When is alcohol just another drug? Some thoughts on research and policy

Philip J. Cook¹ & Peter Reuter²

Duke University, Durham, NC, USA¹ and University of Maryland, College Park, MD, USA²

ABSTRACT

Aim To reflect on the divergence and overlap between alcohol and illicit drugs with respect to both current policies and policy research. **Results** For demand reduction, there is considerable overlap in programs and services for prevention and even more clearly for treatment. For supply controls there is mostly divergence, reflecting the difference in legal status. Research generally follows the same pattern. However, a cross-cutting research agenda on the supply side has merit. **Conclusion** Even in a prohibition regime, law-enforcement agencies have considerable discretion. A systematic, pragmatic, 'evidence-based' use of that discretion to reduce harm is possible. It can be accomplished only by a continuing program of policy research that measures the harms of drug use and drug enforcement, assesses the effects of current policies on both these sources of social cost and explores alternative strategies. There is a similarly important project for alcohol and tobacco control policy. The goal for research on alcohol and tobacco is to document the extent to which supply controls can be effective in reducing harm; the additional goal for illicit drugs is to document just how much the current ideologically driven approach is costing the public.

Keywords Alcohol, control policy, drugs, harm reduction, policy research, prevention, treatment.

Correspondence to: Philip J. Cook, Sanford Institute of Public Policy, Duke University, Durham, NC 27708, USA. E-mail: pcook@duke.edu Submitted 19 October 2006; initial review completed 4 December 2006; final version accepted 30 January 2007

INTRODUCTION

In terms of its effects on the human body and psyche, alcohol is simply another psychoactive substance. However, in terms of history, cultural acceptance and current legal status in the western world, alcohol stands alone. It has always been available legally for adults, except in a few countries for brief periods. Most adults drink at least occasionally, and many incorporate wine or other alcoholic beverages into secular and religious ceremonies. Most other psychoactive drugs of abuse now in regular use have been prohibited for many decades; public opinion sees even moderate use as dangerous and endorses a reduction in prevalence as an important goal.

Some commentators have opined that the legal distinction is simply an artifact of history and tradition, having little grounding in science and being largely irrelevant to the development of sound policy [1]. That view predominates in the organization and delivery of treatment services, as well as youth-oriented prevention. However, on the supply control side, alcohol and drugs follow different tracks. Legal distinctions, however arbitrary, have profound importance for the way in which alcohol and drugs are manufactured, distributed, consumed, regulated and policed—and the consequences for society.

Research on drug and alcohol policy follows the same pattern of partial intersection. Researchers in epidemiology, prevention or treatment often define their purview as psychoactive drugs, with alcohol as simply another substance; but those like ourselves who focus on the supply side are more likely to specialize. Indeed, despite our longstanding collegiality, Cook has written barely a word on illegal drugs and Reuter has been similarly silent on alcohol. We do share a common perspective, however: that supply control policy for all the psychoactive substances should be constructed with a clear commitment to reducing total harm and a pragmatic openness to the evidence on what works. This perspective helps to define a unified agenda for control–policy research that includes drugs, alcohol and tobacco as well.

THE WAY THINGS ARE

Being economists, we have a professional obligation to think in terms of demand and supply. That appears to be a particularly useful division with regard to discussing substance-abuse policy intended to reduce use and abuse. Being American, many of our referents in this discussion are to US institutions and facts.

Demand reduction

The behavioral and biological mechanisms of addiction are similar for alcohol, the illicit drugs and nicotine [2]. David Courtwright's recent speech entitled 'Mr. ATOD's wild ride' provides an interesting history of this idea, documenting how the addiction field has been (re)unified in the late 20th century as 'chemical dependency, substance abuse, or simply ATOD-alcohol, tobacco, and other drugs' ([3], p. 105). In the United States most of the same agencies and service providers concern themselves with the treatment of both alcohol and illicit drug problems. Thus there is a Substance Abuse and Mental Health Services Administration (SAMHSA) that funds services for use and abuse of alcohol as well as other drugs. The same seems to hold at the state and local level; there are, for example, the New York State Office for Substance Abuse Services and the California Department of Alcohol and Drug Programs ('Healthy individuals and communities free of alcohol and other drug problems') and the city of Philadelphia has the Coordinating Office for Drug and Alcohol Abuse Programs.

Specialized treatment programs may emphasize alcohol or a specific illicit drug, but they generally accept the reality of overlapping populations of abusers. For example, in the United States, of those in treatment for substance abuse in 2004 40% were being treated for both alcohol and drug abuse [4]. The Addiction Severity Index, the standard admissions instrument for such programs, collects information about use of alcohol as well other substances [5]. The methods of treatment are much the same, with the important exception of substitution treatment for the opiate-dependent. Alcoholics Anonymous, Narcotics Anonymous and secular variants all emphasize sobriety and self-control through the same mechanisms of guidance and social support, sometimes supplemented with medication. One rather surprising difference is with respect to the sources of referral to treatment-the Treatment Episodes Data Set in the United States indicated that fully 40% of alcohol-only cases were referred by the criminal justice system, a higher percentage than for cocaine and far higher than for opiate-use treatment, where only 15% were referred by the courts [6]. These statistics suggest one benefit of driving while intoxicated (DWI) enforcement.

Legal compulsion is used directly to reduce drug use by defendants and convicts by conditioning release on being drug free, enforced by a mandatory testing regime. Given the close nexus between drugs and crime, this option makes sense if implemented strategically [7]. The supervision of alcohol consumption by the same individuals is less stringent, reflecting both technological and attitudinal differences.

It might seem that alcohol and drugs would diverge sharply when it comes to prevention policy, as the official goals are so fundamentally different. Drinking is accepted widely, and in western societies a majority of adults drink at least on occasion, enjoying alcoholic beverages as a thirst quencher, a complement to meals and an intrinsic aspect of many ceremonial occasions. The goal of youthoriented prevention programs is to delay consumption until maturity, accepting the fact that most will begin drinking eventually. For cocaine, heroin and marijuana the public goal is to encourage life-time abstinence from recreational use. The benchmark of success is declining population prevalence.

None the less, school-based prevention programs tend to treat alcohol quite similarly to drugs. For this audience alcohol, as well as drugs, is legally prohibited. A typical lesson plan from Drug Abuse Resistance Education (D.A.R.E.) or other such programs seeks to provide youths with the ability to resist the enticements of alcohol, drugs and tobacco. That is, the short-term goal is abstinence across the spectrum. Thus, for youth education, there is much more overlap than difference.

Where there is divergence on the demand reduction side, it reflects the increased range of possibilities available for a legal substance such as alcohol. Thus alcoholic beverage containers and advertisements may be required to include warnings, and marketing may also be restricted in various other ways. For the illicit drugs, such specific regulations are precluded by their illegal status.

Supply reduction

Sellers of alcoholic beverages are taxed, licensed and regulated as to location, product specifications, hours of operation and other aspects of their business. Alcohol prices are influenced by these regulations and also by excise taxes and import duties or quotas that raise prices directly. This rich array of policy levers provides the potential for a nuanced approach to reducing harms associated with excess drinking. That potential has been honored in the Nordic countries, although high health-promoting prices there are being undermined by European Union (EU) trade rules. In the United States public health goals have had little sway in the post-war era, and alcohol control is concerned primarily with maintaining an orderly business and raising some government revenue. This is in contrast with the last decade of tobacco initiatives in the United States, where taxation has been harnessed strongly to the public health goal of reduced smoking, and in a number of western nations where clean-air regulations have reduced externalities [8].

None of these regulatory options are available for controlling the supply of illicit drugs; the fact that commerce in these commodities is illegal locates control efforts with law-enforcement agencies, sometimes supplemented by the military. Indeed, in most countries law enforcement agencies account for most of the budget for drug control; that is true even in harm-reduction-oriented Netherlands [9]. In theory it would be possible for law enforcement agencies to use their considerable power and discretion to in effect regulate the illicit drug industry. As a famous case in point, the Netherlands allows cannabis sales and use at certain cafes, a 'licensing' operation that is conducted in the shadow of the official prohibition and managed by a law enforcement agency. More routinely, police departments are often guided in their drug-market investigations by regulatory objectives such as reducing neighborhood disamenities-shutting down the most violent crack houses, keeping dealers away from playgrounds. Upstream enforcement against manufacturers, importers and wholesalers is intended (in the United States and elsewhere) among other things to raise prices. somewhat equivalent to the imposition of a sumptuary excise tax [10].

While there is thus some overlap in supply control strategy between the legal and illegal substances, we do not want to exaggerate its actual significance. There remains a strong tendency for law enforcement agencies to be guided by traditional success measures, such as seizures of contraband and the quality and quantity of arrests and convictions. The ultimate effects of these actions in reducing drug use and drug-related harms is more assumed than assessed honestly. In particular, the best evidence indicates that drug interdiction efforts in the United States have not succeeded in raising prices of cocaine and other drugs in recent years, notwithstanding claims to the contrary [10,11].

Harm reduction

To the extent that supply and demand reduction efforts fall short, policy options are available to reduce the harms associated with consumption. The usual list of harm-reduction tactics—needle replacement for intravenous drug users, a thiamine additive for liquor to prevent Korsakoff's psychosis—is quite narrowly cast; but if we define 'harm reduction' more broadly, there is interesting overlap between alcohol and drugs. Highway and vehicle safety engineering make driving safer for everyone, but especially for those who are intoxicated, regardless of the intoxicant. The DWI laws make drivers liable for all kinds of chemical impairment. Similarly, employers seek to prevent both drug and alcohol use on the job to enhance safety and productivity of the workplace, and obstetricians have a professional obligation in the United States to counsel pregnant women about the dangers of both.

In sum

Stepping back, then, we see a pattern emerge of both divergence and overlap in the policy arena. For demand reduction, there is considerable overlap in programs and services for prevention and even more clearly for treatment. For supply controls, on the other hand, there is mainly divergence, reflecting the difference in legal status: the marketing of alcohol is controlled by a variety of mechanisms and agencies while the marketing of illicit drugs, being prohibited, is controlled primarily through criminal law enforcement. Finally, harm-reduction opportunities may show up most anywhere.

DRUG STRATEGIES

Some nations have 'strategies' that are specific to drugs. In the United States, the Office of National Drug Control Policy, which is charged with preparing a strategy document each year, deals with that which is illegal and largely ignores drinking—which requires an awkward finesse in the discussion of prevention and treatment [10]. In England there are separate strategy documents for alcohol (led by the Ministry of Health) and for the other drugs (led by the Home Office). The Australian National Drug Strategy incorporated both alcohol and tobacco with other drugs until recently, when a separate alcohol strategy was adopted [12,13]. The United Nations Office on Drugs and Crime does not deal with alcohol, which is in the domain of the World Health Organization.

What are the advantages of introducing alcohol into drug-policy planning? The tight link between alcohol and drugs with respect to characterizing trends in the problem of abuse and planning prevention and treatment efforts seem to require some cross-talk, if not full integration. Even on the supply side there is an extent to which alcohol cannot be balkanized from drugs. For example, policies that restrict the availability of alcohol to youth (or raise the price) may have a substantial effect on use of other drugs. If the cross-price elasticity of marijuana for alcohol were large (e.g. increases in alcohol prices generated large reductions in cannabis consumption), it would necessarily influence the optimal level of the alcohol-tax rate. The same might be true of restrictions specific to youth alcohol access; if these generate large changes in cannabis consumption, public health would be affected accordingly. The available econometric findings on this issue are inconclusive [14-16]. However, the old gateway theories and newer biomedical findings on synergy among various drugs of abuse give reason to believe that there are important complementary ('synergistic') relationships [3].

In the case of treatment, the overlap is so great that it would be absurd to develop a drug treatment plan independent of alcohol treatment. Other capacities overlap logically as well, such as patrolling against intoxicated drivers, regardless of the source of intoxication, or maintaining a probation system that encourages abstinence from any intoxicant by criminal addicts.

RESEARCH

It seems reasonable that research infrastructure and support follow the actual terrain of the subject. The starting point is to gain an understanding of patterns and trends of use. Fortunately, surveys and other data collection efforts tend to combine the various drugs of abuse. In the United States, for example, we have Monitoring the Future (directed at youths in 8th–12th grades), the National Survey on Drug Use and Health and the Behavioral Risk Factor Surveys—all of which cover the landscape of addiction and abuse.

It seems just as reasonable that science research on addiction considers the whole family of psychoactive, addictive substances, as does this journal and several others (newly including the *Journal of Studies on Alcohol*); but with respect to research funding, politics has intervened to produce a more awkward arrangement. The National Institutes of Health, the dominant global funder of research on these substances, separates out alcohol research into the National Institute on Alcoholism and Alcohol Abuse (NIAAA); all other drugs, including nicotine as an addictive substance, are covered by the National Institute on Drug Abuse (NIDA). It is instructive to examine the recent effort to merge the two institutes into one, perhaps to be called the National Institute on Substance Abuse or National Institute on Addiction.

In 2003 the National Research Council issued a report arguing for a merger of the two institutes [17]. The National Research Council (NRC) (a component of the National Academy of Sciences) cited an editorial in the *Journal of the American Medical Association* authored jointly by the heads of the two institutes:

[T]here is a similarity of biological and social-risk factors underlying vulnerability to all of these substances, including genetic and environmental factors. Lastly, there are overlapping mechanisms thought to underlie how these substances influence the brain. Hence, it would be desirable from a public-health perspective to address all substances of abuse when opportunities arise' [18].

The reactions from both research communities were consistently negative, although impressively judicious. The alcohol researchers projected a decline in the prominence of alcohol research. Enoch Gordis, a long-time NIAAA director, argued that alcohol's role as a food meant that it presented different problems. The drinks industry argued that the link created the wrong image of alcohol in the public mind. The National Council on Alcoholism and Drug Dependence (NCADD), obviously representing both interests, said:

When you look at the fact that NIDA is funded at twice the level of NIAAA, it reflects the priorities of the country and the emphasis on illegal drug use. If you combine them, then NIAAA research will move further down the food chain in the list of priorities. While we say a drug is a drug is a drug, funding does not reflect that' [19].

Research on supply controls is supported (not generously) by a variety of different sources, reflecting the different agencies and methods involved. Drug control research is concerned with law enforcement and even military efforts to interdict supply, close the borders, disrupt street markets and so forth. The overlap between alcohol and tobacco control is evidently more extensive than the overlap between alcohol and the control of illicit drugs.

A cross-cutting research agenda on the supply side

For many scholars and analysts, the reason to seek more integration of alcohol with other drugs is the sense that in the United States, at least, supply control policy is too harsh with respect to illicit drugs and too permissive with respect to alcohol. The hope is that if alcohol were considered with the other psychoactives alcohol policy would become tighter, thus mitigating the great costs in terms of public health and violence. At the same time drug policy would become more public health-oriented, and the use of incarceration (currently accounting for over 500 000 inmates in the United States) greatly reduced. The hope of influencing policy through research is not so far-fetched, given the right timing: we need only observe the remarkable shift in US tobacco policy since the Master Settlement Agreement in 1998. It opened the political door to the public health advocates and the research demonstrating that smoking initiation and cessation are influenced by cigarette prices. Legislatures in most states have jumped at the opportunity to raise excise taxes and tighten regulations.

Economists and other researchers have attempted to make the case that drug legalization could make almost everyone better off compared to the current regime—if it were accompanied by sufficiently high excise taxes and well-enforced minimum age provisions. The claim is that prices could be raised high enough in a legal regime to hold usage rates at current levels or below, but without the depradations of the underground market. Rather than the large drain on government resources created by the current regime, excise tax collections would finance effective enforcement with money left over for other government services [20,21]. These are bold claims based on rather flimsy evidence [22].

Clearly, alcohol (and tobacco) policies have a great deal to offer by way of insight into the possibilities and limits of legal control if the prohibition on cocaine, marijuana, etc. were to be lifted. Recent experiences do suggest that it is possible, using the large array of control levers already mentioned, to cut consumption and the harmful consequences of such substances [8,20,23]. Econometric studies of the price elasticity of demand for tobacco and alcohol may serve as a reasonable guide to projecting the price elasticity of marijuana should it be legalized. The alternative is to attempt to project from currently available data on the relationship between prices and quantities of marijuana; while that approach seems more directly relevant, it suffers from various problems, beginning with the very poor quality of data on underground markets and the fact that the markets in question have high transactions costs not well captured in existing data sets.

Our experience with alcohol and tobacco also provides useful---if discouraging---insights into the political dynamics of a legal regime for marijuana. It is now more than 40 years since the harmfulness of cigarettes was established scientifically and two decades since western governments started to regulate to reduce use, yet the prevalence of dependent cigarette use remains above 20% in almost all western societies. There is abundant scientific evidence in support of alcohol control policies that are much more restrictive than those of most western governments. The inadequate regulation reflects in large part the ability of legal suppliers to influence both the public perception of the problem and government willingness to regulate tightly. The political economy of alcohol and tobacco regulation is well studied and demonstrates the power of the industries to block the public health agenda [24–26]. The legalization essays of economists make no reference to this kind of effect [27]; this is particularly surprising in light of the work that economists and others have conducted on just this kind of 'political economy' phenomenon [28,29].

Our advocacy for a cross-cutting research agenda is not limited to the legalization question. As suggested above, even in a prohibition regime there is a great deal of discretion in resource allocation by law-enforcement agencies. A systematic, pragmatic, dare we say 'evidencebased' use of that discretion to reduce harm is in our view possible and desirable. It can be accomplished only by a continuing program of policy research that measures the harms of drug use and drug enforcement, assesses the effects of current policies on both these sources of social cost and explores alternative strategies. There is a similarly important project for alcohol and tobacco control policy, and there the political hurdles may be lower. The goal for research on alcohol and tobacco is to document the extent to which supply controls can be effective in reducing harm; the additional goal for illicit drugs is to document just how much the current ideologically driven approach is costing the public.

Acknowledgements

The authors thank David Fiorillo and Erica Schmeckpeper for assisting in the research. We are grateful to Jonathan Caulkins, Kristin Goss, Robin Room and three anonymous referees for numerous helpful suggestions.

References

- Hall W., Degenhardt L., Lynskey M. The Health and Psychological Effects of Cannabis Use. New South Wales: National Drug and Alcohol Research Center, University of New South Wales; 2001. Available at: http://www. regulatemarijuana.org/home/pdf/_australian_study.pdf (accessed January 2007).
- Orford J. Excessive Appetites: a Psychological View of Addictions. Chichester, NY: Wiley; 2001.
- Courtwright D. T. Mr. ATOD's wild ride: what do alcohol, tobacco, and other drugs have in common? *Soc Hist Alcohol Drugs* 2005; 20: 105–40.
- 4. Substance Abuse and Mental Health Services Agency. Treatment Episode Data Set (TEDS)-2004. Chapter 2. Trends in Substance Abuse Treatment Admissions: 1994– 2004. Available at: http://wwwdasis.samhsa.gov/teds04/ TEDSAd2k4Chp2.htm (accessed 23 January 2007)
- Treatment Research Inc. Addiction Severity Index, 5th edn. 2005. Philadelphia, PA: Treatment Research Institute. Available at: http://www.tresearch.org/resources/ instruments/ASI_5th_edspdf (accessed 11 April 2007).
- Substance Abuse and Mental Health Services Agency. Treatment Episode Data Set (TEDS) 1993–2003. Chapter 3. Characteristics of Admissions: 2003. Available at: http:// oas.samhsa.gov/2k5Teds/teds_03_tbl3.5.htm (accessed 26 January 2007)
- Harrell A., Kleiman M. A. R. Drug testing in criminal justice settings. In: Leukefeld C., Tims F., editors. *Treatment of Drug Offenders: Policies and Issues*. New York: Springer Publishing Co.; 2001, p. 149–71.
- Cook P. J. Paying the Tab: the Economics of Alcohol Policy. Princeton, NJ: Princeton University Press; 2007.
- Rigter H. What drug policies cost. Drug policy expenditures in the Netherlands in 2003. Addiction 2006; 101: 323–9.
- Office of National Drug Control Policy. National Drug Control Strategy. Washington, DC: The White House; 2006.
- Caulkins J., Reuter P. Reorienting drug policy. *Issues Sci* Technol 2006; 23: 79–85.
- 12. Australian Government Department of Health and Ageing. The National Drug Strategy: Australia's Integrated Framework 2004–2009. Available at: http://www. nationaldrugstrategy.gov.au/internet/drugstrategy/ publishing.nsf/Content/framework0409)
- 13. Australian Government Department of Health and Ageing.

National Alcohol Strategy 2006–2009. Available at: http:// www.alcohol.gov.au/internet/alcohol/publishing.nsf/ Content/nas-06–09 (accessed 26 January 2007).

- 14. Pacula R. L. Can increasing the beer tax reduce marijuana consumption? J Health Econ 1998; 17: 557–86.
- Cameron L., Williams J. Marijuana, alcohol and cigarettes: complements or substitutes. *Econ Rec* 2001; 77: 19–34.
- DiNardo J., Lemieux T. Alcohol, marijuana and American youth. The unintended consequences of government regulation. *J Health Econ* 2001; 20: 991–1010.
- National Research Council. Enhancing the Vitality of the National Institutes of Health: Organizational Changes to Meet New Challenges. Washington, DC: National Academy Press; 2003.
- 18. Hansen G., Li T. K. Public health implications of excessive alcohol consumption. *JAMA* 2003; **289**: 1031–2.
- Curley B. Merging NIDA, NIAAA would improve science, reportsays. *Join Together*. Research Summary, 15 August 2003. Available at: http://www.jointogether.org/news/research/ summaries/2003/merging-nida-niaaa-would-says.html (accessed 11 April 2007).
- Grossman M., Chaloupka F. J., Shim K. Illegal drug use and public policy. *Health Affairs* 2002; 21: 134–45.

- Miron J. A. The budgetary implications of marijuana legalization in Massachusetts. 2003. Available at: http:// www.prohibitioncosts.org/MironReport.pdf (accessed 23 January 2007).
- 22. MacCoun R., Reuter P. Drug War Heresies: Learning from Other Vices, Times and Places. Cambridge: Cambridge University Press; 2001.
- Babor T., Caetano R., Casswell S., Edwards G., Giesbrecht N, Graham K. *et al. Alcohol: No Ordinary Commodity*. Oxford: Oxford University Press; 2003.
- 24. Kagan R. A., Vogel D. The politics of smoking regulation: Canada, France, the United States. In: Rabin R. L., Sugarman S. D., editors. *Smoking Policy: Law, Politics, and Culture.* New York: Oxford University Press; 1993, p. 22–48.
- 25. Glantz S. A., Balbach E. D. *Tobacco War: Inside the California Battles*. Berkeley, CA: University of California Press; 2000.
- Johnson C. M., Meier K. J. The wages of sin: taxing America's legal vices. West Polit Q 1990; 43: 577–95.
- 27. Barro R. J. Getting It Right: Markets and Choices in a Free Society. Cambridge, MA: MIT Press; 1997.
- Olson M. The Logic of Collective Action. Cambridge, MA: Harvard University Press; 1965.
- 29. Lowi T. J. Four systems of policy, politics and choice. *Public Admin Rev* 1972; **32**: 314–25.