Shrink wrapping
A single book has come to dominate psychiatry. That is dangerous

THE human brain is the most complex object in the known universe. It contains 100 billion nerve cells. Considering how complex that is, it goes wrong remarkably rarely.
But go wrong it sometimes does. Which is why, since 1952, the American Psychiatric Association has published its “Diagnostic and Statistical Manual of Mental Disorders”, the DSM. This book, the newest version of which will hit the shops on May 22nd (see article), contains the association’s thinking on what constitutes a disorder of the mind. It is consulted not only by psychiatrists, but also by insurance firms, drug companies and anxious patients and parents—not only in America, but around the world. It has become the industry standard for defining what is and is not a mental illness, and thus who gets treated, and who pays for treatment.
No other major branch of medicine has such a single text, with so much power over people’s lives. And that is worrying. Because in no other branch of medicine is the scientific reality underpinning the pronouncements of doctors so uncertain.

The categorical imperative
This uncertainty flows from a profound ignorance about how brains actually work. Neuroscientists understand how nerve cells work. They also know which bits of the brain deal with vision, locomotion, language, memory and suchlike. But between these two anatomical levels all is darkness. Psychiatrists have thus had to use behaviour patterns as proxies for underlying problems. And what constitutes a pattern is too often a matter of opinion rather than a statistically rigorous fact.
It is this desire to find and classify patterns which gives the DSM its power. By naming things it gives shape to the fledgling science. That is not a bad thing in principle. But in practice it has gone too far. The main criticisms are that it medicalises normal behaviour and that the strict categories of mental illness it creates are increasingly at odds with what research suggests is actually going on in the brain.
Both criticisms are ultimately about names. The DSM gives names like “disruptive mood dysregulation disorder” to temper tantrums in children and “binge eating disorder” to those who tend to overeat. If these were mere labels, perhaps it would not matter (though in the area of mental health even a label can be damning). But diagnosis frequently leads to prescription, and lots of pills are thus being popped by people whose need to take them is, to say the least, questionable.
The way the DSM classifies those who unquestionably are ill is also under attack. Schizophrenia, major depression and some forms of autism are disabling conditions that have long been considered separate diseases. But modern techniques of gene analysis and brain scanning are leading some researchers to wonder whether they really can be distinguished in the way that, say, various forms of leukaemia can be differentiated—for their biological underpinnings seem to overlap. Without a proper diagnosis, proper treatment is hard.
Veneration of the DSM is also harmful in research. Thomas Insel, the head of America’s National Institute of Mental Health, has publicly encouraged scientists not to be constrained by its approach, lest it prevent them finding diagnoses and treatments. In terms of diagnosis, a few psychiatrists (including those who conducted the genetics and brain-scanning studies) now publicly point to the DSM’s deficiencies; yet the DSM’s definitions and certainties are too deeply ingrained for this criticism to have hit home. The full consequences of that will not be obvious for a long time. But the current over-reliance on one point of view in this extremely uncertain science is healthy neither for psychiatry, nor for those it treats.
DSM-5
By the book
The American Psychiatric Association’s latest diagnostic manual remains a flawed attempt to categorise mental illness

A BOOK with the title “Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition” does not sound destined to be a bestseller, particularly at $199 a pop. But DSM-5, as it is known for short, is almost certain to become one. Its predecessor, DSM-IV, which was published in 1994, has sold more than 1m copies. DSM-5, which will go on sale on May 22nd, is likely to do at least as well.

The reason is that the DSM series, which is published by the American Psychiatric Association (APA), has become the global standard for the description of mental illness. Indeed, the DSM is treated by many people less as a medical handbook and more as holy writ. Insurers use it to decide whether or not to cover ailments. And diagnoses based on it determine whether people get special services at school; whether they qualify for disability benefits; whether they are stigmatised in their careers; even whether they are able to adopt children. Doctors, patients, drug companies and insurers have all thus been waiting for the latest edition of what has become known as the psychiatric bible.

The DSM's purpose is to set strict criteria for identifying mental disorders. This is supposed to make diagnoses more reliable: a laudable aim. To that end, more than 1,500 experts have spent over a decade labouring. In doing so, though, they have succeeded in adding to, rather than subtracting from, criticism that the DSM has become a monster. In the eyes of many critics it is a vehicle for misdiagnosis, overdiagnosis, the medicalisation of normal behaviour and the prescription of a large number of unnecessary drugs.

Chapter and verse
The DSM, the first version of which was published in 1952, has always attracted controversy. That version, and the second edition, published in 1968, relied on the premise that mental illness was a neurotic response to a patient’s experience and environment. People with the same symptoms could therefore receive wildly different diagnoses. Different interpretations of experience and environment also meant that cultural differences affected diagnosis. In 1971 Robert Kendell demonstrated this by showing that, faced with the same patients, American psychiatrists were much more likely to diagnose them as schizophrenic than were British psychiatrists.

The third DSM, published in 1980, introduced a new approach—also followed in the fourth in 1994. DSM-III acknowledged that psychiatrists had a poor understanding of the physiological cause of mental illness. Instead specific, observed symptoms became the diagnostic criteria, and clusters of them, known medically as syndromes, that appeared to coexist in individual patients were given labels. The hope was that biological markers of such syndromes would be discovered as physiological understanding increased.

This was a reasonable approach in principle. In practice, though, the lines dividing different disorders are blurry. The symptoms used to define them often do not cluster neatly in the way that those of true syndromes would, and the statistical evidence for their existence is sometimes sparse. Nor, in most cases, have the hoped-for biological markers turned up—and to the extent that they have, they have muddied the waters, rather than clarifying them. The biggest muddying have come from brain scanning and genetics. Most psychiatrists, even those sceptical of the DSM’s approach, would accept the idea that things like autism, major depression and schizophrenia are different
from each other. However, a study published this year by a group called the Psychiatric Genomics Consortium, which has looked for links between genetic variations and psychiatric disorders in tens of thousands of patients, has found that variations in four places were common to people diagnosed, using the DSM’s criteria, with attention deficit hyperactivity disorder (ADHD), autism, bipolar disorder, major depression and schizophrenia. Likewise, a series of papers over the past decade have shown similar abnormal activation of part of the brain called the amygdala in people diagnosed with anxiety, major depression and post-traumatic stress disorder.

Such results suggest that the DSM’s approach of placing patients in diagnostic silos is questionable. As Dan Blazer of Duke University, who served on DSM-5’s task-force, puts it, “We’re basically drawing artificial lines, and the body and the mind do not work like that.”

The new DSM aspires to include objective criteria in its manual. It also seeks to scrap nonsensical, strict lines between certain disorders. It has, for example, chunked together four previously separate diagnoses, including autism and Asperger’s syndrome, into one disorder of varying severity, known as “autism spectrum disorder”. In this, it is following clinical practice, for the idea of an autistic spectrum has been around for a long time. And the unfortunate truth is that it is still far too early to use biological markers as criteria for diagnosis. “The human brain is the most impossibly complex thing in the universe,” says Allen Frances, who led the development of DSM-IV. “It does not yield its secrets easily.”

Worse, argues Dr Frances, DSM-5 has not stopped the rise in the number of allegedly recognisable and nameable mental conditions, many of which annex into psychiatry things that the man in the street would think normal, if not always desirable, behaviour. Children may now, for example, be diagnosed with “disruptive mood dysregulation disorder”—what used to be known as temper tantrums. Past versions of the DSM stipulated that those mourning a death should not be classified as depressed. DSM-5 scraps this “bereavement exclusion”. It also includes a new binge-eating disorder, defined as eating to excess at least once a week over the previous three months. Such a diagnosis covers millions of Americans, roping in people who would not remotely consider that they were mentally ill. DSM-5 does not, after some debate among those who put it together, make addiction to internet gaming a formal disorder. But it recommends further research into the “condition”.

Grief. Indulgence. Unhealthy habits. All, it seems, may be classified as mental derangement, and treated as such. And the sets of symptoms described by the DSM are often common. More than one American child in ten has been diagnosed, using the DSM’s definition, with ADHD—and about two-thirds of those so diagnosed are now prescribed drugs.

It is this overdiagnosis and overtreatment that is the chief criticism of the DSM—or, rather, of the power it wields in the profession of psychiatry. That power, however, may be waning.

Literary criticism

DSM categories have long been used in research. That is changing. Other areas of medicine, cancer in particular, have been transformed by better understanding of the biological drivers of disease. America’s National Institute of Mental Health (NIMH) hopes that will transform psychiatry, too. The NIMH seeks to use genetics, imaging and cognitive science to create new diagnostic criteria. Thomas Insel, the NIMH’s director, has specifically implored researchers not to be confined by DSM-5’s strict rules. Abiding by DSM categories may prevent scientists from understanding the underlying causes of sickness.

Still, objective laboratory measures for mental illness are a long way off. The APA says DSM-5 will be continuously updated to respond to new discoveries. For now, however, patients’ treatment will be guided by the imperfect manual. “The DSM is purely a product of the state of our knowledge at this point in time,” says Jeffrey Lieberman, the chairman of Columbia University’s psychiatry department and president-elect of the APA. “The state of our knowledge is not complete.”