

Room, R. (2006). The dangerousness of drugs. *Addiction*, 101(2), 166-168.

The dangerousness of drugs

RISK OR DANGEROUSNESS AND DRUG CONTROL

In principle, international drug control is justified by the risk or danger from drug use, described in the 1961 Convention in terms of the 'serious evil' from 'addiction to narcotic drugs' and the 'social and economic danger to mankind', in the 1971 Convention in terms of 'the public health and social problems' from 'abuse' and in the 1988 Convention in terms of a 'serious threat to the health and welfare of human beings' (INCB 2005). Differentiations between drugs with respect to the degree of control are based in the 1961 Convention on the extent to which the substance is 'liable to abuse' and 'productive of ill effects' (1961 Convention, Article 3), as balanced against therapeutic usefulness. The 1971 Convention offers a set of criteria for which drugs should be subject to its control, but little guidance on the criteria for the degree of control. World Health Organization (WHO) *Guidelines to Expert Committees* fill the gap on this, distinguishing between substances in terms of whether their 'liability to abuse' constitutes an 'especially serious', 'substantial' or 'smaller but still significant risk to public health', interpreted to mean 'both social and public health problems' (WHO 2000, paragraphs 40, 41).

The extent of risks of social and public health problems from use of the substance, as balanced against therapeutic usefulness, is thus the criterion for differentiating substances covered by the conventions in terms of degree of control. The 1971 Convention's criteria for bringing substances under control in the first place require, along with the capacity to produce a 'public health and social problem', that the substance can produce 'a state of dependence' and specified central nervous system effects (1971 Convention, Art. 2).

In principle, then, the international drug control system, and national systems of control operating in accordance with it, differentiate drugs in terms of a single dimension of degree of risk of social or health problems— what we may term dangerousness. According to the logic of the system, substances are differentiated (in the language of the WHO *Guidelines*) in terms of whether their danger is especially serious, substantial, smaller but still significant, or not significant.

OPERATIONALIZING DEGREE OF DANGEROUSNESS

There are many types of social and health harm from the use of psychoactive substances, as well as harms which can result from social responses to substance use. This certainly complicates the task of ranking substances in terms of degree of dangerousness. One response to this is to balk at the jump. Declining to include a summary of a commissioned report comparing the health effects of drugs, a WHO document offered the view that 'the reliability and public health significance of such comparisons are doubtful', and that 'such comparisons tend to be more speculative than scientific' (WHO 1997). Similarly, a recent British publication on *Dangerousness of Drugs* drew back, in the end, from rank-ordering psychoactive substances in terms of dangerousness, explaining that 'the dangers are not uni-dimensional nor do they generally occur in isolation. . . . Drugs are not, of themselves, dangerous, with the risk residing in the interaction between the substance, the individual, the method of consumption and the context of use' (Best *et al.* 2003, p. 56). But while this is true enough, it is not much help for drug policy. As we have noted, at their heart drug control systems do differentiate substances on a single dimension of dangerousness.

One relevant comparison is the present level of harm in a given society, or on a global basis. The problem here is that the estimates presently available usually do not distinguish among illicit drugs. Thus WHO estimates of the contributions of opioids, cocaine and amphetamines, taken together, to the global burden of disease (in 2000 in DALYs) found that these drugs together accounted for about

one-fifth of the burden from alcohol or the burden from tobacco (Ezzati *et al.* 2002). Cost-of-illness studies offer another yardstick, however uncertain (Reuter 1999); again, the costs of illicit drugs to Canadian society were estimated as less than one-fifth of the costs for alcohol or for tobacco (Single *et al.* 1998).

The most obvious objection to basing policy decisions on such estimates is that the present levels of social and health harm are not necessarily the same as what the levels of harm would be if policies changed. One approach to this issue, adopted by a research team of which I was a member (Hall *et al.* 1999), is to compare the severity of health effects for heavy users of different substances in their most harmful common form. By the rough rankings in this comparison alcohol ranked highest, with tobacco and heroin in the middle and marijuana at a lower level, in terms of number and seriousness of particular health harms.

A French committee chaired by Bernard Roques (Roques 1999) tackled the question of dangerousness in terms of two rankings, on 'general toxicity' and 'social dangerousness'. Stimulants, tobacco, alcohol, cocaine and heroin, were ranked 'strong' or 'very strong' on 'toxicity', including long-term health effects, infections and other consequences of mode of use, as well as acute effects such as overdose; marijuana and benzodiazepines were ranked 'very weak'. Alcohol, cocaine and heroin were ranked 'strong' on 'social dangerousness', defined in terms of 'states of comportment which can generate very aggressive and uncontrolled conduct . . . induced by the product or varied disorders (fights, robberies, crimes . . .) in order to obtain it and risks for the user or others, for example in the case of driving a vehicle', with other drugs rated 'weak' or 'none' (Roques 1999: 296; original in French).

A recent report from the UK Prime Minister's Strategy Unit offers ratings of substances in terms of four subdimensions (speedy effect, intense effect, short-lasting effect, physical withdrawal symptoms) and of 'potential addictiveness', rating heroin and crack at the top and cannabis, ecstasy and LSD at the bottom, with alcohol, tobacco, amphetamines and cocaine in between. Alcohol and tobacco are not rated in a set of five subdimensions of social and health damage (acute health damage, longterm physical damage, long-term mental damage, harms from injection and damage to social functioning); heroin and crack generally rank highest on these ratings, with cocaine, amphetamines, cannabis and ecstasy generally lower (Strategy Unit 2005). The report, in the form of Power Point charts, lacks explanatory material.

A more limited operationalization of dangerousness is in terms of lethality as a poison. This is often important for restrictions on the availability not only of medications but also of household goods such as detergents and solvents. For psychoactive substances, lethality is conventionally defined in terms of the 'safety ratio' between 'the usual effective dose for non-medical purposes' and the usual lethal dose. Gable (2004) recently reviewed the literature on this, concluding that 'the range of safety ratios is so wide that the data appear to have the attributes of an ordinal scale', with a few substances such as heroin and gamma-hydroxybutyrate (GHB) having a safety ratio less than 10. Many substances, including alcohol, oral codeine and methylenedioxymethamphetamine (MDMA) (ecstasy), and intranasal cocaine, had safety ratios between 10 and 20. Although Gable does not cover nicotine, smoked cigarettes would apparently be in the range of 20. A few substances, including smoked marijuana and oral LSD, were much less likely to be lethally overdosed, with safety ratios above 100.

DEGREE OF DANGEROUSNESS AND EXTENT OF CONTROL: A TOUCHY SUBJECT

By whatever criterion of potential or actual harm is used, several substances stand out as in an anomalous status in international controls. In terms of relative rankings alcohol and tobacco are undercontrolled, and by most rankings cannabis is overcontrolled. In a comparative and public

health perspective, this conclusion for cannabis still seems to me justified despite the recent strengthening of the evidence of a link between cannabis and schizophrenia (Hall & Pacula 2003, pp. 130–141; Arsenault *et al.* 2004).

Why tobacco and alcohol do not qualify for coverage in the international control system has long been an obvious question. The last official attempt to offer a psychopharmacological justification for which drugs were under international control was by the 1957 WHO Expert Committee (WHO 1957), which tried to distinguish between ‘addiction-producing’ and ‘habit-forming drugs’. Even so, the Committee acknowledged that alcohol fell between the two categories. The 1964 Expert Committee abandoned the distinction, replacing the two terms with a new one—dependence—borrowed from psychopharmacology and applying across the board (WHO 1964). The official Commentary on the 1971 Convention offers justifications for the exclusion of tobacco and alcohol (UN 1976, pp. 47–49), but these read even more lamely now than they did then. Occasionally, officials of the international drug control system have acknowledged, with specific reference to tobacco and alcohol, that it is ‘increasingly difficult to justify the continuing distinction among substances solely according to their legal status and social acceptability’ (Giacomelli 1994). More often, one encounters unease about making comparisons of controlled drugs with tobacco and alcohol at all; to defenders of the system this ‘seems to set the scene . . . for liberalizing’ controls (Ghodse 1996).

Comparing degrees of dangerousness is indeed a fraught topic. Each of the three general comparisons we have drawn upon above faced substantial opposition in the course of publication. The material from the Prime Minister’s Strategy Unit was only released on 1 July 2005, two years after compilation, in partial compliance with a Freedom of Information request (Travis 2005). The report by Hall *et al.* (1999) was eventually published after a media storm (Concar 1998) over its omission from the report for which it was originally commissioned (WHO 1997). The Roques report also caused considerable controversy when it appeared. As a French review noted, there were complaints that

the inclusion of alcohol in the ‘drug’ category . . . inserted into that category a form of ordinary sociability, positively valued and serving as a sign of integration in our society. This [proposed] new classification was subjected to many polemics by professionals underlining the fact that the dangerousness of a product could not be reduced to its pharmacological properties and that political, social and economic considerations linked to the substances must equally be taken into consideration. The group of experts was also reproached for having produced a discussion which banalized the danger of cannabis by putting in evidence the weak physical and psychic dependence from this product, compared to those of tobacco and alcohol. (Jauffret-Roustide 2004, pp. 17–18; original in French)

This review puts its finger on the sources of resistance to a rethinking of dangerousness and its implications for drug control systems. On one hand, alcohol is so deeply enculturated in western societies that even considering it in the same frame as derogated drugs is unacceptable to many. On the other hand, there is an enormous commitment by many involved in the international control system and equivalent national systems to keeping the *Status quo*, with the outer defensive line often set around cannabis.

However, the issue of dangerousness remains crucial, as the fundamental criterion for the existence and stringency of international control of a psychoactive substance. So long as this is true, issues of conceptualizing and measuring relative dangerousness cannot be escaped; and the results of such measurements are likely to point towards changes in the present control system.

ROBIN ROOM

Centre for Social Research on Alcohol and Drugs, Stockholm University, Sveaplan, 106 91 Stockholm, Sweden. E-mail: robin.room@sorad.su.se

References

Arsenault, L., Cannon, M., Witton, J. & Murray, R. (2004) Cannabis as a potential causal factor on schizophrenia. In: Castle, D. & Murray, R., eds. *Marijuana and Madness: Psychiatry and Neurobiology*, pp. 101–126. Cambridge: Cambridge University Press.

Best, D., Gross, S., Vingoe, L., Witton, J. & Strang, J. (2003) *Dangerousness of Drugs: a Guide to the Risks and Harms Associated with Substance Use*. London: UK Department of Health. Available at: <http://www.dh.gov.uk/assetRoot/04/08/62/93/04086293.pdf>. Accessed 26 July 2005.

Concar, D. (1998) High anxieties: what the WHO doesn't want you to know about cannabis. *New Scientist*, **February 21**, p. 4.

Ezzati, M., Lopez, A. D., Rodgers, A., Vander Horn, S, Murray, C. J. L. & the Comparative Risk Assessment Collaborating Group (2002) Selected major risk factors and global and regional burden of disease. *Lancet*, **360**, 1347–1360.

Gable, R. S. (2004) Comparison of acute lethal toxicity of commonly abused psychoactive substances. *Addiction*, **99**, 686–696.

Ghodse, H. (1996) When too much caution can be harmful. *Addiction*, **91**, 764–766.

Giacomelli, G. (1994) Statement by Executive Director of the United Nations International Drug Control Programme at the Thirty-Seventh Session of the Commission on Narcotic Drugs. Vienna: UNDCP, 13 April.

Hall, W. & Pacula, R. L. (2003) *Cannabis Use and Dependence: Public Health and Public Policy*. Cambridge: Cambridge University Press.

Hall, W., Room, R. & Bondy, S. (1999) Comparing the health and psychological effects of alcohol, cannabis, nicotine and opiate use. In: Kalant, H., Corrigall, W., Hall, W. & Smart, R., eds. *The Health Effects of Cannabis*, pp. 475–506. Toronto: Centre for Addiction and Mental Health.

International Narcotics Control Board (INCB) (2005) [The texts of the three conventions can be found at the International Narcotics Control Board website, <http://www.incb.org/incb/index.html>]. Accessed 26 July 2005.

Jauffret-Roustide, M., ed. (2004) *Les drogues: Approche sociologique, économique et politique [Drugs: a Sociological, Economic and Political Approach]*. Paris: La Documentation française.

Reuter, P. (1999) Are calculations of the economic costs of drug abuse either possible or useful? *Addiction*, **94**, 635–638.

Roques, B., chair (1999) *La Dangerosité de Drogues: Rapport au Secrétariat d'État à la Santé [The Dangerousness of Drugs. Report to the State Secretariat for Health]*. Paris: La Documentation française—Odile Jacob.

Single, E., Robson, L., Xie, X. & Rehm, J. (1998) Economic costs of alcohol, tobacco and illicit drugs in Canada, 1992. *Addiction*, **93**, 991–1066.

Strategy Unit (2005) *Strategy Unit Drugs Report, May 2003*. London: Prime Minister's Strategy Unit. Available at: http://www.strategy.gov.uk/work_areas/drugs/index.asp. The full report is at <http://image.guardian.co.uk/sys-files/Guardian/documents/2005/07/05/Report.pdf>. Accessed 26 July 2005.

Travis, A. (2005) Revealed: how drugs war failed. *Guardian (London)*, **5 July**. Available at: http://www.guardian.co.uk/uk_news/story/0,1521479,00.html. Accessed 26 July 2005.

United Nations (UN) (1976) Commentary on the Convention on Psychotropic Substances conducted in Vienna, 21 February 1971. New York: United Nations. World Health Organization (WHO) Expert Committee on Addiction-Producing Drugs (1957) *Seventh Report*. Technical Report Series no. 116. Geneva: World Health Organization.

World Health Organization (WHO) Expert Committee on Addiction-Producing Drugs (1964) *Thirteenth Report*. Technical Report Series no. 273. Geneva: World Health Organization.

World Health Organization (WHO) (1997) *Cannabis: A Health Perspective and Research Agenda*. Geneva: World Health Organization, Division of Mental Health and Prevention of Substance Abuse. WHO/MSA/PSA/97.4. Available at: http://whqlibdoc.who.international/hq/1997/WHO_MSA_PSA_97.4.pdf. Accessed 26 July 2005.

World Health Organization (WHO) (2000) *Guidelines for the WHO Review of Dependence-Producing Psychoactive Substances for International Control*. Geneva: World Health Organization. WHO/EDM/QSM/2000.5. Available at: <http://www.who.int/medicines/library/qsm/who-edm-qsm-2000-5/GL%20WHO%20review%20of%20dep%20producing%20psy%20final.pdf>. Accessed 26 July 2005.