"Medication Nation"

By Philip Alcabes from *The American Scholar*

"Better things for better living ... through chemistry" was still the slogan of the DuPont Company when I was in high school. But during my senior year, my problem was living through chemistry class. Chemicals helped me do it: I found that Valium or Librium, those early anxiety medications, if taken in a double dose before bed, would leave my mind fogged-up for the first two periods of the next school day so that I could comfortably sit through chem class, ostensibly awake, hiding *Walden* or a Richard Brautigan novel inside my textbook, unflustered by the ponderously slow passage of each minute on the classroom clock.

I wasn't a druggie. Our class had its freaks, like the marching-band mate who stumbled through the halftime routine at football games, having ingested a handful of uppers and downers (and who knows what else) scrounged from his parents' medicine cabinet in the morning. My other friends smoked some pot after school, but I joined them only occasionally (too harsh on the throat, made the bedroom smell bad). A few of my friends dropped acid, but not I. It wasn't that they were bad and I was good. Simply, as we said in those days, I was one of the straights. Forty-odd years later, that contrast remains a revelation. I had prescription benzodiazepines for what the doctors called my "nervous gut," with instructions to use them ad libitum. I was taking roughly the prescribed dosage, which made my self-administration legitimate. The kids who bought marijuana from Andy (suspended for the stash in his locker) or who did bennies to study for exams and Quaaludes to come down afterward, or the ones who came to school high, or my staggering cornet-playing friend—they were users.

This distinction, between the legitimate use of psychoactive medicines and the sub rosa use of drugs, is more vexed than ever. We have seen nearly 45 years of the War on Drugs, the country's longest-lasting campaign. We have heard ever-louder outcries about the safety of our children and accompanying uproars about nicotine in e-cigarettes, caffeine in energy drinks, "synthetic marijuana," and heroin. We have new stimulants for attention deficit hyperactivity disorder (ADHD), new sleep aids, the very popular serotonin-activating SSRIs and SNRIs for depression. We have club drugs, designer drugs, experimental drugs, homemade methamphetamine, and those synthetic cannabinoids. We have pharmaceutical commercials on TV, many of the advertised products transparently having to do more with enhancing erotic pleasure than with curing illness—to the point that any thinking person would be forgiven for questioning the distinction between recreational drugs and prescription medication.

Significantly, we're witnessing the rapid relaxation of prohibitions against marijuana, for so long decried as the gateway to ruin. Although cannabis remains on Schedule I of the federal Controlled Substances Act, along with heroin and LSD, and its use is therefore illegal under federal law, four states and the District of Columbia have legalized it, and in 23 states it is legal for medical purposes (in some of those states recreational use has been decriminalized as well). And the Internet has changed the drug business: you can buy weed and cocaine online for immediate delivery, even where both are illegal. In some places, it's quicker than ordering pizza. We know of the harm of drug use, too. The U.S. Centers for Disease Control and Prevention estimates that more than 180,000 American drug injectors have died of HIV/AIDS over the past

35 years. Thousands each year are newly infected, mostly by contaminated needles or syringes. Millions of Americans have the hepatitis C virus, usually acquired through some kind of drug use, and in 2013 at least 19,000 Americans died from it. Repeated local outbreaks of sudden deaths occur among heroin users who inject a "bad batch"—sometimes when the heroin is adulterated with the synthetic opioid fentanyl. Nor does harm come from injection alone. A study published in the *American Journal of Public Health* in June 2015 suggests that users of the sleep medication zolpidem (Ambien) are in vehicle crashes at higher rates than nonusers. Mortality attributed to overdoses of prescription opioid painkillers has been increasing: it is now on the order of 16,000 American deaths per year. And beyond the statistics and outside the emergency room, many Americans—the number is simply impossible to estimate—are dependent on psychoactive drugs in ways that make it hard for them to make the best use of their innate capabilities. Drugs are often part of the story when we find ourselves unable to live the enriching life that the country's wealth and know-how ought, somehow, to permit. It's a tragedy of modernity.

We have better chemicals, but we're not sure we have better lives. The old days of simple contrasts between the Mad Men with their martinis and the working class with their beer, of prescribed medications and illegal narcotics that get you hooked—that era now seems quaint. In a more complicated time, we seem to flounder, looking for a way to think about the life we have made with psychoactive drugs, both the medical ones and those that are illicit. It's hard for us to recognize how firmly drugs are fixed in our collective sense of what it means to be American. Perhaps it's even harder for us to feel sympathy for the neediness that these drugs answer.

AMERICA'S LOVE AFFAIR WITH DRUGS

Americans like drugs. We like a great many drugs. And for the most part, we do not turn to drugs for a cleansing of the doors of perception, as William Blake put it. Perhaps we should. But typically we use drugs—legally or not—for more worldly reasons.

According to the Kaiser Family Foundation, Americans filled more than four billion prescriptions in 2014. On average, about half of all Americans use at least one prescription medication in any given month. The U.S. Food and Drug Administration reports that more than 300,000 legal nonprescription (over-the-counter, OTC) medications are also available. Eighty percent of us use OTC drugs as the first response to minor ailments.

Illicit drugs are far less popular, but some are much in use. A National Institute on Drug Abuse (NIDA) survey in 2013 found that about 1.5 million Americans use cocaine at least occasionally. About half a million report using methamphetamine (much of that would be crystal meth). More than 600,000 people say they used heroin in the past year, and about four million have used it at some point. A 2015 Gallup survey found that 11 percent of American adults consider themselves marijuana users, and about 44 percent of Americans have used marijuana at some point in the past. More than four million Americans use marijuana in amounts and patterns that, in NIDA's view, would qualify them for the diagnosis of "dependence or abuse." We might well be skeptical about the medicalization of enjoyment that's implicit in such diagnostic definition making. But we can acknowledge that four million supposedly cannabis-dependent people means that many Americans are using a lot of marijuana.

Pain is a main motive in our use of drugs of all sorts. In addition to \$3.9 billion for aspirin, acetaminophen, and the like, Americans spend about \$9 billion on prescription opioids each year. More than 200 million prescriptions for opioid pain relievers are filled each year, some of which find their way to the four million Americans who use opioids for pain relief without a prescription.

In a culture attuned to gain and loss, the most potent inducers of discomfort are those that make us less productive: anxiety, sleeplessness, and lethargy. The grave psychic stress they bring is evident in how much medication we use to lessen them. In 2012, Americans filled nearly 50 million prescriptions for the anxiety medicine alprazolam (Xanax) and 44 million for the sleep medicine zolpidem. Each year, millions more Americans fill prescriptions for stimulant drugs that are recognized treatments for ADHD. As with the painkillers, most of those stimulants are evidently not going to people with an ADHD diagnosis, since studies show that a high proportion of stimulant users take them to enhance focus and wakefulness—but have not been diagnosed with ADHD.

America is awash in drugs. Many public drinking-water supply systems contain measurable amounts of pharmaceuticals, presumably because people dispose of unused medication down the sink or toilet, or in regular trash that goes into landfills from which the pharmaceuticals leach out into groundwater. And we're awash in the sense that it is easy to find drugs of some kind almost anywhere.

About a quarter of Americans purchase pharmaceutical products online, mostly through insurance plans that facilitate Web-based ordering. But the World Drug Report issued by the UN Office on Drugs and Crime says that online purchase of illegal drugs is also more extensive than ever. Although the online drugs marketplace Silk Road was shut down in 2013 (and Silk Road 2.0 was forced down in 2014), the FBI, in its criminal complaint against an alleged administrator of Silk Road, said that it generated \$1.2 million in the two and a half years that it was functioning.

Successors to Silk Road emerged quickly: 23 of them were online as of January 2015, not easily visible through routine Web browsing, but readily accessible through software that allows for anonymity or through peer-to-peer contacts—what are known as darknets, which constitute the Dark Web. Not all users are Americans, but the size of the market suggests that it accounts for an ample part of the American exchange in drugs today, both licit and illicit. Kyle Soska and Nicolas Cristin of Carnegie Mellon University crawled online marketplaces repeatedly to produce a huge (3.2-terabyte) database, from which they estimated that the volume of darknet drug sales was about \$600,000 per day in mid-2014. But the online drugs "ecosystem," as Soska and Cristin call it, is a typical marketplace: more than two-thirds of vendors sold less than \$1,000 worth of products in the time they were active, only two percent of vendors sold more than \$100,000, and only a few dozen sold more than \$1 million each. Although a great many drugs are purchased in this way, about a quarter of sales are of cannabis, the most popular of the illicits.

Darknet purchasing of illicit psychoactive drugs might alter significantly the stereotypical American illicit drug scene. In a September 2015 article published on Quartz, Allison Schrager

notes that the Dark Web eliminates the information imbalance that keeps buyers ignorant of the quality of what they are buying. And social scientist Jean-Paul Grund with the Addiction Research Centre in the Netherlands, whose work on the ethnographies of psychoactive drug use is widely recognized, notes that peer-to-peer online drug markets, now in beta testing, hold promise for correcting the centralization that can make current online drug marketplaces inefficient. There's even room for further market forces, since the system by which darknet vendors hedge against risks of detection and arrest is reminiscent of the shipping transactions at Lloyd's London coffeehouse c. 1700, which led to the growth of the marine insurance industry: online drug markets are likely to be attractive to ancillary markets in insurance. Perhaps more promising (or threatening, depending on your point of view) is the potential of 3D printing and nanotechnology to deliver made-to-order molecules. Chemistry professor Lee Cronin of the University of Glasgow predicts the coming of what he calls "app chemistry," whereby we will order bespoke drugs online. Besides improving the efficiency and fairness of medication purchasing, the Dark Web might also make it more individualized.

Darknets and Dark Web might sound diabolical, but we must think seriously about how available different drugs ought to be in an era of online shopping. Wouldn't it be preferable for illicit drugs to be traded in ways that don't prompt competing drug sellers to shoot each other? What will it mean when law enforcement doesn't go after drug sales on the street, because there aren't any? What will it mean for communities where legal employment is sparse and drug sales formerly provided a ready source of cash? We might have little choice but to consider this future: Soska and Cristin point out that the online drug marketplace "ecosystem appears quite resilient to law enforcement take-downs." Grund says that "we will have to fundamentally reconsider how we control psychoactive drugs in our societies."

HOW MEDICATIONS GOT TO BE ILLICIT DRUGS

The boundary between medical and nonmedical drugs wavers constantly. This is not only because so many people take prescription drugs without prescriptions. It's primarily because our views of drug use are fickle. Each of the main illicit drugs journeyed from pharmaceutical breakthrough to demonization. Often, the use of the drug that sparks the vilifying isn't much worse than what happens with medicines that remain legal. Methamphetamine has lately been fashioned into a bogeyman by the media and the Drug Enforcement Administration, but amphetamines made their debut as ingredients in legal over-the-counter bronchodilators in the 1930s, soon became popular as diet pills, were supplied to soldiers by both the American and German armies in the Second World War as stay-awake products to combat fatigue, and later were combined with barbiturate sedatives to form new legal products like Dexamyl tablets for reducing agitation without drowsiness. Only in the 1950s, when Americans had begun developing a picture of the drug-dependent "junkie" as down-and-out (and, in many minds, black), and concerns were emerging about the overuse of medication in general, did worries arise over the habit-forming potential of amphetamines. And the recent furor over crystal meth, while springing from such worries, has more to do with changes in the culture and economy—such as the decline of fortunes and hope in the American heartland, the rise of a cottage industry in meth production, an influx of foreign products to fill lacunae created by state policies restricting sale of homemade-meth ingredients, and responses to the disappearance of a mythic bedrock America—than with anything new with the biological potency of amphetamines, or their danger.

Similarly, both cocaine and heroin went from medical miracle to anathema. Cocaine was included as a pick-me-up in popular products such as the tonic Vin Mariani and, in 1886, Coca-Cola (hence the name). "Heroin" was the trade name for a substitute for the naturally occurring psychoactive alkaloid in opium, morphine. It was marketed, beginning in 1898, by the German firm Bayer. With "Heroin," the company's aim was to compete for the cough-suppressant market with the Merck company's new synthetic morphine derivative, Dionin.

By the turn of the 20th century, rumors that cocaine imparted extraordinary vitality and imperviousness to inhibitions—especially with regard to the sexual restraints of African-American men—helped crystalize prevailing racial anxieties about black Americans' sexual power and the vulnerability of white women. Heroin was freighted with concerns over addiction that had already been widely discussed in regard to morphine. That cocaine and heroin were related to foreign products—coca leaves, opium—mixed both up with misgivings about immigration and the prosperity of domestic markets. And they were medicinal products, which put them in the purview of the developing American medical profession. Legal action began with licensing standards under the Pure Food and Drug Act of 1906 and the Harrison Narcotics Tax Act of 1914, then culminated in 1970 with a ban on sales of cocaine without a prescription, and of heroin in any form, when the Controlled Substances Act put cocaine into Schedule II (some medical applications but a high potential for "abuse") and heroin into Schedule I (no medical use and high abuse potential).

Marijuana also had a pharmaceutical life: cannabis was a recognized part of the *United States Pharmacopeia*, beginning with its third edition in 1851 and continuing through each revision until 1941. It was newly construed as a harmful drug in the 1930s. A movement to decriminalize marijuana was briefly successful in the 1970s (11 states lowered penalties), but the 1980s saw a rise of concern with the safety of America's children, who, as Emily Dufton wrote in *The Atlantic* in 2010, came to be seen as victims of the drug culture. In this milieu of fear about child safety, the War on Drugs that Richard Nixon had declared in 1971 evolved into something larger and more punitive. It sought to prevent cannabis use by depicting marijuana as the gateway to "harder" drugs.

The present interest in legalizing cannabis is partly based on a renewed recognition of its medical uses. Some people do use it excessively, as the NIDA data on "abuse" and "dependence" remind us. To some, such use is detrimental. Some people assert that the new tolerance of cannabis is contributing to increased rates of serious crime, for instance, although no evidence supports this so far. But we are clearly witnessing one of those shifts in the line between illicit drugs and those that are medically desirable.

HEALING TO HABIT FORMING

The use of natural products as drugs is ancient—and not only for treating defined ills, but also for personal enhancement. Healing methods are mentioned in Sumerian clay tablets dating from about 2000 B.C. By the first century A.D., even in the West, a great many natural compounds were used as drugs. Dioscorides's *De Materia Medica* lists hundreds of herbs, plants, animal products, and minerals that were helpful in healing. The formularies of the medieval Islamic

world included far more: by the 13th century, a medical text by Egypt's chief botanist included more than a thousand natural products useful as drugs.

Natural medications were commonly known, and they were not the intellectual property of physicians or even apothecaries. Only recently has the normal pharmacopeia turned from allnatural products to mostly synthetic ones. In the late 19th century, when the physiologically active molecules in long-used natural healing products could be extracted and produced de novo or imitated in the lab, both purity and dosage were standardized. Standardization made medications into drugs. History professor David Courtwright says pharmaceutical "factories did for drugs what canning did for vegetables. They democratized them." As we search for a way to understand drug use in the 21st century, the power of this transition to elicit ambivalent feelings shouldn't be underestimated. Modernity always seems to carry both promise and danger. Psychoactive drugs seem dangerous because they can be habit forming. People have been concerned about the effects of habitual alcohol use for millennia, and in Europe and America there were periods of worry over the popular psychoactive natural products tea, coffee, tobacco, and opium. In the new era of laboratory purification and industrial production, those anxieties sharpened. As early as 1877, Dr. Edward Levinstein, the director of a hospital in Berlin, explained in his *Die Morphiumsucht* what morphine craving was like and how it might be treated. In essence, Levinstein's viewpoint became the paradigm for assertions about heroin, and later for other synthetic drugs. K2 is the most recent one. Synthetic cannabis, sometimes called K2 or spice, is a catchall term for chemicals that allegedly induce euphoria similar to marijuana but generally don't. The exact composition changes as manufacturers create new compounds to stay ahead of government efforts to ban them. Emergency department physicians say that some K2 users go into uncontrollable rages. That's what has been reported about users of every new synthetic drug: crystal meth, crack, angel dust, and so on, going back to morphine. In every case, it turns out that the early accounts of mania, rage, and imperviousness to pain on the part of users of a new drug were based on anecdotal reports, and such reactions are not typical of most users. Some drugs really can be habit forming. Still, even with heroin, the verity of addiction is clay that's easily molded to suit what we wish to make of it. Solid research shows that heroin's reputation as inevitably addictive is undeserved. In the 1970s, Lee N. Robins studied thousands of American troops stationed in Vietnam during the war. She found that 34 percent used heroin in what she labeled an addictive pattern while in Vietnam—not too surprising, since heroin of high purity was available there for low prices and troops were obviously stressed (even more used alcohol, marijuana, or opium). But of the many young men in Robins's cohort who were addicted to heroin in Vietnam, only five percent continued to use heroin habitually in the first year after they returned to the United States. The initial exposure to high-purity heroin while under stress in Vietnam did not make people more prone to persistent addiction (or, Robins also showed, to later relapse) than their peers at home. Robins's findings made sense of researchers' and clinicians' observations that many heroin addicts seemed to stop using as they aged, and survey results corroborated the observations, showing that far more people say they have at some point used heroin than are current users. Similarly, Harvard psychiatrist Norman Zinberg found that some heroin users take the drug occasionally and never become addicted.

Yet heroin addiction takes an awful toll. The National Institute on Drug Abuse reports there were more than 8,000 heroin overdose deaths in 2013, a five-fold increase over the early 2000s. Media reports of the death of heroin-using young people are especially heartbreaking. The victims are

easy to find, but the media continually cast around for a culprit. A 60 Minutes segment that aired in November 2015 pointed a finger at doctors who prescribe opioid pain medication too readily and Mexican drug organizations that supply pain relief to the opiate-dependent at a cheaper price in the form of heroin. Other media reports fix on the traditional bad guys—drug dealers—or on the lack of availability of naloxone (Narcan), an antidote to heroin that can save a life if administered quickly after an overdose.

But there are deeper currents at play. The *60 Minutes* piece was typical of recent coverage on heroin, depicting the deaths of young, affluent, white heroin users as tragedies—as if in a perverse answer to Black Lives Matter, saying, "Well, white kids die of drug addiction too," after years of depicting drugs as tightly tied to race and poverty. The untapped current is that of mortal malaise. A report in the *Journal of the American Medical Association* notes that suicide is the only one of the 10 leading causes of death in America whose rate increased between 2005 and 2012. An important paper by two economists, Nobel winner Angus Deaton and Anne Case, showed that the death rate for white Americans aged 45 to 54 had increased between 1999 and 2014, while falling sharply for this age group in other wealthy countries. The increase in mortality seems to be occurring among people with little education, and is driven by dramatic rises in suicide mortality and in deaths from alcohol and illicit-drug toxicity (including overdose).

With heroin, we are looking at an enactment of a seminal finding of Zinberg's: the capacity of a drug to invite chemical dependence does matter in generating addiction, but so do the social and psychological circumstances in which it is used. It's easy to blame the availability and low cost of heroin, the prevalence of dependence on prescription opioids, or the doctors who write the prescriptions for pain relief. What we ought to be asking is, why are so many Americans in so much pain?

Still, the concept of addiction has caught on, and it has become generalized. With heroin and other opiates, there is a biochemical justification, since habitual use can lead a user to increase the dose so as to ward off withdrawal symptoms. But today we talk blithely of shopping addictions, food addictions, and sex addictions, as well as addictions to Ambien, cannabis, and other non-narcotic chemicals. Naturally, neuropsychologists can find parts of the brain that light up when addicts stop shopping or eating or taking Ambien or hooking up. Thus in a culture in which the sense of an ineffable complexity to human consciousness is giving way to a simple reading of neurochemical reactions or brain scans, it can seem as if these addictions are truly the same as being dependent on heroin or morphine. But we are left without a language to make some important distinctions.

The rhetoric of addiction is easily filled with our own misgivings about how we deal with a world that seems to offer an unprecedented and expanding plethora of choices. NIDA director Nora Volkow says that "drugs change the brain to foster compulsive drug use." But statements like Volkow's don't make clear that it is really the environment—the physical situation in which drugs are used, the social setting, the stresses and expectations and other aspects of mind—that, taken as a whole, is, as Zinberg explained, the primary determinant of drug dependence. If it were just a matter of the drug and the brain, those heroin-using GIs in Robins's study would all have been junkies after they came home from Vietnam.

Both the user's mindset and the social setting in which drugs are used take precedence over pharmacology in determining how we use all medications. This isn't just singing a sociologist's tune: it's supported by considerable evidence, and you can read compelling presentations in Chasing the Scream (2015) by the journalist Johann Hari, In the Realm of Hungry Ghosts (2010) by the physician Gabor Maté, and The Meaning of Addiction (1998) by the psychotherapist Stanton Peele. This view, generally unmentioned when someone wants to spin a narrative of drug dependence as a social plague brought on by poor personal choices, or as a disease triggered by the biological effects of drugs themselves, needs to be revived. If not, we will go on locking people up for trying to medicate their psychic malaise and blaming the problems of poor neighborhoods on the habits of their inhabitants instead of on poverty itself. Also unmentioned in our zeal to depict drug dependence as a matter of either impropriety or brain disease is users' desperation, whether it's prescription medication or illicit drugs that they are taking. The despair of the chronic depressive, about which Andrew Solomon has written movingly in *The Noonday Demon*, seems far more central to the human experience than the fact of needing Paxil to get out the door in the morning. And yet it's the dependence that our drug conversation fixes on, not the despair. What stays with me most from my experience in the 1990s, when I was working on HIV/AIDS prevention in Eastern Europe, is the desperate voices of users. Usually, they were injecting an opiate-containing liquid made in a home kitchen from the straw left over after the poppy harvest. They were inadequately dressed against the winter wind, waiting for someone to sell them their *kompot*, but imploring us to help them get methadone—since they knew that the syringes they were sharing would infect them with HIV or hepatitis, or both.

If we want to understand how intrinsic drugs are to the American way of life, we have to give voice to the reasons why we use them. We need to talk about how we experience living in America today, and especially about pain. So many people are in so much pain. No doubt, of the more than 16,000 Americans who die by overdosing on opioid painkillers, many are in unremitting physical pain (the Institute of Medicine counted about 100 million such sufferers in 2011). But something deeper is going on. Modernity brings us so much—so much information, so much *stuff*. But sometimes we can't support the weight of our own lonesomeness.

DRUGS AND THE SOCIAL DIVIDE

Contemporary American misgivings freight the place of psychoactive drugs in the culture ever more heavily. They can be demonized as "unnatural," a prominent trope in our time of climate change when many are expressing a special regard for the stewardship of nature. For anticapitalists, drugs can seem like evidence that the huge pharmaceutical corporations are manipulative, heartless, and inhumane. For the hopeful, drugs are the way to achieve a more vibrant life, as anyone who watches the TV commercials can recognize. For the fearful, drugs are a reason to fortify the risk management arrangements of our culture: the education on self-control, the 12-step groups, the rehabilitation industry, the urine testing, the random searches, the electronic databases on purchasers of OTC decongestants, and more. Drugs bear a surprising array of meanings in a society that often suggests life isn't meaningful enough.

Instead of applying fears about addiction to genuine drug habituation, we often project them onto one or another undesirable group. Immigrants are often depicted as being both disease ridden and fond of addictive drugs. Donald Trump's June 2015 speech on Mexicans who bring drugs into the United States is only the latest incarnation—and it won't be the last.

And there is race. The NAACP reports that black Americans are incarcerated at six times the rate of white Americans. The Sentencing Project reported to the United Nations in 2013 that unless current practices change, one of every three African-American males born today will go to prison at some point in his life. African-American inmates spend about as much time in state and federal prison for drug crimes as do white inmates sentenced for violent crimes. In America's neighborhoods, a black person is far likelier to end up in prison for using or selling drugs than a white person, even though whites and African Americans are equally likely to engage in illicit drug use. The mass incarceration of black Americans for drugs shows how ineffective the War on Drugs has been in prevention and how unjustly effective it has been in detention. The alignment of racial fear and drug policy has sometimes taken especially invidious turns, as the "crack babies" hysteria of the mid-1980s highlighted: an unfounded assertion about cocaine exposure in utero proved capable of inciting both media and government agencies to hyperbole. The U.S. Department of Health and Human Services predicted 100,000 babies would be born each year to women who were smoking crack (a crystalline cocaine that is relatively easy to make and cheap to buy), with a cost to society of \$20 billion. Several studies show that nothing of the sort happened: many babies were indeed born to crack-using women, but there has been no overall evidence of intellectual harm. In the summer and fall of 1986 there were dozens of television news stories on crack cocaine, including "48 Hours on Crack Street" (CBS) and "Cocaine Country" (NBC), often depicting the new scourge as a phenomenon largely or wholly connected to the urban and dark-skinned, yet threatening to overwhelm the country. Congress and the courts responded: in 1986, a federal act created a 100:1 weight ratio in sentencing, so that the same sentence was imposed for selling a kilo of cocaine, worth perhaps \$100,000, as for selling 10 grams of crack, worth \$250. Although almost 80 percent of people convicted for crack offenses were black (compared with less than a third for other drug offenses), the courts did not find the sentencing disparity to be unconstitutional on racial grounds. Thus, Charles Krauthammer spoke for a certain already well-established strain of white American eugenic suspicion when he wrote, in July 1989, of the "biological underclass" that he said crack cocaine was creating.

The issue of drugs and race feels more immediate now, with the Black Lives Matter movement in the vanguard of an increasing discomfiture. In an October 2015 *Atlantic* article, Ta-Nehisi Coates connects American drug policy with what he calls black "generational peril." Drug laws in particular and public order regulations in general can be used selectively to harass, arrest, prosecute, and incarcerate African Americans, and former convicts are disqualified, after release, from voting and from certain jobs and housing: the social and personal consequences can be profound. The recent decriminalization of marijuana in New York City, as a specific example, was partly driven by an uproar over the selective use of stop-and-frisk policing in minority neighborhoods, often justified by police officers' contention that they suspected a young person was carrying marijuana.

But it's too simplistic to view drug laws solely in terms of the white American polity and its fraught encounter with justice for African Americans. Both race and psychoactive medications are at our core as a culture. We struggle with both. Both provide grounds for laws and policies that manage risk. As related as they can be, there are aspects of each that don't entangle the other. The nation's mass incarceration of African Americans plays on noxious race fears, yes. At the same time, it relies fundamentally on believing that a bright line can be drawn between medically useful drugs and balefully harmful ones. We crave such a line, but it doesn't exist.

THE AMERICAN WAY OF DRUGS

Americans seem to feel that medicating psychic distress is beneath us. This has something to do with why certain drugs become anathema while others are okay. It's not that heroin or methamphetamine is more often addictive than prescription medications like Oxycontin, or intrinsically more dangerous than, say, Adderall. It's that we fix on the ingestion of certain drugs as a moral failure that signals either improper genetic programming or personal weakness. Early in the 20th century, heroin addiction was considered one of those untoward outcomes of heredity that ought to be extirpated by implementing eugenic breeding principles. Mandatory sterilization laws, famously upheld by the U.S. Supreme Court in *Buck v. Bell* in 1927 ("three generations of imbeciles are enough," wrote Justice Holmes), often targeted addicts. There was even a proposal that states create and maintain special colonies in which to incarcerate narcotic addicts indefinitely.

Today, eugenics has become a bad word, but our approaches to drugs still bear its stamp. A nonprofit called Project Prevention has been paying illicit drug users to undergo sterilization or go on long-term contraception. A Tennessee law allows a woman to be prosecuted for the felony of aggravated assault if she uses an illegal drug while pregnant. Laws in 18 other states, under which illicit drug use during pregnancy constitutes child abuse, open the way to taking the newborn from its mother and into the state's care.

At the same time, we're more and more amenable to using medications that affect the psyche or the emotional state as part of the practice, if I can call it that, of being American. The \$4 billion we spend each year on drugs for erectile dysfunction, the \$12 billion we spend on prescription stimulants, the estimated \$27 billion we spend on heroin, and those 200 million annual prescriptions for opioid pain relievers attest to our proclivity for medicating ourselves. Many of us can't do without psychoactive pharmaceuticals (one in five American adults takes an antidepressant). Many more of us don't want to.

So there is a paradox in the eugenics-tinged view of drugs: we may think our society would be better off without drugs that enhance the psyche or intensify the enjoyment of life. But we don't mean it. We want drugs to be available, and not only to treat acute problems. We thrive with them and struggle without them.

Our American experience, more and more, is mediated by some chemical. What we think about psychoactive drugs comes not from sterile knowledge, but from using the drugs, or seeing others use them. We feel we know the dangers that drugs can bring, and the pleasures. Either way, we seek to manage them: we want dosages that will help us and not kill us; we want those who need

psychoactive drugs for medical reasons to have them; we want to keep them from those who don't need them; we want parents to have some control over their children; we want children to have a chance at lives that aren't in the sway of some chemical dependence. But however much these risk-management systems assign dosages, toxicities, prescribing rules, or prison sentences, what remains is our ambivalence.

Anxiolytics (and Brautigan) got me through chemistry class, Adderall gets a medical student through an exam, SSRIs keep a depressed man from jumping off a bridge. Those might be grounds for deploring American culture, if that's your bent. A more generous view would be that our enormous capacity for using medications of all kinds, and the uncertain relationship we have with them, is an essential aspect of being American. Our feelings about drug use express both the value we put on personal experience and the coloring of experience by the effect of the medications that shape it.

We all know people whose lives were ruined once they started using psychoactive medications habitually, but we count even more those whose problems started with legal psychoactives like alcohol. And still more, it's fair to say, upend their lives with money, or out of love. We are boundlessly capable of making our own lives difficult, and those of us who are harmed by psychoactive drugs were almost always suffering to begin with. The overdoses, the destitution, the divorces, and all the untoward effects of drug use might have been avoided if someone had been able to help earlier on. Almost always, it's something deeper than the drugs. As Saul Bellow's scientist Benn Crader acknowledges in his 1987 novel, *More Die of Heartbreak*, what we know from science about the troubles modernity has brought to the world must be taken seriously. "But," Crader says, "I think more die of heartbreak."

What should we do about psychoactive drugs? I have no neat prescription. Seemingly, we can't trust individuals not to overmedicate themselves, doctors not to overprescribe, pharmaceutical companies not to advertise misleadingly, and law enforcement not to lump harmless enjoyment with intent to do harm to others. The products of nature will relentlessly be turned into further products of industry, and the persistent and wholly American tendency to use them ever more to make life better, longer, and more comfortable won't go away. As Internet pharmaceutical trading and made-to-order molecules render drug purchasing both easier and more individualized, the collisions between our experience-driven fears and our experience-tinged aspirations will be vexatious: our demands for control always bump up against desires for liberty. Meanwhile, the pain, discomfort, and just plain yearning that make people reach for medications—those never leave us. The deep question is whether we can look at our drug use with compassion, and infuse its management with mercy.

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