pursue further research with some components of the supplement cocktail they tested, the results offer little support for the supplement industry's claims in general.

Other questionable products in the therapeutic marketplace.

Space does not permit detailed critiques of the large number of scientifically-suspect practices vying for customers in the therapeutic marketplace. Here, I can only list a selection of currently fashionable pseudoscientific psychological products and provide references where the case against them is made in detail.

Aroma Therapy. Believers claim that the odors of certain "essential oils" have unique and lasting effects on various psychological problems.[49] [50] There are many theoretical and practical difficulties with this notion.[51] In the current issue of *SRAM*, Sgoutas-Emch and colleagues present a well-controlled study that fails to support aroma therapists' claims to alleviate stress. These results are in line with those of the present author who also found (in a blinded study done with the encouragement of professional aroma therapists) no support for the contention of aroma therapists that there are uniquely arousing and sedating essential oils (Anderson and Beyerstein, in preparation).

Eye-movement Desensitization and Reprocessing (EMDR) Therapy. Shapiro[52] has promoted the doubtful claim that back-and-forth eye-tracking of a therapist's finger while imagining traumatizing events from the past can cure patients of debilitating anxiety. Several reviews have raised strong doubts about Shapiro's claims.[53] [54] [55] [56] Critics argue that Shapiro merely borrowed elements from existing cognitive-behavior therapies and added the superfluous ingredient of finger waving, with no scientific rationale or data to back up this highly improbable practice. When EMDR works with traumatized people, it is likely because of its overlap with validated treatments such as "cognitive restructuring"[57] where clients are repeatedly forced to experience traumatic memories, along with desirable thoughts, in order to extinguish their disturbing emotional reactions to recollections of distressing events.

Handwriting Analysis. The pseudoscience of graphology claims psychological traits and diagnoses can be derived from the analysis of handwriting. While no scientific case can be made for these claims, even more far-fetched assertions are made by "graphotherapists." The latter contend that undesirable psychological attributes can be eliminated by learning to remove the

signs that indicate those traits from one's handwriting. Graphology firms routinely offer marital and psychological advice and consultations on hiring and promotion, the credit worthiness of borrowers, and the guilt or innocence of criminal defendants. Although the evidence against graphology is overwhelming[58], advertisements continue to appear in journals directed at psychotherapists for graphology seminars that carry continuing education credit for licenced psychologists and psychiatrists. In some advertisements, the promoters promise to teach techniques for identifying secret drug abusers, philanderers, and both perpetrators and victims of sexual abuse from signs supposedly encoded in their handwriting.

Meditation as psychotherapy. Marketing schemes such as Transcendental Meditation (TM) have profited handsomely from those seeking release from the psychological and physical ills attributed to the stresses of today's fast-paced lifestyles. Research papers from TM devotees, largely from the TM-owned Maharishi International University, have claimed special efficacy for the mental exercises prescribed by the TM organization. In addition to their claims of improved physical and psychological health, TM-ers assert that meditators can learn to levitate and that if one percent of the local population takes up TM, the crime rate in that locale will drop. As far as TM's psychological pretensions are concerned, outside evaluators with no personal stake in the outcome find that TM, or any other form of meditation, is no more efficacious than simple rest.[59] [60]

Therapies that encourage clients to recall their thoughts while in utero, during birth, or in early childhood. Rebirthing, Primal Scream Therapy, and Dianetics (Scientology) all assert that people can and should recall times in their lives when their brains and cognitive processes were too immature to lay down memories of the sort posited by these theorists.[1] As I have noted elsewhere[9], our understanding of neural development makes such claims extremely unlikely. As discussed above, the idea that early trauma frequently leads to adult psychopathology is equally questionable. As we have also seen, clients in situations like this, are capable of responding to suggestions that they are recalling such events, fooling themselves with pseudomemories of such early times before, during or after birth.

Self-help Psychotherapy books. A spate of do-it-yourself therapy and self-improvement books also continues to sell well to an anxious public. The advice they offer runs the gamut from reasonable and useful to bizarre and unsupported.[61] [62]

Conclusion.

As long as people refuse to think critically and to put psychotherapy methods to hard-nosed empirical tests, bogus treatments will continue to flood the market. It continues to amaze me that many people who demand extensive, impartial evaluations of automobiles or televisions before making a purchase, will put themselves in the hands of psychotherapists with little or no prior investigation of their credentials, theoretical orientations, professional affiliations, or their records of successfully helping their clients in the past. For reasons I have summarized in an

earlier edition of *SRAM* [63], testimonials from satisfied customers are essentially useless in deciding the efficacy of both psychological and medical treatments.

For those who agree that advance screening of psychotherapists by potential consumers is at least as good an idea as checking the qualifications and achievements of would-be home renovation contractors, several sources come to mind. A good overview and critique of various fringe psychotherapies is contained in a special edition of *The International Journal of Mental Health*, edited by Loren Pankratz.[64] Another good source of such information is a volume by Gambrill.[62] A thought-provoking, if occasionally overly strident, critique from within the psychotherapy industry (by one who voluntarily left the profession because of concerns not unlike those voiced in this article) has been penned by Tana Dineen.[65] A thoroughly disillusioned Dineen attacks her former colleagues for making mental illnesses out of what used to be considered the normal hardships of life and for promulgating questionable treatments lacking in scientific rationales and proof of efficacy.

Potential consumers should also know that most state and provincial psychological and psychiatric associations maintain consumer advocacy and quality assurance boards to assist the public in this regard--even though, as we have seen, these organizations have not always been as ready to police their own as one would wish. For those with an on-ramp to the Information Superhighway, good discussions of the latest therapeutic fads by skeptical clinicians are obtainable at <sscpnet@listserv. acns.nwu.edu>. The abbreviation "sscp" stands for "Society for a Science of Clinical Psychology," a group of academics and clinicians dedicated to restoring a strong scientific basis for psychotherapy. And finally, it is a pleasure to announce that a new journal has recently been founded that will be dedicated to exposing junk science in psychotherapy. Under the editorship of Scott Lilienfeld, this companion to SRAM's efforts in the biomedical field will be called *Scientific Review of Mental Health Practice*. In light of the transgressions discussed above, it should be apparent that this is a necessary corrective whose time is long overdue.

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