

► volume about Aristotle's *Metaphysics* by the philosopher al-Fārābī. Ibn Sīnā later wrote many great works, including one of the most influential natural-science texts of the central Middle Ages, *De Visu* (*Optics*). This was translated into Latin in mid-twelfth century Toledo, Spain, by the Jewish philosopher Abraham ibn Daud and Dominicus Gundisalvi.

Linguistic unification by the Arabs meant that the flourishing of science and philosophy under Islam took place almost entirely in Arabic, as Starr suggests. Unfortunately, Starr uses his coinage “Persianate” throughout to refer specifically to the non-Persian peoples of Central Asia, making it sound as if the entire area was somehow “Persian” in language and culture. It was not. Persians, from what is now Iran, were conspicuously absent until the golden age was largely over, as Starr notes.

By calling his book *Lost Enlightenment*, Starr courageously rejects claims that there was no decline of Islamic civilization. He does, however, ignore recent work that explodes myths about Eurasian steppe peoples being aggressors, and even obliquely suggests that Chinggis Khan “attempted genocide” of Central Asians. Nevertheless, Starr firmly rejects the theory that the Mongols triggered the intellectual collapse. That, he writes, had happened a century before the Mongol conquest; at that time, taxes and trade were still “pouring gold into the coffers” of Central Asian rulers, who simply stopped using the money to support intellectual life. And after losing a great war — the Mongol ‘invasion’ (which historical sources agree the Khwarizmians started) — they failed to completely rebuild.

Starr shines in his core chapters, where he presents the great achievements of the Central Asian philosopher-scientists at a time when their homeland was the creative intellectual capital of the world. ■

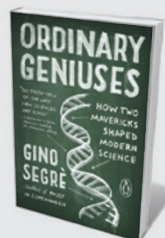
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## PSYCHIATRY

# America the traumatized

**Andrea Tone** assesses a history of the mass release of US psychiatric patients into an uncertain future.



## Ordinary Geniuses: How Two Mavericks Shaped Modern Science

Gino Segre (Penguin, 2013)

In these intertwined stories of cosmologist George Gamow and biologist Max Delbrück, we see how Gamow explained the creation of hydrogen and helium in the Big Bang, and Delbrück's study of bacterial viruses opened a new approach to genetics.



## Memory: Fragments of a Modern History

Alison Winter (University of Chicago Press, 2013)

A subtly nuanced cultural and scientific history of our ‘recording mechanism’. Alison Winter reveals how memory has been tested variously in ‘labs’ like the courtroom, where phenomena such as false-memory syndrome have emerged. (See Barbara Kiser's review: *Nature* **479**, 475; 2011.)

In *American Psychosis*, E. Fuller Torrey turns to the past to determine why the United States has failed to care for the seriously mentally ill since de-institutionalization began in the mid-1950s. Between 1955 and 1969 alone, more than 220,000 patients were discharged from public psychiatric asylums. The scale of the problem this process has unfurled is visible today in parks, subway stations and emergency rooms where the under- and untreated go, partly because there are no other places for them. This serious issue deserves a one-two punch of compassion and political action.

Torrey, a psychiatrist, focuses on the federalization of mental-health care that began after the Second World War, when the National Institute of Mental Health was established (in 1946), federal grants were given to advance neuropsychiatric research, and outpatient community health centres were set up through the Community Mental Health Act of 1963. The number of beds in state-run institutions decreased as new medications, such as chlorpromazine (which contained the symptoms of illnesses such as schizophrenia), became available, and as families, politicians and activists sought to support patients outside the asylum. Torrey contends that this shift continues to fail psychiatric patients and that the state 'system' that federalization ostensibly usurped would have done better. He also argues that the Kennedy family, which has produced so many prominent US politicians, had a key role in this story.

Torrey begins his tendentious tale with Joseph P. Kennedy (1888–1969), businessman, social climber, diplomat and head of the clan. Torrey pinpoints what he regards as Kennedy's most serious failing: the decision to lobotomize his daughter Rosemary in 1941, after what was referred to as mild retardation became a major psychiatric disorder. According to Torrey, "mental retardation had been a family disgrace, but mental illness would be a debacle".

The result of that decision, Torrey argues, was a disaster for the future of the nation's mentally ill, not just for Rosemary. As he sees it, guilt over her lobotomy set the agenda of the family's political legacy, becoming "a family sin that demanded expiation". Decades later, in 1963, Joseph's son, President

John F. Kennedy, signed legislation to continue federalization with the establishment of publicly funded community mental-health centres. According to Torrey, by the end of 1976, 548 centres were running and almost 200 more had been funded. These, Kennedy stated in a speech to Congress, would spare the mentally ill the "cold mercy of custodial isolation" in state asylums. Torrey, however, avers that the centres were a flawed approach, based on the belief that serious psychiatric illnesses could be prevented or managed in outpatient centres.

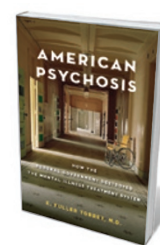
I disagree with much of this argument. First, the United States never had what Torrey refers to as a singular mental-illness treatment system. In the 1940s, it was just a maze of unevenly funded state public asylums. Their overcrowding, understaffing and often filthy conditions, and their cost to taxpayers drew public criticism and provided the impetus for political reform.

As historians have shown, lobotomies were a treatment of last resort, propelled by therapeutic nihilism, abominable conditions and the hope invested in new, radical, therapies. Fear that admission into a state institution might portend a life sentence of custodial care prompted families to authorize at least 20,000 lobotomies in the United

## LOBOTOMIES WERE A TREATMENT OF LAST RESORT.

States between 1936 and the mid-1950s. To assert, as Torrey does, that if the federal government had not become involved, state hospitals would perhaps have provided something better, romanticizes what did not happen, while discounting the disturbing history that prompted federal intervention.

Also missing is a discussion of the influence of private hospitals on the demographics of psychiatric treatment since the mid-1950s. The affluent can access the best treatment; the poor are denied it. And by the 1960s and 1970s, as Jonathan Metzl's book, *The Protest Psychosis* (Beacon Press, 2010) shows, public



**American Psychosis: How the Federal Government Destroyed the Mental Illness Treatment System**  
E. FULLER TORREY  
Oxford University Press: 2013.

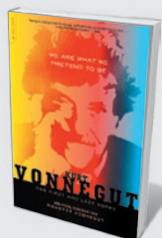
psychiatric hospitals were not a panacea, especially for African-American male patients, who came to represent a majority in many hospitals and whose treatment reflected racist views. Torrey also fails to discuss how the advent in the 1970s of private health plans provided by health maintenance organizations (HMOs) further impeded access to quality psychiatric care by offering financial incentives

to primary physicians to reduce referrals to specialists. HMOs and programmes to reduce health costs cemented a pattern that began in the 1950s. Now, increasingly, GPs make most front-line psychiatric diagnoses.

Torrey also ignores how a seismic shift in emerging psychiatric disorders, such as social phobia, has restructured psychiatric care. As less serious mental-health disorders such as mild depression became the therapeutic domain of psychiatry, such outpatient treatment claimed a larger part of psychiatrists' time, leaving less time and fewer institutions for patients battling serious illnesses with different needs.

In my opinion, *American Psychosis* fails to deliver a compelling explanation for the United States' present predicament, bogged down as it is in a tangle of initiatives — community, state and federal, public and private, medical and non-medical — and people in need. The book is nonetheless timely. It reminds us of the urgency of this problem and the need for fresh solutions to galvanize change. As Torrey contends, like President Kennedy before him, the nation's sick and most vulnerable citizens deserve better. ■

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### We Are What We Pretend to Be: The First and Last Works

Kurt Vonnegut (Vanguard Press, 2013)  
The fiction of trained chemist Kurt Vonnegut touches on themes of societal ignorance and anti-authoritarianism. In this posthumous collection, Vonnegut's first and last pieces of fiction are pervaded by his trademark dark humour.



### The Techno-Human Condition

Braden R. Allenby and Daniel Sarewitz (The MIT Press, 2013)

Technology is progressing so rapidly that we may be unable to fully prepare for it. This insightful take on a tangled issue points to the looming possibility of technological evolution outpacing human intent.