

The road to speed



On Speed: The Many Lives of Amphetamine

Nicolas Rasmussen

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Reviewed by Margaret Gnegy

On Speed is as attention grabbing as any contemporary thriller: greed, politics, drugs and addiction fill the pages of Nicolas Rasmussen's historical account of the rise of amphetamine use in the United States and Britain. Unlike the author of a cheap thriller, however, Rasmussen writes with a confident voice and meticulous attention to detail. In describing the production and marketing of amphetamine, *On Speed* provides a cautionary tale of the rise and fall of a 'wonder drug' with a narrative that focuses on two interlocking issues: the public's desire for a magical (albeit pharmaceutical) cure for life's ills and the pharmaceutical industry's desire for a bigger profit margin.

On Speed takes us to the intersection of desire, product efficacy and public safety. Central to Rasmussen's account is the rise of Smith, Kline & French (now rolled into the pharmaceutical company GlaxoSmithKline) from its humble origins as a promoter of unregulated tonics to a powerful purveyor of modern medicine. The author presents a cogent argument that amphetamine provided a key vehicle for Smith, Kline & French to compete with larger companies and attain scientific credibility. This goal drove the company to actively promote amphetamine and its congeners and to strive to maintain high levels of consumption, despite reports that the drug was addictive and could bring about psychosis.

The book is organized into chapters that span the rise and marketing of the drug as an acceptable and desirable medicine through its devolution into a drug of abuse. Although Gordon Alles originally synthesized amphetamine salts in 1929 to serve as a derivative of adrenaline useful for treating asthma, the 'peppy' effects of the drug led to its marketing and use as a treatment for mild depression from the 1930s through the 1950s. When the patent ran out on one form of amphetamine, another form would be developed and marketed to take its place, such as the switch from Benzedrine (DL-amphetamine) to Dexedrine (D-amphetamine). In the context of drug policy in the 2000s, it is astonishing to learn that when the patent on Dexedrine was set to expire, an especially creative and disquieting drug was created, Dexamyl, which was very popular in the 1950 and 1960s. Dexamyl was a mixture of D-amphetamine and the barbiturate amobarbital; the barbiturate was

meant to counter the 'jittery' effects of the D-amphetamine, whereas the amphetamine was meant to counter the sleep-inducing effect of the barbiturate. Especially interesting was the gendered marketing of amphetamines. Advertisements promised that amphetamine could improve the lives of women, be they unhappy, unfulfilled housewives or mothers with postpartum depression, and make them thin at the same time. It was a win-win drug. Indeed, in the early 1960s, women were more likely than men to get a prescription for amphetamines per doctor visit.

Equally fascinating and timely is the chapter concerning the use of amphetamines in the military, which focuses on World War II. America, Britain and Germany dispensed amphetamines to their troops to combat fatigue, despite evidence that caffeine worked just as well. It has been calculated that 10–20 government-supplied amphetamine tablets were taken per year per American serving in combat for the years 1942–1945, whereas 30–40 tablets per serviceman were consumed per year in the Vietnam War. Rasmussen carefully describes scientific studies investigating the utility of amphetamine to combat physical exhaustion in the troops, to reduce the 'bends' or to improve performance in fighter pilots at high altitudes. Ultimately, the studies concluded that the performance-enhancing effects of amphetamine were primarily due to the subjective effects of the drug: it made the men try harder and feel better. Currently, history is repeating itself with a different slate of drugs—just as the term 'battle fatigue' has now given way to 'post-traumatic stress disorder', the troops are being treated with more modern drugs in lieu of amphetamines. *Time* magazine recently reported that authorized drug use in the US Army is roughly split 50:50 between selective serotonin reuptake inhibitors (Prozac and Zoloft) to treat depression and prescription sleeping pills such as Ambien. The bottom line remains the same: to improve the mood of the troops.

In the final chapters of the book, Rasmussen returns to the thesis introduced earlier—that we are a public who enthusiastically embraces a 'quick fix', and the pharmaceutical companies are only too happy to comply. He presents a strong case that doctors are overdiagnosing anxiety, depression and, especially, attention deficit disorders (often treated with amphetamines). His arguments, however, need to be tempered by the recognition that many who have these diseases find that the medications do, in fact, improve their lives. Nonetheless, as exemplified by amphetamine, many problems remain about prescribing drugs to treat psychiatric disease, and these issues might be rectified if there were full disclosure and dissemination of information describing the side effects and efficacy of drugs. Although randomized clinical trials, as discussed by Rasmussen, are an important way to establish the relative efficacy of a drug, those showing negative results are not always published. The rise and fall of the Cox-2 inhibitors (for example, Vioxx) are being played out in courtrooms today, with accusations that the drug companies did not reveal known problems with the drugs. In fact, the entire book gives one a strong feeling of *déjà vu* as one reads contemporary newspapers and journals about current drug marketing and use.

In summary, Rasmussen deserves applause for providing a well-considered history and critique of amphetamine's development and role in contemporary medicine. Armed with this knowledge, it will be intriguing to observe the rise and fall of new blockbuster drugs, as history continues to repeat itself.

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