

THE DECONSTRUCTION OF SELF:

A Commentary on
*The Man Who Mistook His Wife For a Hat:
And Other Clinical Tales*
by Oliver Sacks

Ronald Leifer

THE MIND-BODY PROBLEM

Oliver Sacks is a neurologist who writes about the impact of diseases of the brain on the human mind with the hope of inspiring a new discipline, concerned with the neural foundations of self, "the neurology of identity." The relationship between brain and mind is one of the most fascinating and perennial problems faced by philosophers, theologians, biologists, psychologists, neurologists, psychiatrists, and anyone who is interested in illuminating the mysteries of human nature and human life. In general, there are three distinct approaches to the mind-body problem: dualism, idealism, and materialism. Are human beings composites of the dual substances, mind and matter? Or are we Spirit (God), which sees the world dualistically as mind and matter? Or are we merely compound, organic dust, whose complexity emanates the epiphenomenon of mind?

The most popular and commonsensical opinion is that humans are composed of the dual substances, mind and matter, which interact. This approach can be traced back to Zoroaster and Plato, from whom it was adopted by the Judaic and Christian traditions which believe in a pure, eternal soul

embodied in a mortal, carnal coil. The philosophy of mind-body dualism reached its pinnacle in the work of the French mathematician René Descartes, 1596-1650, who proposed that matter and mind are two distinct and separate substances: *res extensa*, the realm of physical objects, including the brain, which occupy space and have mass, magnitude, figure, and number; and *res cogitans*, the realm of thought, which does not occupy space and has the characteristics of sensation, feeling, judgment, perception, will, and consciousness.

Most people agree with this Cartesian scheme. They believe that they have or are a mind and a body, two separate entities which interact. We experience this duality as both separate and interactive. We experience body and mind as detached as we peer down from a locus of consciousness around the head and see a corporeal body whose feet touch the ground. Our bodies age, become sick, and die while our minds remain ageless. We experience the interaction of mind and body when we eat tainted food and the mind feels nauseous, or when we make physical love and the mind is transported in ecstasy. The interaction between body and mind is a two-way street. Emotional stress can cause physical illness, and physical illness can cause emotional stress.

The standard medical-psychiatric position on the mind-body problem is based on Cartesian dualism. Both body and mind are considered machines governed by mechanical laws that can be understood by means of scientific method and concepts. Even psychoanalysis is fundamentally a causal-deterministic scheme in which thought, mood, and behavior are understood in terms of antecedent causes. Modern psychiatry assumes that our body-mind machines interact, like the Cartesian substances, so that mind can cause physical disease, as in psychosomatics, and brain can cause mental disease, as in the presumption by biological psychiatrists that schizophrenia, mania, and depression are caused by genetic defects, chemical imbalances, or viral infections.

Oliver Sacks is also a Cartesian dualist who believes in the causal interaction between the brain and the self. He believes that diseases of the brain can affect and alter self and that neurology has much to contribute to the scientific understanding of self. The strength and weakness of this view depend upon the strength and weakness of the Cartesian dualism Sacks espouses, and they come into focus in contrast to other versions of the mind-body problem.

The *idealist view* of the mind-body problem is that mind is real because it is the medium into which the material world must be translated to be known. We can never know the material world directly. We can know it only through its appearance as the phenomena of sensation, perception, and conception. There is also a psychological basis for the appeal of idealism. If the cosmos, and therefore human life, has meaning, it must possess will and idea, which are qualities of mind. Otherwise, the cosmos is mindless matter, whose gyrations are governed by godless laws of probability and chance.

Idealism is thus associated with religion. Mind is considered the primary world substance—God or Spirit—which is the source of the will and idea that infuse the cosmos with meaning. God, the universal mind, manifests in the mind of human individuals. Idealism is thus liberated from the constrictions of causal-deterministic laws of matter. Mind is free to conceive of perfect form, perfect goodness, perfect beauty, and perfect being. It traffics in symbols, meanings, and disembodied significations. It moves in the enantiodrama, or drama of opposites, like that between good and evil, past and future, self and other, life and death.

The *materialistic view* of the mind-body relationship is that matter is the primary world-substance and that mind is an epiphenomenon that must be reduced to and understood in terms of the physics and chemistry of the body. This point of view is associated with science, the paradigm of which is the Newtonian physics which modern psychology and psychiatry

attempt to emulate.

The genius of the scientific method is that it eliminates the bias of individual and group minds. It eliminates idealistic categories—religion, politics, esthetics, morality, and personal prejudice—from the observation and description of the natural world. Science has been successful not because its theories are true but because it works. It yields electricity, automobiles, space travel, and miracle medicine. Science is to moderns what magic is to primitives—a technique for coercing the world to satisfy human desires. Because science has been so successful, the humanities have attempted to imitate it. Over the past three decades, there has been a tendency among psychologists, sociologists, anthropologists, and psychiatrists to reduce the categories of mind and behavior to measurable categories of underlying structures.

Two important modern views on the mind-body problem deserve mention in this discussion: *neutral monism* and *linguistic dualism*. Actually, both these views are variants of idealism in that they propose that the categories of mind and matter are a function of language, which is a property of the human mind. The chief advocate of neutral monism was William James; he believed that reality is a nondual, neutral substance, which the human mind perceives dualistically as mind and matter. James's point of view is similar to linguistic dualism, except it leaves room for a neutral or hermaphroditic God.

Linguistic dualism was developed by Bertrand Russell, the later Wittgenstein, Gilbert Ryle, and the contemporary school of philosophical analysis. In this view, matter and mind are not different substances but different levels of language and logic. Russell proposed an operational definition of the difference between body and mind based on differences in the methods of physics and psychology, the two disciplines that study them. Physics uses the methods of measurement, calculation, prediction, and experimentation to know matter and the body. Psychology uses the methods of communication, interpreta-

tion, and evaluation to know mind. The difference between body and mind then parallels the difference between the two methods of knowing them.

The implication of linguistic dualism is that brain and self are not two interactive substances, but are two separate realms of discourse: one materialistic and the other idealistic. The supposed interaction between brain and self is actually an illusion created by translating the language of matter into the language of mind and vice versa, and gratuitously adding a presumed causal connection between the two areas of discourse. To say that mental stress causes physical stress is not a scientific description of a causal link between two substances; it is the description of a single event in the two different languages.

Linguistic dualism has important implications for psychiatry and neurology. If body and mind belong to two distinct realms of discourse, then physical illness and mental illness also belong to separate realms of discourse and cannot be fundamentally similar and interactive as the medical model of psychiatry implies. In the view of linguistic dualism, the claim by biological psychiatrists that schizophrenia, depression, and other mental illnesses are caused by diseases of the brain is a switch from descriptions of thoughts, mood, and behavior to descriptions of neurotransmitter levels in the brain. Depressed or agitated mind, mood, and behavior and depressed or agitated neurochemistry are enantiomorphic representations of the same event. The same analysis would apply to the "neurology of identity," which Oliver Sacks proposes. Neurology is an arena of discourse appropriate to the brain. Identity is an arena of discourse belonging to the self and narratives of the self in the drama of life.

Each point of view on the relationship about body and mind has its logical problems. The problem with Cartesian substance dualism is that the mechanism by which mind, a non-material substance, interacts with body, a material substance, is not evident. A third substance, or a dimorph, seems neces-

sary for any interaction to occur. The problem with linguistic dualism is that body and mind cannot be merely linguistic categories, because it is common experience that mind and body affect each other. Is this merely a dualistic illusion? The problem with materialism is not only that our knowledge of matter must be mediated and, hence, shaped by mind, but that materialism cannot deal with the spheres of language, symbolism, ethics, esthetics, and religion, which are so central to the human personality. The problem with idealism is that it contradicts the commonsensical and scientific perceptions that the material world actually exists, and that its properties and behavior are lawful, orderly, and predictable and can be manipulated, to a degree, for the satisfaction of human desires.

The paradox of mind and body is that there is both a continuity and a discontinuity between them. The continuity is reflected in the interactive substance dualism of Descartes and in the structural theories of Marx, Freud, and Levi-Strauss who posited orderly structures underlying and determining self and society. The discontinuity is reflected in the themes of linguistic dualism, and the presently popular deconstructionist critical theory which regard matter and mind, brain and self, as distinct categories of discourse.

THE NEUROLOGY OF IDENTITY

Oliver Sacks is a neurologist and a Cartesian dualist with tendencies toward material reductionism. Neurology is a specialty of medicine concerned with the diagnosis and treatment of diseases of the nervous system. It is a branch of medical science that holds to the materialistic, causal-deterministic viewpoint of science. In their clinical practice, neurologists treat people who suffer from diseases of the nervous system, e.g., tumors, injuries, infections, congenital malformations, degen-

erative diseases, and so on. The task of the neurologist is not only to make a diagnosis, but also to locate the disease by deducing from the symptoms what area of the brain is affected.

Dr. Sacks is interested not only in neurology but in the effect of diseases of the brain on the personality or identity of the patient. He calls this synthesis a new discipline, "the neurology of identity." Sacks does not make clear what he means by "new"; his project is at least as old as Sigmund Freud, whose life's work was to discover a new science, the biology of the mind, which he called psychoanalysis. Like Freud, Sacks is a Cartesian dualist interested in discovering the biological foundations of the mind.

The Man Who Mistook His Wife For a Hat (Harper and Row; \$7.95) is a collection of clinical tales, in a literary genre that combines medical case histories with narrative dramas of personal life. The clinical tale is a very popular literary form, as is evident from the ranking of Sacks's book on the best seller lists. Fundamentally, it is medical soap opera; the book consists of stories about people with catastrophic medical illnesses that cause devastating disabilities. We identify with and sympathize with the victims of these diseases and we root for them to overcome their demoralization and despair and heroically to adapt to or transcend their tragedies. Everyone has relatives or friends who have experienced medical catastrophes, and we are all vulnerable to them ourselves. How would we react if a brain tumor or Alzheimer's disease made it impossible for us to remember the past, to recognize the faces of people we love, or to know who we are?

The neurological clinical tale is more exotic than most clinical tales. Prime time television has covered, *ad nauseum*, clinical tales of people with ordinary medical problems: terminal cancer, heart attack, loss of limbs, blindness, progressive deteriorations, and so on. Usually, the illness precipitates a heroic struggle that is self-exalting. Except for the individual

who lapses into coma or dies, there is no question of the illness depriving the individual of the basic constituents of self.

However, the neurological clinical tale deals with people who lose parts of their minds. They lose the sense of sight or hearing, or the sense of bodily anatomy, position, or movement. They lose the ability to recognize objects, faces, or words. They lose their memories and, hence, their past and their sense of time. They lose their ability to calculate and reason and, thereby, to make moral judgments and decisions. Curiously, however, neurological disease does not only cause *deficits* of self, it can also impose unwilled and, sometimes, unwanted bodily movements, sensations, perceptions, visions, cognitions, precognitions, transports, and ecstasies. The field of neurology presents an opportunity to observe the nature of self: how do the qualities of sensation, perception, cognition, memory, will, and emotion shape the experience and presentation of self? What neurological functions are essential to the preservation of self? And what losses are required for self to become fragmented or to disappear?

Sacks poses some interesting questions about the relationship between the brain and the mind. But his answers are sketchy, at best, and he fails to ask some vital questions suggested by his clinical tales. I think Sacks would agree that the reason for this failure is that he is trained as a neurologist rather than as a psychiatrist, a psychologist, or a philosopher. From his writing, it is evident that Sacks is a master neurologist—a doctor's doctor whose skill as a teacher is equal to his skill as a clinician. If neurological misfortune were to strike me, or a loved one, I would be grateful to have Sacks as my physician. It is evident also that Sacks is a compassionate man who is constantly reminding his technocratic medical colleagues about the importance of the patient as a person. And he is a talented writer whose prose soars in flights of compassion and medical insight. But, as Sacks himself concedes, he is more of a narrator, novelist, and poet than he is a philosopher or theorist of the self.

And so it will remain for others to mine the golden tales told in his book.

WHAT IS "SELF"?

Oliver Sacks fails to ask a fundamental question: What is the "self," which supposedly has its foundation in the brain and its superstructure in the mind? A neurology of self that attempts to define the interaction between brain and mind must describe and understand brain, mind, and self.

Surely sensation is not an essential ingredient of self, for someone like Helen Keller can be blind and deaf and still be a full person with a rich subjective experience of self. The character described in the title of Sacks's book suffers from a massive tumor or degeneration of a part of his right occipital lobe which has caused prosopagnosia—the inability to recognize faces—and visual agnosia—the inability to recognize objects visually. He can see perfectly well but he cannot recognize what he sees. He not only mistakes his wife's face for a hat, he also mistakes his foot for a shoe. In spite of this massive defect, however, he is intelligent and charming. He can conduct conversations, teach music, and exercise his persona. He seems to live a normal life. But how normal? Sacks does not tell us. Can the patient travel alone, drive a car, or visit friends? Does he have ambitions and frustrations? Or is he an incompetent shut-in, totally dependent on his wife, and only capable of teaching music and carrying on idle conversation?

Is self dependent on memory? In Chapter Two of Sacks's book, "The Lost Mariner," "Jimmie" is a Navy veteran of World War II and an alcoholic, who in the early 1970's developed an extreme form of Korsakoff's syndrome due to alcoholic degeneration of the mammillary bodies. The key feature of this syndrome is the loss of recent memory. Jimmie can remember details from his remote past, prior to 1945, but he has

no memory of events since then. New information is forgotten in a matter of minutes. He is trapped on an island of the present, surrounded by a sea of amnesia reaching back thirty years. In every other respect he is normal. He retains a vast store of information that he learned prior to 1945. He is superior at parlor games and puzzles provided they move quickly. But chess is impossible for him, because the game moves too slowly. Sacks cautiously asks the nuns at Jimmie's nursing home whether Jimmie has lost his soul. The sisters are properly offended. "Watch Jimmie in the chapel and judge for yourself," (p. 36) they answer. Sacks watches and is "profoundly moved and impressed," for he sees in Jimmie an "intensity and steadiness of attention and concentration" (p. 36) that he has neither seen before nor thought Jimmie capable of. "Jimmie's spirit is perfectly aligned with the spirit of the Mass His inner life is "rich in all the Kierkegaardian categories—the aesthetic, the moral, the religious, the dramatic" (pp. 36 and 37).

This implies that self exists independently of the past or the future. The fact that Jimmie can not remember any detail of the past fifteen years, much less the past fifteen minutes, does not detract from his essential identity. Indeed, it may help him to live more intensely in the present. Neurotics suffer from excessive ruminations about the past and the future. Although one would never wish for Jimmie's disease, both Christ and Buddha advised suffering souls that happiness is to be found only in the present moment. One wonders whether alcoholics and other drug users find a therapeutic delirium in their bottles, pills, and pipes, in which past and future dissolve into the present moment.

Amazingly, every other component of the self is similarly an empty class with no essential ingredients. Take away the senses—as in a sensory isolation tank—and the self manifests in the exaggerated forms of hallucinations, reveries, dreams, and images. Take away the ability to recognize objects, faces,

or words and the mind struggles to compensate by using other faculties and pathways. Mr. MacGregor, the nonagenarian hero of Sacks's Chapter Seven, whose Parkinsonism has deprived him of equilibrium, invents a level to fit on the rims of his eyeglasses so he can correct his 20 percent lean to the left. The inventiveness of Sacks's patients in compensating for their handicaps, reminds one of the pacesetting work of Moshe Feldenkrais, who helped patients with crippling neuromuscular disorders discover alternate pathways in their bodies to restore their lost capabilities.

Even Sacks's mentally defective patients have presence; indeed, some of them seem charismatic. In Chapter Twenty-three, the idiot savant twins, John and Michael, are psychiatrically incompetent with I.Q.s of sixty, but they have the saving grace of what Sacks calls a "splinter skill," being able to tell in an instant on what day of the week any date in the distant past or future falls. They are pathetically deformed little men with a prodigious memory for digits: they can repeat a number with thirty or three hundred figures and they can recognize ten digit primes, but they are unable to perform the simplest arithmetic calculations. Their exotic mathematical skills are so astounding that they became television celebrities. The twins live in a mathematical dimension of reality, which they share intimately like lovers who are connoisseurs of music. Sadly, the twins lose each other and their "Pythagorean sensibilities" (p. 197) when the experts separate them in order to break their *folie-à-deux* and to promote the development of greater social skills and independence.

None of the deficits, excesses, or transports suffered by Sacks's patients seem to deprive them of their identity or sense of self. Sacks is not writing about the neurology of identity or self, he is writing about psychophysics—the neurology of sensation, perception, cognition, memory, emotion, or will. There are, no doubt, mechanical elements of mind. For example, the ability to recognize an object is hardwired into the

brain and, like a computer chip, can be damaged or burned out, which results in a loss of an element of the psychic program. But Sacks's clinical tales seem to demonstrate that these elements of mind are not essential ingredients of self.

A person who suffers the loss or exaggeration of mental faculties is presented with a problem of adaptation just like a person who suffers the loss of any body part or function. The story of that adaptation is, indeed, a heroic drama. But it is in this drama and not in the constituents of mind that the identity, the persona, or the self is manifested.

Sacks calls Jimmie, "The Lost Mariner," a "Humean being." David Hume was an English philosopher, an idealist, who believed that our perceptions of the world and ourselves are merely a series of rapidly moving sensations and perceptions that are in a continual state of flux and change. Sacks opines that Hume would have loved to meet Jimmie, who was living proof of his theory. But Hume's description of mind was not meant exclusively for the demented. It applies to all of us. We are all Humean beings, whose sense of self and the world is based on the search for regularities and reference points in the relentless continuous flux of mind and events.

Sacks's failure to recognize that we are all "Humean beings" stems from the stubborn belief held by the Western world in the ontological reality of self. Hume's view of mind is similar to that of the Buddha. The Buddha described self as insubstantial, an illusion composed of the five *skandhas*, or baskets of mental contents: form, feeling, perception, concept, and consciousness. Search for your self and you will find only these baskets or constituents of mind. If there is an essential ingredient of identity, or self, it remains a mystery forever beyond our conceptual grasp.

Although a neurology of the *skandhas*, or elements of mind, is an exciting prospect for future study, a neurology of self is dubious. When Sacks asks the famous Russian neurologist, A. R. Luria, for advice on how to help Jimmie, Luria replies:

“There are no prescriptions . . . there is little or no hope of any recovery of his memory. But a man does not consist of memory alone. He has feeling, will, sensibilities, moral being—matters of which neuropsychology cannot speak” (p. 32). Luria apparently believed that a psychophysics of memory might be possible, but not a neuropsychology of self.

A neurology of the constituents of mind might discover a continuity between the brain and the mind analogous to the continuity between the hardwiring of a computer circuit and the program functions it performs. But attempts to discover a neurology of self may be doomed to failure, because of the yawning logical discontinuity between the brain and the self. It is like trying to find a causal connection between the hardware of the computer on which I am writing this article, or even the word-processing software I am using, and the message I am trying to convey. A subjective sense of self is created by each one of us in our journey through the drama of life. But self is located in the interplay between self and other, self and the cosmos. Its elements belong to our life journey, not to our brains.

THE NEUROLOGY OF INSANITY

It would have made more sense for Oliver Sacks to inquire into the relationship between neurology and competent social identity. What parameters of mind are required for an individual to be legally responsible for his or her actions? Such an inquiry would not get far without some legal definition of sanity and insanity. The particular criteria of insanity vary from one legal jurisdiction to another, but certain generalizations are possible.

The key mental element of criminal responsibility is *mens rea*, or criminal intent. One aspect of criminal intent is will. A person must will an act in order to intend it. But criminal in-

tent is not just a matter of will; even the most demented patients, if they are conscious, express the simple will to possess what they desire and to avoid what they fear. Criminal intent also requires an element of moral consciousness; it is an act willed with the consciousness of evil.

What are the neurological variables in the mental formation of this moral consciousness and intent? The neurology of moral intention would seem a more modest and, hence, reasonable project than the neurology of identity. But Oliver Sacks does not pursue this. In Chapter Nineteen entitled "Murder," Donald kills his girlfriend while allegedly under the influence of PCP (phencyclidine) and develops amnesia about the event. The murder was macabre, and Donald was found not guilty by reason of insanity and committed to a mental hospital, where he remained for four years. While a patient, Donald was struck by a car and sustained serious head injuries, which restored vivid memories of the murder that corroborated evidence of the crime.

Sacks briefly discusses the relevance of neurological deficits caused by PCP to the finding of legal insanity. At the trial, Sacks states, comparison was made between the effects of PCP and temporal lobe or psychomotor seizures, which do not involve memory loss or an intention of violence. "Those who commit [such acts]" Sacks says, "are considered neither responsible nor culpable, but are none the less committed for their own and other's safety" (p. 154).

Does amnesia deprive an individual of moral consciousness or intent? Jimmie, the Lost Mariner, retains remote memory and, thereby, memories of his early moral training. Thus he retains the capacity for both neurosis and moral choice. Jimmie is described as a charming fellow; there is no mention of any rule-breaking or criminal tendencies on his part. On the other hand, Sacks's "Twins" (Chapter 23) and "Becky" (Chapter 21), who suffer from severe dementia, are capable of only the most rudimentary social functioning. Their ability to

know the difference between legal or moral right and wrong is highly dubious. They would have been judged legally insane had they committed violent acts.

Sacks asserts without discussion that individuals who suffer psychomotor seizures do not intend their actions. Is this true? If the Pope or any indisputably saintly figure suffered from a psychomotor seizure, could the resultant actions be violent? Or would his or her actions reflect neurological information stored during his or her past life, such as peace and wisdom in the case of the Pope? Should an individual be held legally responsible for resentment stored in the neurological circuits of the brain, as the Christian is held morally responsible for lust in his or her heart?

Incredibly, there is no discussion in Sacks's Chapter Nineteen of Donald's relationship with his girlfriend, possible motives for his crime, or possible meanings of his other bizarre actions. Are Donald's actions symbolic of the drama and conflict between he and his girlfriend? Is his girlfriend unfaithful? Is Donald a woman-beater? Did preexisting, hidden resentments, for which Donald can be held morally responsible, find expression in his PCP delirium? Should an alcoholic who beats or kills his lover and is amnesic about the event be excused on the ground of insanity? Does Sacks believe that Donald was rendered insane by the drugs he took and that he continued to be insane during his involuntary confinement?

The psychomotor seizure is a twentieth century variant of the most popular insanity defense of the nineteenth century—namely, moral insanity. Moral insanity was supposed to be a disease of the brain, which specifically disabled moral consciousness and disinhibited the capacity to resist criminal impulses. Is there a neurological counterpart to the fictional psychiatric disease called moral insanity? I would like to hear Oliver Sacks's speculations about the areas of the brain that govern moral intent.

THE NEUROLOGY OF MENTAL ILLNESS

Striking in its omission from Sacks's book is any mention of the neurological basis of mental illness. This is surprising because biological psychiatrists are engaged in the same projects Sacks is; that is, developing the new disciplines of the neurology of self and, in particular, the neurology of mental illness. Adherents of biological psychiatry, whose media exposure and, hence, whose credibility is on the ascent, claim that the major mental illnesses—schizophrenia, depression, and bipolar affective illness—as well as some minor mental illnesses—such as agoraphobia, obsessive-compulsive syndrome, and bulimarexia—and, possibly, even homosexuality are caused by developmental defects, viral infections, or metabolic imbalances of the brain.

It is interesting to note that for all their variety of brain damage, deficits and excesses, none of Sacks's patients developed mental illnesses. All their mental symptoms—agnosia and hypergnosia, amnesia and hypermnesia, akinesia and hyperkinesia, aphasia, reveries, and reminiscences—had a neurological basis and, therefore, a neurological or materialistic explanation. None of Sacks's patients with damaged brains developed schizophrenia, depression, or bipolar disorder.

The claim by biological psychiatrists that certain mental illnesses are caused by brain disease is based on the hypothesis that the chemistry of brain neurotransmitters, particularly dopamine, may become imbalanced and so cause mental symptoms. In general, biological psychiatrists claim that schizophrenia and mania are caused by excesses of dopamine in the brain, while depression and ancillary illnesses, such as bulimarexia, are caused by a deficiency of dopamine neurotransmitters. The evidential basis of this hypothesis is that antipsychotic tranquilizers are dopamine inhibitors, while antidepressants are dopamine stimulators.

Interestingly, dopamine plays a role in several of Sacks's

clinical tales. The hero of "Dog Beneath the Skin," Chapter Eighteen, is a medical student who gets high on cocaine, PCP, and amphetamines and experiences an extraordinary enhancement of his sense of smell. The effect is as shocking as a movie switching from black and white to color. Similar experiences in other sensual modalities are also common in users of psychedelic drugs. Sacks attributes his patient's hyperosmia to an "amphetamine induced dopaminic excitation" (p. 151), and observes that certain neurological patients who are in "hyperdopinergic states" (p. 151)—for instance, sufferers of Tourette's Disorder like Witty Ticky Ray—may experience similar hyperosmia.

In one of his many marvelous flights of scientific imagination, Sacks wonders whether the medical student's dopamine overdose disinhibited a primordial feeling-tone, which had been repressed for the sake of the emergence of "a sophisticated, categorizing, affectless 'epicritic'" (p. 151). This poetic rhapsody about the dog in human consciousness being repressed for the sake of the *Homo sapiens* expresses precisely a bulwark of Freud's (1962) thought. In *Civilization and Its Discontents*, Freud writes that primitive aspects of self must be repressed and sublimated to permit the development of civilization. It is interesting that schizophrenia is also supposed to be a disease in which excessive dopamine causes a disinhibition of a primary process—primordial mentality—and a dissolution of the civilized epicritic. And cocaine and amphetamine overdoses can produce a schizophreniform delirium. Not coincidentally, people with Tourette's Disorder also suffer from dopamine excess, and their symptoms are relieved by Haldol, an antipsychotic drug.

On the other hand, Parkinson's disease is caused by a paucity of dopamine in the midbrain and is treated with L-DOPA, which stimulates dopinergic activity. Psychiatric depressions are also supposedly caused by depletions of dopamine in the brain; and antidepressant medications inhibit

the enzymes that oxidize dopamine, thus increasing dopinergic excitement.

Is it fair to conclude from this discussion that what psychiatrists have discovered is not a biological treatment for mental illness, but a pharmacological technique for regulating the metabolism of dopamine and, thereby, levels of neurological excitation and depression? I would like to hear Oliver Sacks's opinion on this subject as well.

CONTINUITIES AND DISCONTINUITIES IN THE NEUROLOGY OF MIND

A neurology of identity, or a neurology of mental illness, needs to take into account Foucault's (1954) view that there are two perspectives on mental illness: the discontinuous view and the continuous view. The discontinuous view holds that mental illness is a state that is distinctly different from mental health. They are as different as a healthy lung and a lung infected with pneumonia. In this view, normal mind and behavior consist of signification, meaning, and drama, whereas abnormal mind and behavior have the characteristics of tics, agnosias, and hypermnesias.

The continuous view holds that mental health and mental illness exist on a continuum. Freud was an adherent of this view. In *Psychopathology of Everyday Life* (1971), he demonstrated that normal idiosyncrasies may have the same meaning as the primary process of dreams and psychosis. In this view, normal and abnormal manifestations of self do not have the logical status of neurological symptoms, but of narratives, tales, stories, and life dramas, in which self is created in the dialectic with others.

The relationship between brain and mind also reflects continuities and discontinuities. The brain is continuous with mind in the sense that normal brains generate normal psychophysi-

cal programs for sensation, cognition, memory, will, and emotion. Diseased brains, as Sacks has amply illustrated in his book, generate defective programs replete with deficits and excesses, including excessive or deficient neurological excitement.

The brain is discontinuous with mind, or self, in the sense that brain and self exist in separate arenas of discourse. The discourse of brain physiology is conducted under the rules of scientific method, which depersonalize both the observer and the observed. The discourse of self, on the other hand, animates or spiritualizes both the brain and the cosmos.

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