Psychosurgery is an apt choice as a model for ethical and scientific issues in psychiatry because it in many ways epitomizes all somatic psychiatric treatment. As a therapy, psychosurgery displays in the extreme the contradictions and problems inherent in modern psychiatric treatment—especially the most commonly used hospital treatments, electroshock and the major tranquilizers (Breggin, 1973b). I have recently proposed and elaborated in detail upon what I call the brain-disabling hypothesis to explain the shared effects of these major somatic therapies (Breggin, 1979).

In the early 1970s, I originated the controversy over psychosurgery and carried it to both the public and the profession in an effort to stem the "second wave" predicted by the psychosurgeons. I presented my views in the Congressional Record (Breggin, 1972a), before the United States Senate (Breggin, 1973c), through radio and TV (Breggin, 1972c), in lay articles (Breggin, 1973b and c; Breggin and Greenberg, 1972), in court (Breggin, 1973d), in a law review article (Breggin, 1975a), in letters to medical and scientific publications (Breggin, 1972d, 1972e, 1973c) and in reports in medical sources.
[Breggin, 1972b, 1973c, 1975b, 1977b]. Perhaps most important in regard to the controversy, these efforts resulted in extensive newspaper and magazine coverage of the issue by many outstanding journalists, including Dietz [1972, 1973a, 1973b], D'Arazien [1972], Brownfield [1973], Mason [1970], Parachini [1973], Hampton [1972], Trotter [1975a, 1956b], and von Hoffman [1971], who were deeply concerned about the dangers of psychosurgery.

The motivating force behind this activity was not merely my concern with psychosurgery as it was being utilized at the moment. My original estimate of only 500–1,000 operations a year in the United States has been confirmed. I was concerned with both the political motives of the psychosurgeons and with the brain-disabling psychiatric model that is carried to its extreme in psychosurgery. The public and the psychiatric community quickly became aware that the issues were broader than the immediate practice of psychosurgery. The psychosurgery controversy rallied many community and political leaders, eventuating in my founding the Center for the Study of Psychiatry, an organization concerned with the overall impact of psychiatry upon individual well-being, humanistic values, and civil and political liberties (Trotter, 1973b). At the same time, many psychiatrists who personally opposed psychosurgery nonetheless hesitated to raise their voices in criticism. Part of the reason was that they had only heard reports of my concerns about the political implications of psychosurgery without actually reading the data with which I backed up these concerns (Breggin, 1973a and b, 1975a). But more important, they were also aware of the larger principles at stake. While they might oppose psychosurgery as a dangerous, radical, and experimental extension of psychiatric principles, they did not wish to support a general criticism that might equally undermine the use of other brain-disabling therapies, such as electroshock and the major tranquillizers.

Human Values in Psychiatry

In the field of medicine, the object of the treatment is indeed “an object”—the body of the person. But even in this relatively objective arena, first principles and humanistic values have become increasingly important. How much more important they must be within psychiatry, where the object of the treatment is not an “object” at all, but a person. The arena of medicine, in its narrowest definition, is bodily dysfunction. The arena of psychiatry is the activity of persons—their thoughts and feelings, and their actions. As I have ana-
lyzed in *The Psychology of Freedom* (Breggin, in press), it is impossible to make any safe or sensible progress in this field without giving primary consideration to such broad philosophical considerations as "the nature of the human being" or "the purpose of human life."

Even experimental data concerning the effects and efficacy of a psychiatric treatment cannot be properly interpreted without giving consideration to such fundamental questions as "What are the highest human functions?" and "What are the ethical and philosophical implications of impairing or sacrificing any one of these functions?" Who determines the effect or efficacy of the treatment—the allegedly objective physician or the more personally affected patient? Is it relevant if a patient believes that he has lost his ability to recall certain past events, even though so-called objective tests can demonstrate no loss? Does it matter than the patient complains of difficulty thinking, even though the surgeon or psychiatrist can find no clinical evidence for this impairment? How does anyone, physician or patient, weigh a person's loss of emotional spontaneity against the presumed gain of leaving the hospital or returning to work?

These issues are as large as human life itself, for it is human life that psychosurgery and psychiatric treatment attempt to modify. I have wrestled with these issues in my novels (Breggin, 1971a), essays (Breggin, 1971b, 1972c, 1974, 1975c and d, 1977a), and most extensively in *The Psychology of Freedom* (Breggin, in press). They have also been explored by Szasz, especially in *The Myth of Mental Illness* (1974) and *The Myth of Psychotherapy* (1978). Szasz has challenged the core concepts of "mental illness" and "psychotherapy" as attempts to corrupt philosophical, political, and religious questions with medical and scientific language. He has argued cogently that psychiatrists in particular have attempted to gain a monopoly over larger human concerns by capturing them with medical and scientific terminology.

The meaning, purpose, and value of life itself lie at the heart of any serious inquiry concerning the effects or efficacy of psychosurgery and the somatic treatments in psychiatry. Need I say that such a subject can only be approached cautiously and with full recognition of the limits of any individual critic? Need I say that any one essay on the subject can at best focus upon a small piece of the problem? My own intention is to present a few of the more important principles involved in my criticism of psychosurgery and the somatic treatments, and to illustrate them with historical and experimental data. My larger hope is to stimulate a more profound concern for the implications of these interventions into the human brain and into the lives of individual human beings.
Reasoning Capacity

Reason, which enables the scientist and philosopher—and, indeed, all capable men and women—to evaluate facts and theories, also plays a crucial role in our daily lives. The most complex form of reason—abstract thinking and the manipulation of symbols—is required for the simplest daily tasks, such as communicating with others, taking care of bills, making a grocery list, following a recipe, or understanding directions to a friend's home. Nearly all the activities that distinguish human beings from lower animals require the use of abstract thinking. Thus, many philosophers have agreed with Aristotle in labeling reason the highest and most characteristic human function.

Irrationality itself presumes the existence of reason and can be looked upon as abused or faulty reasoning. A lower animal cannot become "irrational" because it lacks the fundamental capacity. The animal cannot imagine that it is Jesus or that it is controlled by radio waves. It cannot grow to hate itself or to wish itself dead. These are self-destructive uses of abstract, symbolic reason (Breggin, in press).

What is reason? Here the inquiry could grow endlessly in complexity. For my purposes, I shall select one aspect of reason that is especially pertinent to the somatic treatments in psychiatry. Reason is *systematic choice making*. The person who reasons is making decisions or choices between various real or imagined alternatives. He is choosing among, comparing, or evaluating various potential actions. If my reader changes his mind after studying my viewpoint, or even if my reader holds on to his original position, he has made a *systematic choice* between alternatives.

Reason thus presupposes and contains within it the concept of free will or volition. By free will or volition I mean the inner experience of choosing, deciding, and ultimately making up one's own mind (Breggin, in press). It is an action—albeit a private one. When these private actions seek expression in the world, they become a more objectively observable phenomenon—human conduct. It is the hypothesis of this study that the somatic therapies—psychosurgery, electroshock, and the major tranquilizers—bring the conduct of the patient under the control of the psychiatrist by rendering the patient less able to think, to choose, and to act.

Emotional Capacity

As reason contains within it the idea of volition or choice, emotion suggests the idea of involuntary reactivity. While these are subtle
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and difficult distinctions, no one believes that the emotions are wholly subject to reason or to the will of the individual. Most definitions of emotion recognize its reactive, reflexive nature and link emotion to bodily processes that lie somewhat or wholly beyond individual control. Emotions are nonetheless extremely important, even indispensable, as signals concerning our state of well-being (Hreggin, in press).

The capacity to feel and to recognize various emotions is central to the proper function of reason. Emotions, such as pain or pleasure, sexual desire or hunger, are signals conveying information about the well-being, needs, and desires of the individual. The individual must learn what is making him miserable in order to alleviate it, and he must learn what makes him happy in order to pursue it. Even if he decides to pursue what makes him miserable, and to ignore what makes him happy, as so many people do, he must feel and recognize his emotional signals in order to guide his decision making and his conduct. Anything that dulls or impairs emotional responsiveness will, therefore, compromise the ability of the individual to choose among the various alternatives in life.

Beyond giving relevant information about health, well-being, and appetites, emotions play a crucial role in the individual’s ability to think and to exert his will. The overall emotional state of the individual has a great deal to do with how much effort, concentration, or willpower he will exert in thinking or acting. It is well known that fatigue, chronic illness, and other bodily impairments can vastly reduce these emotional reserves. Any somatic treatment that produces a similar apathy, dulling, or fatigue would similarly render the individual less able or willing to reason and to carry out his decisions, especially in the face of adversity or restraint.

Knowing the importance of emotional signals, the wise man who steps upon a tack does not choose to cut the pain fibers from his foot to his brain. Nor does he decide to blunt the pain perception in his brain in order to deal with the tack. He may not like the pain he feels when stepping upon the tack, but he nonetheless welcomes it as a signal that his health or well-being has been threatened. He could dull his awareness or concern about pain to enable himself more easily to go through life walking upon tacks. But he would fear the consequences of multiple tack wounds; and he would fear the consequences of impairing pain perception in general, knowing how it signals him of other more serious dangers to his health and well-being. He would also be repelled at the thought of reducing his overall capacity to think and feel about himself and life. He would not wish to simplify or to impair his human function by disabling his brain.
Personal Sovereignty and Personal Freedom

Personal sovereignty is the concept I use to summarize and to name the inner experience of free will, reason, and emotion (Breggin, 1975d, 1977a, in press). A person who is "personally sovereign" can choose to experience his emotional signals and to reason systematically. Personal sovereignty is inner freedom. It is wholly subjective, and no one knows its limits. It can be viewed as both a right and as a capacity.

Personal freedom is the external or public expression of personal sovereignty. It is the right and the capacity of the individual to express his thoughts and feelings through actions. Unlike personal sovereignty, personal freedom can be directly examined by others. It also has known limits. Some of the limits are ethical, and may be set by the individual himself. Thus the individual may choose not to steal or to murder. Personal freedom also has many objective limits—everything from the inherent mortality of the body to the competing and conflicting desires of various individuals.

The high value I place upon personal sovereignty and personal freedom provides the philosophical basis for my criticism of psychosurgery, electroshock, the major tranquilizers, and most other somatic therapies in psychiatry. Factual evidence that these therapies disable the brain and compromise personal sovereignty and personal freedom provides the scientific basis of my criticism.

Effects of Brain-Disabling Therapies

My hypothesis is that the primary somatic therapies—psychosurgery, electroshock, and the major tranquilizers—disrupt normal brain function and thereby compromise the individual's personal sovereignty and personal freedom. Disabling the brain is the most important, overriding effect of these treatments.

The psychological effects of these treatments are of course far more complex and subtle than indicated by the hypothesis, which deals exclusively with the specific effect of producing brain damage or dysfunction. Psychologically, some people may seek out brain dysfunction as a method of avoiding themselves and their problems, or as an attempt to achieve a "high" or euphoria. Sniffing glue or inhaling nitrous oxide are typical nonpsychiatric methods of achieving such a state. Electroshock, psychosurgery, and some medications can provide a medically sanctioned method of achieving the same impaired state, including an irrational sense of well-being.
Nonetheless, the individual compromises his personal sovereignty and personal freedom, even though he does it voluntarily. Various placebo effects may also result from the positive expectations of the person submitting to one or another somatic therapy. Still more important, in my experience, is the effectiveness of these treatments as intimidators and enforcers on hospital wards. As I first wrote in "Coercion of Voluntary Patients in an Open Hospital" (Breggin, 1964), the major tranquilizers and electroshock loom as important threats in controlling the conduct of hospital inmates. In this study, however, I wish to focus on the single most important effects of these somatic interventions—the production of brain disability in the interest of controlling the patient.

Each of these suppressive interventions—psychosurgery, electroshock, and the major tranquilizers—produces a different form of brain damage or dysfunction. Furthermore, different psychosurgical operations can produce somewhat different results. The discarded technique of removing a large portion of the cerebral cortex had a more obvious effect upon intelligence than a deeper lesion in the limbic system, which suppresses emotional responsiveness. But all the somatic therapies affect important aspects of personal sovereignty and personal freedom.

Obviously, not all possible interventions in the brain disrupt personal sovereignty or personal freedom. Some interventions may cure or ameliorate a disease process. Neurosurgery may remove a scar, relieving pressure in the cranium. Sometimes as a side effect in neurosurgery there is some loss of personal sovereignty if damage is done to the limbic system in the process of treating the disease. Sometimes there may be a more direct loss of personal freedom if, for example, the motor area of the cortex is damaged during surgery, causing the paralysis of a limb. But these are untoward or unwanted consequences of neurosurgical interventions. Psychosurgery, by contrast, is psychiatric surgery. Its aim is to modify thoughts, feelings, or conduct, and it accomplishes this by compromising the brain functions required for personal sovereignty or personal freedom (Breggin, 1972a, 1975b, in press).

Psychosurgery, electroshock, or the major tranquilizers always compromise normal brain function. In those few uses in which abnormal tissue is indeed treated, the psychiatric effect is nonetheless achieved by further compromising whatever normal function remains in the tissue. Thus, a surgical intervention or a drug may be used to control aggressive responses in a child who has physiological retardation of the brain or epilepsy. But the effect of the psychosurgical lesion will not be produced specifically by destruction of the
malfunctioning tissue. The "taming" effect will be produced in a wide variety of areas in the limbic system, and it will be produced in exactly the same way as it is produced in humans and animals with normal brains—by causing further brain damage and dysfunction. To repeat, the commonly used psychiatric interventions act by compromising normal brain function.

While these principles are easiest to explain in regard to psychosurgery, they are equally true for electroshock and the major tranquilizers. Furthermore, they are true regardless of the mental or physical state of the person to whom the treatments are administered. Even if so-called mental illness is biological in origin (I do not believe that it is), this would have no effect whatsoever upon the hypothesis that the somatic interventions achieve their effect by disrupting normal brain function.

Consider a person who has a verifiable brain disease, such as a tumor or a more generalized drug intoxication or atherosclerosis. This person will be subdued by electroshock or a major tranquilizer in exactly the same fashion as a person with a normal brain. There may be a difference of degree, however, which is wholly accounted for by the hypothesis that the intervention disrupts normal brain function. The person with a brain disease may require a smaller surgical lesion, fewer shock treatments or a lesser drug dose in order to achieve the anticipated effect. This is because the person's brain function has already been disrupted by a disease process, and is therefore more easily compromised by a lesser psychiatric intervention.

This is a crucial and easily misunderstood point: The hypothesis that the somatic therapies are suppressive of normal brain function is wholly independent of the controversy concerning the biological nature of mental illness. Put most baldly, a blow on the head is a blow on the head, regardless of the thoughts, feelings, convictions, or physical state of the recipient. The only exception has already been examined. The blow may have a more severe effect if the person already has brain damage or dysfunction.

In Electroshock: Its Brain-Disabling Effects (1979), I examine in more detail the unproven assumption that a particular abnormal chemical reaction, for example, a dopamine abnormality, is corrected by the somatic interventions. This position is untenable for several reasons that I can only summarize here. First, even if a subtle biochemical abnormality exists, the various somatic interventions produce generalized, widespread changes throughout the brain. Electroshock, for example, significantly disrupts nearly every measurable biological function in the brain. Second, the disruption in these biochemical systems, including dopamine metabolism, is compara-
able to that following any form of severe trauma, hardly supporting a "therapeutic" specificity for any of the treatments. Third, the overall organic and psychological dysfunctions produced by the somatic treatments, including apathy, euphoria, and increased tractability or docility, are gross and overwhelming. It makes no sense to disconnect the "therapeutic effect" from the obvious, disabling effects that dominate the thoughts, feelings, and conduct of the patient.

The brain-disabling hypothesis is independent of the differences in effect found among the various somatic interventions. Even though various somatic interventions differ in their specific effects, each produces an overall or generalized brain dysfunction. A major tranquilizer cannot suppress a person's "delusions of grandeur" without equally suppressing the person's overall capacity to reason, to feel, and to make decisions. A surgical disruption in the limbic system cannot remove "aggression" without disrupting widespread mental functions. One could deduce this from an understanding of mental function itself. Delusions of grandeur, aggression, and other categories of human thought or action, such as depression or anxiety, relate to the overall experience of the individual as a thinking, feeling, willing human being [Breggin, in press].

If observations on the subjective experience of humans were not enough to verify the integration of thoughts, feelings, and decision making, physiological and anatomical studies of the brain confirm the integrated nature of brain function. One cannot pluck a "thought" or a "feeling" out of the brain as one might pluck an olive from a tree. Any primer on functional neuroanatomy demonstrates the naivete inherent in attempting to isolate brain function in such a specific manner. Within this book, the issue is examined in greater depth by Chorover.

In summary, the somatic therapies produce brain damage and dysfunction and thereby compromise the personal sovereignty and personal freedom of the individual. This effect is not accidental, and it is not secondary to some other effect: it is not a side effect. It is the specific effect of the treatment.

Motivation for Somatic Psychiatric Interventions

What purpose, we may ask, does it serve the psychiatrist to reduce the personal sovereignty and personal freedom of the patient? The answer is not hard to find: the psychiatrist (or psychosurgeon) gains control over the patient. More specifically, the psychiatrist or psychosurgeon may render the person less troublesome to himself or to others by rendering him less able to think, to feel, to choose, and to act.
As I review the effects of the somatic therapies in more specific detail in the following sections, it will become apparent that the psychiatrists who pioneered these treatments knew exactly what they were doing. They describe in vivid detail the reduction of the patient to a more robot-like, less troublesome, and less vital status with psychosurgery, electroshock, and the major tranquilizers. When it is understood that each of these interventions had its origins in the custodial state mental hospital, it becomes more obvious why even well-meaning physicians might turn to extreme methods to subdue the difficult, unruly, and anguish populations of these institutions.

Each major somatic therapy originated as part of psychiatry’s efforts to control the massive numbers of inmates under its charge, and, if possible, to render them malleable enough for useful work in the hospital or for discharge into the community (Breggin, 1974, 1975c, 1975d, 1979). Psychosurgery, ECT, and the major tranquilizers share a common origin with the vast majority of other psychiatric interventions over the years—from castration and whipping to arsenic poisoning and forced submersion in bathtubs (Breggin, 1979).

The power of the newer interventions derives from their direct assault upon the brain rather than upon the body, and specifically, their ability to tame patients without too frequently killing them.

The extension of these treatments from the involuntary mental patient population to the outpatient and even the private office patient is another and more complex matter. Historically, this transition has always come after the wide-scale application of these treatments to the involuntary state mental hospital patient, and none of these treatments has been widely accepted by the voluntary private patient. Few people willingly submit to psychosurgery, electroshock, or the major tranquilizers when they have been informed about their effects, and fewer still willingly submit a second or third time. Of those who do actively seek these treatments, many undoubtedly do so very self-destructively.

The Major Tranquilizers: Pharmacological Lobotomy

From 1954 through 1958 I helped develop the first large mental hospital volunteer program using college students (Umbarger et al., 1962) and personally witnessed the “miracle” wrought by the introduction of the major tranquilizers into the state mental hospitals of the Boston area during that period of time. During two summers I was also an investigator in related research projects. There can be no
doubt about the effect of the medications. Prior to their introduction, electroshock treatment and insulin coma therapy were the mainstays of patient control. When an individual was difficult to manage within the confines of these foul-smelling, dilapidated, overcrowded concentration camps, he was involuntarily subjected to a brutal series of shocks or comas, often rendering him more tractable and more willing to hide his craziness or rebellion (Breggin, 1979). Nonetheless, the wards remained very unruly, and for the hospital staff they were often dangerous. But with the advent of the major tranquilizers a dramatic change took place. Instead of the traditional disorderly madhouse filled with upset, outraged ill persons, we now had a storehouse filled with apathetic, robot-like nonpersons. This was my personal introduction to the miracle of modern psychiatry.

It is generally accepted that at least two-thirds of hospitalized psychiatric patients receive no other treatment than drugs, usually a phenothiazine. I have investigated a number of mental hospitals, state and private, and have frequently found this figure too conservative. Even in hospitals in which the director or his staff have estimated that two-thirds of the patients receive major tranquilizers, an actual count of medication cards on the wards has sometimes yielded a figure nearer to 95 percent. To the hundreds of thousands of patients subjected to these drugs in hospitals on any given day must be added another substantial number receiving them in outpatient clinics. Literally tens of millions of people have been administered these drugs over the past twenty-five years (Crane, 1973).

The phenothiazines vary among themselves with respect to side effects and duration of action, but nonetheless present a remarkably consistent pattern. Chlorpromazine was the first of this group introduced into North America in 1953, and it remains the prototype. Its brand name in the United States is Thorazine, and in Canada and England, Largactil. Other brand names of related phenothiazines are Mellaril, Stelazine, Sparine, Compazine, Trilafon, Prolixin, Permitil, Serentil, Tindal, Quide and Vesprin. The butyrophenones [brand name Haldol] and the thioxanthenes [brand name Taractan] may also be included among the "major tranquilizers." While these differ from the phenothiazines, their effects and side effects are very similar. On the other hand, the "minor tranquilizers" vary widely among themselves and differ vastly from the phenothiazines in their actions and side effects. My analysis of the major tranquilizers should not be applied to them.

The first report on the psychiatric effects of the phenothiazines was published in France in 1952 by Delay and Deniker (Jarvik, 1970).
With doses in the low range of modern clinical usage, they achieved the following effect:

Sitting or lying, the patient is motionless in his bed, often pale with eyelids lowered. He remains silent most of the time. If he is questioned, he answers slowly and deliberately in a monotonous, indifferent voice; he expresses himself in a few words and becomes silent.

They consider the patient’s behavior to be “fairly appropriate and adaptable,” “But he rarely initiates a question and he does not express his anxiety, desires or preferences.” There is an “apparent indifference or the slowing of responses to external stimuli” and a “diminution of initiative and anxiety.”

The first report on the first major tranquilizer clearly describes its total assault on personal sovereignty and personal freedom. The patient is rendered “adaptable,” and this is accomplished by suppressing his spontaneity, his responsiveness, his desires and preferences, and his communications. It is no exaggeration to describe this as the making of a tractable inmate in a suppressive state mental hospital.

Heinz Lehmann’s first English-language article promoting the same medication, published from Canada, gives substantially the same description of its effects (Lehmann and Hanrahan, 1954). Again employing doses in the low range of current clinical use, Lehmann remarks that the patients continue to suffer from “retardation,” “emotional indifference,” and “lethargy,” even after the initial drowsiness has worn off. He compares the drug experience to that of “an exhausting illness” with fatigue and malaise. This frank description of a generalized assault on the patient’s personal sovereignty and personal freedom is reinforced by Lehmann’s conclusion that “We have not observed a direct influence of the drug on delusional systems or hallucinatory phenomena.” Despite this admission, he highly promotes the drug, clearly demonstrating that his enthusiasm for it is based on its suppressor effects.

In later years, Lehmann would change his viewpoint and take the position that the major tranquilizers are antipsychotic agents with specific effects upon delusions and hallucinations. But his fundamental observations would remain the same (Lehmann, 1955):

Many patients dislike the “empty feeling” resulting from the reduction of drive and spontaneity which is apparently one of the most characteristic effects of this substance [emphasis added].

In this publication, Lehmann becomes perhaps the first observer to speak of the major tranquilizers as “a pharmacological substitute for lobotomy.”
Over the following years, a most remarkable transformation would take place in the psychiatric literature. Though the dosage of the drugs would increase, the reports on its overall suppressive effects would be gradually eradicated from clinical and research reports. Instead of the submissive, apathetic, and robot-like conduct reported by the original investigators and still obvious today on any mental hospital ward, the clinical and research literature would tout specific antipsychotic effects. Instead of reporting how all spontaneous conduct and all spontaneous communications are reduced by the pharmacological agent, investigators would select a few limited “symptoms” and report their diminution.

In 1958 and 1959, the arbitrary transformation from suppressor agent to “antipsychotic” agent was graphically displayed in a comparison of two of the most widely read resources in psychiatry. Noyes and Kolb (1958) in Modern Clinical Psychiatry, perhaps the single most influential textbook of psychiatry, continued to describe how the typical patient receiving maximum benefit from his treatment would become robot-like with “indifference both to his surroundings and to his symptoms.”

Even though not somnolent, the patient may lie quietly in bed, unoccupied and staring ahead. He may answer questions readily and to the point but offer little or no spontaneous conversation, however, questioning shows that he is fully aware of his circumstances.

But one year later, a lengthy chapter on the phenothiazines by Paul Hoch (1959) in the American Handbook of Psychiatry contained no word about the overall apathy, lassitude, and indifference produced by these agents. Instead, the focus was on “the reduction of symptomatology in a schizophrenic patient” and the alleviation of “the emotional push behind the delusional ideas.” No one reading the analysis would know that all thoughts, feelings, communications, and actions had been leveled.

After the late 1950s, one must generally go to sources outside psychiatry, such as DiPalma’s Pharmacology in Medicine, to find frank descriptions of the phenothiazines as agents that suppress the central nervous system, especially the reticular activating system, producing apathy and indifference in human beings. Even the early objectivity of Goodman and Gilman’s famous The Pharmacological Basis of Therapeutics (1956) gives way to psychiatric propaganda in the 1970 edition. The author Jarvick (1970) does recognize the actual facts when he states:

All the phenothiazines used in psychiatry diminish spontaneous motor activity in every species of animal studied, including man...
Indifference to environmental stimuli and consequent taming are easily seen in naturally aggressive wild animals such as monkeys. He also acknowledges the "emotional quieting and affective indifference" as well as the impaired attention in intellectual tasks that characterizes the drug response in humans. But he nonetheless repeats the unsubstantiated claim that phenothiazines have a specific antipsychotic effect.

Similarly, a 1968 National Institute of Mental Health report by the experienced researcher Albert DiMascio cites massive evidence that the phenothiazines produce a decline in perception, memory, reasoning, mental speed, libido, and just about every measurable human function, but nonetheless concludes that these effects "have not been reported in psychiatric patients undergoing pharmacotherapy." True, findings of apathy and globally depressed activity were not being reported very frequently after the 1950s; but they remained obvious to the most casual visitor on any mental hospital ward.

Later research purporting to demonstrate the "antipsychotic" effects of the phenothiazines has, in reality, confirmed the overall suppressive effects. In the Clinical Handbook of Psychopharmacology, Gerald Klerman (1970), one of the nation's leading exponents of psychopharmacology, reviewed the research literature and renewed the claim that the phenothiazines are antipsychotic agents. Gone are the original picturesque descriptions of patients suffering from apathy, lassitude, and chronic exhaustion, much as persons with debilitating illnesses. There is no mention whatsoever of these phenomena. Instead, the patients are rated on a variety of arbitrarily selected "symptoms" before and after the treatment. Even so, the four most "improved" behaviors turn out to be "combativeness, hyperactivity, tension, and hostility," in descending order. This is the "taming effect" seen in animals and humans alike, and it has nothing to do with any "antipsychotic" effect. The ratings of symptom reduction show that "delusions" and "hallucinations" are reduced hardly at all. Since the patients must have become relatively inactive and noncommunicative after being medicated, it is surprising that there is so little reduction in these "symptoms." It is as if the patient's psychotic manifestations are more resistant to the drugs than other aspects of conduct. Nonetheless, Klerman concludes that there is an antipsychotic effect.

In the same symposium in which Klerman argues for the antipsychotic effect of the drugs, Allan Mirsky (1970) shows that these substances make normal monkeys "drowsy," "indifferent," and generally inattentive. The dose, pound for pound, is in the low range of starter doses for humans.
I need not go through the embarrassing task of citing psychiatric expert after psychiatric expert who claims a specific antipsychotic effect for the major tranquilizers wholly without evidence and wholly in the face of overwhelming proof that these drugs produce a reduction in all spontaneous activity in humans and animals alike, regardless of the presence or absence of any psychiatric problems. Research evidence indicates that the major tranquilizers suppress function throughout the brain, but that they especially disrupt brain functions associated with arousal, activation, or overall drive state. They "de-fuse" the individual. In so doing, the phenothiazines cut at the heart of personal sovereignty and personal freedom, rendering the individual less able to generate any thoughts, feelings, or actions.

What remains open to question is the permanency of these suppressive effects following the termination of treatment. It is now known that permanent brain damage manifested as tardive dyskinesia can frequently be found following long-term, and sometimes short-term, administration of the major tranquilizers [American College of Neuropsychopharmacology, 1973; Crane, 1973]. The afflicted individual is left with a variety of permanent and disfiguring tics and spasms. The damage is irreversible even after the discontinuation of medication. Are patients with tardive dyskinesia also afflicted with permanent apathy? No one has as yet taken the problem seriously under investigation. I harbor a fear that we are producing a permanent "deep lobotomy" in tens of thousands of psychiatric patients by permanently impairing the arousal center of the brain.

Whether the object is to tame a captured animal for transportation to a zoo or to subdue a psychiatric patient, the major tranquilizers render the individual less able to think, to feel, to choose, and to act on his own initiative. Because these drugs strike deeply into the arousal centers of the brain, emotional drive seems more obviously impaired than reasoning or thinking. But all mental functions are depressed, and the de-fused individual remains relatively unable to exercise personal sovereignty or personal freedom. He is much more easily controlled.

Brain Damage and Dysfunction from Electroconvulsive Treatment

Electroconvulsive treatment (ECT) is far more widely used than most psychiatrists and the public realize. Estimates from a variety of sources place the number of ECT patients at fifty thousand to one
hundred thousand each year in the United States (Breggin, 1979, Gruesser, 1974). Most of these patients are treated in private psychiatric hospitals, where shock treatment is often the main form of therapy administered to 50 percent or more of routine admissions. General hospitals also use the treatment frequently. However, the large state hospitals, which have no financial gain from using the therapy, have often discontinued it entirely. The decline of its use in state hospitals, and its widespread use among a limited number of practitioners, account for the fact that few people realize how frequent its use remains (Breggin, 1979).

The number of treatments administered to individual patients varies widely. I have personally known patients who have received 50, 100, and 150 treatments over a period of months or a few years in modern private psychiatric hospitals. Even the number given at any one session varies from 1 to 10 or more. The average range, however, appears to be 8–12 treatments administered once every other day.

The range of patients given electroshock also varies far more than the average practitioner realizes. The Massachusetts study indicated that depression, as anticipated, characterized the majority of patients, but large numbers of individuals with diagnoses of schizophrenia, neuroses, and personality disorders were also treated with ECT (Breggin, 1979).

In short, many psychiatrists and hospitals appear to consider electroshock the treatment of choice for most patients, while other psychiatrists and hospitals rarely, if ever, use it.

That shock is utterly harmless and that no evidence supports any other contention is the standard view in authoritative textbooks and review articles, all of which are written by advocates of the treatment. I was therefore astonished when I began to review the psychiatric literature concerning ECT and found many dozens of articles indicating permanent brain damage and dysfunction following one or more ECTs in animals or humans. Even those articles cited as proof of the harmlessness of ECT on actual inspection frequently indicate the occurrence of severe brain damage. After years of research I have recently completed a book in which I present six clinical cases of my own and review several hundred articles pertinent to the subject (Breggin, 1979).

Both the older methods of ECT and the newer modified ECT [using artificial respiration and oxygenation combined with muscle "relaxants" to produce paralysis during the electrically induced convolution] cause an acute brain syndrome largely indistinguishable from that produced by any other severe trauma to the brain. The individual after one to three or four treatments becomes grossly
disoriented to time, place, and person, loses his capacity to reason abstractly, becomes apathetic, or perhaps euphoric, with an unstable, abnormal mood, and is impaired in insight and judgment. The person always requires supervision and in many cases becomes extremely helpless.

As in the phenothiazine literature, the first clinical reports concerning ECT are the most graphic, but the same data can be gleaned from more modern aseptic studies or from observing modified ECT in a psychiatric hospital. In 1942, in the first detailed clinical report, Lowenbach and Stainbrook opened with the following remark:

A generalized convulsion leaves a human being in a state in which all that is called the personality has been extinguished.

The authors describe the stupor and incoherency that follows the very first convulsion, as well as the frank terror:

But the patient is not yet talking and does not follow simple commands. It becomes, however, increasingly easier to control his restlessness and to calm what appears to the observer to be terror-manifesting reactions. . . . The first sentences uttered are also usually incomprehensible. But as time goes on it is possible to establish question and answer sequences. From now on, the perplexity of the patient arising from his inability to grasp the situation pervades his statements.

They go on to note that it takes the patient twenty to thirty minutes to be able to write his name after the first shock, and that during this period of time, the brain wave patterns are abnormal. Lowenbach and Stainbrook (1942) directly connect the therapeutic effect to the brain dysfunction, observing that "if the patient becomes almost immediately his pre-shock self, then the therapeutic procedure has been in vain." They advocate using the period of confusion as a time for conditioning the patient to new ways of thinking and acting. This is a graphic illustration of the hypothesis that the somatic therapies act by producing brain dysfunction and by compromising personal sovereignty and personal freedom.

The modern literature amply shows that multiple electroshock treatments produce an escalation of mental and physical deterioration with a correspondingly longer recovery time. That this deterioration is the sought-after effect is demonstrated by the fact that electroshock courses almost always exceed three or four treatments, when gross deterioration first becomes apparent, and by the fact that many therapists use the severity of the organic brain syndrome as the "titration point" for concluding treatment. Some proponents of shock have observed that to the degree that recent modifications
may ameliorate some of the effects of the treatment, the modified shock treatment course must be prolonged. Many clinical groups are now using more than one modified shock in a session, which produces more rapid organic and mental deterioration.

Does shock treatment, especially modified shock treatment, produce brain damage? Certainly no one can doubt that an individual with a florid acute organic brain syndrome has received a devastating insult to brain tissue and brain function, however temporary. If the destructive effects of shock treatment are not always permanent, then the cure is not always permanent either. Indeed, the treatment is notorious for its stopgap effects. It is entirely possible that some patients largely recover from the effects of the treatment, for many patients obviously return to their former mental states, with all their old problems, often complicated by a fear and distrust of the doctors who administered the treatment. But beyond the basic hypothesis that treatment result is related to brain dysfunction and the loss of mental capacities, it is important to establish that the damaging effects of this treatment can be permanent. In this regard I want to summarize the findings I have published in detail in my recent book (Breggin, 1979).

The six clinical cases, three men and three women, ranged in age from eighteen to fifty at the time of treatment. Three received short courses [eight or fewer treatments] and three received long courses (fifty or more). Each person was followed up for more than four years after treatment, most for many years. Each person received modified electroshock without known untoward reactions, and at least four of six were considered treatment successes by the treating doctors. Each person had had a responsible job or educational status shortly prior to treatment, and none had any previous history of complaints referable to brain function or to memory. Only one person had an extensive neurological work-up including an EEG both before and after treatment, and in this case there were major brain wave changes consistent with those reported in the literature following ECT. A brain scan and other tests showed significant loss of brain tissue, and there were positive neurological signs. A battery of standard psychological tests also demonstrated brain damage. This person had received a short course of ECT.

The most significant complaints of the patients centered around retrograde memory loss. The period of days during which the shock was administered was entirely blanked out for some of the patients, but fragments could be recalled by others. For people receiving long courses lasting over a year or more, this constituted a significant loss of personal memories and personal identity. Each person also lost
most, if not all, memory of a period of a few months leading up to the treatment. Only one person's losses were limited to that few months, however, and in both the short- and long-course groups, all but one person had significant memory losses reaching back several years, and in two or three instances, even into childhood. This pattern of memory loss was identical to that reported by I. L. Janis in a series of before and after studies of personal memories following routine ECT (Janis, 1948, 1950; Janis and Astrachan, 1951).

Two of the six people reported losing a significant, incapacitating degree of current mental functioning, especially the ability to concentrate, to persist, to memorize, and to learn new material. Of the four others, who claimed to have no significant degree of impairment in ongoing function, two appeared to function normally and two definitely did not. Despite claims of no impairment, one case displayed frank signs of a chronic organic brain syndrome, including inappropriate affect [euphoria], perseveration, and irrelevance in speech, and the other demonstrated organic brain damage and deficits on psychological testing.

These six people are not a representative sample and cannot be taken as illustrative of what typically happens to ECT patients. However, my own experience indicates that most patients continue to complain of memory loss following ECT—a finding that is confirmed in the literature when series of patients are interviewed long after the treatment. The literature is also replete with reports of people who have lost recall for many years of their lives in part or in toto. The problem is sufficiently great that many authorities have warned against giving ECT to people whose jobs require memory work and mental agility (Breggin, 1979).

Probably the most convincing part of the literature is experimental rather than clinical. A variety of animal studies indicate that ECT given in clinical doses produces diffuse brain damage characterized by damage to small blood vessels, petechial hemorrhage, glial proliferation, and sometimes cell death. In the best controlled study by Hans Hartelius (1952), the pathologist was able to select out the treated animals from the control animals in every case by examining their brains after a few ECTs, and several animals showed cell death as well as the typical hemorrhagic picture.

Significantly, dozens of autopsies reported in the literature show an identical picture of frequent widespread petechial hemorrhage, occasional massive hemorrhage, many cellular changes, and occasional cell death. There are also many reports of central nervous system death following one or more treatments. Also of great weight, many brain wave studies of modified and unmodified ECT
show permanent slow wave changes roughly proportional to the number of treatments administered [Breggin, 1979].

The mechanism of cell damage has been explored in a variety of interesting ways. Most conclusively it has been shown that small amounts of electric current even without convulsion produce severe spasm of the small blood vessels. Since modern ECT uses at least as much current as the older methods, and often much more, little amelioration can be expected from modifications of oxygenation and respiration alone. The current breaks through the skull at many places and travels down the vascular tree, causing diffuse damage, but the largest intensity of current strikes the anterior temporal lobe, accounting for the severe memory loss, and the frontal lobe, accounting for lobotomy-like effects [Breggin, 1979].

ECT, like the phenothiazines, had its origin in the attempt to control large state hospital populations. Nowadays it is more frequently administered to patients in private hospitals. As the literature repeatedly observes, these patients may initially volunteer for the treatment under the impression that it is harmless, but after one or two treatments they become terrified and almost universally ask to have it ended. In my own clinical and forensic experience, I have never seen a course of ECT terminated because the patient becomes terrified of his mental losses and begs to have it terminated. The treatment is invariably continued until the patient is no longer able to protest or to resist, or even to recall or to understand what is happening. Nowhere in the Western world today do we find such a gross, obvious, and frequent assault upon personal sovereignty and personal freedom. Given such an obvious devastating impact on the patient, the burden must rest upon those who promote the treatment to explain how its major effect could be anything other than mental dysfunction, with its associated euphoria or submissive helplessness.

From Lobotomy to Stereotaxic Surgery

Exactly like the phenothiazine tranquilizers and electroshock, lobotomy was invented as a technology to control the overcrowded madhouses, and like electroshock and the phenothiazines its primary result was the transformation of madhouses into storehouses. By 1954, when the phenothiazine tranquilizers were introduced into North American state mental hospitals, lobotomy had already run its course. It was on the way out not because of the phenothiazines, but because of its damaging effects upon the individual. A high
percentage of patients were so mentally incapacitated that they died from self-neglect (Vosburg, 1962).

If electroshock has remained alive and well largely through the efforts of a limited number of proponents who perform the great majority of treatments, psychosurgery has been kept barely alive by a handful of proponents, perhaps no more than five or six major figures, who perform most of the operations in the country (Breggin, 1972a). If the public was largely unaware of a resurgent interest in electroshock, it was totally unaware of a resurgence in psychosurgery. In 1971, when I first alerted the profession and the public to the reality of a growing second wave of psychosurgery, I had to provide massive documentation before reasonable people would believe that anyone was performing the operation. That I did convince the public is probably the major reason that the operation did not enjoy the second wave so enthusiastically predicted by its leading proponents in the early 1970s.

Why the public furor about an operation performed on less than 1,000 patients a year in the United States? Why was I so intent upon drawing its dangers to public attention? First and foremost, there was the operation itself. Regardless of the limited number of people subjected to the surgery, I have considered it a very harmful and irrational intervention. Second, there is the ever-present danger of a much more wide-scale application of the surgery if and when the psychosurgeons find access to the large state mental hospitals, the prisons (Aarons, 1972; Breggin, 1975a, 1975b), or the institutions for the retarded (Andy, 1966, 1970; P. L. Breggin, 1974), each of which was targeted as containing potential patient populations. Third, there was blatant political rhetoric by a limited number of psychiatrists and psychosurgeons who were explicitly advocating the surgery for the control of black violence in the ghettos—a subject I have researched and examined in great detail (Breggin, 1975a). That these psychosurgeons had federal support, including Justice Department and National Institute of Mental Health grants, added fuel to the fire of public concern (Breggin, 1973a and b, 1975 a and b, Brownfeld, 1973; Parachini, 1973; Trotter, 1973a).

The Political Threat

The point that psychiatrists and psychosurgeons were openly and in print advocating psychosurgery for the control of racial violence is of extreme importance. With the exception of a number of black children operated on in Mississippi (Andy, 1966, 1970; Breggin, 1972a;
P. L. Breggin, 1974; Mason, 1973) and a still smaller group of black prisoners operated on in California (Aarons, 1972), significant numbers of black people had not been operated on during the initial phase of the second wave of psychosurgery. Most modern psychosurgery, like most electroshock, is carried out on people who are covered by insurance programs. However, somewhat of a precedent had been set during the first wave when the dean of lobotomy, Walter Freeman, claimed that psychosurgery was especially effective on poor people, people with simpler occupations, and black people (Freeman and Watts, 1950). More frightening, prominent figures in the resurgence of psychosurgery in the late 1960s made strong, published claims connecting brain disease and urban rioting and disorder, and suggested psychosurgery as a possible solution to the political violence sweeping the American cities (Breggin, 1975a; Mark et al., 1967; Mark and Ervin, 1960; Mason, 1970; Rodin, 1973; Rosenfeld, 1968). One of the nation's best-known neurosurgeons advocated before a legislative body that the leaders of urban uprisings might make suitable candidates for psychosurgery, and the story was carried without criticism in the New York Times (Bird, 1968).

Given the political campaign being mounted by the psychosurgeons, I was not reassured by later claims that the surgery was too difficult to apply on a mass basis. First, the threat of its use against black urban leaders seemed a serious intimidating force in itself. Second, the surgery need not be used widely to have a vast effect, not only as an intimidator and as a method of neutralizing leadership, but as a technique for redefining political problems as medical ones. By proposing psychosurgery as a "cure" for urban violence, the psychosurgeons further distracted the nation from the political issues. Third, the mass application of any technique is largely an engineering problem. Where there is a will, there is a way to mass produce almost any technology. Perhaps the initial stereotaxic experiments would have led to a simpler technology, much as Walter Freeman reduced a major operation, prefrontal lobotomy, into a simple five-minute office procedure involving an ice pick around the eyeballs. All in all, it was the psychosurgeons themselves who were raising the political issue with enthusiasm, and I took them at their word. That we no longer hear the psychosurgeons making claims to save America from violence is strictly a product of the massive effort to alert the public and the Congress to this threat.

The proposed use of psychosurgery as a method of political control in an extreme way illustrates my basic hypothesis that the somatic interventions serve the purpose of compromising personal sover-
egacy and personal freedom. The hypothesis is nowhere better illustrated than in the clinical effects of psychosurgery, past and present.

The Threat to Personal Sovereignty

The most complete experimental study of lobotomy effects is a little-known book, Personality Changes Following Frontal Leucotomy, by P. MacDonald Tow, published in 1955. More than twenty years ago it should have laid to rest the myth that lobotomy effects are difficult to document, define, or demonstrate. Using a multiplicity of tests aimed at a variety of human mental functions, Tow came to the following conclusions:

Tests of some intellectual functions show very significant change. There seems to be impairment of the powers of abstraction and synthesis; of perception of relations and differences, of the ability to deal with complex situations, planning, and thinking out of the next action and its consequences, and appreciation of one's own mistakes. These are, of course, not several discrete functions, but they are several closely related aspects of intellectual activity, which the tests show to be impaired. There is also impairment of the power of sustained attention and of the capacity for fine discrimination, and a dulled appreciation of the subject's own level of success or failure.

Because they most closely approximated the inner experience of the patient, the before and after autobiographies were the most poignant and sensitive indicators of the effect of lobotomy on the patients. Post-surgery autobiographies showed a difficulty producing anything creative or self-aware, sometimes mixed with a terrible fear of being harmed and controlled by scientific and psychiatric technology. Tow believed these patients to be more "schizophrenic" after their lobotomies, a phenomenon recently reported following cingulotomy (Escobar and Shandel, 1977). I have observed a florid paranoid schizophrenia with terror of being controlled by psychiatric technology following amygdalotomy (Breggin, 1973a, 1973b, 1973c).

Overall, Tow described the patients as "more simple" and as reduced in their "humanity":

Possibly the truest and most accurate way of describing the net effect on the total personality is to say that he is more simple, and being more simple he has rather less insight into his own performance. . . . The higher mental processes suffer most, and one might say that it is the upper limit or the discriminative aspect of psychological function which is blunted. The conclusion would be that after loss of the pre-
frontal area there is a generalized impairment of mental activity, and that this impairment is greater in the higher and more peculiarly human functions than in others.

Tow’s analysis fits well into my own, for the functions he is describing can easily be understood as personal sovereignty—the capacity and willingness to think, to feel, and to act on the highest human level. The resultant loss of personal freedom is also obvious.

Tow was no anti-lobotomist. On the contrary, he was a staunch defender of lobotomizing chronic state mental hospital patients on the grounds that the lobotomy would make them less morally sensitive to their awful condition and plight [Tow, 1952]. Nor was Tow the only lobotomist to understand that lobotomy worked precisely because it made “good inmates.” Some of the best-known lobotomists and lobotomy studies during the first wave advocated lobotomy because it helped adjust the patients to the “mundane realities” of state hospital life [Freeman and Watts, 1950; Freeman, 1959; Greenblatt, Arnot, and Solomon, 1950].

Studies of modern psychosurgical techniques in animals and humans alike show that they reduce the highest human faculties, making the individual less able to think abstractly, to experience his emotions, and to act decisively. The effect, as in electroshock or in phenothiazine medication, is a generalized one, and it depends upon damaging normal brain function. The effect is independent of any psychiatric disorder, and works alike in monkeys and in people. It can be achieved by destroying tissue in almost any part of the normal brain required for the proper function of volition, thought, or feeling.

Unfortunately, modern psychosurgeons have never exposed their patients to independent analysis by individuals who are critical of psychosurgery. Nor have critics of psychosurgery been consulted in developing objective standards for evaluating psychosurgery. My personal observations are based on patients who have come to me on their own for help following psychosurgery [Breggin, 1973a, b, and c]. In several instances, patients of well-known surgeons who claim never to have had bad outcomes have contacted me for interviews and have displayed a post-lobotomy syndrome as well as other mental and physical side effects.

The recent studies by the National Commission on Psychosurgery (1977) illustrate the reluctance of the psychosurgeons to subject their patients to independent analysis. Although the Commission was established specifically at my request in an amendment through the office of Senator J. Glenn Bellow, Jr., all critics of psychosurgery were systematically excluded from participating at any point in the
studies. As a result, no attempts were made to measure the crucial functions of autonomy or personal sovereignty, and obvious signs of organic brain damage, such as euphoria and denial, were consistently interpreted as improvements. The results of these studies are critically examined elsewhere in this volume.

One need not have firsthand personal experience to discover the reality that the newer forms of surgery provide the same old service. First we have animal studies showing, for example, that amygdalotomized monkeys become helpless and unable to survive in their natural habitats (Breggin, 1975b). Some psychosurgeons, especially those operating outside the United States, have also stated their intent to "sedate" and "control" patients by means of modern stereotaxic surgery [Balasubramaniam et al., 1969, 1970]. The "blunting" of emotions has also been cited as the major and desired outcome of all psychosurgical methods by the neurosurgeon William Scoville (1972).

One of the few in-depth psychological evaluations of modern-day psychosurgery patients also demonstrates the hypothesis that psychosurgery produces brain damage and dysfunction, impairing personal sovereignty and rendering the patient more helpless and manageable. The author is Ruth Andersen (1972), who works with Kjeld Vaernet, a Danish psychosurgeon and co-editor of Psychosurgery, the compendium in which the study appears. Andersen found a classic post-lobotomy syndrome typically following amygdalotomy:

Typically the patient tends to become more inert, and shows less zest and intensity of emotions. His spontaneous activity tends to be reduced, and he becomes less capable of creative productivity, which is independent of the intelligence level. . . With these changes in initiative and control of behavior, our patients resemble those with frontal lobe lesions.

Andersen claims that this constitutes no "serious disturbances in the establishment and execution of their major life plans," and then, contrary to her own assertions, goes on to declare that after surgery the patient has "become more dependent on the circumstances in the outer world" and "will make the most of this gain in well-structured situations of a somewhat monotonous and simple character." That statement—the last in the paper—brings me to the conclusion of my own study as well. Psychosurgery, like electroshock and the major tranquilizers, produces brain damage and dysfunction, rendering the patient less able to exercise personal sovereignty and personal freedom. He becomes a less able and less complete person, but a person easier to control and to manipulate. When euphoria
appears as a reaction to the brain damage, the patient may deny any harmful effects and praise the treatment in an irrational manner [Breggin, 1979].

Summary

The major somatic therapies—phenothiazine tranquilizers, electroshock, and psychosurgery—share many common characteristics as brain-disabling interventions. Each originated as a technique for the control of inmates in oppressive overcrowded state mental hospitals. Each helped turn the “madhouse” into a “storehouse” by reducing the capacity and the willingness of the inmates to make trouble for themselves or for others. Each was openly described as a suppressive agent in the original research literature, and then became sanitized in subsequent generations of promotional publications. Each has been refined over the years without modifying its essentially destructive purpose and effect.

Despite a variety of differences, each of the major somatic therapies achieves its primary effect through the same mechanism—the production of brain damage and brain dysfunction causing a reduction in the capacity to exercise personal sovereignty and personal freedom. By disrupting normal brain function, the somatic therapies render the person less able, “more simple,” or more childlike, ultimately making the person more susceptible to manipulation and control.