Singapore (*5*). These social experiments, which span our century, indicate that when a popular consensus is associated with political determination, widespread use of opiates or of major psychostimulants may be drastically reduced. In each of these instances, a program even more drastic than the one presented by President Bush was implemented. Conversely the legalization of use and possession of cannabis, cocaine, and heroin in Italy and Spain has been associated with major epidemics of the use of these drugs. In 1988, more than 300 deaths by overdose of cocaine and heroin were reported in Spain; 900 were reported in Italy. These figures are higher per capita than those reported in the United States today. These countries are now attempting to restore interdiction measures.

The present answer to the control of illicit drug use is, to the best of our knowledge and on the basis of massive experimentation, a policy of interdiction. However, implementation of that policy is not a foregone conclusion in the United States because it requires a general consensus, something that does not seem to prevail in the scientific community. So one may wonder whether Koshland's conclusion—"the tough experiment is under way. If it fails legalization is next"—is justified.

GABRIEL G. NAHAS
Department of Anesthesiology, College of Physicians and Surgeons, Columbia University, 630 West 168th Street, New York, NY 10032

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I was not impressed by Nadelmann's lengthy drug legalization apologia. Given the weakness of the scientific arguments and the significant speculative content, it should have been printed as "opinion," with equal space for an opposing view.

Nadelmann's smoke screen of statistics and pseudo-economics skirts the real issue, which is whether we want to create, as a society, a positive or negative attitude toward drugs. Legal approbation for drugs sends a pro-drug message to those in our society least able to resist them, including our children. The use of psychoactive drugs is physically and psychologically self-destructive as well as socially costly far in excess of the monetary costs of enforcement. This is why we have, and should maintain, laws against drugs.

DONALD E. STREBEL
6141 Encounter Row, Columbia, MD 21045

Society lost the drug war before it started by accepting the concept that consumption of addictive drugs for pleasurable effects is okay if the drugs are alcohol; nicotine in tobacco products; or caffeine in coffee, tea, and soft drinks. Allowing use of some drugs but not others makes it hypocritical to expect people to say no to drugs deemed illegal, because the destructive effects of legal drugs are often greater than those of some illegal drugs. For example, how many millions of lives have been ruined by alcohol addiction versus marijuana addiction? The legal drug, alcohol, causes many more deaths and ruined lives than the illegal drug, marijuana.

To win the drug war, we will have to accept the premise that any use of addictive drugs is wrong, except in medical treatment.

DAVID R. HERSHEY
Department of Horticulture, University of Maryland, College Park, MD 20742-5611

Response: Burnham is correct in asserting that prohibition contributed to a decline in alcohol consumption, particularly among lower income Americans (*1*). Yet we must be wary of thereby assuming that prohibition was, on balance, a success. The most dramatic decline in alcohol consumption in the United States occurred not during the period during which the 18th Amendment was in effect (1920–1933), but between 1916 and 1922. The enactment of prohibition statutes by many states during this period as well as the government's closing of breweries and distilleries during World War I undoubtedly contributed to this decline. But factors other than criminal laws also played a significant, perhaps more important, role. The temperance movement was highly active and successful during this time in disseminating information about the dangers of alcohol. The patriotic fervor aroused by the war contributed to a spirit of self-sacrifice and alcohol temperance derived from the need to conserve grain and "an atmosphere of hostility toward all things German, not the least of which was beer" (*2*). In short, many factors coalesced during this period to reduce the extent of alcohol consumption and alcohol-related ills (*3*).

Burnham notes that the admission rate for alcohol psychoses to New York state hospitals declined from 10% in 1909 through 1912 to 1.9% in 1920 (*1*). Yet this decline occurred largely before national prohibition and in a state that had *not* enacted its own prohibition law. Similarly, alcoholic admissions to Bellevue Hospital in New York City dropped from 4.99 (per 1000 New Yorkers aged 25 to 64) in the peak year of 1910 to 2.85 in 1919, then dropped dramatically to 0.73 in 1920 and 0.81 in 1921, and then rose steadily to 2.44 in 1933 (*4*). First admissions for alcohol psychoses to New York state mental hospitals evidenced similar trends (*5*). Another study Burnham cites indicates that the estimated rate of chronic alcoholism in the United States dropped from 1248 in 1910 and 1202 in 1915 to 681 in 1920 and remained at approximately that level throughout Prohibition (*6*). By almost all accounts, alcohol consumption was higher in the middle and end of national prohibition than it was at the beginning—despite the substantially greater resources devoted to enforcement during the later years.

Burnham's contention that prohibition was largely incidental to crime is also difficult to sustain. Between 1923 and 1933, the proportion of the U.S. population incarcerated in federal and state prisons and reformatories increased approximately 50% (from 73 to 110 per 100,000 total population) (7, p. 34). By contrast, the proportion had remained constant between 1910 and 1923, the years during which alcohol consumption declined most dramatically (7, p. 34). Similarly, the proportion of the population imprisoned in jails increased 61% between 1923 and 1933 (from 26 to 42 per 100,000 population), after apparently declining significantly from 1910 (7, p. 78). The number and proportion of inmates incarcerated in federal prisons increased dramatically from 12% of the 5,426 committed in 1909–14 to 43.4% of the 47,322 committed in 1929–1934 (7, p. 154). Although these figures do not prove that alcohol prohibition caused higher rates of crime, they do suggest relationships.

More important, alcohol prohibition added a criminal dimension to most aspects of alcohol production and distribution. Even if most participants in the alcohol market were never arrested, tens of millions of Americans were, directly or indirectly, participants in an illicit activity and typically perceived themselves as such. Criminal enterprises reaped billions of dollars in revenues, paid protection money to many thousands of government officials, and engaged in violent interactions with one another. The results of Prohibition, Frederick Lewis Allen wrote (*3*, p. 82) "were the bootlegger, the speakeasy, and a spirit of deliberate revolt which in many communities made drinking 'the thing to do.'

Perhaps the most telling indictment of the

U.S. experiment with alcohol prohibition is provided by the British experience with alcohol control during a similar period. Whereas in the United States the death rate from cirrhosis of the liver dropped from 13 to 15 per 100,000 populaiton in 1910 through 1914 to 7 during the prohibition years and then climbed back to pre-1914 levels by the 1960s, in Britain the death rate from cirrhosis of the liver dropped from 10 in 1914 to 5 in 1920 and then gradually declined to a low of 2 in the 1940s before rising to a rate of 3 by 1963 (*8*). Other indicators of alcohol abuse dropped by similar magnitudes (*9*). "This remarkable achievement occurred," Milton Terris has written, "despite the fact that there was no prohibition in the United Kingdom." Britain's "wartime measures included a sharp curtailment in the amount of alcohol available for consumption, drastic restriction of the hours of sale, and marked increases in taxes on alcoholic beverages. With the end of the war, the limitations on the available quantity of alcohol were removed, but the hours of sale were extended to only half the pre-war time of opening, while taxation was increased even further."

Britain not only reduced the negative consequences of alcohol consumption more effectively than did the United States, but it did so in a manner that raised substantial government revenues; by contract, the U.S. government spent substantial revenues attempting to enforce its prohibition laws and sacrificed far greater revenues into the hands of criminal enterprises. The British experience strongly indicates that the national prohibition of alcohol in the United States was, on balance, not successful. It also suggests that more effective control measures after the repeal of prohibition might have prevented the return to high levels of alcohol abuse.

The conclusions of Siassi and Fozouni regarding the lessons of Iran's experience with an opium maintenance program are of questionable relevance to my analysis. As they noted, Iran's program was neither well conceived nor well maintained. Once it was curtailed, "other illicit sources of supply . . . at once replaced the sale from the 'legal' sources" (*10*). Moreover, other countries that did not experiment with such maintenance plans also experienced dramatic increases in opiate use; indeed the enactment of anti-opium laws in many Asian countries in which opium use was traditional—including Hong Kong, Thailand, Laos, and Iran—is believed to have played a strong role in stimulating the creation of domestic heroin "industries" and substantial increases in heroin use (*11*). Finally, a central criterion by which any maintenance program should be measured is its impact on drug users who would otherwise rely entirely on the black market; this issue is not addressed by Siassi and Fozouni.

ETHAN A. NADELMANN
Department of Politics and Woodrow Wilson School of Public and International Affairs, Princeton University, Princeton, NJ 08544

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