The Costs of Drug Law Enforcement

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1. What is Important?

ECONOMISTS are utilitarians, in that their criterion for judging policy changes is that net social benefits should be maximised. In practice, this requires identifying and weighing the costs and benefits associated with changes in policy. In the case of drugs policy, this means that a utilitarian would not attempt to reduce all use of specific drugs in a society to zero with no regard to the costs of such a policy. Rather, the utilitarian policy analyst will attempt to identify a policy that minimises the cost ("harm") of the policy to society, including the drug users. Of course, to accomplish such analysis requires data, and even in an industrial country such as Australia, with a more mature administrative infrastructure (Brogan 1986), such data are not always available, as Marks (1991) discusses.

In the Australian context, drug abuse (that is, illegal drug use and legal drug use which results in social costs—examples of the first are use of marihuana, opium, and heroin; examples of the second are public drunkenness, drink-driving, and the diseases which follow from smoking tobacco) has grown in extent independent of any growth in non-drug crime, or of any reduction in the effectiveness of public administration. Nonetheless, the laws prohibiting some drug use have been ineffective, and indeed, I shall argue, have actually contributed to the social costs associated with such drug use. I hope that my analysis of the Australian situation may shed some light on problems and possible solutions of another country's.

2. To Minimise Harm

I have found it useful to distinguish between the costs of drug use which are independent of its purity and cannot be eliminated by care in administration or by consumer knowledge of the strength and purity of the dose, and the costs of drug use which are preventable, with such care and knowledge, such as disease transmission via unsterilised needles, or methanol poisoning amongst drinkers of adulterated alcohol.

Mugford (1991) has proposed a two-way categorisation of the social costs of drug use, whether under legal or illegal conditions. He defines first "intrinsic" costs and "extrinsic" costs: intrinsic costs are those that arise as a necessary result of use, even under ideal conditions; extrinsic costs are those costs, additional to the intrinsic costs, which arise when the drug use occurs under less-than-ideal conditions. The illnesses that tobacco smokers risk are an example of intrinsic costs; the illnesses that heroin users risk through the

sharing of dirty needles are an example of extrinsic costs. Second, "direct" costs are those borne by the user, including the money for purchase, the ill-health; "indirect" costs are those borne by others. Indirect costs range from the consequences of passive smoking to the costs to the taxpayer of the criminal-justice and health-care systems, and the wider costs to society of the forgone production associated with premature deaths and increased morbidity, and higher market costs for such things as insurance and home security. The risk of the spread of HIV infection to non-users is an indirect cost of drug use (a cost to all of society, not just to the hapless drug users), and to the extent that this infection is exacerbated by the prohibition, through the sharing of needles, then it is an extrinsic cost.

Mugford's categorisation of these costs highlights the possibility of tradeoffs: for instance, the prohibition on the use of certain drugs can be interpreted as an attempt by society to reduce the costs, both direct and indirect, associated with this drug use. But if the prohibition attempts to do this by increasing Mugford's direct, extrinsic costs (those borne by the drug users who break the law), it may also increase the indirect, extrinsic costs (borne by non-users as a result of the prohibition) to levels greatly above the costs the prohibition was designed to eliminate. These costs include the indirect, intrinsic costs that would fall on non-users when the drug use occurred under ideal, legal conditions, and also—paternalistically—the direct, intrinsic costs that would be incurred by drug users under ideal, legal conditions.

A cost–benefit analysis would conclude that the prohibition was inefficient if the sum of the social costs under prohibition were greater than the sum of the social costs with legal, regulated drug use. That is, if the direct and indirect, extrinsic and intrinsic costs of drug use under the prohibition exceed the intrinsic costs (both direct and indirect) under a regulated regime of legal drug use, then the prohibition is inefficient and non-cost-effective. Marks (1991) focuses on what Mugford would term the indirect, extrinsic costs of the prohibition; that is, those costs borne by the non-users which arise by virtue of the laws prohibiting the use of certain drugs. These include costs paid by the taxpayer for the criminal-justice system, the social-welfare system, and the health-care system, and costs paid by society at large for home security and because of such things as forgone production through ill-health or death. There are some costs which are intangible, but nonetheless real. These include the feelings of insecurity, fear, and anxiety from the threat of drug-related crime, and the costs of curtailed civil liberties as a result of attempting to enforce the prohibition.

Marks (1991) outlines a study of the costs of the existing laws in Australia. The following table summarises the extent of the costs, both extrinsic and intrinsic, both direct and indirect, to the extent that they can be accounted for.

Drug-law-enforcement costs include the proportions of the budgets of the state and federal police forces, the customs service, and the specialist crime-fighting bodies, that are directly related to drug law enforcement, as

Losses	
Drug-Law-Enforcement Costs	$320 million
P.V. of Future Production Lost	$178 million
Methadone Maintenance Costs	$48 million
Value Destroyed in Property Crime	$174 million
Defensive Costs against Theft	$230 million
Total Costs	$950 million
Transfers	
Property-Crime Losses	$466 million
Social Security Payments	$190 million
Total Transfers	$656 million

TABLE 1. Social Costs and Transfers from Illicit Drug Use, Australia, 1987–88. *Source*: Marks (1991)

well as an estimate of the costs associated with law enforcement associated with related property crimes. The lost productivity is due to premature, illicit-drug-related deaths; it does not include lost productivity due to the legal drugs of alcohol and tobacco, which are included in Collins and Lapsley (1991). Methadone maintenance is properly included because is provides a legal substitute for illicit street drugs, although not a perfect substitute—demand for street drugs apparently persists. A significant proportion of property crimes are committed by people attempting to earn enough income to support their drug consumption; some property value is destroyed and some transferred to the thieves, as the table shows. Marks (1991) lists the assumptions underlying the figures here. In response, and in addition to the government policing, private individuals and firms engage in their own defensive actions: insurance, security, and the like. A final entry is that of the social security payments supporting some illicit-drug-using individuals. A large proportion of these costs would be eliminated if the drugs were legally available, although this would result in some other social costs, direct and indirect intrinsic costs associated with more widespread use. The aim of good policy should be to minimise these costs.

3. Mechanisms for Changing Behaviour

MARKET-BASED economic mechanisms, or *exchange* mechanisms—such as taxes, charges, and subsidies—are only one possibility for altering the behaviour of individuals. There are two other broad categories of mechanisms, call them “authority” and “persuasion” (Lindblom 1977). Figure 1 shows this categorisation. Any point on the triangle corresponds to

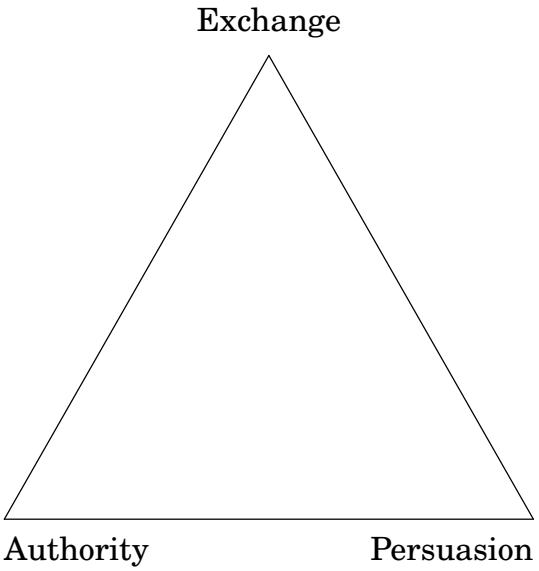

Figure 1. Three-Way Classification of Control Mechanisms

particular proportions of the three mechanisms, depending on the distances from the three vertices. It is possible to plot instruments for control, or even societies, on the graph, depending on their mix of the three basic mechanisms.

Authority mechanisms are the traditional method of dealing with drug issues by "command and control" regulation: the government passes laws which may include penalties for transgressors, and the criminal-justice system is employed as a deterrent against certain types of behaviour, with the power to fine or imprison offenders.

Persuasion mechanisms include education, inculcation, and even indoctrination towards certain approved behaviours, or social norms, and against other "anti-social" behaviours. Although apparently benign, in the extreme these methods of social control can result in the terrors of a Cultural Revolution. Yet, as we see below in a comparison of alcohol use and attitudes among high-school pupils from Papua New Guinea, Australia, and the United States, social norms apparently play an important role in determining attitudes and behaviour towards drug use.

4. From Authority to Markets

THERE is a growing consensus among drug-policy analysts (see John Marks 1990 and Mugford 1991) that the "harm" associated with illicit/licit drug use can be modelled as a U-shaped curve. Figure 2 is a revenue curve in which

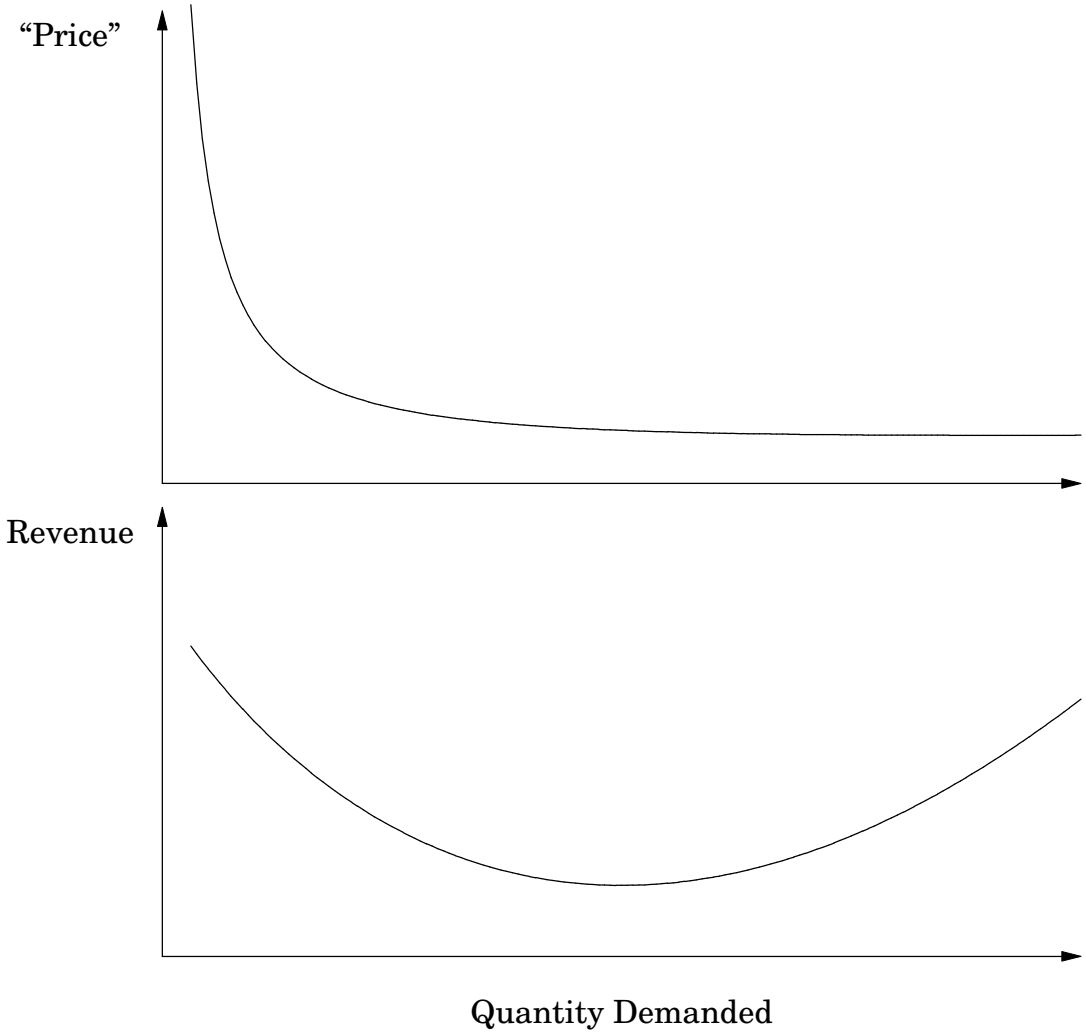

Figure 2. Harm: Revenue against Quantity or Control

the horizontal axis is the amount of the drug used, and the vertical axis is the amount times the price. Assume that the amount of drug used is a function of the degree of effective control exercised over the *supply* of the drug: a high degree of control would result in a small amount of consumption at a high (black-market) price; a low degree of supply control would result in a large amount of drug used at a low price. (Implicit in the diagram is that there is a

specific underlying demand schedule for the drug use, which is unaffected by supply-side control policies.) We can associate the high-control, low-quantity end with prohibition, or the authority mechanism, and the low-control, high-quantity end with a free market mechanism. The best position is between these two poles, with some degree of control over supply, but low revenues at medium prices and quantities. In short, the happy medium.

5. Costs of Policies

BEFORE we discuss the costs of the existing regime, it is useful to establish just how profitable the black market for prohibited drugs can be. Because of the law-enforcement effort, the prices of the illegal drugs are much higher than the costs of supply (including the costs of growing, processing, transport, and distribution). In a recent paper, Marks (1990*b*) compares the gross returns for heroin at the three stages in the distribution process of importing, wholesaling, and ounce dealing in 1974 New York, in 1981 Melbourne, and in 1988 Sydney. We reproduce this as Table˜1.

	New York City 1970–74 %	Melbourne 1981 %	Sydney 1988 %
Importers	660	1,400	1,550
Wholesalers	90	63	72
Ounce Dealers	133	103	120

TABLE 2. Heroin. Gross Return as a Percentage of Purchase Costs

Source: Marks (1990*b*: Table 5)

Table˜1 reveals the extremely high incentives for unscrupulous entrepreneurs to take the risk of smuggling the illicit heroin into Australia. The net returns are, of course, lower, after the costs of transport, handling, and (perhaps) bribery are deducted. A further deduction at the lower end of the chain is for profits which are consumed literally, by dealers who finance their own consumption by selling a proportion (usually about half) of their purchases, further diluted, and consuming the remainder (Marks 1990*b*). Without the high demand for heroin in Australia or the United States, the gross returns would be lower because the black-market prices would be lower, ceteris paribus. As with so many other third-world exports, illicit drugs are drawn to the countries where the prices are highest.

6. Implementation

6.1 The Policy of Choice *

IN a paper which should be compulsory reading for all who grapple with the dilemma of drug policy, Moore (1976) lays bare the drug problem. To summarise: the choice of policies to deal with the drug problem can be substantially affected by the definition of the problem. Definition of the problem entails exhaustively listing its attributes (broadly, the effects on drug users and the effects on others), listing the government's rôle and objectives, and listing possible policy instruments.

Moore lists two areas of the drug problem's effects on users: health (including mortality, morbidity, and intoxication), and dignity and autonomy (economic independence, conventional responsibilities, and satisfaction with life); and four areas of its effects on others: crimes (economic losses to victims, private costs of protection, and fear and anxiety), contagion, public resources (special services provided to drug users, their share of general services, the value of public facilities to others, and the impact on the balance of payments and on taxation and local government revenues), and the overall morale of society (the state of civil liberties, the power of organised crime, the integrity of the police and customs officials, the degree of upward mobility, and finally morality and æsthetics). He argues that these attributes should be included in any discussion of policy alternatives towards the drug problem.

Moore posits a 2×2 classification scheme: policies that affect the behaviour of the general society versus policies that affect the behaviour of current drug users only; policies that affect a broad range of behaviour versus policies that affect drug use only. This scheme ranges from policies which influence the macro "causes" such as cultural disruption and unemployment, to policies which influence the symptoms only, such as current users' drug consumption. Policies for prevention and cure lie between.

Moore makes the point that few could object to the strategic objectives of reducing the number of drug users and/or improving their behaviour and condition. If their socially and privately costly behaviour were improved, or if there were fewer of them, or both, then the drug problem would be less severe. Although the drug user's behaviour may be affected by his consumption of the drug itself, by his skills, habits, and attitudes before the onset of drug use, by the set of opportunities accessible to him, and by his participation in supervised programmes, of most profound impact on the drug user's behaviour is the prohibition: the fact that the manufacture, distribution, possession, and use of these drugs are virtually absolutely prohibited. Because of this the user faces high prices, drugs of unknown purity and potency, and of irregular supply. Consequently, the user's autonomy is reduced, he may commit more crime, and his risk of premature death is increased. Moreover, he is liable to arrest and conviction *merely for being an addict,* which brands him for life.

Moore argues that if illicit drug consumption is the problem, then

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* The next two sections draw heavily on Marks 1990*a*, pp.162–167.

eliminating drug use entirely (whether by effectively enforcing the supply-side prohibition, or by eliminating the demand for drug use) is a policy alternative to legalising all drug use. To advocate legalisation is to believe that legalisation is easier or less costly than elimination *and* to believe that legalisation will not change other objectives of society.

6.2 The Patterns of Drug Use

Several researchers have addressed the issue of the spread of drug use with easier availability. It appears to be the main reason why the NSW Rankin Report—on the legal provision of heroin to diminish crime associated with its supply and use—refused the fence: despite agreement among all witnesses that "the only possible way to eliminate the organised black market in heroin would be to make the drug available over the counter on demand, free of charge or very cheap, to all who wanted it" (Rankin 1981, p.29), and despite its recognition that the more restrictive the policy of legal heroin, the larger the illicit black market in response, it argued that the social cost of the rise in *addiction* which would inevitably follow would be "wholly unacceptable."~

Although freer availability of heroin may be *necessary* for a large growth in its use, it may not be *sufficient* for this to occur. Heroin use does not inevitably lead to addiction. A policy of easier access to heroin for all adults—not only those already habituated to its use—raises the issue of the new patterns of use: the number of subsequent new users and the extent to which some of these people would become problem users, with regular and heavy habits. So long as the demand for heroin is not completely inelastic, relaxation of the prohibition will increase the numbers of users, although many might be expected to be moderate, infrequent users, such as Zinberg (1979) and Marks (1990*b*) have reported finding.

In the absence of previous experience of the relaxation of a prohibition against opiates, we can turn to experiences with alcohol, and also look at the behaviour of groups with easier access to opiates than most: physicians and Vietnam servicemen and villagers in societies where opium is grown or readily available.

Those who fear that easier access to opiates would result in a large, disruptive increase in the number of users are in general those who most strongly believe that prohibition and the criminal-justice system have been successful, despite the evidence. They point to the "gin epidemic" of eighteenth-century England and the growth in the consumption of spirits in post-Revolutionary America, but these episodes may not be germaine to Australia since, as Aaron and Musto (1981, p.137) argue, "[a]s in England, when the gin epidemic spread during a period of social and economic transformation, the sharp rise in the amounts of alcohol consumed coupled with the deterioration of drinking behavior reflected the deepening cultural turmoil and impaired the capacity of institutions to relegitimate themselves."

Papua New Guinea may be passing through a similar period, which means that the demand for such drugs may be higher than in a completely traditional society or in an industrialised society, with consequently greater

difficulty of eliminating or moderating such drug-using behaviour. The evolution of cultural norms (Axelrod 1986) will result in a stable regime emerging.

Prohibition of alcohol production, transport, and sale in the U.S.A. led to falls in alcohol consumption as reflected in arrests for public drunkenness, incidence of alcoholic psychosis, acute alcohol over-dose deaths, and the rate of mortality due to liver cirrhosis (Aaron and Musto 1981), but at the same time drinking customs persisted—possession and consumption were not generally illegal—a crucial supply network quickly arose, and the law was increasingly held in contempt. Despite the fears of the U.S. prohibitionists, the repeal of the Volstead Act and the 18th Amendment did not result in wide-spread inebriation (Aaron and Musto 1981). Kaplan (1983, p.146) argues that had the prohibition against alcohol lasted seventy years—the length of the prohibition against heroin in the U.S.—then the level of inebriation may have been higher, and he points to the first effects of alcohol on societies previously innocent of the drug, such as the Eskimos of Alaska and the Indian tribes of the U.S. Northwest. It is not clear, however, that the analogy will hold for Australia: the "firewater" was but one introduction of a conquering culture to a traditional people. Indeed, despite their unfamiliarity with alcohol when first introduced to it by the Europeans, Aborigines in the Northern Territory have a much higher rate of abstinence (60%) than do the population at large (12%), although the incidence of tobacco smoking is twice as high among Aborigines than among Australians at large (Watson and Fleming 1988). (We discuss alcohol prohibition and the use of tobacco in PNG in Section 6.4 below.)

Although the rate of opiate addiction is much higher (twenty times) among U.S. physicians than in the population as a whole (Kaplan 1983, p.113), it is not a problem, despite their greater easy access to pharmaceutical-quality morphine.

Rosenthal (1979, p.460) discusses research on U.S. servicemen in Vietnam which suggests that addiction, if acquired, need not persist, and that the route of drug administration is significant. Robins (1979) reports that up to 14% of servicemen became "actively addicted"—a high figure, perhaps resulting from the high levels of boredom, alienation, and fear of the war zone. Of those actively addicted just before departure from Vietnam, 50% used no opiates after returning to the U.S.A., and only 14% became readdicted. Most servicemen in Vietnam (where the heroin was good, plentiful, and cheap) preferred smoking or sniffing the drug to injecting it. It was only when the Army's anti-heroin campaign raised prices from $2–3 to $12 per 250 mg. that injecting increased as users administered their supplies for the same cost-effectiveness (Marks 1974, fn.25). Moreover, Kaplan (1983, p.10) notes that "in Iran and Hong Kong, where heroin, though illegal, is far cheaper than in the United States, the drug is much more frequently inhaled."~ Those who had injected heroin in Vietnam were almost four times as likely to use it on their return to the States as those who had not injected, but, whereas 75% of those who had injected heroin before Vietnam continued

to use it afterwards, only 25% of those who had first injected in Vietnam continued to use the drug on their return. There are high rates of heroin use without addiction, and it is likely that most users do not become addicts (Rosenthal 1979, p.460).

To this author's knowledge, there are only three studies of the use of opiates in traditional societies: Akcasu (1976) found that although opiates are widely available in Turkey, Pakistan, and India, they seem to be used by only a very small percentage of the population. McGlothlin et al. (1978) studied Pakistani opium users in the city of Rawalpindi and in a small village with an unusually high level of opium use—opium eating is legal in Pakistan but smoking it is forbidden. The city users were less addicted (only 59% were liable to suffer severe withdrawal symptoms) and they regarded their use as mainly therapeutic; only one (of 90) ate the opium. The village users were addicted (100%) and saw their usage primarily as social and recreational; of the 28 subjects, 24 smoked, 2 ate, and 2 both smoked and ate. Despite the low cost of opium in Pakistan (20¢ U.S. per gram legally or 10¢ U.S. per gram illegally), users were spending up to 15% of their income for eating opium, or 30% for smoking. But both groups were atypical: the authors estimated that no more than 0.5% of all city dwellers ate opium frequently, and that in the North West Frontier Province the proportion of opium smokers in the 1.2 million population was about 1 in 2,000 (McGlothlin et al. 1978)—forty times lower than the 2% of the Australian population estimated to have injected illicit drugs in the last twelve months (NACAIDS 1988). Similarly, in Thailand, Suwanwela et al. (1978) report a low proportion of opium smokers among the hill tribes. Both surveys reveal a strong social stigma attached to opium use, and users' disapproval towards opium use by their children; indeed, McGlothlin et al. remark that a significant number would likely apply for treatment to give up opium use were it available.

Nonetheless, it is undeniable that a policy of freely available heroin or methadone would lead to more widespread use, even if not addictive use, than would prescription heroin or methadone (Trebach 1982, p.277). The trade-off is the rise of the black, or grey, market. There seems no way around it. Harking back to 1937 in the Northern Territory and foreshadowing Wardlaw (1982), Marks (1974) suggests an alternative in which the government would control the prices of over-the-counter heroin and methadone, making heroin sufficiently more expensive than methadone that its "excessive" use was discouraged, but cheap enough to completely undermine the black market, with its attendant evils. In the light of our understanding of the trade-off, complete collapse of the black market would require only minimal restrictions on the sale of heroin, and a price very close to that of methadone.

6.3 Regulation, not Prohibition

As an alternative to the completely unregulated, completely illegal markets for heroin under the existing prohibition, this author and others have argued for a regulated market, in which drugs are made available through

government outlets, which would ensure that drugs were clearly marked with their purity and strength, in which minors would be precluded, with no advertising, and which might provide the government with some excise revenue. Under this scheme, the price might have to be very low initially, in order to completely undercut the black market. Such a scheme would require Australian withdrawal from our international obligations under the Single Convention on Narcotic Drugs, but as a sovereign state Australia can legally institute such a scheme, given the political will. The Americans, always at the vanguard of drug control, might be unhappy, but there is growing realisation in the U.S. that their drug policy may be an unpopular export abroad (Nadelmann 1988). The most recent example of the U.S. exporting their domestic policy is the U.N. (1989) convention against drug trafficking.

The Report of the Australian Joint Parliamentary Committee on the National Crime Authority's inquiry into *Drugs, Crime, and Society* (Cleeland 1989, pp. 112–13) puts the case for a scheme of regulated supply very well, in attempting to balance the benefits of the existing prohibition in deterring new drug users and encouraging existing users to seek treatment, against its costs both to society and to the users themselves. Against any increase in drug use:

> must be balanced the benefits which would flow from the elimination of the illicit market. Even if legal supplies were heavily taxed to act as a disincentive to widespread use, it would still be possible to undercut the illicit market, which would therefore die away. There would be savings in law-enforcement costs, in court time, and in the costs of imprisonment. At the same time, the proceeds derived from the taxes could be used to fund drug-education and -rehabilitation programmes. The costs to the community of drug-related organised crime, corruption and property crime would be eliminated. Crime and corruption would, of course, not disappear, but they would no longer be fuelled by the need to purchase drugs at artificially inflated black-market prices. The illegal drugs would no longer have the glamour of forbidden fruit. Heroin users would no longer suffer the consequences of injecting drugs of uncertain strength and purity, and barriers to their seeking medical treatment would be removed. No longer pariahs to mainstream society, they would come forward more readily for medical treatment, and could be targetted for education on such issues as the risk of sharing needles in the age of AIDS. Cheaper heroin, in particular, could be expected to lead to a reduction in injection and a change to other methods of administration which pose fewer dangers to the health of the user. Informal social controls might develop which would operate as barriers to heavy use and addiction. [Cleeland 1989, p. 113]

An example of social controls over drinking which we take for granted are the disapproval that greets solitary drinking and drinking before lunch.

Opponents of this view argue, for instance, that organised crime would move into other areas if denied the existing profitability of the heroin black markets. Of course, if such potentially profitable opportunities exist now

with no barriers to entry, then there will be unscrupulous individuals or organisations seizing them already; otherwise, such actions will be very much "second-best", with a lower rate of return. Indeed, on such an argument Prohibition should never have been repealed in the U.S.—which overlooks the dynamic nature of the markets and the evidence that the longer the prohibition—of alcohol or opiates—the wealthier, and hence more powerful, those who profit from the illicit trade become.

The big imponderable is the number of users under the new regime. To the extent that the demand for heroin among the regular users is price-inelastic in the face of black-market price rises—which is the basis for the profitability of the illicit suppliers—then a fall in the price will also reveal an inelastic demand, with a relatively small (10%–15%) increase in the numbers of regular users. Numbers aside, under a regulated system these users would not pose the social problem of the junkies under the prohibition. What is a recently perceived phenomenon is the hidden bulk of the iceberg of occasional users (Marks 1990*b*). If theirs is a more elastic demand, then their numbers may well grow proportionately more rapidly as the price falls, but their previous invisibility should give us pause: why should we be concerned, so long as there are few external effects from their use. The most significant possible externality is the public-health risk of HIV infection spreading from shared needles. To repeat, if we are not prepared to tolerate any increase in the numbers of drug users, however private, then we should persevere with our existing, costly, punitive, but nonetheless ineffective policy, with its dire public-health risks.

7. Papua New Guinea

What can we say about the use of drugs in Papua New Guinea? A literature survey reveals that PNG society may be as vulnerable both to an increase of drug use as eighteenth-century England and to a black-market supply of prohibited drugs as any other democracy in the world.

The two legal drugs, alcohol and tobacco, are increasing their penetration as the cash economy spreads from the islands and the coastal regions into the Highlands. In a public-health survey of two Melanesian communities, one an island with at least 100 years of European contact, the other a Highland community with less than 30 years of European influence, Hornabrook et al. (1977) examined the incidence of alcohol and tobacco use in the two communities, segmented into above-average, average, and below-average status groups. They found that the incidence of alcohol use among men on the island was 21.7%, but only 8.8% in the Highland community; in both communities they found that alcohol use increased with social standing, "with consumption apparently related to available finance, as alcoholic beverages are not manufactured traditionally". They found that the

incidence of tobacco use was also higher in the island community—67.2% among men and women—than in the Highland community—18.6%. On the island, "frequent tobacco use did not alter significantly with class differences, since due to household cultivation of the tobacco plant, tobacco use is not a function of affluence". In the Highlands, however, tobacco use among above-average people was over twice as common (41.7%) than among other groups, indicating the emergence of differential lifestyles there.[1]

This suggests that, first, the longer a community has had contact with European influences, the greater the incidence of use of introduced, legal drugs (although see below the discussion about alcohol prohibition). Second, use of alcohol (which has not been traditionally brewed in PNG) increases with affluence, while use of tobacco—which is home grown on the island, and so, unlike alcohol, does not require cash for its purchase—does not increase with affluence on the island, but does so in the Highlands. If this pattern is followed for other drugs, then "imported" drugs may exhibit a similar consumption pattern to alcohol, while "home-grown" drugs, such as marihuana, may be consumed much as tobacco is today. If these drugs are prohibited, then the total incidence levels may be lower, but the differential incidence levels will likely look the same.

Alcohol has been the subject of a prohibition in Papua New Guinea: after 1884 its use by indigenes was totally prohibited (Marshall 1988), and it was not until 1962 that indigenes could legally drink alcoholic beverages again. Since that time norms associated with alcohol use have emerged: "drinking is mainly a male leisure pastime, and alcohol is integral to interpersonal and intergroup exchanges. Drunkenness is widely accepted as an excuse for untoward behaviour, and the purchase and consumption of alcohol—especially beer—symbolises participation in a sophisticated, modern, emergent Melanesian life-style" (Marshall 1988, p.576). Rapid growth in alcohol consumption—between 1962 and 1980 the doubling time of the numbers of beer drinkers was between four and five years—has led to much concern.

In a study of attitudes to alcohol across high-school pupils in Papua New Guinea, Australia, and the U.S.A., Wilks and Callan (1984) found that, among the PNG teenagers they surveyed (467 males, average age 16.7 years; 210 females, average age 16.3, from nine schools in the Morobe and New Ireland Provinces) only 39% of the males and 14% of the females had ever drunk alcohol. This was contrasted with the Australian and U.S. students

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1. A more recent study (Connell 1989) reports that a World Health Organisation survey found that PNG has the highest rate of female smokers (80%) among a group of 40 countries. He adds that "cigarettes of high tar content are actively promoted", which suggests that tobacco is increasingly part of the cash economy.

(on average slightly younger), at least 93% of whom had ever drunk alcohol. The authors remark that "In the wantok system of Papua New Guinea, unacceptable individual behaviour not only affects the standing of the individual, but the status and prestige of the individual's family and kin group."~ They conclude that this explains the choice by PNG students of the stereotypical trait that a person who drinks a lot of alcohol "causes family problems".

As seen in industrialised countries, a large problem with attempts to prohibit behaviour that is widespread and, to a large extent, "victimless" is that the prohibition provides strong incentives for corruption of law-enforcement officers and for the development of black-market supply of the illicit drugs. PNG is reported to have a relatively low crime rate, although recently incidence of crimes against women has increased significantly. Connell (1989) reports that "rascal (*raskal*) gangs" have expanded, especially in Port Moresby and along parts of the Highland Highway. Hegarty (1989, p.8) is reported as describing them: " ... initially composed of urban marginalised youth, many of these gangs had developed into vertically integrated criminal networks with organised theft, protection, marketing and distribution systems. Leadership was in the hands of hardened criminals, gang territories had been established and the use of calculated violence (including sexual attack) was tending to displace its indiscriminate use. Connections had developed between gangs and some politicians."

This description suggests that the rascal gangs could readily provide the nucleus for organised crime to develop black-market supply of illicit drugs, and ominously to buy political protection. Moreover, even in the industrialised countries, expenditure of large amounts of resources have not been sufficient to end the black-market supply of illicit drugs, in the face of continuing strong demand. In a poorer country, even with very substantial and continuing assistance to the forces of law and order from foreign sources, effective prohibition is a costly illusion. One cost might be civil liberties: Connell (1989) remarks that, "Gangs are much better organised than the police and only the drastic use of 'states of emergency' and curfews have really curbed the expansion of organised crime."~

Brogan (1986) focuses on law and order in PNG. He notes that in 1982 private-sector expenditure on security and law-and-order-related matters was K45 million, compared with government expenditure of about K50 million. But he notes that over the previous two years private-sector expenditure had been growing three times as fast (35% p.a.) as government expenditure (11% p.a.). He argues that although there exists a small but growing criminal milieu in PNG, most crime here has social causes, as a tribal society is confronted by the stresses and opportunities of the cash economy and globalisation.

Whatever the policy towards drug use, there must be effective administration for the policy to be successfully implemented, whether it is prohibition or regulation of some sort. Unfortunately, Brogan is not optimistic about the law-and-order agencies in PNG: "poor training, shortages of key skills, and poor articulation of policies—money alone will not solve those problems, especially in the short run" (pp.31–32). Research undertaken by the Institute of National Affairs found widespread lack of support for, and understanding of, the law, which Brogan believes is fundamentally due to "imposition of a western legal system—with its formal trappings, western values and professional officers to police and administer it—on what had formerly been a traditional rural society ... the old values have crumbled and new ones have not arisen to replace them" (p.2). If legitimate companies have not been backwards in offering inducements to willing politicians, how much more readily would illegal organisations contribute funds in return for political favours?

7.1 Traditional Drug Use

The use of kava, betel nuts, and palm wine has been noted in the islands, but this author was informed that there was no traditional use of drugs in the Highlands, which would mean that the Highlanders, like the Inuit, were quite atypical for traditional societies in having no psycho-active substances. But it may be that the informants were unaware of traditional drug use or that they were concealing traditional drug use because of its ritual character in initiation rites and religious activities. This could be because of the importance of such rites and activities or because the informants wanted to put such pagan practices behind them. Rudgley (1993) discusses at length the use of fungi by Highland societies (the Kuma people of the Wahgi Valley, the Kiambi people and the Bimin-Kuskusmin, Mountain Ok people of the West Sepik). As well as mushrooms, ginger, tobacco, and pepper play a part in the rituals of the latter group, in which intoxicants act as catalysts for revelatory experiences.

Rudgley's book details how traditional societies have managed the use of intoxicants, which are consumed in a socio-cultural framework which has weakened and often disappeared with the rise of the cash economy and consumerism. Whether from absence of experience at all of intoxicants, or because of the breakdown of traditional controls, people may be afraid of the use of such substances as cannabis or alcohol in Papua New Guinea. Indeed, the prohibition of alcohol in the '50s and '60s and the calls for tighter control of cannabis harvesting and trade may be attempts to reintroduce the traditional controls in an emerging modern society. In the absence of universal acceptance of such controls, however, they may have the effect of exacerbating the social ills that the combination of an emerging cash

economy and new drug use may bring.

8. Conclusion

AT this stage it would presumptuous for me to prescribe a drug policy for a country I have visited only once. What I can argue is that Australia has not found the happy medium yet. Policies for an industrialised country such as Australia may not be appropriate for a country still making the journey from traditional society to modern democracy. As we have seen, such a transition can be painful, and in pain people and societies have in the past turned to drugs for release or forgetfulness. There is a danger that the "gin mills" of eighteenth-century London are revisited in a tropical setting, if drugs—licit and illicit—are readily available. On the other hand, a traditional society retains social norms and informal control mechanisms to deal with anti-social behaviour, and the figures on alcohol use quoted above suggest that these are operating in PNG. Moreover, using western criminal law to attempt to squeeze off supply of illicit drugs is an expensive proposition, as we indicated above for Australia, and is bound to be unsuccessful in completely staunching supply, while at the same time presenting unscrupulous entrepreneurs with great opportunities for profit and (possibly) corruption, where necessary. I can only hope that the Conference results in wiser decisions than others have made in the past.

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