Marcia Angell
Marcia Angell is a Senior Lecturer in Social Medicine at Harvard Medical School and former Editor in Chief of The New England Journal of Medicine. Her latest book is The Truth About the Drug Companies: How They Deceive Us and What to Do About It. Part I of her article in this issue appeared in the June 23 issue with the title “The Epidemic of Mental Illness: Why?” (July 2011)

In my article in the last issue, I focused mainly on the recent books by psychologist Irving Kirsch and journalist Robert Whitaker, and what they tell us about the epidemic of mental illness and the drugs used to treat it. Here I discuss the American Psychiatric Association’s Diagnostic and Statistical Manual of Mental Disorders (DSM)—often referred to as the bible of psychiatry, and now heading for its fifth edition—and its extraordinary influence within American society. I also examine Unhinged, the recent book by Daniel Carlat, a psychiatrist, who provides a disillusioned insider’s view of the psychiatric profession. And I discuss the widespread use of psychoactive drugs in children, and the baleful influence of the pharmaceutical industry on the practice of psychiatry.

One of the leaders of modern psychiatry, Leon Eisenberg, a professor at Johns Hopkins and then Harvard Medical School, who was among the first to study the effects of stimulants on attention deficit disorder in children, wrote that American psychiatry in the late twentieth century moved from a state of “brainlessness” to one of “mindlessness.” By that he meant that before psychoactive drugs (drugs that affect the mental state) were introduced, the profession had little interest in neurotransmitters or any other aspect of the physical brain. Instead, it subscribed to the Freudian view that mental illness had its roots in unconscious conflicts, usually originating in childhood, that affected the mind as though it were separate from the brain.

But with the introduction of psychoactive drugs in the 1950s, and sharply accelerating in the 1980s, the focus shifted to the brain. Psychiatrists began to refer to themselves as psychopharmacologists, and they had less and less interest in exploring the life stories of their patients. Their main concern was to eliminate or reduce symptoms by treating sufferers with drugs that would alter brain function. An early advocate of this biological model of mental illness, Eisenberg in his later years became an outspoken critic of what he saw as the indiscriminate use of psychoactive drugs, driven largely by the machinations of the pharmaceutical industry.

When psychoactive drugs were first introduced, there was a brief period of optimism in the psychiatric profession, but by the 1970s, optimism gave way to a sense of threat. Serious side effects of the drugs were becoming apparent,
and an antipsychiatry movement had taken root, as exemplified by the writings of Thomas Szasz and the movie One 
Flew Over the Cuckoo’s Nest. There was also growing competition for patients from psychologists and social 
workers. In addition, psychiatrists were plagued by internal divisions: some embraced the new biological model, 
some still clung to the Freudian model, and a few saw mental illness as an essentially sane response to an insane 
world. Moreover, within the larger medical profession, psychiatrists were regarded as something like poor relations; 
even with their new drugs, they were seen as less scientific than other specialists, and their income was generally 
lower.

In the late 1970s, the psychiatric profession struck back—hard. As Robert Whitaker tells it in Anatomy of an 
Epidemic, the medical director of the American Psychiatric Association (APA), Melvin Sabshin, declared in 1977 
that “a vigorous effort to remedicalize psychiatry should be strongly supported,” and he launched an all-out media 
and public relations campaign to do exactly that. Psychiatry had a powerful weapon that its competitors lacked. 
Since psychiatrists must qualify as MDs, they have the legal authority to write prescriptions. By fully embracing the 
biological model of mental illness and the use of psychoactive drugs to treat it, psychiatry was able to relegate other 
mental health care providers to ancillary positions and also to identify itself as a scientific discipline along with the 
rest of the medical profession. Most important, by emphasizing drug treatment, psychiatry became the darling of the 
pharmaceutical industry, which soon made its gratitude tangible.

These efforts to enhance the status of psychiatry were undertaken deliberately. The APA was then working on the 
third edition of the DSM, which provides diagnostic criteria for all mental disorders. The president of the APA had 
appointed Robert Spitzer, a much-admired professor of psychiatry at Columbia University, to head the task force 
overseeing the project. The first two editions, published in 1952 and 1968, reflected the Freudian view of mental 
illness and were little known outside the profession. Spitzer set out to make the DSM-III something quite different. 
He promised that it would be “a defense of the medical model as applied to psychiatric problems,” and the president 
of the APA in 1977, Jack Weinberg, said it would “clarify to anyone who may be in doubt that we regard psychiatry 
as a specialty of medicine.”

When Spitzer’s DSM-III was published in 1980, it contained 265 diagnoses (up from 182 in the previous edition), 
and it came into nearly universal use, not only by psychiatrists, but by insurance companies, hospitals, courts, 
prisons, schools, researchers, government agencies, and the rest of the medical profession. Its main goal was to bring 
consistency (usually referred to as “reliability”) to psychiatric diagnosis, that is, to ensure that psychiatrists who saw 
the same patient would agree on the diagnosis. To do that, each diagnosis was defined by a list of symptoms, with 
numerical thresholds. For example, having at least five of nine particular symptoms got you a full-fledged diagnosis 
of a major depressive episode within the broad category of “mood disorders.” But there was another goal—to justify 
the use of psychoactive drugs. The president of the APA last year, Carol Bernstein, in effect acknowledged that. “It
became necessary in the 1970s,” she wrote, “to facilitate diagnostic agreement among clinicians, scientists, and regulatory authorities given the need to match patients with newly emerging pharmacologic treatments.”

The DSM-III was almost certainly more “reliable” than the earlier versions, but reliability is not the same thing as validity. Reliability, as I have noted, is used to mean consistency; validity refers to correctness or soundness. If nearly all physicians agreed that freckles were a sign of cancer, the diagnosis would be “reliable,” but not valid. The problem with the DSM is that in all of its editions, it has simply reflected the opinions of its writers, and in the case of the DSM-III mainly of Spitzer himself, who has been justly called one of the most influential psychiatrists of the twentieth century. In his words, he “picked everybody that [he] was comfortable with” to serve with him on the fifteen-member task force, and there were complaints that he called too few meetings and generally ran the process in a haphazard but high-handed manner. Spitzer said in a 1989 interview, “I could just get my way by sweet talking and whatnot.” In a 1984 article entitled “The Disadvantages of DSM-III Outweigh Its Advantages,” George Vaillant, a professor of psychiatry at Harvard Medical School, wrote that the DSM-III represented “a bold series of choices based on guess, taste, prejudice, and hope,” which seems to be a fair description.

Not only did the DSM become the bible of psychiatry, but like the real Bible, it depended a lot on something akin to revelation. There are no citations of scientific studies to support its decisions. That is an astonishing omission, because in all medical publications, whether journal articles or textbooks, statements of fact are supposed to be supported by citations of published scientific studies. (There are four separate “sourcebooks” for the current edition of the DSM that present the rationale for some decisions, along with references, but that is not the same thing as specific references.) It may be of much interest for a group of experts to get together and offer their opinions, but unless these opinions can be buttressed by evidence, they do not warrant the extraordinary deference shown to the DSM. The DSM-III was supplanted by the DSM-III-R in 1987, the DSM-IV in 1994, and the current version, the DSM-IV-TR (text revised) in 2000, which contains 365 diagnoses. “With each subsequent edition,” writes Daniel Carlat in his absorbing book, “the number of diagnostic categories multiplied, and the books became larger and more expensive. Each became a best seller for the APA, and DSM is now one of the major sources of income for the organization.” The DSM-IV sold over a million copies.

As psychiatry became a drug-intensive specialty, the pharmaceutical industry was quick to see the advantages of forming an alliance with the psychiatric profession. Drug companies began to lavish attention and largesse on psychiatrists, both individually and collectively, directly and indirectly. They showered gifts and free samples on practicing psychiatrists, hired them as consultants and speakers, bought them meals, helped pay for them to attend conferences, and supplied them with “educational” materials. When Minnesota and Vermont implemented “sunshine laws” that require drug companies to report all payments to doctors, psychiatrists were found to receive more money than physicians in any other specialty. The pharmaceutical industry also subsidizes meetings of the APA and other psychiatric conferences. About a fifth of APA funding now comes from drug companies.
Drug companies are particularly eager to win over faculty psychiatrists at prestigious academic medical centers. Called “key opinion leaders” (KOLs) by the industry, these are the people who through their writing and teaching influence how mental illness will be diagnosed and treated. They also publish much of the clinical research on drugs and, most importantly, largely determine the content of the DSM. In a sense, they are the best sales force the industry could have, and are worth every cent spent on them. Of the 170 contributors to the current version of the DSM (the DSM-IV-TR), almost all of whom would be described as KOLs, ninety-five had financial ties to drug companies, including all of the contributors to the sections on mood disorders and schizophrenia.

The drug industry, of course, supports other specialists and professional societies, too, but Carlat asks, “Why do psychiatrists consistently lead the pack of specialties when it comes to taking money from drug companies?” His answer: “Our diagnoses are subjective and expandable, and we have few rational reasons for choosing one treatment over another.” Unlike the conditions treated in most other branches of medicine, there are no objective signs or tests for mental illness—no lab data or MRI findings—and the boundaries between normal and abnormal are often unclear. That makes it possible to expand diagnostic boundaries or even create new diagnoses, in ways that would be impossible, say, in a field like cardiology. And drug companies have every interest in inducing psychiatrists to do just that.

In addition to the money spent on the psychiatric profession directly, drug companies heavily support many related patient advocacy groups and educational organizations. Whitaker writes that in the first quarter of 2009 alone, Eli Lilly gave $551,000 to NAMI [National Alliance on Mental Illness] and its local chapters, $465,000 to the National Mental Health Association, $130,000 to CHADD (an ADHD [attention deficit/hyperactivity disorder] patient-advocacy group), and $69,250 to the American Foundation for Suicide Prevention.

And that’s just one company in three months; one can imagine what the yearly total would be from all companies that make psychoactive drugs. These groups ostensibly exist to raise public awareness of psychiatric disorders, but they also have the effect of promoting the use of psychoactive drugs and influencing insurers to cover them. Whitaker summarizes the growth of industry influence after the publication of the DSM-III as follows:

In short, a powerful quartet of voices came together during the 1980’s eager to inform the public that mental disorders were brain diseases. Pharmaceutical companies provided the financial muscle. The APA and psychiatrists at top medical schools conferred intellectual legitimacy upon the enterprise. The NIMH [National Institute of Mental Health] put the government’s stamp of approval on the story. NAMI provided a moral authority.

Like most other psychiatrists, Carlat treats his patients only with drugs, not talk therapy, and he is candid about the advantages of doing so. If he sees three patients an hour for psychopharmacology, he calculates, he earns about $180 per hour from insurers. In contrast, he would be able to see only one patient an hour for talk therapy, for which
insurers would pay him less than $100. Carlat does not believe that psychopharmacology is particularly complicated, let alone precise, although the public is led to believe that it is:

Patients often view psychiatrists as wizards of neurotransmitters, who can choose just the right medication for whatever chemical imbalance is at play. This exaggerated conception of our capabilities has been encouraged by drug companies, by psychiatrists ourselves, and by our patients’ understandable hopes for cures.

His work consists of asking patients a series of questions about their symptoms to see whether they match up with any of the disorders in the DSM. This matching exercise, he writes, provides “the illusion that we understand our patients when all we are doing is assigning them labels.” Often patients meet criteria for more than one diagnosis, because there is overlap in symptoms. For example, difficulty concentrating is a criterion for more than one disorder. One of Carlat’s patients ended up with seven separate diagnoses. “We target discrete symptoms with treatments, and other drugs are piled on top to treat side effects.” A typical patient, he says, might be taking Celexa for depression, Ativan for anxiety, Ambien for insomnia, Provigil for fatigue (a side effect of Celexa), and Viagra for impotence (another side effect of Celexa).

As for the medications themselves, Carlat writes that “there are only a handful of umbrella categories of psychotropic drugs,” within which the drugs are not very different from one another. He doesn’t believe there is much basis for choosing among them. “To a remarkable degree, our choice of medications is subjective, even random. Perhaps your psychiatrist is in a Lexapro mood this morning, because he was just visited by an attractive Lexapro drug rep.” And he sums up:

Such is modern psychopharmacology. Guided purely by symptoms, we try different drugs, with no real conception of what we are trying to fix, or of how the drugs are working. I am perpetually astonished that we are so effective for so many patients.

While Carlat believes that psychoactive drugs are sometimes effective, his evidence is anecdotal. What he objects to is their overuse and what he calls the “frenzy of psychiatric diagnoses.” As he puts it, “if you ask any psychiatrist in clinical practice, including me, whether antidepressants work for their patients, you will hear an unambiguous ‘yes.’ We see people getting better all the time.” But then he goes on to speculate, like Irving Kirsch in The Emperor’s New Drugs, that what they are really responding to could be an activated placebo effect. If psychoactive drugs are not all they’re cracked up to be—and the evidence is that they’re not—what about the diagnoses themselves? As they multiply with each edition of the DSM, what are we to make of them?

In 1999, the APA began work on its fifth revision of the DSM, which is scheduled to be published in 2013. The twenty-seven-member task force is headed by David Kupfer, a professor of psychiatry at the University of Pittsburgh, assisted by Darrel Regier of the APA’s American Psychiatric Institute for Research and Education. As
with the earlier editions, the task force is advised by multiple work groups, which now total some 140 members, corresponding to the major diagnostic categories. Ongoing deliberations and proposals have been extensively reported on the APA website (www.DSM5.org) and in the media, and it appears that the already very large constellation of mental disorders will grow still larger.

In particular, diagnostic boundaries will be broadened to include precursors of disorders, such as “psychosis risk syndrome” and “mild cognitive impairment” (possible early Alzheimer’s disease). The term “spectrum” is used to widen categories, for example, “obsessive-compulsive disorder spectrum,” “schizophrenia spectrum disorder,” and “autism spectrum disorder.” And there are proposals for entirely new entries, such as “hypersexual disorder,” “restless legs syndrome,” and “binge eating.”

Even Allen Frances, chairman of the DSM-IV task force, is highly critical of the expansion of diagnoses in the DSM-V. In the June 26, 2009, issue of Psychiatric Times, he wrote that the DSM-V will be a “bonanza for the pharmaceutical industry but at a huge cost to the new false positive patients caught in the excessively wide DSM-V net.” As if to underscore that judgment, Kupfer and Regier wrote in a recent article in the Journal of the American Medical Association (JAMA), entitled “Why All of Medicine Should Care About DSM-5,” that “in primary care settings, approximately 30 percent to 50 percent of patients have prominent mental health symptoms or identifiable mental disorders, which have significant adverse consequences if left untreated.”

It looks as though it will be harder and harder to be normal.

At the end of the article by Kupfer and Regier is a small-print “financial disclosure” that reads in part:

Prior to being appointed as chair, DSM-5 Task Force, Dr. Kupfer reports having served on advisory boards for Eli Lilly & Co, Forest Pharmaceuticals Inc, Solvay/Wyeth Pharmaceuticals, and Johnson & Johnson; and consulting for Servier and Lundbeck.

Regier oversees all industry-sponsored research grants for the APA. The DSM-V (used interchangeably with DSM-5) is the first edition to establish rules to limit financial conflicts of interest in members of the task force and work groups. According to these rules, once members were appointed, which occurred in 2006–2008, they could receive no more than $10,000 per year in aggregate from drug companies or own more than $50,000 in company stock. The website shows their company ties for three years before their appointments, and that is what Kupfer disclosed in the JAMA article and what is shown on the APA website, where 56 percent of members of the work groups disclosed significant industry interests.
The pharmaceutical industry influences psychiatrists to prescribe psychoactive drugs even for categories of patients in whom the drugs have not been found safe and effective. What should be of greatest concern for Americans is the astonishing rise in the diagnosis and treatment of mental illness in children, sometimes as young as two years old. These children are often treated with drugs that were never approved by the FDA for use in this age group and have serious side effects. The apparent prevalence of “juvenile bipolar disorder” jumped forty-fold between 1993 and 2004, and that of “autism” increased from one in five hundred children to one in ninety over the same decade. Ten percent of ten-year-old boys now take daily stimulants for ADHD—“attention deficit/hyperactivity disorder”—and 500,000 children take antipsychotic drugs.

There seem to be fashions in childhood psychiatric diagnoses, with one disorder giving way to the next. At first, ADHD, manifested by hyperactivity, inattentiveness, and impulsivity usually in school-age children, was the fastest-growing diagnosis. But in the mid-1990s, two highly influential psychiatrists at the Massachusetts General Hospital proposed that many children with ADHD really had bipolar disorder that could sometimes be diagnosed as early as infancy. They proposed that the manic episodes characteristic of bipolar disorder in adults might be manifested in children as irritability. That gave rise to a flood of diagnoses of juvenile bipolar disorder. Eventually this created something of a backlash, and the DSM-V now proposes partly to replace the diagnosis with a brand-new one, called “temper dysregulation disorder with dysphoria,” or TDD, which Allen Frances calls “a new monster.”

One would be hard pressed to find a two-year-old who is not sometimes irritable, a boy in fifth grade who is not sometimes inattentive, or a girl in middle school who is not anxious. (Imagine what taking a drug that causes obesity would do to such a girl.) Whether such children are labeled as having a mental disorder and treated with prescription drugs depends a lot on who they are and the pressures their parents face. As low-income families experience
growing economic hardship, many are finding that applying for Supplemental Security Income (SSI) payments on the basis of mental disability is the only way to survive. It is more generous than welfare, and it virtually ensures that the family will also qualify for Medicaid. According to MIT economics professor David Autor, “This has become the new welfare.” Hospitals and state welfare agencies also have incentives to encourage uninsured families to apply for SSI payments, since hospitals will get paid and states will save money by shifting welfare costs to the federal government.

Growing numbers of for-profit firms specialize in helping poor families apply for SSI benefits. But to qualify nearly always requires that applicants, including children, be taking psychoactive drugs. According to a *New York Times* story, a Rutgers University study found that children from low-income families are four times as likely as privately insured children to receive antipsychotic medicines.

In December 2006 a four-year-old child named Rebecca Riley died in a small town near Boston from a combination of Clonidine and Depakote, which she had been prescribed, along with Seroquel, to treat “ADHD” and “bipolar disorder”—diagnoses she received when she was two years old. Clonidine was approved by the FDA for treating high blood pressure. Depakote was approved for treating epilepsy and acute mania in bipolar disorder. Seroquel was approved for treating schizophrenia and acute mania. None of the three was approved to treat ADHD or for long-term use in bipolar disorder, and none was approved for children Rebecca’s age. Rebecca’s two older siblings had been given the same diagnoses and were each taking three psychoactive drugs. The parents had obtained SSI benefits for the siblings and for themselves, and were applying for benefits for Rebecca when she died. The family’s total income from SSI was about $30,000 per year.

Whether these drugs should ever have been prescribed for Rebecca in the first place is the crucial question. The FDA approves drugs only for specified uses, and it is illegal for companies to market them for any other purpose—that is, “off-label.” Nevertheless, physicians are permitted to prescribe drugs for any reason they choose, and one of the most lucrative things drug companies can do is persuade physicians to prescribe drugs off-label, despite the law against it. In just the past four years, five firms have admitted to federal charges of illegally marketing psychoactive drugs. AstraZeneca marketed Seroquel off-label for children and the elderly (another vulnerable population, often administered antipsychotics in nursing homes); Pfizer faced similar charges for Geodon (an antipsychotic); Eli Lilly for Zyprexa (an antipsychotic); Bristol-Myers Squibb for Abilify (another antipsychotic); and Forest Labs for Celexa (an antidepressant).

Despite having to pay hundreds of millions of dollars to settle the charges, the companies have probably come out well ahead. The original purpose of permitting doctors to prescribe drugs off-label was to enable them to treat patients on the basis of early scientific reports, without having to wait for FDA approval. But that sensible rationale has become a marketing tool. Because of the subjective nature of psychiatric diagnosis, the ease with which diagnostic boundaries can be expanded, the seriousness of the side effects of psychoactive drugs, and the pervasive...
influence of their manufacturers, I believe doctors should be prohibited from prescribing psychoactive drugs off-label, just as companies are prohibited from marketing them off-label.

The books by Irving Kirsch, Robert Whitaker, and Daniel Carlat are powerful indictments of the way psychiatry is now practiced. They document the “frenzy” of diagnosis, the overuse of drugs with sometimes devastating side effects, and widespread conflicts of interest. Critics of these books might argue, as Nancy Andreasen implied in her paper on the loss of brain tissue with long-term antipsychotic treatment, that the side effects are the price that must be paid to relieve the suffering caused by mental illness. If we knew that the benefits of psychoactive drugs outweighed their harms, that would be a strong argument, since there is no doubt that many people suffer grievously from mental illness. But as Kirsch, Whitaker, and Carlat argue convincingly, that expectation may be wrong.

At the very least, we need to stop thinking of psychoactive drugs as the best, and often the only, treatment for mental illness or emotional distress. Both psychotherapy and exercise have been shown to be as effective as drugs for depression, and their effects are longer-lasting, but unfortunately, there is no industry to push these alternatives and Americans have come to believe that pills must be more potent. More research is needed to study alternatives to psychoactive drugs, and the results should be included in medical education.

In particular, we need to rethink the care of troubled children. Here the problem is often troubled families in troubled circumstances. Treatment directed at these environmental conditions—such as one-on-one tutoring to help parents cope or after-school centers for the children—should be studied and compared with drug treatment. In the long run, such alternatives would probably be less expensive. Our reliance on psychoactive drugs, seemingly for all of life’s discontents, tends to close off other options. In view of the risks and questionable long-term effectiveness of drugs, we need to do better. Above all, we should remember the time-honored medical dictum: first, do no harm (primum non nocere).

—This is the second part of a two-part article.

LETTERS

*The Illusions of Psychiatry*: An Exchange August 18, 2011


2. Eisenberg wrote about this transition in "Mindlessness and Brainlessness," *British Journal of Psychiatry*, No. 148 (1986). His last paper, completed by his stepson, was published after his death in 2009. See Eisenberg and

4. The history of the DSM is recounted in Christopher Lane's informative book *Shyness: How Normal Behavior Became a Sickness* (Yale University Press, 2007). Lane was given access to the American Psychiatric Association's archive of unpublished letters, transcripts, and memoranda, and he also interviewed Robert Spitzer. His book was reviewed by Frederick Crews in *The New York Review*, December 6, 2007, and by me, January 15, 2009.


