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Moving Beyond the "War on Drugs"

Shifting the Main Purposes of Drug Control:

From Suppression to Regulation of Use

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Abstract

I believe that the original aims of the (almost full) prohibition of substance use, as it is applied according to the NY Single Convention of 1961, are unattainable. Instead, I want to present some arguments and ways of looking at drug use that support a far-reaching revision of the current aims of drug control. Drug policy goals should shift, from suppression of use to regulation of use. In this article, I will present drug use data collected in Amsterdam that, in my view, supports such a shift. Ten years of drug use data in the population of Amsterdam show a remarkable level of control and stability in drug use patterns in a policy environment that allows relatively easy access to drugs. Internal controls on drug use can be expected to play a much larger part in structuring these patterns than classic drug policy theory allows.

Cannabis and Cocaine in Amsterdam

Full or almost full suppression of particular drugs is not very difficult to legislate and to maintain as a principal aim as long these drugs are not, or rarely, used. For the Netherlands, this is well-researched (Gerritsen, 1993; De Kort, 1995; Leuw and Hean Marshall, 1994). Problems begin when prohibited drugs start to be part of new lifestyles in which the reasons for their suppression are irrelevant. This irrelevance creates political/ethical problems as well as practical problems for society as a whole. Another cause for problems is that new drugs take time for 'enculturation.' The “enculturation” of a new drug is the development of rules around use and dose, and the creation of images of what to expect of these drugs by those who do not (yet) use them.

In this paper, I focus on cocaine and cannabis use in Amsterdam - two drugs that are used by small but significant parts of the population (last month use of cannabis is less than 10% and of cocaine not more than 1% of the population of 12 years and older, Table 1). By studying patterns of use over time and the environments in which these drugs are used, we may increase our ability to understand if risks related to use of these drugs occur or for what proportion of users these risks apply.

Amsterdam is a relevant area for the study of drug use because of its higher level and longer history of enculturation of drug use than anywhere else in the Netherlands (Langemeijer et al., 1998; Abraham et al 1999). I will then try to apply knowledge, gained from both population surveys and in-depth studies on careers of drug consumers, as background for "risk assessment" of drug use. I will show that most community-based drug use is highly "controlled" and add some practical insights into what "control" means in the daily reality of drug use. These insights are relevant for those who are looking for alternatives to our present system of prohibition.

Methods: *What knowledge is useful?*

Our population surveys and our more detailed user surveys supply different kinds of knowledge for the relative risk assessment of drug use. Population surveys allow estimations of probabilities for relatively broad variables, like continuation rates, average age of onset for different drug use, and combinations of drug use. Our consumer studies allow better views on the dynamics of patterns of drug use within individual drug use careers and the prevalence of certain health or social risks among serious drug users.

The most important risk commonly attached to the use of illicit drugs is that initiation into drug use will automatically (or very often) lead to repetition of use and eventually heavy use. Large enough population surveys of good quality give the empirical basis to verify the veracity of this fear.

Another risk that is commonly associated with the use of drugs, above all with the use of cannabis, is that initiation into cannabis will be followed by heavy use patterns of other drugs that are considered even more dangerous. Here again, large population surveys enable us to find out if such risks occur, and if so, how often. We can look at our data from a perspective of differential risk evaluation; ultimately, we would like to answer the question that if drug use prevention should have top priority (an idea that underlies current policies), or that policies should shift to risk prevention and leave the decision to use or not to use within the realm of individual autonomy.

Table 1. Percentages cannabis and cocaine use, of Amsterdam population aged 12 years and older, 1987 (n=4,377), 1990 (n=4,443), 1994 (n=4,364) and 1997 (n=3,798), (weighted).

	Lifetime prevalence %				*Last year prevalence %*				*Last month prevalence %*			
Drug	1987	1990	1994	1997	1987	1990	1994	1997	1987	1990	1994	1997
Cannabis	23.2	25.2	29.8	36.3	9.5	10.2	11.2	13.1	5.6	6.1	7.2	8.1
Cocaine	5.7	5.7	7.0	9.3	1.6	1.3	1.9	2.6	0.6	0.4	0.8	1.0
	Incidence (per population) %				*Last month continuation %*				*> 25 times (per reported life time) %*			
Drug	1987	1990	1994	1997	1987	1990	1994	1997	1987	1990	1994	1997
Cannabis	1.1	1.0	1.2	1.1	24	24	24	22	.	47	44	44
Cocaine	0.3	0.2	0.3	0.6	10	7	11	10	.	24	30	27
	> 20 times (per reported last month) %				*Mean age of first use*				*Unweighted n reported life time*			
Drug	1987	1990	1994	1997	1987	1990	1994	1997	1987	1990	1994	1997
Cannabis	23	22	19	23	20.2	20.3	20.2	20.3	995	1096	1272	1285
Cocaine	16	0	9	4	24.5	24.7	25.2	24.5	245	245	297	321

Measures

Our population surveys in Amsterdam shed light on the risk that users of illicit drugs will develop into heavy drug users. Table 1 contains the essential indicators that are needed to assess level, intensity, and frequency of use, and the development of these indicators over a period of ten-years in the population of Amsterdam of 12 years and older. These indicators are:

- Lifetime prevalence
- Last year prevalence
- Last month prevalence
- Incidence of drug use in the population
- Last month continuation rate, i.e. the proportion of lifetime users than continue to use monthly
- Rate of experienced users, i.e. the proportion of lifetime users that reaches a minimum experience of 25 times of (life time) consumption
- Proportion of last month users that uses daily or almost daily (more than 20 times per month)
- Average age of initiation

With these indicators, we can look into the characteristics of drug use in a population, beyond the superficial indicators of mere prevalence.

Cocaine and Cannabis

We have studied cocaine and cannabis use in the Amsterdam and other city populations since 1987 (Sandwijk et al., 1988, 1991, 1995; Langemeijer et al., 1998) and in the Netherlands, as a whole, since 1997 (Abraham et al., 1999). For this article, the Amsterdam data are used because they allow observation over a ten-year time span. To interpret the data we collected, one should know that, in Amsterdam, individual drug use is not seen as a high priority for suppression. In other words, legal constraints are in effect but hardly bother users. Cocaine is distributed via house, street, and disco dealers. Cannabis is mostly distributed via retail outlets with the name of "coffee shop." The availability of cocaine is low and not easy for the general population. Only those who are in the user circuits know how to find it. For them, there are many ways to obtain cocaine. The availability of cannabis is almost the same as it is for legal substances like tobacco or alcohol.

We know that lifetime prevalence (LTP) of cocaine use in Amsterdam has increased. In 1987, we found an LTP of 5.7% in all of the population of 12 years and older; in 1997, this had risen to 9.3%. However, lifetime prevalence is a deceptive statistic because the use of a drug is experimental, or very infrequent, for a large part of the user population. Last month prevalence gives a more reliable indicator for ongoing drug use in a population. Therefore, looking at last month prevalence, we find a figure of 0.6% in 1987 and 1.0% in 1997. The relation between lifetime use and last month use can be viewed as a last month continuation rate and expresses what proportion of lifetime users report last month use as well. The last month continuation rate of cocaine has remained very stable between 1987 and 1997, at 10%. Cocaine incidence -which means new starters or initiators - in the population is low and very stable as well; it varies between 0.3% and 0.6% per year. We have developed some other indicators to study the dynamics of drug use patterns, and they all show how amazingly stable cocaine use patterns are in Amsterdam in the epidemiological sense (Abraham et al., 1998). We have the same indicators

for cannabis, and apart from the slow rise in prevalence, we observe the same stability in the epidemiological indicators as with cocaine (see Table 1).

Large surveys cannot be used to collect information that is more detailed on how drugs are used. One needs specialized and detailed surveys among experienced users to develop knowledge about how, when, and why a drug is used, and how drug use may vary over the user's career. In addition, collecting useful information on the types of risks users identify, and how they deal with them, is only feasible by dedicating long and detailed surveys to these topics among experienced users. We did this for cocaine between 1987 and 1991 (Cohen, 1989, Cohen and Sas, 1993, 1994, 1995) and for cannabis in 1995 and 1996 (Cohen and Sas, 1998 a,b).

This allows us to combine the knowledge gathered from large epidemiological surveys with the knowledge from large samples of experienced drug users.

In user surveys, we can also measure the actual prevalence of certain health risks. A very extensive overview of potential health risks of high-dose cocaine is given in Wolters (1989). Wolters does not discuss the prevalence of these risks within the population of users, or per level of use. The prevalence of certain health risks of cocaine use in community-based samples, and the discussion of their seriousness, can be found in Cohen (1989), Waldorf et al. (1991) and in Erickson et al. (1994). A useful and inclusive discussion of potential and actual health risks of cannabis is given by Morgan and Zimmer (1997a, 1997b, see also Hall et al, 1998; WHO, 1997). Although it is still possible to discuss health risks of drugs in the scientific community, the arena of "health risks" has become a favored playground for political activity.

Specific Findings

Overview of trends in cannabis and cocaine use in Amsterdam: 1987-1997

For cocaine and cannabis, we find that, even in the city where both drugs can be easily bought (cannabis easier than cocaine), only small minority parts of the population of 12 years and older even try these drugs. Of those minorities, a minority will develop into at least monthly users (for

cannabis, 22%, for cocaine 10%). Not even half of all lifetime users have an experience with these drugs of 25 times lifetime, or more.

And, of the last month users (as I said, small minorities for both drugs), about 23% use cannabis on more than 20 days per month (daily or almost daily) and, for cocaine, this is under 10% (because of the small numbers, last month cocaine data in Table 1 will vary over the years). Our conclusion is, that in a regime of drug control that does not emphasize suppression and prosecution of individual drug use, drug use is not only quite infrequent, but also of low intensity. We can confirm this over a ten-year time series of measurements, which is an important asset in comparison to simple year prevalence data. It seems that the risks of heavy use, developing under a regime of non-prosecution of individual drug use, are very small.

We also published an analysis of the risk that users of cannabis, in Amsterdam's liberal regime, will develop into users of other illicit substances, or even heavy users of those illicit substances (Cohen and Sas, 1997). This analysis should teach us if "gateway" effects appear in a community-based sample.

Cocaine is the second most popular illicit drug in Amsterdam with life prevalence of 9.3% of the population (see Table 1). In an earlier analysis of our 1990 and 1994 survey data, we looked for signs of cannabis being a "gateway drug." Our main findings were that of all people who have lifetime experience with cannabis, 22% will develop lifetime experience with cocaine (which means they try it at least once during lifetime), on average, 5.6 years after they first tried cannabis. Therefore, over 75% of those who have ever used cannabis will never develop some experience with cocaine. We measured the length of the cocaine use career of the 22% who did; 2.9 years is the average time span between first and last cocaine use.

For some observers, 22% of lifetime experience with cocaine among all cannabis users may seem high. This impression, however, should be analyzed in a careful way in light of what we know of people who have lifetime experience with cocaine (see e.g. table 1). Of this knowledge, the most important element is that lifetime experience with cocaine, in reality, is no more than

fleeting and experimental contact for most. Alternatively, in the words of the Toronto-based Erickson et al. (1994), "Most use is infrequent and self-limiting."

Just 2% of the lifetime users of cannabis in Amsterdam will develop into current users of cocaine (at least once per month). Frequent current use of cocaine - more than 20 times per month - among cannabis users in Amsterdam occurs with one per thousand (2 respondents out of 2,368). Although these figures are limited to the registered population of Amsterdam and are missing some heavy poly-drug use patterns among the homeless, these figures should illustrate that the figure of 22% lifetime prevalence of cocaine among lifetime users of cannabis does not represent an indicator of heavy or irresponsible cocaine use among cannabis consumers. Heroin experience is almost non existent among lifetime cannabis users, so it is ignored here. (LTP of heroin is 4.2% and LYP 0.7%; Cohen and Sas, 1997).

From our in-depth cocaine and cannabis users surveys, we collected enormous amounts of information. Because we are able to measure the representativeness of our samples of cannabis and cocaine users, we know that our data are generalizable to the category of experienced users of both drugs (for cocaine in Amsterdam, for cannabis in Amsterdam and smaller cities). The full questionnaires of the user surveys are available in Cohen (1989), (cocaine) and Cohen and Sas (1998a) (cannabis).

Trajectories of drug use in experienced users of cocaine and cannabis

In Tables 2 and 3, which show data from experienced users (and not the general population), the changes in levels of use of cocaine and of cannabis are shown between the first year of regular use and the three months prior to interview (Figures 1 and 2 give the same information as Tables 2 and 3). On average, this period spans 5 years for the cocaine users (range 0.5-20 years) and 10 years for the cannabis users (range 1 month - 43 years). We identify (for Tables 2 and 3) three points within a user career: first year of regular use, top period of use, and last 3 months prior to interview.

We can see that, at top period, of all cocaine users, 19% develop into high-level users (more than 2.5 grams per week), and of all cannabis users, 35% (more than 10 grams per month). At the

time we interviewed these users, high-level use was rare; we found it in 11% of the cannabis users and 3% of the cocaine users.

From Table 2, it is also apparent that after the average 5-year career of cocaine use, 89% of the sample is either abstinent or using at low levels (of less than 0.5 grams of cocaine per week). In Table 3, it is shown that after a mean of ten years of cannabis use, the category of those who are abstinent or at a low level of use (less than 2.5 grams of cannabis per month) is 65% of all respondents. For the cocaine users, we did a 4-year follow up investigation, on average 10 years after first year of regular use. High level use was not observed, and the proportion that is abstinent (no use during last three months) has grown from 26% after five years to 66% after ten years after the first year of regular cocaine use (Cohen and Sas, 1993).

The normative patterns for the cannabis and cocaine users we investigated typically include a tendency (during their full career of consumption) towards progressively lower levels of use - often to abstinence. Most cocaine and cannabis users apply forms of self-limitation in their drug use (see also Harrison, 1994). This does not contradict the fact that excess and frequent cannabis or cocaine use does occur for extended periods (see e.g. Reilly et al., 1998; Waldorf et al., 1991), especially in focused samples of such users or by surveying persons that are treated in drug and alcohol clinics. However, such users are not the norm. Apart from the risks of excess patterns of use, other risks related to drug use exist.

With the help of our questionnaires, we are able to give information on a highly varied amount of other “risks” like driving under the influence of a substance, engaging in antisocial behavior, phenomena of “dependence,” etc. All of these risks occur but always for small minorities of the total user group. It is interesting as well that these risks are often self-limited and mitigated by the user. For an abundance of information on the prevalence of all sorts of risks and their management over time, see our cocaine and cannabis publications and many publications by others.

Table 2. Level of cocaine use in three periods, for experienced cocaine users in Amsterdam, 1991.

*Level of cocaine use**	*First year of regular use*		*Period of heaviest use*		*Last 3 months prior to interview*	
	n	*%*	*n*	*%*	*n*	*%*
None	-	-	-	-	71	26
Low	232	87	134	50	168	63
Medium	29	11	82	31	20	7
High	5	2	50	19	7	3
Unknown	2	1	2	1	2	1
Total	268	100	268	100	268	100

Average duration of use since first regular use: 5 years.
Average duration of period of heaviest use: 19.4 months.

* Low: <0.5 gram per week; medium: 0.5 - 2.5 gram per week; high: >2.5 gram per week.

Source: Cohen & Sas (1994), Cocaine use in Amsterdam in non deviant sub-cultures. *Addiction Research* , Vol. 2, p. 76.

Table 3. Level of cannabis use in three periods, for the total number of experienced cannabis users in Amsterdam, Utrecht, and Tilburg.

*Level of cannabis use**	*First year of regular use*		*Period of heaviest use*		*Last 3 months prior to interview*	
	n	*%*	*n*	*%*	*n*	*%*
None	-	-	-	-	214	34
Low	328	52	127	20	195	31
Medium	198	32	246	39	138	22
High	69	11	221	35	69	11
Unknown	30	5	31	5	9	1
Total	625	100	625	100	625	100

Average duration of use since first regular use: 10 years.
Average duration of period of heaviest use: 31.3 months.

* Low: < 2.5 gram per month; medium: 2.5 - 10 gram per month; high: > 10 gram per month.

Control of Drug Use

Why do the large majority of drug and alcohol users not develop into compulsive alcoholic-type users? The answer is: control.

The notion of control may be strange to those who see the use of drugs as a sign of loss of control "per definition." But one may indeed discover that most drug users apply all sorts of self-imposed controls. These controls are very similar for all drugs one studies. They are learned within lifestyles and environments in which the prohibition of drugs and the legal constraints that come with it have become utterly irrelevant. In these lifestyles, drug use is functional and plays a role in the construction and maintenance of collective norms (social control), pleasures, and identities.

In our studies, controls on drug use are defined as self-imposed behaviors, or rules that regulate the selection of locations of drug use and companions of the user, normatively determine the amount of drugs used, and moods fit for use (or unfit for use). Controls will also influence the selection of occasions of purchase and the amounts one purchases per day or week.

SHIFTING THE MAIN PURPOSES OF DRUG CONTROL: FROM SUPPRESSION TO REGULATION OF USE

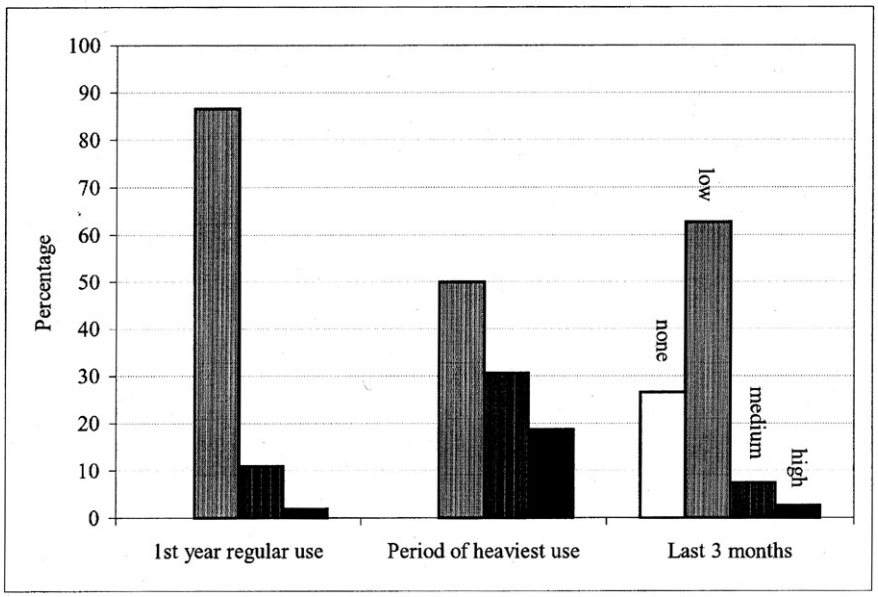

Fig. 1. Level of cocaine use in three periods, for experienced cocaine users in Amsterdam, 1991.

On a higher level of abstraction, we could define controls over drug and alcohol use as those behaviors that allow the user to locate (or structure) any drug use within a much wider field of life engagements. The result of this is that the use, after some time, has learned to distinguish between useful and detrimental functions of episodes of drug and alcohol use. This knowledge expands the navigational skills that are needed to live an everyday life.

People have to read the paper, prepare a meal, go to the movies, raise the kids, maintain a sense of purpose and social belonging, manage their bank accounts, feed the cats, go to church, pay their bills, and divide their time between sleeping and waking hours (this selection is arbitrary). As Waldorf et al. (1991) say, "stakes in conventional life and identity remain important for any theory attempting to explain the broad patterns of use and abuse of cocaine." As is true of another potentially high-risk drug, alcohol, the large majority of users of cocaine or cannabis succeed in structuring the use of these drugs within their complicated and busy lives. In fact, one could see the complexity of these lives as the main engine of control over drug and alcohol use. Individual and social control mechanisms are not simply shut off when people start to use illicit drugs. Control over drug use implies that if drugs start to be nonfunctional or even dysfunctional within the complexity of life, drug use is changed, mitigated, or abandoned. Moreover, this is exactly what we observe for a very large majority of users in our studies.

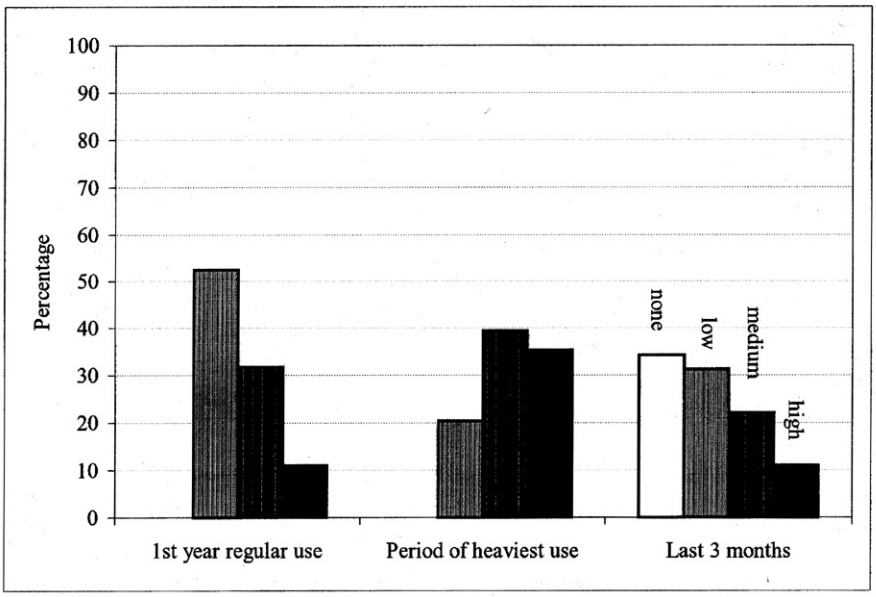

Fig. 2. Level of cannabis use in three periods, for the total number of experienced cannabis users in Amsterdam, Utrecht and Tilburg.

I want to stress here that control over drug use is not some kind of chance result that just happens to apply to a majority of users. Analyzing drug consumption and the types of controls that people apply, reveals that drug use is seen as only functional in particular circumstances; outside those circumstances drug use is perceived as counterproductive or disturbing in its effects - i.e. not nice, even dumb. In other words, applying user-based rules of control is the only way to maintain the reasons and the pleasures of drug use. This makes the application of controls an integral part of most human drug use. Only a heuristic view on drug use can reveal this. Pharmacological perspectives on human drug consumption based on animal models of "addiction" without social scientific knowledge of real life drug use, will result into quasi-knowledge.

Conclusion

These findings suggest that it would be better to legally regulate drug consumption and enable drug users to control their own drug use, than to try to prevent drug use by its prohibition. In so far as the state has a role in drug control, it should focus on the prevention of risks. The state can play an important role in fostering user-based controls on drug use. A state can do so by letting conditions emerge that allow the user of drugs to maximize his or her considerable powers of control. Public health and social agencies might advertise reliable information about risks and the contexts in which drug use errors occur, or about ways to maximize drug efficiency at the lowest dosage. Drug potency and price have to be regulated in order to do so. Further, information can be given and constantly refreshed through interaction with users and drug scholars. This information might consist of ways to reduce harm (e.g. no intoxicated driving, consider treatment, or counseling if your drug or alcohol use surpasses certain boundaries or results in specific effects, etc.).

In contrast, many state drug control systems based on prohibition are focused predominantly on destroying conditions for individual drug use control. Such prohibition regimes assure the continuation of massive marginalization, incarceration, and discrimination of users and suppliers. Communicative structures of drug users are constantly threatened, reducing their efficiency as vehicles of safe use knowledge.

Nowhere has this system been successful in preventing drug use and its growing prevalence, or serious drug use harm. Nor has its lack of success resulted in serious efforts to change it. Outdated Victorian and mostly pharmacocentric theory of drug use (opium and other drugs cannot be controlled by human consumers) inspired the global drug treaties and are still dominant (Cohen, 1993). Until now, the experience gained in "addiction" clinics or in impoverished underclass areas (that derive from a small sub-sample of all drug users) has been emphasized to substantiate this obsolete theory. We need modern social scientific-methodology and theory to confirm for a variety of drug use cultures that most drug use is controlled and associated with low-risk for the large majority of drug users. It is through such research that we can hope to obtain a state of knowledge about drugs that ultimately liberates us from myth and myth-based drug ideology.

This will bring, I hope, at the same time liberation from the ever-growing influence of national and international bureaucratic bodies that thrive on the global maintenance of drug myths. Scientists have a role to play here but a small one compared to politicians.

Notes

1. In a recent article, Caulkins and Reuter (1997) choose the concepts of ‘use reduction' and 'harm reduction' as a pair of opposite policy goals. They conclude their article by stating that use reduction is part of harm reduction, although not at any price. They thereby integrate both objectives. In my view, the concepts of suppression versus regulation of use generate a clearer debate about policy aims.

2. In our own drug use reports, we give all or some of these indicators also per age cohort, per socio-economic level, level of education, ethnic group, city area and household composition (see e.g. Abraham et al., 1998).

3. Confidence intervals for these values overlap, i.e. these differences are not statistically significant.

4. To make the knowledge of the latter category generalizable for the majority of drug users, one has to select samples from the community and not from the clinics. The same would be true for investigations into the details of alcohol use. It is possible to select users that are treated in alcohol treatments institutions but the knowledge one would collect that way about patterns of use would be hard or impossible to apply to the large number of community-based alcohol users who never are alcoholic or who have only limited periods of heavy-drinking.

5. Therefore, in the eyes of most of the public, this issue has moved beyond the boundaries of rational discussion into an arena where "drug experts" play the role of gladiators fighting for opposing drug policy ideologies.

6. The ways we computed level of use over time from different indicators is explained in Cohen and Sas (1994) and in Cohen and Sas (1998).

7. Information from other authors that confirm and detail our findings that the large majority of community-based users apply ample powers of control, see for cocaine Harrison (1994) or the complete special issue of Addiction Research, 1994, Ditton et al. (1996), Waldorf et al. (1991), Erickson et al. (1994), and Reinamman and Levine (1997). For cannabis, good examples of vivid and realistic use pattern descriptions are Goode (1970), Rubin et al. (1975), Kleiber and Soellner (1998); for risk management relating to cannabis and traffic, see the excellent studies of Robbe (1994, 1997).

8. Pharmacological notions about effects of drugs in the brain have always been used to maintain that drug addiction is not only biologically and neurologically based, but also explained. This feeds a disastrous process of medicalization of drug problems. I maintain that pharmacology teaches us very little about "addiction" but even if I were wrong here, "addiction" is not what most drug use is about. Whatever theory one may favor about addiction, it is useless to explain the bulk of drug and alcohol use. See for an interesting and unconventional critique on the medicalization of drug problems, Polak, 1997.

9. See for a fact-filled overview of the destructive effects of drug prohibition for developing countries, Lamond Tullis (1995).

10. The building blocks of this mythical drug ideology are grossly exaggerated and sometimes even invented health risks and other potential consequences of drug use that are advertised aggressively. People are led to think this is objective "knowledge" that is applicable to all drug use. The tragic problem here is that we cannot expect that most members of the public, politicians included, can distinguish between propaganda and fact (see for the construction and functionality of a largely propagandistic system of drug control, Boekhout van Solinge, 1997).

11. The dilemmas that politicians have to face in this arena are obvious. For a politician, drugs are a low-cost, but splendid, tool to show where his/her loyalty to the common normative "good" lies, as long as he/she is willing to not deviate from the paths of

superstition and convention. Such a tool for a politician is just as important as the scientific forum is for the scientist. Only the greatest of politicians are able to lead and survive without such tools.

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