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TEN YEARS OF COCAINE

A follow-up study of 64 cocaine users in Amsterdam

Peter Cohen & Arjan Sas

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This study is dedicated to Eddy Engelsman

Peter Cohen
Arjan Sas

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Amsterdam, 1993

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Explanation of symbols

.	data not available
-	nil
0 (0.0)	less than half of unit employed
a blank	category not applicable

CIP-GEGEVENS KONINKLIJKE BIBLIOTHEEK, DEN HAAG

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Contents

Preface

The reader of the following final report be warned. Confrontation with a lot of data that are analyzed sometimes to a large degree of detail, necessitates a lot of patience and a high amount of curiosity for the topic.
Still, the effort is worthwhile. In an area where anecdote, press impressions and data from treatment institutions are still the major sources of knowledge, data that run counter to dominant notions have to be presented with great detail. This enables the reader to check our conclusions as much as possible.
In this report we try to describe 64 persons who on average started their regular cocaine use career some 6 years before we interviewed them for the first time in 1987. Seeing them for the second time in 1991, the period since first regular use had increased to ten years. Hence the title of this report, "Ten years of cocaine".
Researching these people was made possible by a lot of persons, of whom we would like to mention Eddy Engelsman in the first place. His knowledge of the drug field provided us with the backing we needed in order to acquire funding from the Ministry of Welfare, Public Health and Cultural Affairs.
Further we would like to thank Paul Sandwijk, Harry van Kesteren and Tom Verhoek of the Stichting BRON[1] for their impeccable organization of the field work and interviewer instruction. Harry van Kesteren deserves special mention, because without his many bicycle searches around town we would have found less follow-up respondents than the 64 we ended up with.
Harm 't Hart was as always an encyclopedic source of methodological and statistical advice, any time we needed it.
Paul Sandwijk read the manuscript and gave valuable suggestions regarding both form and content.
We thank Craig Reinerman Ph.D. for the generosity of giving his time to editing the English text of a large part of this report and for the valuable remarks he made on an earlier version of this report.
Last, but not least, we have to thank our interviewers. Their zeal and integrity made it possible to process a lot of good data, of which very little was 'missing'.
Between Arjan Sas and Peter Cohen a consistent division of labor emerged that gave the former almost supreme reign over data processing and the countless and sometimes very complicated SPSS runs we needed. The latter however remained fully responsible for the text and the over all product.

December 1993

Arjan Sas
Peter Cohen

1 The "BRON Foundation" is a small research institution attached to the department of Human Geography of the University of Amsterdam.

Introduction, conclusion, and executive summary

Introduction

In 1987 we interviewed a group of 160 experienced "non-deviant" cocaine users in Amsterdam. This sample was created by the snowball method, described in Cohen, 1989[1]. Compared to cocaine users in a general household study done the same year (Sandwijk et al., 1988), our sample appeared to be representative of those who had been using cocaine the year prior to the household interview in Amsterdam.

One of the main conclusions of our 1987 cocaine study was that a very large majority of the investigated users gave no evidence of ever losing control. However, many negative side effects of cocaine use were mentioned. The higher the level of use had been during a respondent's highest use period, the more negative effects experienced. This may have been why only 2% of the respondents consumed cocaine at a high use level (2.5 g a week or more) when interviewed, although about 20% had previously used at a high level during their highest use period (which was not necessarily the same time period). The most frequent pattern of use over time was called "up-top-down". Average cocaine consumption career was 6 years.

In 1990 the Ministry of Welfare, Public Health and Cultural Affairs funded a follow-up study, to be completed in 1991. The main goal of this study was to look at the development of use patterns in the original respondents since they were first seen in 1987. The study was to be genuinely longitudinal. Very explicitly, we wanted to know if a proportion of the 1987 respondents developed problem-related patterns of use. If so what kind of problems were experienced and in what proportion of the sample? It might be possible that the level of control the experienced cocaine users in Amsterdam had demonstrated in the 1987 study had changed under the influence of much longer exposure to cocaine.
We were also interested in asking some "test-retest" questions relating to respondents' cocaine and other drug use. Such questions might teach us something about the reliability of self-report data, an issue of recurrent interest (Harrison, 1992). We used the same interview schedule in 1991 as used in 1987, with a few small changes. However, during the pilot phase of our follow-up study we found the original interview far too long and detailed for those who

had stopped using cocaine or had used it less than ten times. For such persons a short interview schedule was designed that would answer basic questions.

Our follow-up study could be used to verify the conclusions of the only two systematic longitudinal studies of community sampled cocaine users known to the principal investigator: Murphy et al's follow-up study done in California in 1986 (Murphy et al, 1989), and Erickson's follow-up study in Toronto, Canada that was ongoing when the Amsterdam follow-up study started.

Based on re-interviewing 11 years later 21 persons out of an original sample of 27, Murphy et al. concluded:

> *"At least within our sample of long term cocaine users, the tendency for use to escalate to abuse was neither inexorable nor inevitable. Most never came to use cocaine daily or regularly in heavy amounts (...). The majority of our subjects had used cocaine for more than a decade, usually in a controlled fashion."*

The Erickson study in Toronto was a follow-up study, one year after the first interview, of 54 respondents out of the original 100. Although she sampled respondents with a relatively short cocaine use career (3.5 years average in the original study of 100 respondents), Erickson concluded after completion of her one year follow-up study:

> *"One of the key findings to emerge has been the progression over time from less to more frequent use, of larger amounts, followed by cessation or reduced use for the majority of users"*
> (Erickson, 1992)

In our follow-up study, the period between first interview and follow-up was four years.

Average time between initiation into cocaine and follow-up interview was 14 years in the Murphy et al. study, 5 years in the Erickson study, and 12 years in the study reported here.[2]

Conclusion

After analyzing longitudinal data on our 64 follow-up respondents we conclude that the main tendency of experienced cocaine users over time is towards decreasing levels of use, stability of low level use, and abstinence.
Over longer periods, frequency of cocaine consumption decreases markedly and stabilizes for about half and becomes zero for the other half. However, for

non-abstinent users we computed increased median normal doses during their top use period *after* 1987, compared with the same data before 1987. We saw the same upward tendency for median normal doses used the last three months before interview. These differences are small and do not reach statistical significance.

We did find evidence, however, that a proportion of the non-abstinent follow-up respondents (n=30) had run into difficulties with cocaine. Four persons (12%) had considered asking for assistance to help them control or quit cocaine use. When looked at as a proportion of the *total* follow-up group (n=64) the proportion is 6%. All but one continued cocaine use at moderate levels or quit cocaine without seeking help.
This suggests that the absence of police intervention in individual cocaine use and small scale distribution in Amsterdam does not necessarily create a large group of cocaine consumers unable to control their levels and consequences of use.

The conclusion Murphy et al. (1989) formulated about the "controlled fashion" of cocaine use in their California follow-up sample, and Erickson's (1992) summary of her findings in Toronto about "the capacity of most users to control and modify their drug use" were fully confirmed by our follow-up data.
In the next section the main findings of the Amsterdam follow-up study will be summarized.

Executive summary

1 The follow-up sample compared with the non-follow-up sample (1987)

In the months January to June 1991, 64 persons who had participated in our 1987 cocaine study were interviewed again for our follow-up study. We had set as our goal to re-interview half of the original group of 160.
Sixteen people had left Amsterdam; five moved abroad; we had insufficient information about original address or names of 61 persons; three refused our invitation; and eight did not respond. Three people had died.[3] We could re-interview only 64 of our original sample.

Could it be that the 64 respondents that participated in our second round of interviews are a biased selection of the original 160? If so, we are not able to generalize our findings to our complete group of experienced cocaine users, nor to cocaine users in general in Amsterdam who started around 1980.
In order to ascertain that the 64 follow-up respondents represented the original group we compared them (Chapter 1 of this report) on a number of variables - as measured in 1987 - to the 96 respondents who did not participate in the follow-up study.

On the variables of education, age[4], gender, income, marital status, drug use experience other than cocaine, and cocaine use during period of initiation and at time of the 1987 interview, our follow-up respondents did not differ significantly from the non-follow-up ones. However, regarding employment status and ever having used at high level during top period of use, the follow-up respondents differed from the non-response group. Of our follow-up group, 80% had some form of employment in 1987, versus 58% of the non-follow-up. This difference is significant. Of the follow-up group, 11% reported high level use during top period, versus 27% of the non-response group, but this difference is not significant.

Since the two groups are similar on so many variables, it is uncertain as to how important the two differences are. In the 1987 study we found that *use level at top period* did not determine use level at time of interview. This leads us to believe that in a large group of experienced users, the mere prevalence of high level use during a reported top period of use does not determine long term cocaine consumption careers. In fact, ever having had a high level of use during top period only related significantly to the prevalence of reported negative side effects. We do not know if the higher employment rate of our follow-up respondents biases our results. This aspect deserves some caution, because a higher employment rate may reflect a difference in life styles and a corresponding difference in control priorities and/or capacities (see Waldorf et al, 1991). Still, the sample of respondents we found for our follow-up endeavor was representative for all users interviewed in 1987 on a wide range of variables.[5] Thus, we feel quite confident that the results of our follow-up study can be taken as reasonably representative for experienced cocaine users in Amsterdam with respect to the development of consumption careers. *However, there remains a chance that our follow-up data can not be generalized to all cocaine users who were sampled in 1987.*

2 Developments in cocaine use

When asked about their cocaine consumption during the last four weeks prior to our follow-up interview in 1991, 19 respondents out of 64 reported cocaine use. Over a slightly longer period before interview (three months), 23 reported consumption of cocaine at least once. Over the period since 1987 to time of interview in 1991, just 34 respondents reported some use.[6] This means that almost half of our 1991 follow-up respondents had ceased to be cocaine consumers since we interviewed them in 1987.

Of the 17 respondents who reported no cocaine use during the three months prior to interview in 1987, four had used again at follow-up. Three of them reported some use during the three months before interview in 1991. Of these 17

respondents who used cocaine again since 1987, none reported using more than half a gram a week during the four-year follow-up period. This corresponds to a low level according to our definitions.[7]

Seven of our follow-up respondents had ever used at a high level when we interviewed them in 1987. Of these 7 respondents, 6 reported abstinence from cocaine during the three months prior to follow-up in 1991. Just one respondent had been using at a medium level.

When looking at median dosages during a normal occasion of use, we found some slight differences between 1987 and 1991. The follow-up respondents who had not become abstinent reported as median dosages: during top period after 1987 238 mg (versus 250 mg in 1987) and during last three months 175 mg (versus 125 in 1987). These differences amount to just over two lines of snorted cocaine during three months before interview per normal occasion of use.

Of the reasons given for quitting cocaine completely, abstinent follow-up respondents most often mentioned negative physical or mental effects. Only one respondent mentioned cost of cocaine. In general, reported advantages and reported disadvantages of cocaine remained the same since 1987. Of the 34 respondents who remained users since 1987, over 90% reported periods of non-use of one month or longer. The longest period of abstinence averaged six months. Of the non-abstinent follow-up respondents, the main route of ingestion was and remained snorting. One respondent had injected once since 1987, and three had experimented with free basing cocaine. These non-nasal routes of ingestion were perceived to be more pleasurable by most of the 34 non-abstinent follow-up respondents, but negatively evaluated at the same time - "addicting", "like junkies do".

When asked if substantial reduction of cocaine's price would increase their consumption, a majority of non-abstinent follow-up respondents deny that this would be a motivating factor when referring to themselves, but agree speaking about others. Roughly equal proportions perceive increased cocaine use in Amsterdam (33%) and decreased cocaine use (30%). Stability was reported by 23%.[8]

When asked about their most preferred policy towards cocaine, no changes have taken place since 1987: a small majority in 1991 still wanted local cocaine policy to become more liberal or remain at its present state of non-interfe-rence with individual use. A large minority felt that cocaine policy should become stricter. Although present non-users opted more often for a stricter cocaine policy the difference was not significant.

We asked all 64 follow-up respondents if they had considered third party assistance to control or quit cocaine use in the period between 1987 and 1991. Four respondents (6%) affirmed, of which one did seek assistance.[9]

This suggests that under present conditions in Amsterdam, 6% of experienced cocaine consumers felt their cocaine use as being out of their own control at some moment during their career. Rarely is this followed by helpseeking, a conclusion

that seems consistent with the rare occurrence of primary cocaine "dependencies" in Amsterdam. For our follow-up respondents Ecstasy (MDMA) was quite a popular drug. Of all respondents, 39% had experience with this substance, versus 2% in the 26-46 year age cohort in the Amsterdam population. As in 1987, our follow-up group of current and ex-users of cocaine were far more experienced than their age cohort for all illicit substances.

A special appendix is added to this report about the four respondents who considered treatment at some point during their career between 1987 and 1991. Demographic and cocaine career data are given with some of their own words relating to motives for considering treatment.

Finally, when we looked at some indicators of life development of the 64 follow-up respondents, we found that whereas in 1987 73% of them lived by themselves, without children or partners, in 1991 this decreased to 48%. The percentage of persons living alone in the age cohort 26-46 years in the 1990 household survey on licit and illicit drug use was 31. In 1987 8% of the follow-up respondents were married, in 1991 11%. Four fifths had some form of employment in 1987, which increased to 88% in 1991. Average net income per month of this group of current and ex-cocaine users increased 31% (not corrected for inflation) from *f*2,082 in 1987 to *f*2,726 in 1991.[10]

3 Test-retest of the follow-up respondents

Some test-retest analyses were run to increase our knowledge about the reliability of the data we collected. This is important when seeking to generalize research findings. We did our test-retest analysis on data regarding initiation into cocaine, other drug use and cocaine effects experienced.

Data on initiation are reasonably reliable, except for data on initiation location. Data on dose at initiation could be improved by better wording of the questions and by changing interviewer instruction. Lifetime prevalence of drugs shows a number of inconsistent answers. Our data support that forgetting, drug definition and certainly question wording might be important factors. There was no evidence of intentional denial.
When asking the same questions on cocaine effects, *equal scores* on the Mokken effect scales were found from a maximum of 53% of respondents in scale 1, to a minimum of only 12% of respondents in scale 3. *More effects*, which is logically possible, were reported by a maximum of 53% on scale 3 to a minimum of 21% on scale 4. Logically impossible is the reporting of *fewer effects*, but this happened with a maximum of 44% on scale 5, to a minimum of 18% on scale 1 (see Chapter 3 for details).
Of course respondents can forget they experienced certain effects, but the changes in scores on all of these scales (ranging from 44% to 18%) complicate our

efforts to build up systematic knowledge about the effects of cocaine. Earlier we had already indicated that cross cultural analysis between cocaine effects hinder our understanding of these effects. Sampling and environment make data difficult to compare. Now, we have to add the complication of change of perceived effects over time *with the same individuals*. This means we are very far from understanding the prevalence of cocaine effects, how to measure them, and how to understand to what degree dose, frequency of use, level of use over time, and set and setting are determinants of effects.

Notes

1 Respondents were found by asking cocaine users to list the initials of a number of other cocaine users known to them. From this list the next respondent was selected randomly (snowballing).
The only condition for inclusion as the *first* cocaine user in a snowball was that such a user could not be selected from circles of junkies, full-time criminals, or full-time prostitutes. This is what was meant by "non-deviant cocaine users". Such a criterion has consequences for the search at so-called "zero stages" of snowballs. However, if a first respondent mentioned such persons in his list of initials, snowballing into such circles was necessarily accepted as part of the sampling procedure. According to our own pre-set criteria, this sampling procedure resulted in 18 respondents out of 160 that were 'deviant' in some way. For a number of reasons we kept these respondents in our sample (Cohen, 1989). To our knowledge, we never ran into junkies, full-time criminals or full-time prostitutes. The inclusion criterion for all was that a respondent had a minimum experience with cocaine of at least 25 occasions of use during their lifetime. This is what we mean by "experienced" users.

2 The length of time between the first year of regular use and follow-up in 1991 is about ten years for our 64 follow-up respondents.

3 One died of AIDS (not related to drug use); another respondent (already ill) died shortly after our 1987 interview; and for one respondent the cause of death is unknown.

4 Follow-up respondents were on average 31 years old when we interviewed them in 1987, and 35 years old when interviewed in 1991.

5 As mentioned before, the 1987 sample of 160 experienced cocaine users was representative on a large number of variables of "last year" cocaine users in the 1987 household survey.

6 'Some use' is defined as more than ten occasions of cocaine use between interview in 1987 and interview in 1991. This amount was the minimum inclusion criterion for the long interview schedule.

7 Low level: less than 0.5 gram; medium level: between 0.5 and 2.5 gram a week; high level: over 2.5 gram a week.

8 In a group of 108 much younger cocaine users, on average initiated into cocaine after 1986 (versus 1979 of the follow-up respondents) we found that perceptions of increased, decreased or stabilized cocaine consumption are very different. Among the newly initiated, 58% see cocaine use among them rising, 7% as decreasing and 19% as stable. The rest did not know. Apparently the type of user group one moves in determines to a large extent what perceptions one has on the epidemiology of cocaine use (Cohen & Sas, 1994, forthcoming).

9 Amsterdam's Jellinek clinic is the center for treatment that, if any place at all, will be chosen by the type of cocaine user investigated here. This clinic registered 164 persons with whom they had at least one cocaine treatment contact during the year 1991 (In 1988: 150; in 1989: 113; in 1990: 171). Source: Reg office Jellinekhouse, Drs. U. Nabitz, private communication March 1993.
The Jellinek Centrum serves a clientele in Amsterdam and its suburban municipalities. Total number of all recent cocaine users in this area is probably between 6000 and 10,000 persons (Sandwijk et al. 1991).

10 *f*1.- = approximately. $.60

1 The follow-up sample compared with the non-follow-up sample (1987)

"In allgemeinen ist der Cocainist, wie schon erwähnt, eine gesellige Persönlichkeit."
E. Joël & F. Fränkel: *"Der Cocainismus"*.[1]

In the months January to June 1991, we invited 64 persons we had first interviewed in 1987 to participate in a follow-up study about their cocaine consumption. We had set as our goal to re-interview half of the original group, but finding 80 of the original 160 was not possible. The reasons included: moving out of Amsterdam to unknown locations (16 persons), moving abroad (5 persons), insufficient information about original address or name (61 persons), refusals (3 persons), not responding to our invitation (8 persons) and death (3 persons). We therefore re-interviewed 64 of our original sample.
In the following paragraphs we will discuss the extent to which the results from this follow-up sample may be generalized to the original 160.

We believe there has been no bias in the selection of respondents for re-interview. We began by looking for any respondents, and quickly learned that finding them was not going to be easy. Unearthing the old information about the respondents revealed that for about 80 persons who participated in the 1987 interview we had insufficient information to relocate them. Of these, about 20 persons were found by way of their old friends in the snowball waves we had used to find them in the first place.
Three persons refused our invitation for the follow-up interview. The eight persons who did not respond to our invitation can not be seen as refusers because we do not know whether their lack of response was due to other reasons (i.e. being out of the country, wrong address, etc.).
Therefore no system was employed to select 1987 respondents for re-interview except willingness to participate. As a result, we ended up with 16 respondents less than we had wanted to re-interview.

We will not discus here the representativeness of the original 160 experienced cocaine users for cocaine users in general, in Amsterdam during the late eighties. For a full discussion of this topic see Cohen, 1989. It may suffice to repeat here that the original 160 experienced users were very close to both their age cohort and to last-year cocaine users found in a representative household survey on drug use in 1987 on a number of social, economic and demographic variables.

In what follows we compare the 64 respondents interviewed for follow-up with the non-response group on variables relating to cocaine use, other drug use, and some social and economic variables.

1.1 The use of cocaine and other drugs

Cocaine

We will begin to compare follow-up (FU) respondents with non-response (NR) respondents on some cocaine use characteristics. In Table 1.1a we compare cocaine consumption in three different periods between the FU and NR respondents. Compared are levels of consumption as found in 1987.

Table 1.1a Level of cocaine use in three different periods reported by non-response and follow-up respondents in 1987

level of use reported in 1987	**initial year**				**period of heaviest use**				**last 3 months**			
	non-resp.		follow-up		non-resp.		follow-up		non-resp.		follow-up	
	n	%	n	%	n	%	n	%	n	%	n	%
none	-	-	-	-	-	-	-	-	27	28	17	27
low	84	88	59	92	44	46	33	52	61	64	42	66
medium	10	10	4	6	26	27	23	36	5	5	5	8
high	2	2	1	2	26	27	7	11	3	3	-	-
no answer	-	-	-	-	-	-	1	2	-	-	-	-
total	96	100	64	100	96	100	64	100	96	100	64	100
Mann-Whitney U	U=2929.0, Z=-0.9323 (n.s.)				U=2618.0, Z=-1.5523 (n.s.)				U=3047.0, Z=-0.1032 (n.s.)			

From Table 1.1a we infer that in 1987 the 64 follow-up respondents did not significantly differ from NR respondents on levels of cocaine use in the last three months before the interview and during initial year of regular use. However, our FU group does contain fewer respondents who engaged in high levels of use during their top-use period than the non-response group. In the group of NR respondents, 27% had ever, during their cocaine use career up to 1987, used at a high level. In our FU group 11% did so, but this difference is not significant. This difference cannot be explained in terms of cocaine use careers. The average number of years between first regular cocaine use and age at interview in 1987 is 6.3 years for the non-response and just over six years for the follow-up group. In our 1987 study we did not find differences between respondents who had ever used at a high level and those who never had, except in the number of reported negative effects of cocaine. Even non-use at time of interview in 1987 was not determined by ever having used at a high level during top period. Of course it can not be excluded that some systematic behavioral or social differences exist between those who used at high level during top period and those who never did. In our group of respondents however, we did not find them. This makes it difficult to assess whether the difference we found in prevalence of high

level use between FU and NR represents a difference that may diminish the generalizability of our findings.

Other drug use

Another useful way to compare the subjects who participated in our 1991 follow-up with those who did not, is to examine lifetime prevalence (LTP) for drugs other than cocaine. We could argue that if in 1987 opiate LTP in the 64 future follow-up respondents was significantly higher than in the future non-response group, this might be an indication of some deviance of the follow-up group in relation to the non-response group. Table 1.1b shows that there is no statistically significant difference between the two groups on opiates LTP nor other drugs, and that both groups share the characteristic of having a lower LTP with the licit pharmaceutical drugs than with opiates.

Table 1.1b Lifetime prevalence of other drug use in non-response and follow-up respondents in 1987

	non-response		follow-up		χ^2*
drugs	n	%	n	%	
sedatives	27	28	12	19	1.35 (n.s.)
hypnotics	26	27	15	23	0.11 (n.s.)
cannabis	85	89	61	95	n.a.
LSD	32	33	27	42	0.93 (n.s.)
solvents	6	6	4	6	n.a.
opiates	36	38	22	34	0.05 (n.s.)
N	96		64		

* df=1, Yates' correction

1.2 Social, economic, and educational variables

On the variable of employment status (Table 1.2a) follow up and non-response respondents are significantly different. The non-response group contained 41% of respondents without full or part time employment versus 20% in the FU group. When we look at income differentiation (Table 1.2b), marital status (Table 1.2c), and gender differentiation (Table 1.2d) in 1987, other important variables that relate to lifestyle, we see that the NR group has a lower income -*f*283 per month less-, but not significantly so, and that the groups are equal in marital status and gender. The 64 FU respondents were on average 30 years of age in 1987 vs. 31 years in the NR group (Table 1.2e). The age differentiation between the groups is not significantly different.
Further, of the 64 FU respondents, 61% reported some form of higher education in 1987 versus 53% of the NR group (Table 1.2f). It would seem that the FU group

is just slightly more educated. However, of those who mentioned some form of higher education among the FU respondents, 38% graduated, against 47% of the NR group (Table 1.2g). In the FU group 27% dropped out, exactly the same proportion as in the NR group. All in all, educational levels of the two groups are quite similar.

Table 1.2a Employment status of non-response and follow-up respondents in 1987

	non-response		follow-up	
employment	n	%	n	%
full time	33	34	28	44
part time	23	24	23	36
none	15	16	4	6
other	24	25	9	14
no answer	1	1	-	-
total	96	100	64	100

χ^2=7.85, p<0.05, df=3

Table 1.2b Income of non-response and follow-up respondents in 1987

	non-response		follow-up	
net income per month	n	%	n	%
less than *f* 1,000	15	16	7	11
f 1,000-1,500	34	35	20	31
f 1,500-2,000	22	23	11	17
f 2,000-2,500	7	7	10	16
f 2,500-3,000	10	10	7	11
f 3,000-4,000	4	4	6	9
f 4,000-5,000	2	2	-	-
f 5,000-6,000	1	1	-	-
more than *f* 6,000	1	1	3	5
total	96	100	64	100
mean	*f* 1,776		*f* 2,059	

Student's *t*=1.55 (n.s.), df=158 (test on class-mids)

Table 1.2c Marital status of non-response and follow-up respondents in 1987

	non-response		follow-up	
marital status	n	%	n	%
married	10	10	5	8
divorced, widowed	8	8	3	5
unmarried	78	81	56	88
total	96	100	64	100

χ^2=1.20 (n.s.), df=3

Table 1.2d Gender of non-response and follow-up respondents

	non-response		follow-up	
sex	n	%	n	%
male	59	61	37	58
female	37	39	27	42
total	96	100	64	100

$\chi 2$=0.09 (n.s.), df=1, Yates' correction

Table 1.2e Age of non-response and follow-up respondents in 1987

	non-response		follow-up	
age	n	%	n	%
younger than 20	-	-	-	-
20 - 25	19	20	11	17
26 - 30	38	40	21	33
31 - 35	24	25	18	28
36 - 40	10	10	11	17
older than 40	5	5	3	5
total	96	100	64	100
mean	30		31	

Student's *t*=1.37 (n.s.), df=158 (test on class-mids)

Table 1.2f Educational level of non-response and follow-up respondents in 1987

	non-response		follow-up	
educational level	n	%	n	%
LO & LBO (elem. & low level vocational school)	5	5	3	5
MAVO (low level high school)	13	14	10	16
MBO (medium level vocational school)	4	4	5	8
HAVO & VWO (medium & high level high school)	23	24	7	11
HBO (high level vocational school)	27	28	16	25
university	24	25	23	36
total	96	100	64	100

Mann-Whitney U=2,817.0, Z=-0.9134 (n.s.)

Table 1.2g Educational characteristics of non-response and follow-up respondents in 1987

	graduated				student				dropped out			
educational	non-resp.		follow-up		non-resp.		follow-up		non-resp.		follow-up	
level	n	%	n	%	n	%	n	%	n	%	n	%
LO & LBO	4	7	1	3	-	-	-	-	1	4	2	12
MAVO	8	14	7	22	-	-	-	-	5	19	3	18
MBO	4	7	3	9	-	-	1	7	-	-	1	6
HAVO & VWO	16	29	6	19	1	7	-	-	6	23	1	6
HBO	15	27	11	34	5	36	2	13	7	27	3	18
university	9	16	4	13	8	57	12	80	7	27	7	41
total	56	100	32	100	14	100	15	100	26	100	17	100
Mann-Whitney U	U=885.5, Z=-0.0934 (n.s.)				U=83.0, Z=-1.1831 (n.s.)				U=211.0, Z=-0.2559 (n.s.)			

It can be concluded that at time of interview in 1987 the 64 follow-up respondents are quite like the NR respondents on a number of variables relating to drug use , social, economic and educational status with one exception: having some form of employment at time of interview in 1987.

1.3 Conclusion

Looking at the degree of similarity between respondents that participated in the follow-up effort and those that did not, the most conspicuous differences are that the non-response group shows a higher prevalence of high level use during top period and less employment activities.
As noted earlier, ever having used at a high level did not seem to be an important determinant for level of cocaine use at the time of our 1987 interview. Except for a higher prevalence of negative cocaine effects, ever having used at a high level seems to remain without important effects on development of careers. The FU and NR respondents were remarkably similar in level of use and on other drug use variables at the time of interview in 1987. Considering also the statistically insignificance of the difference in the prevalence of high level use, we will conclude that on drug use characteristics follow up and non-response respondents are not different from each other.
How much importance we have to attach to differences in employment status in 1987 is difficult to say. It might be reasoned that respondents without employment are more likely to develop to higher levels of use than those who have employment. In theory this may lead to different user careers, although we did not find this in our 1987 results. On the other hand, (slightly) lower income may inhibit heavy drug use careers, although we did not find this in 1987 either.

In short, the one difference between our FU and NR group is difficult to interpret, certainly in the light of the larger number of similarities between them. But we have to conclude that we can not be 100% sure that the data we assembled for our follow-up group can be considered generalizable to our non respondents.

Notes

1 E. Joël & F. Fränkel (1924), *Der Cocainismus: Ein Beitrag zur Geschichte und Psychopathologie der Rauschgifte.* Berlin. p. 18. *"Generally a cocaine user is, as mentioned before, a sociable personality."*

2 Developments in cocaine use

"... freely available cocaine is likely to give rise to self destructive habits for an unacceptably large proportion of users."
Mark Kleiman in *"Against Excess"* [1]

In this chapter sections 2.1 to 2.3 focus on subjects' cocaine use during the 4-year period between 1987 and 1991. Subsequent sections give details on the economic aspects of their cocaine consumption (2.4), the set and setting of their cocaine use (2.5), the advantages and disadvantages of cocaine use reported by these subjects (2.6), what they saw as the social and political aspects of cocaine use (2.7), their rules for controlling cocaine use (2.8), and some other details concerning the lives of these 64 follow-up respondents (2.9). In section 2.10, we draw some overall conclusions about their cocaine use over their consumption careers of more than ten years.

2.1 Changes in levels of use

An important question for students of cocaine consumption is how the use of cocaine develops after longer periods of time. In our 1987 research we found that about one in five (21%) of the cocaine consumers we studied reached a high level of use at some point during their self-reported period of consumption[2] (an average of six years). From these findings we concluded that higher levels of cocaine use are relatively rare among experienced users in Amsterdam. Moreover, we found that among those who reached such levels, most lowered their use or became abstinent.
As reported in Chapter 1, none of the follow-up respondents reported a high level of use during the three months before the interview in 1987. We found low-level cocaine use among 66%, medium levels of cocaine use among 8%, and no cocaine use among 27% (Table 1.1a). At the time of our follow-up interviews in 1991, use patterns among the FU group had changed significantly. For the 3-month period prior to the follow-up interview, non-use had grown from just over a quarter in 1987 to almost two-thirds. Low-level use dropped from two thirds in 1987 to one third in 1991 (Table 2.1a).
Other interesting phenomena became visible when we crosstabulated the data on use levels for the three months prior to the 1991 follow-up interviews with data on use levels for the comparable 3-month period prior to our original 1987

interviews (Table 2.1b). Of the 17 follow-up respondents who in 1987 reported no use of cocaine in the 3 months prior to interview, four had resumed their use of cocaine, three of whom at a low level of use, during the three months prior to the interview in 1991. None of these 17 reported medium or high levels of use at follow-up.

Table 2.1a Level of use of follow-up respondents during last three months prior to interview in 1987 and 1991

	1987		**1991**	
level of use	n	%	n	%
none	17	27	41	64
low	42	66	19	30
medium	5	8	3	5
high	-	-	-	-
no answer	-	-	1	2
total	64	100	64	100

Wilcoxon matched-pairs signed-ranks test: Z=-3.89, p<0.001

Of the 41 persons who used at low levels at the time of the interviews in 1987, 27 had stopped using cocaine altogether, 13 remained at low levels of use, and one person moved up to a medium level of use by 1991. *Development to high level of use did not occur.* Of the five persons who used at medium levels at time of interview in 1987, two remained at medium levels and three moved down to low levels by 1991.

Table 2.1b Level of use during last three months prior to interview in 1987 and 1991

	level of use in 1991							
level of use	none		low		medium		total	
in 1987	n	%	n	%	n	%	n	%
none	14	82	3	18	-	-	17	100
low	27	66	13	32	1	2	41	100
medium	-	-	3	60	2	40	5	100
high	-	-	-	-	-	-	-	-
total	41	65	19	30	3	5	63	100

Pearson prod.-moment corr.: r=0.59, p<0.01 (computed over unclassed data)
binominal test increased level vs. decreased level: p<0.001 (test prop. 0.5)

This means that of the 64 persons we interviewed, just four persons (6%) moved to a level of use higher than they reported in 1987. Twenty nine (45%) remained at the same level (non-use included) and 27 (42%) moved to a lower level of use (non use included). This suggests that at least for this group of experienced

cocaine users, stable or decreasing use patterns were the norm, with very few reporting a pattern of increasing use in the four years between 1987 and 1991. Note that these observations are based on data on the last three months prior to interview in 1991. It is of course possible that more respondents had been using cocaine during the longer period of *one year* prior to our follow-up interview, or that a lot of follow-up respondents had been consuming at increased levels during a top-use period somewhere in between 1987 and 1991. But as we will show, this was not the case.

Of the 41 respondents who had not used cocaine during the *last three months* prior to interview in 1991, only five had used any cocaine during the *year* prior to interview, all of them at a low level of use. Of the 19 who were using at a low level in the three months prior to interview in 1991, only one person reported a medium level of use for the year prior to our 1991 interview.
When we shorten our period of observation prior to interview to four weeks, it appears that 45 did not use cocaine during the last month. This leaves us with a group of 19 persons out of 64 follow-up respondents who *might* be seen as relatively regular users at the time we interviewed them.[3]
We found that 30 of the 64 follow-up respondents reported no use of cocaine since they were first interviewed in 1987. In doing pilot interviews for the follow-up investigation, we noticed that the full original interview schedule was far too extended for those who had used little or no cocaine since 1987. We therefore decided to subject such respondents to a revised interview that was considerably shorter. So we set our criterion for exclusion from the complete (and long) interview at less than ten occasions of use during the four years since the last interview. Although this criterion is arbitrary, we found it reasonable because so many questions from the longer interview schedule did not apply to such occasional users that no significant data was lost. Thus, in the following pages we will distinguish between the complete group of follow-up respondents (64 persons), the non users among them (30 persons), and those who had some regular use after 1987 (34 persons).

Given the stereotypical claims about the tendency for cocaine use to escalate or become compulsive, it was important to know how use patterns developed among the 34 respondents who continued use after we interviewed them in 1987. First we wanted to know if top levels of consumption had changed since 1987 (Table 2.1c).
"Top level consumption" is defined as the highest level of cocaine consumption ever reached during the cocaine using period. In our 1987 study, we found that top period consumption levels sometimes differed considerably from consumption levels during the three months prior to our interviews. In order to determine wether some of our follow-up respondents had engaged in higher top levels of cocaine consumption since our 1987 interviews, we asked about top periods of consumption *after 1987* and then cross-tabulated top levels of consumption prior to 1987 with those after 1987.[4]

This cross-tabulation can tell us something about the dynamics of cocaine use; for example, whether cocaine consumers do in fact increase their top levels of consumption. Of the 34 respondents[5] who had used cocaine more than 10 times since we interviewed them in 1987, only six reported top levels of consumption that were higher after 1987 than before. All six increased their top level from low to medium. Contrary to much of the literature, nearly twice that number (11) decreased their top levels from medium before 1987 to low after 1987, and two other respondents went from high levels of top consumption before 1987 to medium levels after 1987. In all, our data on top periods of use for the 34 respondents who used ten or more times shows that for six respondents top levels of consumption increased, but that for the majority consumption either remained constant, mostly at low levels (14 respondents), or decreased (13 respondents).

Table 2.1c Level of use during top period prior to interview of 1987 and level of use during top period after 1987 of those who maintained cocaine use

top level of use before 1987	**top level of use after 1987**							
	low		medium		high		total	
	n	%	n	%	n	%	n	%
low	10	48	6	55	-	-	16	48
medium	11	52	3	27	-	-	14	42
high	-	-	2	18	1	100	3	9
total	21	100	11	100	1	100	33	100

Pearson prod.-moment corr.: r=0.76, p<0.001 (computed over unclassed data)
binominal test increased level vs decreased level: n.s. (test prop. 0.5)

Much of the literature on cocaine users in treatment and many media reports suggest that we might have expected a significant portion of these 34 continuing users to have developed into high-level and/or problematic users in the four years between 1987 and our follow-up interviews in 1991. But we could confirm this for only four respondents, i.e. 6% of our total follow-up group or 13% of our non-abstinent follow-up respondents. Details of these four are given in Appendix 1.

For a full perspective on the dynamics of cocaine use among these subjects, we had to repeat the cross-tabulation for all follow-up respondents, including those who had abstained and thus had no top period of use after 1987. Cross-tabulated data for all follow-up respondents is shown in Table 2.1d. This table shows, just as we found in 1987, that ever having had a high top level of use had no influence on the probability that a cocaine user will report non-use at time of follow-up interview.
Of the 33 persons whose top level before 1987 was low, 17 or just over half, did not use cocaine after 1987. But, of the seven respondents whose top level was high before 1987, also just over half did not use cocaine at time of interview in

1991. Those whose top use levels were medium in 1987 were slightly less likely to have become abstainers by the 1991 follow-up (39%), but this difference was not large and may well be accounted for by chance.[6]

Table 2.1d Level of use during top period prior to interview of 1987 and level of use during top period after 1987 of all follow-up respondents

top level of use before 1987	**top level of use after 1987**									
	none		low		medium		high		total	
	n	%	n	%	n	%	n	%	n	%
none	-	-	-	-	-	-	-	-	-	-
low	17	57	10	48	6	55	-	-	33	52
medium	9	30	11	52	3	27	-	-	23	37
high	4	13	-	-	2	18	1	100	7	11
total	30	100	21	100	11	100	1	100	63	100

Pearson prod.-moment corr.: r=0.76, p<0.001 (computed over unclassed data)
binominal test increased level vs decreased level: n.s. (test prop. 0.5)

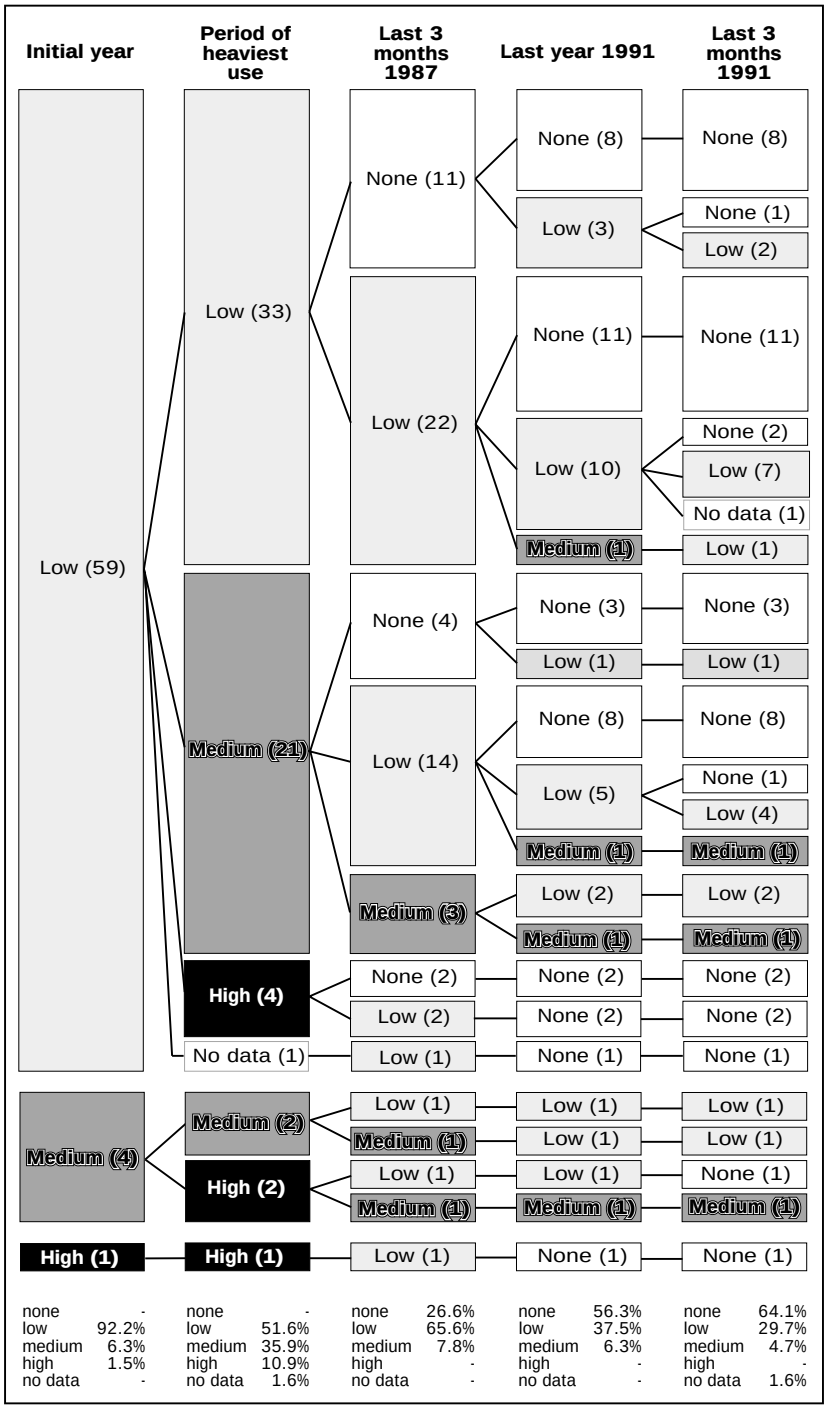
Figure 2.1a presents a graphic presentation of the cocaine using careers of the 64 FU respondents since their first year of regular use (around 1981). This figure provides detailed insights into changes in levels of use over a ten-year period (a twelve-year period if we include the average of just over two years between initiation and first regular use). Looking back at a ten year period since *first regular year of use*, these respondents show a relatively fast development to top period (average 18 months), and then taper off to a low level of cocaine or no use at all. In the follow-up period after 1987, medium level users are exceptions. Again contrary to conventional notions about cocaine, none of those who had ever used at a high level had returned to that level at follow-up.

2.2 Other details of cocaine consumption in the follow-up group

Dose

Our data allowed us to look into the details of cocaine consumption for our follow-up respondents. In Table 2.2a we show doses our respondents reported using at normal occasions of use for three different periods in time. We should note that the figures in Table 2.2a are slightly misleading because almost half of our 64 follow-up respondents had been abstinent since we last interviewed them in 1987. This pulls down all measures of central tendency with regard to dose. (The table shows clearly that the more recent the period we asked about, the greater the proportion of our FU sample whose doses had dropped to zero.)
For more realistic information about changes in dose, we should also present figures that include only data from those who reported cocaine use during the follow up period. The median dose in 1991 of those who consumed cocaine more often than ten times after 1987 (34 respondents) was at top period before 1987 250 mg, and at top period after 1987 238 mg. Averages move from 279 mg to 299 mg.

Figure 2.1a Level of cocaine use over time (number of respondents between brackets)



Looking at median dose during last three months before interview we find 125 mg in 1987 and 175 mg in 1991. Averages move from 149 mg to 192 mg. These differences in used dosages before and after 1987 during top period and last three months prior to interview are however not significant (t-test).
Comparing median dose in the period of three months before interview in 1987 and in 1991 we see a slight (but statistically insignificant) tendency to increase normal amount of use, roughly from five to seven lines per occasion. These data suggest that over a decade long consumption career a slow movement towards higher doses per occasion may take place.

Table 2.2a Doses of follow-up respondents since 1987 during top period, last year and last three months prior to interview

	top period			**last year**			**last 3 months**		
dose	n	%	%*	n	%	%*	n	%	%*
0 mg	30	47		36	56		41	64	
1- 99 mg	5	8	15	8	13	29	6	9	26
100 - 249 mg	12	19	35	10	16	36	10	16	43
250 - 499 mg	13	20	38	8	13	29	5	8	22
> 500 mg	4	6	12	2	3	7	2	3	9
total	64	100	100	64	100	100	64	100	100
mean	159 mg (0 mg included)			85 mg (0 mg included)			69 mg (0 mg included)		
	299 mg (0 mg excluded)			194 mg (0 mg excluded)					
median	238 mg (0 mg excluded)			175 mg (0 mg excluded)					

* percentages of number of respondents who reported cocaine use (dose of more than zero mg), top period N=34, last year N=28, last 3 months N=23.

When we looked across these long cocaine-using careers, we found that frequency of use (and therefore overall levels of use) tended to decrease, but that on those occasions when cocaine was used the median normal dose tended to be higher (This tendency toward higher median normal doses cannot be explained in terms of decreasing cocaine quality because, as we will show later, the quality of cocaine samples bought with our follow-up respondents in 1991 were higher on average than the samples we had tested in 1987). However, because the observed increases in median dose were not statistically significant, we cannot be certain that our inference about a tendency toward increased normal doses is correct. This must be tested in more extensive longitudinal research.

Table 2.2a reveals that for our follow-up respondents, non-use (0 mg) was the most frequently chosen option. That is, the most frequently reported 'dose' for top period, for the last twelve and for the last three months, was zero.
For those who did continue to use cocaine, usual doses varied widely . Doses over 500 mg per occasion were reported by a minority and have decreased since 1987. In 1987, 27% of our respondents reported normal doses during their top period of use of over 500 mg per occasion. But at follow-up, only 12% of our respondents reported such normal doses during top periods.

During top period the average dose taken at a normal occasion was 299 mg for our follow-up respondents (range between 50 and 2,000 mg), but 406 mg for the top period prior to 1987 (range between 50 and 3,000 mg). Taking average dose as the unit of comparison, we not only see larger differences than when taking median dose, but also in the opposite direction: That is, average dose at normal occasions during top period declined between 1987 and 1991. This large difference in averages is largely due to five respondents in 1987 who used dosages over two grams a day during their top periods. Without those five, the average normal dose during top period for the 1987 respondents becomes 336 mg and is similar to the average normal dose (299 mg) during top period after 1987. Thus, because of the enormous influence of a few respondents, medians will give a more reliable picture of central tendency than mean values.

Table 2.2b Minimum and maximum dose during the last four weeks prior to interview

	maximum		**minimum**	
dose	n	%	n	%
1- 99 mg	5	22	9	39
100 - 249 mg	10	43	8	35
250 - 499 mg	2	9	1	4
> 500 mg	2	9	-	-
no answer	4	17	5	22
total	23	100	23	100
mean	291 mg		119 mg	
median	250 mg		113 mg	

When we look at maximum dosage and minimum dosages as reported by our follow-up respondents (Table 2.2b), we have to take into account that questions about minimum and maximum dosage were only asked if respondents had been using cocaine during the last four weeks prior to interview. Out of 64 follow up respondents, only 19 had used cocaine in the month before they were interviewed by us. Although we have to keep in mind that these data come from a relatively small number of persons and thus should be interpreted cautiously, we found little change in maximum and minimum doses between 1987 and the 1991 follow-up. Both in 1987 and 1991, over 80% of respondents reported maximum doses of less than 250 mg per occasion and maximum doses over 500 mg were rare. Minimum doses higher than 250 mg were almost non existent.

Pattern over time

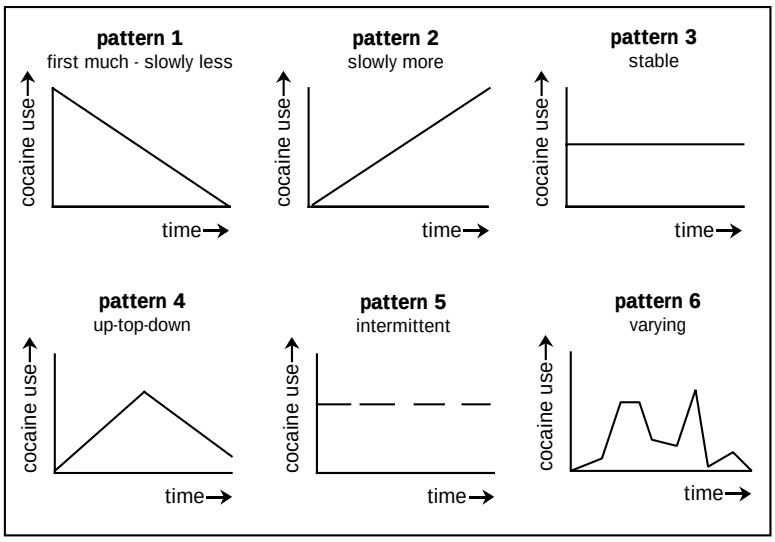
As we had in 1987, we asked our follow-up respondents to give an indication of their pattern of use over time. We had adopted from Morningstar and Chitwood (1983) six ideal-types of use patterns. These patterns were presented in both a

graphic image and in words to our respondents, who were then asked to choose the type that best represented their use pattern. We obtained this data about use patterns from the 34 of our 64 follow-up respondents who had used cocaine on more than ten occasions since 1987.

In 1987, the most frequently selected patterns of use were numbers 4 and 6 (see Figure 2.2a). Pattern four represents the up-top-down pattern in which cocaine use rises over time from initiation to a peak and then steadily declines to a more or less steady level. Pattern 6 represents a highly varied pattern over time.

In 1991 we asked the follow-up respondents to answer the same pattern-of-use question, but this time for both the total period of use and the period after 1987 only. Again our follow-up respondents selected pattern 4 (50%) and 6 (26.5%) as the most representative patterns for the total period. However, for the period after 1987 pattern 1 (gradually less, 29.4%) and pattern 3 (stable, 26.5%) were selected as the most prevalent patterns. Pattern 6 (highly varied over time) took a third place with 20.6%. The remaining 23.5% of our follow-up respondents were about evenly divided between patterns 2 (slowly more), 4 (up-top-down) and 5 (intermittent).

Figure 2.2a Theoretical patterns of development in cocaine use



Like our data on changes in levels of use and dose between 1987 and 1991, these data on patterns of use show that the vast majority of follow-up respondents did not escalate their cocaine use over time.

Parts of the week

Data on the parts of the week in which cocaine use occurs (weekend or/and week days) was gathered only from those respondents who had been using cocaine during the four weeks prior to the follow-up interview. Of these 19 respondents, ten used only or mainly during weekends. For eight it did not matter (no partitioning), and just one used on week days only. In 1987 we also found that the largest categories were only or mainly weekend use (39.1%) and no partitioning (39.4%).

Abstinence and/or periods of abstinence

We asked all follow-up respondents who had used cocaine ten or more times since 1987 (n=34) if they had ever tried to stop using completely. Most (22) had not tried to stop. Of these, 15 said this was because they did not have any reason to do so, while four others said they liked cocaine and did not want to stop. Twelve other follow-up respondents reported that they had tried to stop completely, eight of whom reporting that they had succeeded. When asked about strategies for stopping, our respondents had little to say.[7] They did, however, report various reasons for stopping: unwanted mental or physical effects, pregnancy, and lack of desire to use. The most often mentioned reasons were negative mental or physical effects; five of the 12 respondents who reported trying to stop mentioned these reasons. The cost of cocaine was cited by only one respondent.

Of the 34 respondents who did not effectively stop using cocaine after 1987, the vast majority (91%) reported periods of abstinence lasting more than one month. The median number of such periods reported was five. Respondents reported many reasons for periods of abstinence, of which "no desire" and "too expensive" were the most frequently mentioned (each eight times). The next most frequently reported reasons for a period of abstinence were negative mental and or physical effects (seven times), trips abroad (five times) and change of social circles (four times).

All 34 respondents reported one "longest period of abstinence". These ranged from one month to six years, with a median length of 6 months. "Trips abroad" was the most often mentioned reason for the longest period of abstinence; the absence of desire for and lack of availability of cocaine shared second place. These data do not support claims in the literature about cocaine's inherent addictiveness and users' inevitable craving for it. At least for our follow-up respondents, cocaine use can remain dormant for many years.

Reducing use

We mentioned earlier that our follow-up respondents regulated their cocaine use. In addition to cessation, their methods of regulation included limiting their consumption to a certain dose, partitioning or restricting use to certain parts of the week, and periodically abstaining. Another method of regulation reported was reducing one's use. This method is of course different from both complete cessation and from periodic abstinence.

Nearly half (16 of 34) of the follow-up respondents who had not chosen cessation had diminished their use. They mentioned more than 20 different reasons for reducing their use, none much more important than another. The most frequently reported reasons for reducing use were the lack of any desire for cocaine (four times), negative effects (three times) and changes in the circumstances of cocaine use (three times). Other reasons included the expense of cocaine (two times), changes in partner relations (two times), the need to work and/or study (one time), and a trip abroad (one time). Again contrary to stereotypes, a strong majority (14 of 16) of those who had reduced their use had no difficulty doing so. Only two found this difficult; one said he could never resist cocaine when it was offered, the other felt too nervous to be able to reduce his use.[8]

Route of ingestion

In our 1987 study we found that intranasal use or snorting was the most frequently chosen main mode of cocaine ingestion among our sample of users. A few reported some experience with other methods of ingestion such as injection or free-basing, but this experience was rare. However, because the cocaine literature contains reports of a tendency to escalate to more direct modes of ingestion, we designed our follow-up study to be able to find out if methods of ingestion had shifted in this way.

As in 1987, the main method of use among our follow-up respondents remained snorting. Since 1987, 27 of the 34 non-abstinent follow-up respondents (79.4%) reported that they had snorted almost without exception. Seven had experimented with one or more other methods: injection (once for one person), eating (four persons once, one person "always", and two others in between). Five respondents reported that on rare occasions they had applied cocaine to their genitals, and three respondents had on rare occasions free-based. Two persons mainly smoked their cocaine in hand-made cigarettes, and 24 others had experience with at least once smoking cocaine that way.

We asked each of our 34 non-abstinent follow-up respondents about the advantages and disadvantages they perceived in different modes of ingestion. They offered many opinions, but here we will refer only to those regarding injecting and free basing. All 34 had an opinion on injecting, some even more than one. Altogether they mentioned 39 perceived advantages of injection and

59 perceived disadvantages. The most frequently mentioned perceived advantage of injection was the better effect and/or "the flash" (22 times). The most often mentioned perceived disadvantage was that injection is unhealthy and/or dangerous (21 times). The next most often mentioned disadvantage had to do with the image of injection: "it is addicting" and/or "like junkies do" (18 times). Interestingly, in spite of the fact that many respondents believed that the effects of injection were better than those of snorting, actual experience with injecting remained rare because of the perceived risks. This healthy respect for injection risks may be seen as an important informal control to which most of our respondents held strongly throughout the follow-up period.

Almost the same holds for free-basing. Nearly all of our non-abstinent follow-up respondents (33 of 34) noted advantages of free-basing as a method of ingestion, of which better effects was the most commonly mentioned (24 times). Yet the related disadvantage that free-basing is addicting or something "like junkies do" was mentioned almost as often (23 times). Six said free-basing was too expensive and six thought it was too complicated or messy.

In short, our follow-up respondents recognized the numerous advantages and disadvantages of various modes of ingestion and chose the one that they considered both safe and relatively non-deviant. While many experimented with other modes, they generally did not opt for methods they perceived as more pleasurable but also more risky and deviant. This is not to say that these users know what they talk about. We can not exclude the possibility that these users will absorb many social constructions around drugs just as anybody else. "Normal" aversion against injection and its modern association with junky behavior, and sensitivity for mass media images about crack are just as prevalent with these powder cocaine users as with non users.

When asked about crack, 47 responded that they knew what crack was, although none reported ever having used it. However, when asked to give a definition of crack, only seven persons gave a more or less correct answer.[9]

2.3 Other drug use and other drugs used in combination with cocaine

Other drug use

We asked all our follow-up respondents about their experience with drugs over their lifetimes and during the two weeks prior to our interviews. Their responses are presented in Table 2.3a. The data suggests that our follow-up sample is comprised of highly experienced drug users.[10]

For comparative purposes, we placed the figures for lifetime prevalence of the use of various drugs among our follow-up respondents next to similar LTP figures for a random sample of the Amsterdam population in a similar age cohort in 1990[11] (Table 2.3b). We took the 26-46 year cohort as a reference group.

Our follow-up sample ranges between 26 and 46 years of age, and lifetime prevalence values are very sensitive to age. This forced us to make our LTP comparisons as precise as possible.

Table 2.3a Lifetime prevalence and last two weeks' prevalence of use of licit and illicit drugs among 64 follow-up respondents

	alcohol		**tobacco**		**sedatives**		**hypnotics**	
prevalence	n	%	n	%	n	%	n	%
lifetime	64	100	60	94	13	20	11	17
last two weeks	58	91	49	77	1	2	-	-

	cannabis		**LSD**		**opiates**		**ecstasy**		**amph.**	
prevalence	n	%	n	%	n	%	n	%	n	%
lifetime	57	89	22	34	23	36	25	39	23	36
last two weeks	33	52	-	-	2	3	4	6	1	2

Table 2.3b shows that our follow-up respondents have markedly more experience with illicit drugs than the general population - by factors which range from more than two (cannabis) to nearly 20 (ecstasy). Interestingly, the *last two weeks' prevalence* of ecstasy (MDMA) in the follow-up sample (6%) is three times the *life time prevalence* for this drug in the 26-46 age cohort in Amsterdam (2%). We found similar differences in our original 1987 cocaine user study.

Table 2.3b Lifetime prevalence for some drugs among follow-up respondents (N=64) and in 26-46 age cohort in Amsterdam 1990 population (N=1,902)

	sedatives		**hypnotics**		**cannabis**		**LSD**	
	n	%	n	%	n	%	n	%
follow-up	13	20	11	17	57	89	22	34
age cohort	391	21	324	17	742	39	149	8

	opiates		**ecstasy**		**amph.**		**cocaine**	
	n	%	n	%	n	%	n	%
follow-up	23	36	25	39	23	36	64	100
age cohort	180	9	35	2	152	8	201	11

Lifetime prevalence of the use of sedatives and hypnotics in our sample is equal to that found in the age cohort.[12] There is an interesting discrepancy, however. Among our follow-up respondents, these LTP levels of (legal) sedatives and hypnotics are far lower than their LTP levels of illegal drugs. Yet in the age cohort 26-46, it is the other way round. Except in the case of cannabis, LTPs of illegal drug use among the age cohort are all far lower than their LTPs for sedatives and hypnotics.

Combinations of cocaine with other drugs

Our follow-up respondents reported using a variety of other drugs in combination with cocaine. The most common ones were tobacco and alcohol. Tobacco was "always" used along with cocaine consumption by 30 (88%) of the 34 persons for whom we have data; alcohol was "always" used with cocaine by 21 (62%). Cannabis was far down the list, with only five of the 34 (15%) reporting that they "always" used it when consuming cocaine. Interestingly, none of our follow-up respondents reported using opiates, either licit or illicit, in combination with cocaine.

When asked what advice cocaine users would give novices about combinations of cocaine and other drugs, 31% said, "do not use with other drugs." Others advised against using cannabis or alcohol with cocaine. In all, some 42% of our respondents advised against using cocaine in combination with other drugs. However, another 27% of our respondents reported that they would advise novices to use cocaine in combination with alcohol.

2.4 Some economic aspects of the cocaine consumption of follow-up respondents

The price of cocaine in Amsterdam appears to have decreased between 1987 and 1991. According to the 28 follow-up respondents who answered our question about the current cost of cocaine, the mean and median price per gram in 1991 was *f*149 ($81). In 1987, the mean price was *f*180 ($100). Just over 50% of the respondents had paid over *f*200 per gram in 1987. In 1991, only 15% had paid such a price.

We asked each of our follow-up respondents to estimate the total financial value of the cocaine they had used during the last four weeks prior to interview, including all self-financed cocaine use as well as all cocaine given to them by others. The median financial value of all cocaine consumed in that pre-interview period was *f*80; the mean was *f*300. We should note, however, that these basic measures of central tendency were somewhat inflated by two respondents who used large amounts. When the value of the cocaine consumed by these two was dropped from the calculation, the mean drops to *f*148 (about one gram at average price) and the median to *f*65 (about 500 mg).[13]

Average consumption of the 18 follow-up respondents for whom we could accurately compute the total consumption for the *four weeks* prior to interview was approximately 1.3 grams during this period.[14] If we exclude the two top users this average amount drops to .5 g. The last value corresponds quite well with the reported median financial value of cocaine used, although we should note that these kind of computations yield no more than approximations.

All 34 respondents reported that they sometimes received cocaine for free; 27 from friends, four from their dealers, and three from other sources. When asked

if respondents limit their purchase of cocaine to a certain amount of money per month, half of them affirmed. The average amount of these self-imposed financial limits was *f*144 (median *f*140) or one gram per month.
In our initial 1987 study we did not ask our respondents how important the price of cocaine was to their level of use. This time we wanted to know if our (non-abstaining) respondents felt that they would increase their use if cocaine prices would drop. A strong majority (27 of 34) reported that they would not increase their use if prices dropped, but six said they would. These six said they would increase their use if cocaine prices were to drop to an average price of *f*67 per gram (about a 50% reduction). When asked if others would start to consume more if cocaine price were to drop to *f*100 per gram, 16 affirmed and 8 did not. Here again we see that our respondents tend to think that other users' consumption will be affected by price more than their own.[15]

2.5 Set and setting of cocaine use

In 1987 we found that the most important settings for cocaine use were "going out", "going to parties" and "social gatherings with friends". We asked about settings again in 1991 to see if there had been any shift in the overwhelmingly social functions of cocaine for our follow-up respondents. We found none. The same three settings were reported as by far the most important. (As we also found in 1987, over half the respondents who mentioned these settings as the most important reported that being part of such a setting may *trigger* the appetite for cocaine.)
The fourth most important category of setting mentioned in 1987 was one including situations in which one had to "continue" - e.g., to work, to party, or to have sex. By the 1991 follow-up, however, this type of setting was no longer important (mentioned only twice in 79 responses). The fifth most important setting of cocaine use in 1987, alone at home, was still mentioned seven times by our 1991 follow-up respondents, but this was reported proportionally much less than four years earlier. Sexual situations constituted 6% of the answers in 1987 but almost disappeared in 1991 (only 1% of the answers).
In 1987 work was mentioned only as a setting in which not to use cocaine. In the follow-up investigation, four respondents (5% of all answers) mentioned work as a situation fit for cocaine use. Aside from these few respondents, however, the main settings for cocaine use have remained the same; it appears that cocaine continues to serve primarily social functions. The more rare settings for cocaine use mentioned in 1987 almost disappeared in 1991, although we must note that there is some chance this was an artifact of the smaller sample of whom we asked this question.
Situations in which not to use also had not changed. The four most often mentioned ones in 1987 were work and study situations, before some kind of achievement, in daily life situations, and with non-users. These four situations

were reported in exactly the same order in 1991 by 33 of our 34 respondents. These data, too, suggest that the subcultural functions of cocaine use have remained very stable among our respondents. The fact that most of these 34 experienced users had decreased their levels of use considerably seemed to have no effect upon the uses to which cocaine was put.

Emotional sets played some role in cocaine consumption in 1987. In 1991, similarly, 19 out of 34 respondents said that certain emotional states could provoke their desire to use cocaine. As in 1987, "joy" or "feeling very well" was the most often mentioned (25% of all answers in 1987, 29% in 1991). This was in keeping with the predominantly social functions that cocaine served for these respondents. Next in importance was "feeling tired" (20%). Many other emotional states were mentioned by very small numbers of respondents.

It is noteworthy that only one follow-up respondent mentioned "feeling depressed" as an emotional state in which he was likely to use. More importantly, in both the original 1987 study and the 1991 follow-up, "feeling depressed" was the most frequently mentioned emotional state in which cocaine use was not appropriate (40% of the answers). The next most important emotional state reported as being unfit for cocaine use was "being nervous".

Contrary to the literature which posits self-medication and/or psychopathology as sources of cocaine use, our longitudinal data suggests that users tend to avoid using when not feeling well, when depressed, or when nervous. Overall, such negative emotional states constituted the vast majority (76%) of the emotional states considered unfit for cocaine use.[16]

In addition to the aforementioned social settings and emotional states in which cocaine was considered inappropriate, our respondents also reported that cocaine use was inappropriate in the company of certain types of people. Most often mentioned were non-users or unknown company (36%), family members (30%), work colleagues (13%), children (6%), and very heavy users of cocaine - "junkies" - (6%). These last two categories are probably mentioned so rarely, not because the bulk of our respondents think using with kids or junkies would be all right, but because most do not live under circumstances where meeting with children or junkies is very prevalent.

2.6 Advantages and disadvantages of cocaine

Up to this point we have reported that many aspects of our respondents' cocaine use remained rather stable in the four years since we first interviewed them. Yet, many other studies suggest that as use continues, dosages escalate and problems develop. So, because our respondents had been using cocaine for over a decade, we expected to find that many had changed their perceptions of the advantages and disadvantages of cocaine use.[17]

In 1991 we asked our respondents again to give an account in their own words about the advantages and disadvantages of cocaine. The advantages reported in 1991 were almost exactly the same as in 1987. In order of importance, these were:

1 gives energy
2 eases communication
3 makes one feel high or relaxed
4 makes one more creative
5 gives more self-confidence

Although one might expect that the longer one's experience with cocaine the fewer advantages it would be seen as having, the average number of advantages cited by our follow-up respondents increased slightly over the average found in 1987. The 34 follow-up respondents reported an average of 3.4 advantages per person, compared to an average of 2.9 advantages reported in 1987 by the original 159 respondents.

Like our original 1987 respondents, our 1991 follow-up respondents reported a diverse array of disadvantages. The two most important disadvantages in 1987 - high cost and adverse physical effects - were also the two most important in 1991. The third most important disadvantage of cocaine cited by our follow-up respondents was that cocaine makes one feel very tired the next day. In 1987 this disadvantage was not mentioned.
In 1987, the tenth ranking most important disadvantage was that "cocaine induces too much drinking". In our 1991 follow-up, this had moved up to fourth position. Beyond this, cocaine-induced insomnia, egocentricity, and guilt feelings tied for the fifth most important disadvantage in 1991 (each constituting 5% of all reported disadvantages). Guilt feelings because of cocaine use were not reported in 1987. In 1987 the dysphoric effects of cocaine were mentioned by 13 persons out of 160 and ranked ninth. In 1991 dysphoria is mentioned only once.
Our 1991 follow-up respondents reported at average of three disadvantages per person versus 2.5 in 1987. This might mean that the additional years of use had made these respondents more aware of disadvantages. However, because the average number of advantages reported also increased to a similar degree, both increases may be artifacts of more thorough interviewing rather than of changes in perception.[18]
As in 1987, we asked respondents if they could distinguish between the influence of dosage and of the circumstances of use on advantages and disadvantages. Although more respondents considered dose the greater influence on disadvantages and circumstances of use the greater influence on advantages, this difference was not statistically significant.
In general, respondents' perceptions of both advantages and disadvantages seem to have remained stable, although some changes were seen in the rank

order of disadvantages. This is, however, insufficient evidence for a "transformation of the cocaine high" as discussed by Waldorf et al. (1991).
We also asked the non-abstinent follow-up respondents how the disadvantages of cocaine use could be handled. There was no clear pattern of advice on this topic in the 42 responses given. Of the 18 different ways of handling disadvantages, the most common (20%) was prudence of consumption (not using cocaine too often or too much). An additional 10% saw some disadvantages as unavoidable, which is a realistic perspective.[19]

Craving cocaine

Almost all non-abstaining respondents (32 of 34 or 94%) reported experiencing some longing to consume cocaine (craving) at some point. However, for most of these (27 of 32 or 84%) such craving occurred "never" or "rarely" when cocaine was not present. Even when cocaine was present, 13 of the 32 (41%) experienced craving rarely or never. Abstaining respondents were, unfortunately, not asked this question.
Given the many reports in the literature on cocaine's addictiveness, how is it possible that craving was so relatively rare among such long-term users? For us, the most plausible interpretation is that craving for cocaine is probably less related to the presence of the substance than to the presence of the right combination of emotional set and social situation. With the right combination of set and setting, the presence of cocaine may trigger the desire to consume it. But, proximity of cocaine in the absence of the right combination of set and setting will often not trigger craving. It is also likely that for many respondents cocaine is so closely connected to certain states and situations that when cocaine is 'not around', the right set and setting are not either.
This interpretation fits well with our empirical findings on the importance of set and setting for and the prevalence of craving among these cocaine users. It may well be that craving is relatively rare among these respondents because most are controlled users. On the other hand, for very heavy users who probably feel the absence of cocaine in many daily situations, craving might be more common and/or more intense. It may be better, therefore, to reserve the term "craving" for such heavy users. For the type of users we are investigating here, the term "appetite" may be more appropriate.

2.7 Social and political aspects of cocaine

Encouragement and discouragement of cocaine use

We asked the non-abstinent follow-up respondents if they had ever actively encouraged novices to use cocaine. Some had (10 or 29%), but most had not (24

or 71%), and the ten who had encouraged others had not done so widely or indiscriminately. They mentioned only 13 persons they had encouraged, of which nine were friends, one was a partner, and another a family member.[20]
Nearly half of our respondents (15 or 44%) reported that they had discouraged novices from using cocaine, most often colleagues, friends, or family members. Six respondents reported that the reason for this discouragement had to do with their perception that particular persons were seen as unfit. In three other cases the reason was that the novice was considered too young. Only five of the fifteen respondents who had discouraged use had done so for reasons having to do with their own negative experience with cocaine. Three of the 15 discouragers said they had also encouraged. Twelve respondents had never encouraged or discouraged anyone.
As other findings have suggested, the general attitude toward cocaine among this follow-up sample was not negative. For most, once they had experienced cocaine for themselves, its image shifted in a positive direction. But apparently this did not mean that they became active proselytizers.

Cocaine policy

As we did in 1987, we asked our follow-up respondents to give us their views on cocaine policy and whether they would prefer to see it changed. A majority were dissatisfied with Amsterdam's present cocaine policy. There seemed to be no change. As in 1987, a sizable minority expressed a preference for a cocaine policy like we have for heroin (formally, active suppression), while a narrow majority preferred a more liberal policy or to have policy remain as it is (which in fact is virtual non-interference in individual cocaine use), cf. Table 2.7a and 2.7b.

Table 2.7a Preferred cocaine policy in 1987 and 1991 follow-up respondents

	1987		1991	
policy	n	%	n	%
like alcohol*	42	26	16	25
like cannabis	39	24	15	23
as present	7	4	7	11
like heroin	64	40	22	34
no answer	8	5	4	6
total	160	100	64	100

* or between alcohol and cannabis

The 22 respondents who preferred a more suppressive policy gave 30 reasons for their preference. Twenty of these reasons centered on the idea that cocaine is dangerous or addictive, and nine other reasons had to do with the idea that some persons should not use cocaine. Those who preferred a more liberal policy cited

many different reasons, but most prominent were that a liberal policy would mean less criminal involvement, more quality control, the similarity between the risks of cocaine and alcohol, and the idea that users would be better integrated into society.

We asked those who had used cocaine more than ten times since 1987 what effect the present laws and policies had on them. Eight of the 34 reported that the present legal situation regarding cocaine was disadvantageous. Of the others, 17 felt it made no difference and eight saw it as advantageous. This means that over 70% of these respondents perceive no harmful effects on their cocaine use from present laws and policies.[21]

Table 2.7b Preferred cocaine policy among follow-up respondents who still used cocaine and those who had not used it since 1987

	cocaine users				**non-users**			
	1987		1991		1987		1991	
policy	n	%	n	%	n	%	n	%
like alcohol	6	18	8	24	2	7	8	27
between alcohol and cannabis	1	3	-	-	2	7	-	-
cannabis	11	32	8	24	6	20	7	23
as present	3	9	5	15	1	3	2	7
like heroin	9	26	9	26	17	57	13	43
no answer	4	12	4	12	2	7	-	-
total	34	100	34	100	30	100	30	100
Mann-Whitney U	U=449.0, Z=-0.154 (n.s.)				U=331.5, Z=-1.4978 (n.s.)			
Wilcoxon matched-pairs signed	Z=-0.38 (n.s.)				Z=-2.0402 (p<0.05)			

When we compared the 34 follow-up respondents who used cocaine with the 30 abstinent follow-up respondents, we found that policy preferences differed in the expected direction. The non-users tended to prefer a more restrictive cocaine policy, although the difference was not statistically significant. In the course of our interviewing we found that most respondents had sophisticated opinions about cocaine and cocaine policy. They usually mentioned several pros and cons in relation to the official policy. For instance, while 66% of the non-using respondents held the opinion that cocaine was addictive or dangerous or that many people underestimated the effects or did not know how to handle it, only 43% preferred a more restrictive cocaine policy. Of the respondents who still used cocaine in 1991, only 30% mentioned cocaine being addictive, dangerous, or easily underestimated, and were even more likely to prefer more liberal policies.

Beyond this, the relationship between a user's personal experience and his or her policy preferences was difficult to disentangle. All but one of the abstinent respondents had quit cocaine without outside help and within the present policy of non-interference with individual use. Thus, it is possible that they considered present policies as less negative for themselves than for "others."

This interpretation comports well with our earlier finding that respondents exhibited a greater capacity for controlling their cocaine use than they attributed to others.
Oddly enough, it seems that the non-users in the 1991 follow-up sample changed their opinions slightly more in a liberal direction. In 1987, 34% of the non-users wanted a more liberal policy, but by 1991 this proportion had increased to 50%. Similarly, the proportion who preferred more repressive policies declined from 57% in 1987 to 43% in 1991.
When we cross-tabulated opinions we found that policy preferences had changed between 1987 and 1991 for 13 non-users and 15 users. The rest remained unchanged (or gave a "do not know" response in one of the years). Looking only at the 28 follow-up respondents who changed their opinions about cocaine policy, we found that the changes went in both directions in roughly equal proportions. This means that although nearly half of our respondents had changed their opinions in relation to preferred cocaine policy, in the end the group as a whole remained quite unchanged: a majority (60%) still support a less repressive cocaine policy in Amsterdam.

2.8 Rules for controlling cocaine use

Controls as applied by follow-up respondents

Those who claim that cocaine is inherently addictive cite experiments with caged rats and monkeys who had unlimited access to unlimited supplies of cocaine and nothing else to do. Although such conditions virtually never exist for humans, our follow-up sample did have very easy access to cocaine - culturally, geographically, and financially. Therefore, if addiction were strictly a function of the physiological presence of the pharmacological substance, we would not expect to find long-term, frequent cocaine users exhibiting any control over their cocaine use. This was not the case, however, among our follow-up respondents.
We asked non-abstinent respondents if they applied any regulatory rules to their use of cocaine. Respondents reported an average of 1.6 such rules each. Thirty six percent of all rules mentioned had to do with self-imposed restrictions on time of use (only certain days of the week and/or times of the day). More common were rules about situations which they defined as appropriate or not appropriate for cocaine use. Nearly two-thirds (64%) of the rules reported applied to situations.
When we specifically asked about regulatory rules which restricted or allowed use only in certain emotional states or sets, respondents reported that emotions played an important part in regulating cocaine use. But in our open-ended questions when respondents could freely formulate their own answers about

rule-making, emotions were rarely mentioned. Only one person (3% of all responses) reported using a rule that had to do with restricting use in a specific emotional set, that is: "not when depressed".
Although only six respondents said they had no rules with which they regulated their use of cocaine, we are inclined to believe that even this is incorrect. We suspect that these respondents either took their rules for granted or for some reason did not tell the interviewer about them. It appeared to be difficult for these users to actively reflect on the many rule-making aspects in their cocaine use. More generally, the 1991 responses about rule-making did not differ from those in 1987.
We asked about "rules" in many different ways. One was that we invited the non abstaining respondents to give advice to novice users on route of ingestion, dosage, situations, combinations with other drugs and buying cocaine.

Route of ingestion
Clearly snorting is the route of ingesting these experienced cocaine users want novices to practice. This does not mean that they are right. It just shows that route of ingestion and holding on to a particular one, serves as a control for these users. "Snort only" was the advice of 24 out of 34 (71%) of our non-abstinent follow-up respondents. Two respondents advised only that novices avoid injecting, and two others advised snorting or smoking (via cigarette).

Dosage
Only one respondent said that one can use any amount, and one other advised simply to use "enough." All the others advised that doses be limited in some way: not too much, not more than..., just a little. (Data on advice about combinations of cocaine with other drugs is already reported in section 2.3.)

Conditions of use
Here we received exactly the same answers we got when we asked respondents about situations fit for cocaine use: Use in good company and be sure that you feel good already. Only two persons said that conditions of use were unimportant.

Buying cocaine
When we asked respondents in 1987 if they had advice for novices about buying cocaine, 20% said they should always use one steady dealer. In the 1991 follow-up, however, only two persons gave such advice. But while using a single dealer no longer seemed very important, the 1991 answers indicate that not buying in public places like discos or on the streets had become more important - the proportion giving this response increasing from 15% in 1987 to 40% in 1991. What had not changed from 1987 to 1991 was that the most frequently given advice about buying was the desirability of going to a reliable person.

To judge from this summary of the rules used by this group of experienced cocaine users to regulate their use, and from the relative absence of destructive and compulsive use patterns over the four-year follow-up period, we may conclude that users can and do exercise control.

Our respondents applied two basic types of controls to themselves: restricting use to certain situations and to those emotional states in which cocaine's effects would be most positive. Neither of these forms of user control appeared to rely on external social control agencies.

Of course, such external social controls as law enforcement are present in Amsterdam, but were not seen as relevant by half of our respondents. The other half reported that their cocaine use was influenced by current laws and policies, but this influence was equally divided between positive and negative. If we take "the present legal situation" as a representation for these users of existing control agencies, we can conclude only that such external, institutional controls were perceived as having some influence on at most half of these users, with some of this influence positive and some negative.

It was very difficult to determine the precise influence of these agencies on the cocaine-using behavior of our respondents. We do know, however, that the level and intensity of law enforcement actually operating in Amsterdam in ways that could impact this group of users were very low. In their answers to our questions we found no evidence at all that this influence had been difficult to handle. We did not explore, however, the specific nature of this influence, although this might be a very interesting topic of future investigations.

This means that, if cocaine's pharmacological characteristics did in fact make it as inherently "addicting" as physiological models claim, then without the application of self-imposed and micro-social rules on cocaine use, we might have seen very different, arguably more destructive patterns of cocaine consumption in this group. In fact, however, our data directly contradict the physiological models undergirding current law, for example, Gawin's:

> *"Limitation on drug access, including the high price of cocaine and legal limitations on distribution, regulate human cocaine use and may prevent human cocaine use from more frequently mimicking animal free-access experiments in producing death".*[22]

Quotes like these illustrate the vital importance that some attribute to external social controls. In this view, individuals left to themselves in an easy-access situation will "mimic" the behavior of rats and monkeys who under some experimental conditions continuously ingest cocaine until they die in such situations. However, even if it were possible to extrapolate from animal to human behavior, the experimental conditions under which animals use cocaine compulsively until death virtually never hold for humans. The rats and monkeys were caged, given constant, unlimited 24-hour access to cocaine, denied freedom of movement, were not in their natural habitats, and deprived of all

other activities and stimulation. As Hartnoll (1990) among others has documented, despite the causal significance some attribute to pharmacological or biological factors, such laboratory experiments on animals explain neither drug use nor drug abuse in humans.[23]

Our follow-up respondents had been exposed to cocaine for ten years or more in a situation of relatively open access. According to Gawin, this would have resulted in certain addiction:

> *"Individuals who are in treatment for cocaine abuse report that two to four years intervene between the initial exposure to cocaine and the development of addiction"*
> Gawin (1991)

However, in our follow-up sample - drawn from the much larger pool of users outside the treatment population - only four of our 64 respondents had ever considered seeking the assistance of treatment, only one of whom actually did so.[24] This means that under the low external control conditions prevailing for our respondents, 6% had strongly negative subjective experiences of abuse sufficient to move them to consider treatment. We have no reason to believe that the other 94% or a part there of negated such experience.

These users had a range of cocaine dealers to choose from, cocaine buying in apartment houses presented no risk, and most earned enough money to buy much more cocaine than they actually did. Thus, we may safely infer that reliance on self-regulatory forms of control rather than institutional forms of social control was what prevented the great majority of these users from succumbing to the risks of cocaine abuse or "mimicking" the compulsive-use-until-death found among laboratory animals.

The evidence from our limited sample cannot, of course, fully refute claims that humans who use cocaine regularly will over time progress to heavy use and addiction. For such refutation to be conclusive, there would have to be repeated longitudinal measurements of use patterns in many different settings. But the Amsterdam data does demonstrate that extended careers of cocaine use lasting even a decade do not inevitably culminate in compulsive and/or destructive use or "addiction". When viewed in combination with similar findings from other studies of non-treatment samples such as Erickson's (1992) in Canada and Murphy et al.'s (1989) in California, our data does cast serious doubts on the validity of claims that cocaine use eventuates in abuse and addiction.

2.9 Some other developments in the follow-up group

Because of our curiosity about possible criminal tendencies in the group of long term cocaine users we asked our respondents if they had been convicted of felonies during the 1987-1991 follow-up period. Two of the 64 follow-up

respondents reported that they had been convicted of felonies. When asked if they had any contacts during these four years with psychotherapeutic experts (psychologists, psychiatrists, clinical social workers, etc.), 16 (or 25%) affirmed. On an annual basis, this amounted to 6% per year. Seven of these reported that such periods of psychotherapy affected the organization of daily life (e.g., cessation of employment, diminishing working hours, staying at home more than usual, psychiatric hospitalization). These figures are difficult to interpret. To understand whether they represent disproportionate mental health problems among our cocaine users, we would have to compare them with the prevalence of psychotherapeutic contacts in a four year period in an Amsterdam population of outgoing, socially active, and relatively highly educated people in the 26-46 age cohort. This was beyond the scope of our research.

Table 2.9a Changes in employment rate, being married, living alone and net income per month between 1987 and 1991 (N=64)

	1987	**1991**
% employed	80	86
% married	8	11
% living alone	73	48
net income per month	ƒ2,082	ƒ2,766

Table 2.9a gives some additional information on basic developments in the life structures of our 64 follow-up respondents. Marriage seems no more popular than in 1987, although 30% fewer were "living alone" in 1991. Average monthly income and, to a lesser extent the rate of employment had increased over the follow-up period. Thus, like other longitudinal studies of cocaine users (Murphy et al., 1989), the data for our 64 follow-up respondents contains no evidence that long-term cocaine use had damaged users' economic careers.

Table 2.9b Orientation toward activities out of the house among abstinent and non-abstinent follow-up respondents in 1991 compared to the age cohort 26-46 years and cocaine users* in the same age cohort in the population of Amsterdam in 1990

	follow-up non-users 1991		**follow-up cocaine users 1991**		**population age cohort 1990**		**population cocaine users 1990**	
outside orientation	n	**%**	n	**%**	n	**%**	n	**%**
low	1	3	4	12	762	40	8	20
medium	8	27	7	21	515	27	6	15
high	21	70	23	68	623	33	27	66
no data	-	-		-	2	0	-	-
total	30	100	34	100	1,902	100	41	100

Mann-Whitney U follow-up non-users - follow-up cocaine users: U=485.5, Z=-0.4052 (n.s.)
Mann-Whitney U follow-up cocaine users - pop. age cohort: U=19404.0, Z=-4.2571 (p<0.001)
Mann-Whitney U follow-up cocaine users - population cocaine users: U=668.5, Z=-0.3640 (n.s.)

* We regard a respondent in the 1990 population survey on the prevalence of licit and illicit drugs as a cocaine user if he or she used cocaine in the year prior to the interview in 1990.

Our follow-up respondents appear to have been quite active socially. Half reported visiting cafés and bars more than four times per month. Only 14% had not done so in the four weeks prior to interview. Half also reported that they had been to restaurants more than twice in the four weeks prior to interview, and only 6% had not done so during that period. A majority had attended films or the theater at least once during the eight weeks prior to interview (57% for films, 61% for the theater).
In Tables 2.9b and 2.9c some information is given on the outdoor orientation of both abstinent and non-abstinent respondents in our follow-up sample, compared to:

1 their age cohort (26-46 years, N=1,902) and
2 last-year cocaine users found in the 1990-91 Amsterdam household study on drug use in the age cohort 26-46 years (N=41).

Total outside orientation[25] was the same for both abstinent and non-abstinent FU respondents. This suggests that decreasing outdoor activities was not generally used as a means for achieving abstinence. The levels of outdoor orientation found among both our groups of cocaine users were equal to those found among last-year cocaine users in the Amsterdam population sample, and higher than those of the 26-46 age cohort in the general Amsterdam population. When we examined specific activities outside the home (Table 2.9c); it became clear that the non-abstinent cocaine users stayed home less often.
Taking together visits to cafés, bars, restaurants, films, and theater with total outside orientation, we conclude that our respondents' cocaine use did not tend to lead them to organize their lives around private drug consumption or into cocaine-induced social isolation.

One in three (33%) of our respondents perceived cocaine use in Amsterdam as increasing, and nearly another third (30%) perceive it as decreasing. The others consider it stable (23%) or do not know (14%).[26] These data are not consistent with reports from the "new users" we interviewed during the same period. New users see cocaine use rising around them. This may very well be the result of quite different social surroundings of the two samples. The follow-up respondents are part of an aging group where, as we found, cocaine use decreases or stops entirely. The younger new users, selected exactly because they were new users, must have a different perspective.

2.10 Conclusion

We can safely conclude form this overview that a clear majority (roughly two-thirds) of our follow-up respondents eventually decreased their levels of use or came to abstain either largely or completely. Those who continued to use cocaine

generally had reduced their levels of use. When we examined the reported normal dosages for different periods of consumption, we found that those who had continued to use in the 1987-91 period had slightly increased the size of their doses, but this increase was not statistically significant over 1987 doses. In other words, follow-up respondents who continue cocaine use did so with less frequency than when we saw them in 1987, although the median number of lines used per "normal" occasion was somewhat higher than before. But, this last difference may have been a sampling artifact.

Although most of the follow-up respondents decreased their frequency and overall levels of use or became abstinent over the years, this process was not without difficulty for all. Four persons reported that they had at some point

Table 2.9c Characteristics of leisure activities out of the house among abstinent and non-abstinent follow-up respondents in 1991 compared to the age cohort 26-46 years and cocaine users* in the same age cohort in the population of Amsterdam in 1990

	follow-up non-users 1991		**follow-up cocaine users 1991**		**population age cohort 1990**		**population cocaine users 1990**	
number of evenings at home per week	n	**%**	n	**%**	n	**%**	n	**%**
5 to 7	10	33	4	12	933	49	16	39
3 or 4	14	47	7	21	674	35	14	34
2 or less	6	20	23	68	293	15	11	27
no data	-	-	-	-	2	0	-	-
total	30	100	34	100	1,902	100	41	100
going to café or discotheque•	n	**%**	n	**%**	n	**%**	n	**%**
never	4	13	5	15	962	51	9	22
little	10	33	13	38	493	26	10	24
moderate	12	40	8	24	318	17	14	34
frequently	4	13	8	24	112	6	8	20
no data	-	-	-	-	17	1	-	-
total	30	100	34	100	1,902	100	41	100
visiting restaurants or snack-bars•	n	**%**	n	**%**	n	**%**	n	**%**
never	1	3	3	9	663	35	6	15
little	6	20	3	9	316	17	3	7
moderate	12	40	10	29	462	24	9	22
frequently	11	37	18	53	455	24	23	56
no data	-	-	-	-	6	0	-	-
total	30	100	34	100	1,902	100	41	100
going to concerts, theaters or cinemas°	n	**%**	n	**%**	n	**%**	n	**%**
never	4	13	10	29	971	51	13	32
little	9	30	3	9	367	19	8	20
moderate	7	23	9	26	364	19	14	34
frequently	10	33	12	35	195	10	5	12
no data	-	-	-	-	5	0	1	2
total	30	100	34	100	1,902	100	41	100

* We regard a respondent in the 1990 population survey on the prevalence of licit and illicit drugs as a cocaine user if he or she used cocaine in the year prior to the interview in 1990.
• during last four weeks.
° during last eight weeks.

considered looking for assistance in reducing their use or quitting, with one actually doing so, during the four-year period since our first interviews with them. If we use such consideration of getting help as an index of at least subjectively-felt problems with cocaine use, then about 6% of the follow-up group (or 13% of non-abstinent follow-up respondents) can be said to have had such problems.

In general, however, when we examined the data on other aspects of their lives such as employment and earnings data or sociability, we found no indications that under present drug policies in Amsterdam cocaine use had negative consequences for most follow-up respondents.

Notes

1 Such beliefs about cocaine use are invoked by policy analysts like Kleiman to justify harsh law enforcement directed against users. Mark Kleiman (1992), *Against Excess* (New York: Basic Books), p. 307.

2 Definitions of levels of cocaine use: low level = less than 0.5 gram per week; medium level = between 0.5 and 2.5 grams per week; high level = over 2.5 grams per week. For a full discussion of these definitions, see Cohen (1989) pp. 49-50.

3 We do not really know this. Recent use by these 19 (or a proportion of them) may just be a moment in a very irregular and occasional pattern of use.

4 We have the suspicion that the question about top level after 1987 was not always understood correctly by our respondents. It might be that because of the way the question was worded, some respondents may have misunderstood it and have taken it to mean "top period in total cocaine use career" instead of only after 1987. Therefore, our data on "top level of use after 1987" have to interpreted with caution. See also our report on data reliability, Chapter 3, section 3.2.

5 We were unable to get complete data for one of the 34 respondents.

6 Tables like the ones presented here show how important it is to include ex-users in any investigation of drug use. If one would select for study only those users who are actively using at the time of interview, important parts of the natural history of drug consumption become invisible, and the part that remains visible becomes biased.

7 In a study by Waldorf, Reinerman, and Murphy (1991), several clear-cut strategies were mentioned by those who had stopped. One reason why we may not have found such strategies is that the average use levels of our respondents were lower than those in the Waldorf et al. study. Entry into that study was only possible after minimum consumption of two grams per week for at least six continuous months or daily use for a minimum of one year. It is likely that strategies of cessation can only be studied in a meaningful way with very high-level users.

8 Because cocaine is a central nervous system stimulant, it is often forgotten that for many cocaine users the relaxation the substance offers is an important effect. See Cohen (1989) p. 83 and Erickson (1992) pp. 9-10.

9 An answer in which the respondents would roughly indicate that crack cocaine is made of cocaine hydrochloride by making it basic, or that crack is cocaine prepared for smoking, would be considered correct.

10 The discrepancies with the data on LTP for these drugs, given by the same individuals in 1987, will be discussed in the chapter on test-retest data.

11 Cf. Sandwijk, P., P. Cohen and S. Musterd (1991), *Licit and illicit drug use in Amsterdam*, University of Amsterdam. In this publication data for the age cohort 20-40 are presented but not for the 26-46 age cohort. The data in Table 2.3b were specially computed by Arjan Sas from the complete household survey 1990 database.

12 *"Many cocaine users take sedative and hypnotic drugs to reduce the 'jitters' caused by cocaine or to relieve the unpleasant 'crash' after the euphoria wears off."* On the basis of this quote from Gossop (1987)

we might have expected a higher Life Time Prevalence of the use of such drugs among this sample of experienced cocaine users than among their age cohort. However, consumption of hypnotics and sedatives among the cocaine users we interviewed was not different from that of their age cohort. Gossop's data are quite probably based on experience with cocaine users in the English drug clinic situations. This accounts for generalizations that are often unfit for use outside such populations. Gossop, M. (1987), Beware cocaine. *British Medical Journal*, Vol. 36, p. 611-612.
In 1987 we found slightly higher LTPs (25%) for such drugs in our sample, although recent use of these drugs was low (<3%). Frequent use of hypnotics (>100 times since 1986) was found with one person and for sedatives with two persons in our follow-up sample.

13 Range: *f*5 to *f*1,680 in last four weeks. Without the three top buyers the range is *f*5 to *f*375.

14 We computed amounts in mg from the data as they were given for the last three months. We have no direct data for total consumption in mg during last four weeks. Computing consumption for last four weeks from last three months data is only an approximation, and may give erroneous results for some respondents.

15 The same tendency is shown in the answers about controlling cocaine use. When asked if they were better able to keep control over their cocaine use than others, 24 out of 34 said yes.

16 This, like much of our data, tends to contradict constructions sometimes found in the cocaine literature. Cocaine use brings a euphoric state of mind which is *"necessarily followed by falling in to a depression that can only be met by renewed consumption of cocaine; more frequent consumption and higher dosages cause a still deeper fall into a depressive condition. Psychological attachment and compulsive consumption follow because of this mechanism"* Heckman, H. (1987), Modedroge Kokain. *Suchtgefahren* 14, pp. 7-15. (Translation P.C.).

17 In fact, Waldorf et al (1991) mention the transformation of the experience of the cocaine high as quite important for their long term (heavy) users. *"Most of our respondents who used cocaine heavily for long periods began to experience negative physical symptoms, and many of the original sought-after pleasures began to diminish or disappear."* p. 223.

18 When we answer ourselves, we would say: better interviewing.

19 In 1987 we found nobody who mentioned zero disadvantages or zero negative effects of cocaine, even if use level was 0.5 gram a week or less. For any level of use disadvantages have to be taken into account, the more so as use level increases.

20 Of two the status is unknown.

21 This will be appreciated by Dutch policy makers who support a harm reduction approach in the Netherlands. This finding also supports Leuw's view, that present Dutch policy does not need change.

22 See Gawin, F. (1991), Cocaine addiction: Psychology and neurophysiology. *Science*, vol. 251, pp. 1580-1586.

23 Hartnoll, R. (1990), Non-pharmacological factors in drug abuse. *Behavioural Pharmacology*, pp. 375-384.

24 Of the 1987 respondents on whom we were unable to follow-up, we traced one person who also went for drug treatment in reaction to cocaine use. He disappeared a few days before interview.

25 A measure developed by Sandwijk et al (1988) and further developed in Sandwijk et al. (1991) consisting of scores on four variables: number of evenings at home per week, going to café or discotheque over the last four weeks, restaurant and eating in restaurants or elsewhere away from home during the last four weeks, visits to concerts, theaters, cinemas over the last eight weeks. This lifestyle variable was found to correlate highly in Amsterdam with illicit drug use prevalence.

26 Almost all respondents know cocaine users in their social circle. Sixty-two respondents knew a median number of seven cocaine users. Median number of known cocaine users who have a "risky use pattern" is one person. Twenty-one follow-up respondents know more than one risky user, with an average of four persons.

3 Test-retest of the follow-up respondents

This chapter will look into the problem of reliability of self-reports in which drug users recount events in their drug-using career. We have chosen variables for a test-retest investigation that relate to initiation into cocaine use, to other drug use, and to effects experienced in using cocaine.

The most important reason for choosing this set of variables to check the reports is that the initiation experience cannot be changed by what happens later. All other variables we asked about may have objectively changed their weight in the period between 1987 and 1991.
Lifetime prevalence of drugs can also be used for test-retest purposes. Although lifetime prevalence can increase over the years, it cannot decrease. It might be interesting to see how the follow-up respondents describe their lifetime prevalence. If a decrease is reported, we might be able to generalize about changes in the perception of the follow-uppers' own drug use in the last four years.
Another set of variables that we will compare in detail refer to the effects of cocaine. In 1987 we presented five scales of cocaine effects. Via scores on these scales, we can compare 34 follow-up respondents in 1991 and 1987. The effects might fall victim to selective memory processes, although we have no empirical evidence that this actually occurs. If scores on a few scales drop significantly, these changes can be investigated in depth. If scores increase, this may be due to new experiences after 1987 and does not necessarily mean that the capacity of recollection has suffered.

Changes in reports on variables that are supposed to remain constant are not necessarily due to changes in perception or poor recollection by the respondent. It may very well be that our instruments of measurement for such variables do not work properly. The order of the questions in the questionnaire, the words used in the questions, the personal knowledge of the interviewer, and even the age or gender of the interviewer can all influence the answers of the respondents. This problem is paramount in setting up international comparative research in the field of drugs (Hartnoll, 1992; Cohen, 1993). Therefore, we have to examine our own methods of research very carefully before we evaluate any changes in parameters.
In her overview of validity test methods of self-reported drug use (which is different from the test-retest or reliability measuring we are doing here), Harrison states that differences between self-report and other measures can be due to recall errors, question wording, misleading or unclear instructions, and

failure to identify or recognize a drug, apart from intentional falsification (Harrison, 1992). There is no reason to doubt that all these elements may also play a role in the level of reliability we try to measure in test-retest procedures. Reliability and validity testing is sorely undeveloped in drug research, although errors that do not derive from sampling but from the measuring methods themselves *"may sometimes dwarf those induced by sampling factors"* (Forsyth et al., 1992).
In Chapter 1 we discussed some of the problems of generalizing that may be traced to differences between our follow-up respondents and the non-response. This line of inquiry is far more accepted in social science than seriously questioning or at least trying to evaluate the quality of the measuring procedures themselves. However, the latter are also implicated in creating biased results, and maybe even more deeply than the former.
The brief discussion we present here is not meant as a thorough investigation of the measuring problems we usually do not like to look at when doing this type of research. Rather, it is an exercise, an expression of curiosity about this matter.

For our test-retest analysis, we sometimes have data from 64 respondents, though more often from only 34. The difference is due to one of our more serious omissions.
Originally we had planned to use any item of our interview schedule for our test retest analysis. However, during the pilot phase of the project, the full interview schedule appeared to be far too extensive for those who had used very little (less than ten times) or no cocaine since the first interview. Therefore we decided to design a short version. In preparing this short schedule, we overlooked the need to redesign the test-retest analysis and include a minimum set of questions for this purpose for all respondents. The result is that on some important variables that we want to subject to a test-retest, we have no data for respondents who answered the short questionnaire.

3.1 Initiation into cocaine use

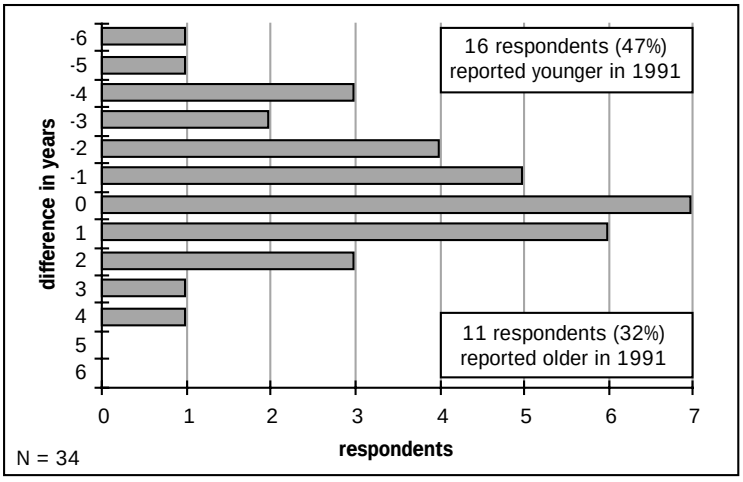
In this section we will compare follow-up respondents in terms of the answers each gave in 1987 and 1991 about their initiation into cocaine use. The questions asked in 1987 about their initiation were asked again *in the same wording* in 1991. We will compare the 1987 and 1991 data regarding age, dosage, with whom, where, route of ingestion, and way of obtaining cocaine, all at initiation.

Age at initiation

In 1991, 34 respondents answered the question about their age at initiation into cocaine use. Only seven of them gave the same answer in 1987. But 25 respon-

dents (74%) were able to pinpoint their age at initiation, plus or minus two years of the age reported in 1987. The variance in difference in the reported age at initiation is shown in Figure 3.1a.
In 1991, 16 respondents (47%) reported a lower age. The mean negative difference was 2.6 years. A smaller number reported a higher age (11 persons, 32%). The mean positive difference was 1.7 years. On the whole, the mean (absolute) difference in age at initiation reported by our follow-up respondents was 1.8 years.

Figure 3.1a Comparison between the age at initiation into cocaine use reported in 1987 and 1991



There seems to be a slight tendency to perceive age at initiation as being "long, long ago". Accordingly with increasing time between initiation and interview, the length of this period subjectively increases, perhaps more than is objectively correct. Another explanation may be that when initiation is very recent, its distance gets distorted and seems nearer than it is in reality. When asked again, the "real" distance comes into better perspective and seems farther away. A possible remedy for this type of memory distortion is to ask a respondent to "reconstruct" the event of initiation.[1] There is no reason at all to assume that respondents have any intention to falsify the initiation date.

Initiation company

When asked again in 1991, 56% of our follow-up respondents gave the same answer to the question with whom they used their first cocaine (see Table 3.1a). Almost one-third of the respondents (32%) gave an answer that differed slightly

from the answer they gave in 1987. For instance, in 1987, the reported company was one friend; in 1991, it was a group of friends or vice versa. In our opinion, this is a minor difference. It cannot be compared with for instance the difference between the reported company of "others" in 1987 and one friend in 1991, which we will classify as a major difference. In general, 88% of our follow-up respondents reported the same or almost the same initiation company. This means that initiation company is a fairly reliable item.

Table 3.1a Difference in reported initiation company

difference 1987-1991	n	%
no difference	19	56
minor difference	11	32
major difference	4	12
total	34	100

Location of first cocaine use

As shown in Table 3.1b, the recollection of the location where cocaine was used the first time is not as accurate as the recollection of the company in which it took place. However, half of our group of follow-up respondents who answered the question about the location in both 1987 and 1991 gave exactly the same answer.

Table 3.1b Difference in reported location of first cocaine use

difference 1987-1991	n	%
no difference	17	50
minor difference	4	12
major difference	13	38
total	34	100

In four cases in 1991, the answer differed from that given in 1987, but the two answers showed enough resemblance to consider the difference minor. For instance, in one case in 1987 a disco was reported as location of initiation versus a nightclub in 1991. In three other cases, a party was mentioned in 1987, versus a friend's home or a bar in 1991. For comparison between the 1987 and the 1991 answers on this variable, we cannot rule out the possibility that in one year the location was reported versus the circumstances in the other. Therefore, we will classify these four cases as expressing minor differences. Examples of major differences are changes from a friend's house to work, from disco to own home, etc.
To insure reliability, the questionnaire should enable highly detailed answers where exact *location* cannot be interchanged for *circumstances* or *human company*.

First route of ingestion

Recalling the route of ingestion at initiation creates no inconsistencies for 33 of the 34 respondents who were asked about it in both surveys. In Table 3.1c, we see that 30 respondents (88%) report no other method in 1991 than in 1987. All these persons reported in both years that snorting was the route of ingestion the first time they used cocaine. Two respondents mentioned snorting in 1987, and snorting plus another method in 1991. One person reported just the opposite. Although these three respondents did mention several methods in both surveys, we classify this difference as minor, because in both years snorting was also reported. Only one respondent (3%) reported in 1987 that eating was the route of ingestion at initiation, whereas an "other method" was reported in 1991. This has been labeled a major difference. Reliability of this item may change if more routes of ingestion of cocaine appear or if more coca products become fashionable.

Table 3.1c Difference in reported route of ingestion at initiation

difference 1987-1991	n	%
no difference	30	88
minor difference	3	9
major difference	1	3
total	34	100

Ways of obtaining first cocaine

A majority of our follow-up respondents (26 of the 34) reported in both surveys that cocaine was offered to them at their initiation, without the respondent asking or paying for it. In total, 85% of the respondents gave the same answer in the 1991 survey as in 1987. In 1991, only three persons apparently had a different opinion on whether they had asked for cocaine or that it was offered to them without asking. We interpret this as a minor difference.

Table 3.1d Difference in reported way of obtaining first cocaine

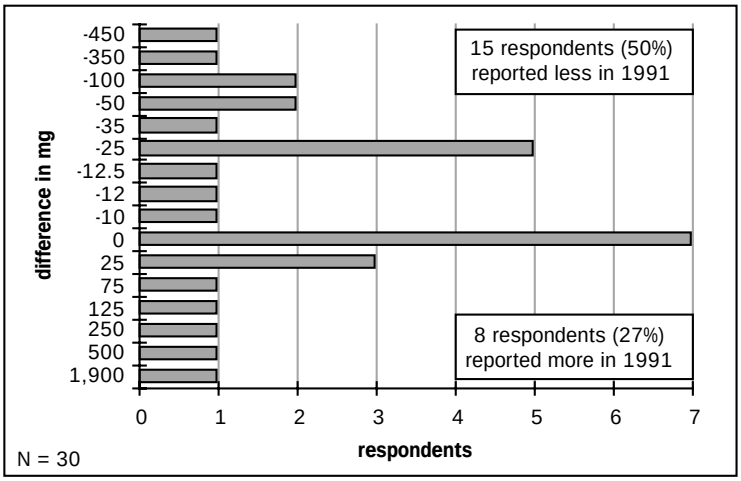
difference 1987-1991	n	%
no difference	29	85
minor difference	3	9
major difference	2	6
total	34	100

Two persons changed their recollection from being offered (without asking) their first cocaine to buying it themselves. This is classified here as a major difference.

Dosage at initiation

Most respondents measured their first dose in lines. The fact that there is no standard line of cocaine is clear in Figure 3.1b. The variance in different answers may be the result of changes in recollection. But it may also reflect the definition of a line of cocaine having changed over time for these respondents. Another possible explanation is that the interviewer may not have been successful in explaining our definition of a line (25 mg) to the respondent. It is also conceivable that interviewers presented the question in different ways.

Figure 3.1b Comparison between the dosage at initiation into cocaine use reported in 1987 and 1991



Of the 30 respondents who answered the question about their dose at initiation in both surveys, 18 (60%) reported in the 1991 survey a dose that differed by plus or minus 25 mg (one line) from the answer given in 1987. Seven respondents reported the same dose as in 1987.[2] A lower dose at initiation was reported by 15 persons (50%) when we interviewed them in 1991. The mean negative difference was about three lines or 86 mg. A total of eight persons (27%) reported a higher dose in 1991. The mean positive difference was 366 mg, partly due to one respondent who in 1991 reported a dose 1,900 mg higher than he reported in 1987. This difference may be due to an interviewer error or a coding error. If we exclude this answer from our calculations, the mean positive difference drops from 366 mg to 146 mg. The average absolute difference, irrespective of direction, drops from 141 mg to 80 mg (or three lines).

We see that the more time that has elapsed since initiation, the more people perceive their initiation dose as lower rather than as higher. But perception of higher initiation dose in absolute terms is also higher. Reports on drug use, certainly in regard to amounts of consumed drugs, are a central part of drug

research. Our interviews in 1991 were conducted by well-trained interviewers who were slightly younger than the respondents under circumstances the respondents could choose themselves (at their home, in a café, at the university, etc.).

We can assume that neither the interview situation nor the prevailing opinion about cocaine use posed any threat to the respondent. Still, even under such optimal circumstances, recollection quality accounts for both under and over estimation of dose at initiation, whereby the range of overestimation is greater. Although the differences on average only amount to a few lines of cocaine, one would think that the initiation dose would not be easily forgotten. Therefore we assume that *the way the question was asked* is a major factor in explaining the differences.

Our question was worded as follows: *"Do you remember how much you used the first time?"* To this question we added an interviewer instruction: *"To be expressed in mg or lines of cocaine; one line equals about 25 mg"*. This interviewer instruction is probably wrong. We should instruct interviewers to quote the respondent verbatim. The interpretation of the answer should be done later, in the coding phase of the interviews. If the interviewer is allowed to "translate" an answer - in this case from lines to mg or vice versa - we run into interpretation of information. This may account for most of the differences we measured in this test-retest endeavor. The interviewer may have asked: *"What do you mean by lines? Were they big lines or very small or..."* and then have interpreted how many times 25 mg should be multiplied. If interpretation of information is done later according to a fixed conversion scheme, the introduction of interviewer/ respondent bias is less likely.

Another problem is simply that for most of these experienced users, recollection of a few lines of cocaine on a certain occasion is very difficult. Many (thousands of) lines and many years (on average 12) may have passed between initiation and the follow-up interview. How many regular alcohol users recollect how many sips of an alcoholic beverage they took the first time they ever had a drink? Even if the normal age for a first drink is far younger than for the first use of cocaine, it may remain for many a "non-event" after thousands of bottles of wine.

Reviewing the data, we may conclude that apart from precise location of first use, the initiation variables show reasonable overlap between the two interviews. Age of initiation seems to retreat slightly in time as time passes, while the reported initiation amount of cocaine is consistent within one line for 18 out of 30 respondents.

Apparently the self-report data show reasonable test-retest reliability, though it could be better. Interviewer instruction and question wording are crucial. We do not say that the validity of the data is high. Validity cannot be measured by test-retest of self-report data.

3.2 Testing lifetime prevalence of drug use

Since we have lifetime drug-use data on all 64 of our follow-up respondents, collected first in 1987 and later in 1991, we might expect to find an exact overlap or some increase. In the four years between first answers and follow-up, total drug use experience may have grown but not decreased. However, our data suggests otherwise on some drugs.
We have data on lifetime prevalence of six drugs in the two years of comparison. In 1987, we did not ask for amphetamine and MDMA use, so lifetime prevalence of these drugs cannot be compared.[3]

Table 3.2a Lifetime prevalence of drugs, as reported in 1987 and 1991 by all follow-up respondents (N=64)

	sedatives		**hypnotics**		**cannabis**		**LSD**		**solvents**		**opiates**	
	n	%	n	%	n	%	n	%	n	%	n	%
1987	12	19	15	23	61	95	27	42	4	6	22	34
1991	13	20	11	17	57	89	22	34	3	5	23	36

Table 3.2a shows that lifetime prevalence of some drugs has decreased, which is technically impossible. Respondents who answered in 1987 that they had used one of the drugs mentioned in Table 3.2a answered the opposite in 1991. Four factors could explain this contradiction:

1 Some respondents may deliberately have denied their drug use.
2 Others may have forgotten that they ever used a particular drug.
3 The exact definition of a drug may not have been clear to the respondent.
4 The wording of the question may be ambiguous.

Let us begin with the wording of the question. In the follow-up interview schedule, we first asked about lifetime prevalence of a drug, *then for use since 1987*. If the respondent had used the drug since 1987 we asked how often. Finally we asked if the drug had been used during the last two weeks. Some misunderstandings may have arisen in answering this complicated question. For instance, persons would interpret the question about "ever used" as "used since 1987", certainly if the interviewer did not repeat "ever" and "since 1987" with each drug every time. If respondents had not used the particular drug since 1987, it is relatively easy to answer "no" when the answer should have been "ever in my life time yes". In such cases, a respondent would unintentionally deny lifetime drug use where a negation of drug use since 1987 was meant. Even in written self-reports of drug use in highly structured surveys, such inconsistencies are prevalent and are probably caused by question wording as well (Cox et al., 1992).
Table 3.2b shows that most of the technically impossible answers on life-time prevalence of drugs were given by respondents who were cocaine-abstinent

since the 1987 survey. This supports our hypothesis that many respondents understood our question on lifetime prevalence as referring to "since 1987" prevalence, as was (correctly) understood for cocaine.
With relation to the complicated interview schedule, we can only say that there are no definitive ways of checking the extent to which complexity led to technically impossible answers. However, we have tried to establish the importance of the three other factors.

Deliberately denying drug use

Abstinent respondents tend to have a negative opinion about cocaine. Referring to the data, we may assume that this is one element of a negative attitude towards drugs in general. In Chapter 4 we will examine this phenomenon more closely.

Table 3.2b Life-time prevalence of drugs as reported by non-cocaine-using (N=30) and cocaine-using follow-up respondents (N=34) in 1991, compared to the prevalence reported in 1987

	non-users		cocaine users	
sedatives	n	%	n	%
contradictory (decreased) LTP	6	20	1	3
same LTP	22	73	27	79
increased LTP	2	7	6	18
hypnotics	n	%	n	%
contradictory (decreased) LTP	8	27	3	9
same LTP	20	67	26	76
increased LTP	2	7	5	15
cannabis	n	%	n	%
contradictory (decreased) LTP	5	17	1	3
same LTP	25	83	31	91
increased LTP	-	-	2	6
LSD	n	%	n	%
contradictory (decreased) LTP	10	33	-	-
same LTP	20	67	29	85
increased LTP	-	-	5	15
solvents	n	%	n	%
contradictory (decreased) LTP	1	3	1	3
same LTP	29	97	32	94
increased LTP	-	-	1	3
opiates	n	%	n	%
contradictory (decreased) LTP	8	27	2	6
same LTP	19	63	24	71
increased LTP	3	10	8	24

Inconsistencies in reported lifetime prevalence may relate to the stigma on some drugs. If this is the case, opiates and LSD would probably show the highest

number of technically impossible answers. The rate of inconsistently reported lifetime prevalence of these drugs is higher than that for cannabis (to which almost no stigma is attached). However, the high number of technically impossible answers related to sedatives and hypnotics cannot be explained in this way. In the 1988 US household survey on drug use, technically impossible answers were most prevalent for alcohol, surpassing illicit drugs which are highly stigmatized in that country (Cox et al., 1992). Apparently other factors play a role in these inconsistencies.

Forgetting about drug use

Another factor that could at least partially explain the number of inconsistent answers is that some respondents might have forgotten that they ever used a drug. This would only apply to drugs that do not carry a heavy stigma and do have a light effect.
The number of inconsistent answers related to sedatives and hypnotics could be due to poor recollection by the respondent. The inconsistent answers related to LSD, on the other hand, are unlikely to be caused by poor recollection, because the effect of LSD is hard to forget.

Obscure definitions

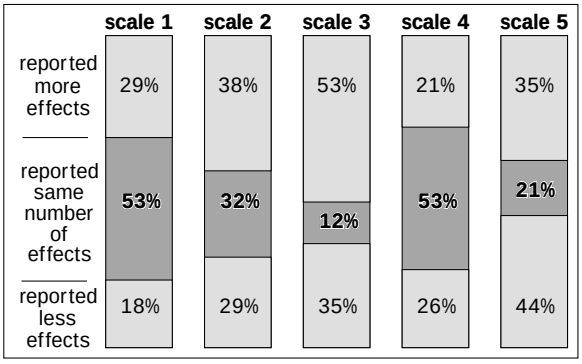
Differences in reported lifetime prevalence may occur if the definition of a drug is obscure. Both the respondent and the interviewer may have mistaken the exact identity of a drug. For instance, there might be some doubt whether a drug is a sedative or a hypnotic. Besides, some persons may have mistaken LSD for one of the opiates and vice versa.
A total of 23 persons reported a technically impossible lifetime prevalence for one or more of the drugs mentioned above. Six respondents were inconsistent on both sedatives and hypnotics. The lifetime prevalence of both LSD and opiates was also inconsistently reported by six respondents, of which three persons were inconsistent about both sedatives and hypnotics as well. It is striking that the combinations of sedatives-hypnotics and LSD-opiates are mentioned most frequently. Therefore, we cannot rule out the possibility that the respondents had mistaken the identity of the drug in question.[4] We checked whether these respondents had been interviewed by the same individual(s), and we could exclude any systematic interviewer bias.

3.3 Effects of cocaine

In 1987 the reports on the effects of cocaine were transformed into five Mokken scales.[5] Negative effects of cocaine, both physical and mental, seemed to accu-

mulate in scale 1. Scales 2 and 3 contained more positive effects. Scale 2 revolved around positive effects on sexual behavior. The fourth scale contained effects related to bronchial and nasal problems. Besides effects related to sex (lack of sexual desire, no orgasm), the fifth scale consisted of some other negative effects. The long lists of questions that were needed to assign the respondents a score on these scales were posed only to those who had not quit cocaine use since 1987. Figure 3.3a shows the reported scores on the Mokken scales and the changes therein. Our follow-up respondents remained relatively stable on the first and the fourth scale. About half of our follow-up respondents reported more effects on scale three. Besides negative effects (becoming overly suspicious and megalomaniac), this scale contained some positive effects (clear thinking, thinking faster, and becoming more talkative).

Figure 3.3a Changes on Mokken scales of adverse effects between 1987 and 1991 for 34 follow-up respondents



In the report of the 1987 survey, it was suggested that an increase in cocaine consumption could lead to more negative effects. Perhaps a decrease of cocaine consumption could lead to the opposite. (Most of our follow-up respondents showed a decrease in cocaine consumption.) The scales that contain positive effects (scales 2 and 3) show also the highest percentage of respondents that reported more effects. Less cocaine consumption immediately affects the number of perceived negative effects. If respondents have been using the drug at lower levels for some time, they may tend to forget the negative effects that plagued them when they were using it at the higher level they left behind (for good reasons).

The analysis of effects in our 1987 study included a comparison of effect reports from cocaine users in Toronto, Miami, and Amsterdam. We showed how different the prevalence of effects may be. And that even simple relations between dose or frequency of use and effects are often not amenable to cross cultural comparison.

The dramatic differences in scores on rigorously constructed Mokken scales, *applied to the same respondents*, shows that the conclusion we formulated in 1989 is an understatement. At that time, we said that "simply speaking about 'the' effects of cocaine seems to be too much of a reduction of the realities of cocaine use" (Cohen, 1989, p. 105). Our subsequent analysis casts some serious doubt on the reliability of measuring drug effects via highly structured schedules of fixed items.

Notes

1 The senior author has done this several times in interviews conducted by himself. If a respondent seemed in doubt as to age at initiation, a successful method was to ask the respondent to think about other events that occurred around initiation or at the same time. This usually evokes a whole train of associations from which, sooner or later, a good estimate of initiation age could be made, like: *"It must have been before I knew Jack. Oh yes, I was working in that plastic factory just before I met Jack in this tobacco storage where I worked after the plastic. I remember being so tired during the night shift, yes, that guy with the mustache who worked in the plastic recycling gave it to me, it was in springtime because I took a short trip to Paris, and I told Judy about this cocaine, yes this must have been early 1983, because that was the only time I ever went to Paris."*

2 These seven persons are not the same as the seven who reported in 1987 and 1991 the same *age* at initiation.

3 Lifetime prevalence on solvents was rarely reported. Therefore, we exclude this drug from further analysis in this section.

4 In Sandwijk et al. (1991) the authors report substantial misunderstanding. In the 1990 household survey held in Amsterdam 8% of the drug names mentioned as hypnotics were in reality sedatives. Of drugs mentioned as sedatives, 3% were hypnotics. This adds up to a misunderstanding of around 10% of all drugs mentioned in this area. Moreover, of all drugs mentioned as sedatives, over 30% "concerned mostly other medical drugs".

5 See for a description of the construction of Mokken scales, Cohen (1989), p. 100.

4 A tentative group portrait of ex-cocaine users

In this chapter, we look at some characteristics of the 30 follow-up respondents who used cocaine less than ten times since 1987. In Section 4.1, the so-called abstinent follow-up respondents are contrasted with the non-abstinent group. In Section 4.2, the 30 abstinent follow-up respondents are portrayed in greater detail.

4.1 Comparison between abstinent and non-abstinent follow-up respondents

We had already discovered that cocaine-abstinent follow-up respondents give a less accurate report of their lifetime prevalence of drugs than the non-abstinent group. Other comparisons between the two groups will be performed by means of the variables of age, income, and education.

Table 4.1a Male-female ratio of non-users and cocaine-using respondents in 1991

	non-users		cocaine users	
sex	n	%	n	%
male	15	50	22	65
female	15	50	12	35
total	30	100	34	100

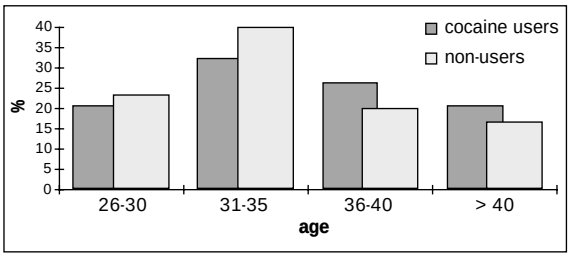
χ^2=0.86 (n.s.), df=1 (Yates' correction)

Table 4.1a shows that the male-female ratio tends to differ between the two groups. Half of the group of non-users consists of women, whereas the group of cocaine-users is comprised of 35 percent women. The age distribution shows no significant differences between the cocaine-abstinent and the non-abstinent follow-up respondents (see Figure 4.1a). The mean age of both groups is 35 years.

When we look for differences in income between the cocaine-abstinent and the non-abstinent respondents, we notice that the two groups differ significantly. As Figure 4.1b shows, the follow-up respondents who still used cocaine tend to have a higher income than the abstinent respondents. The mean net income per

month of the cocaine users was ƒ2,971. This is ƒ531 higher than the mean net income of ƒ2,440 of the abstinent respondents. Almost two-thirds (63%) of the abstinent respondents reported a net income under ƒ2,000, whereas only a quarter (24%) of the non-abstinent respondents had an income that low.

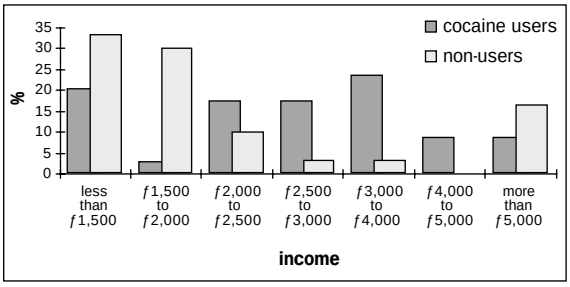
Figure 4.1a Age of non-users and cocaine-using respondents in 1991



Student's *t* = -0.48 (n.s.), df=62 (test on unclassed data)
all follow-up respondents: N=64, mean=35.0, median=34.5
cocaine users: N=34, mean=35.4, median=34.5
non-users: N=30, mean=34.7, median=34.5

An obvious question is whether the financial situation of the respondent is a factor in becoming abstinent or not. To answer this question with a simple yes or no would be insufficient, because divergent income levels often go along with other (lifestyle) differences. It would be easy to overlook a spurious relation here. So, with the available data we cannot give a definite answer.

Figure 4.1b Income of non-users and cocaine-using respondents in 1991

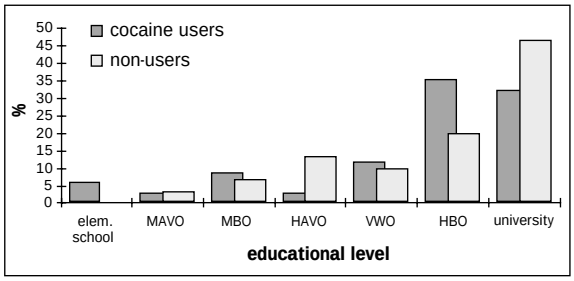


Student's *t* = -1.32 (n.s.), df=61 (test on class-mids)
Mann-Whitney U = 339.5, Z = -2.1471, p<0.05
all follow-up respondents: N=64, mean=ƒ2,726, median=ƒ2,250
cocaine users: N=34, mean=ƒ2,971, median=ƒ2,750
non-users: N=30, mean=ƒ2,440, median=ƒ1,750

When we compared the educational level of the abstinent and the non-abstinent respondents, we did not find major differences. The mean educational level of the non-using respondents does not differ dramatically from the mean level of

cocaine-using persons. The median levels of the two groups are equal (HBO, high level vocational school).
A slight difference can be detected in the two highest educational levels, namely HBO and university. Almost half of the non-using respondents (47%) reported a university education compared to a third (32%) of the cocaine-using respondents.

Figure 4.1c Educational level of non-users and cocaine-using respondents in 1991



Mann-Whitney U=455.0, Z=-0.7731 (n.s.)

Furthermore, in the group of non-users, the portion of respondents who reported a university education is larger than the portion of those who reported HBO-level. In the group of cocaine-using respondents, it is the other way around. Thus, the non-users have a slightly higher level of education.

4.2 Other characteristics of 30 abstinent follow-up respondents

Almost all, with the exception of one, used to snort cocaine. The exception was a cocaine smoker (cocaine smoked in a tobacco cigarette). Twenty-one of them had relations with a partner, eleven lived in the same house with the partner, and one was married. Four of them were parents. Twenty eight were born in the Netherlands, one in Surinam. Of the 30, 26 are employed, and four receive some sort of social security income. The group has a mean net income of *f*2,440, although the median is *f*1,750. None has ever had contact with an institution for drug treatment. One has been convicted for a felony in the last two years prior to interview.
An interesting question is if the 30 respondents who were abstinent since 1987 indicate they might use cocaine again. Only five state they will never do so, whereas 12 will do so certainly, and 13 say it might be possible.[1] We asked why these five persons would never touch cocaine again. Almost all possible reasons are given, except the cost of cocaine. Money is not mentioned at all.
One respondent had his fill because of the criminal aspects of cocaine; two persons disliked the physical side effects too much; and one had shifted to

"another drug", probably MDMA. One of the five who would not touch cocaine again added that another reason for quitting was that cocaine was not used in the circles he frequented at present. Only one of these five subjects had used a technique to quit, that is avoidance of certain locations.
The abstinent cocaine users report almost no craving for cocaine. Of the 30, 16 have never felt a craving, 13 once in a while, and one often. The reason mentioned most often for missing cocaine is missing the "good companionship" (eight persons). The next most frequent reason is its energetic potential (six persons).

The 30 abstinent cocaine users were asked if they knew what crack is. Five gave a (more or less) correct answer, eight persons did not know, and 17 answers were too vague or far from reality (like: synthetic cocaine, impure cocaine, chemical substance, combination of cocaine with heroin). None had ever used crack.

Although 28 of these ex-users know people who use cocaine, ten of these respondents have the impression that cocaine use is declining. However, eight see it rising; 12 either do not know or think it has remained stable. When asked if they know cocaine users who have a risky use pattern, 12 answered affirmatively. For half of these respondents, if they would want to buy cocaine, they could get it in less than a few hours. Ten would need one or two days. Three respondents feel it would be difficult for them to obtain cocaine now.

4.3 Opinions

In Section 3.2, we suggested that abstinent respondents tend to have a more negative opinion about cocaine and cocaine use than current users. This thesis is supported by Table 4.3a. We should point out that the question concerning changes in opinion presented to the abstinent respondents differed from the question presented to the respondents who still used cocaine.

Table 4.3a Changes in opinion about cocaine by non-users and cocaine-using follow-up respondents

	non-users		cocaine users	
change	n	%	n	%
negative	13	87	7	21
positive	2	13	25	74
other	-	-	2	6
total no. of answers	15	100	34	100

$\chi 2=12.85$, $p<0.001$, df=1 (Yates' correction)

Abstinent respondents were subjected to a short questionnaire, because many of the questions of the complete questionnaire did not apply to them. They were asked if their opinion had changed since they ceased their regular cocaine use.

If their opinion had changed, they were asked to say something about that change. The answers were taken down as literally as possible. Regular cocaine users, on the other hand, were subjected to the complete questionnaire. This group was asked if their opinion on cocaine had changed *since they started to use cocaine regularly*. They were also invited to say something about this change.
Because the answers were recorded literally, there was no restriction on the number of changes. Some respondents reported only one change or one aspect. But others provided a description of their evolving opinion on cocaine, with both negative and positive aspects. All aspects mentioned were coded separately. Therefore, one respondent can be linked to several answers, negative or positive.

Table 4.3b Preferred cocaine policy among non-users and cocaine-using follow-up respondents

	non-users		**cocaine users**	
preferred policy	n	%	n	%
more repressive	13	43	9	26
no change	2	7	5	15
less repressive	15	50	16	47
no answer	-	-	4	12
total	30	100	34	100

χ^2=0.64 (n.s.), df=1 (more repressive vs no change + less respressive) (Yates' correction)

Of all abstinent respondents, 13 persons reported a total of 34 aspects of change in opinion. All 13 respondents reported negative aspects. Only two persons reported positive aspects as well. The negative aspects were that cocaine would make people aggressive (three persons); the drug was more dangerous than expected (two persons); the effects were not good enough (four persons); cocaine was connected to criminals (two persons); and cocaine creates "would-be worlds" (two persons).
The most important influence on changing opinion about cocaine was cocaine-using friends. Of the 30 follow-up respondents who had been abstinent since we first interviewed them, 18 mention this as an important influence. The next most important influence is the information about crack (effective for ten persons). Parents and medical professionals had influence for two respondents, whereas schools and information from drug assistance institutions influenced none.
Of the regular cocaine users, 23 persons reported a total of 34 aspects of change in opinion. Only seven persons reported a negative aspect. All 23 respondents reported one or more positive changes. The changes in opinion presented in Table 4.3a were measured by two different questions. Nonetheless, we believe that both questions reflect the changes as they were perceived by the respondent at the time of the interview. Moreover, we feel that they can be compared.
If abstinent ex-cocaine users tend to have a more negative opinion about cocaine, we might expect them to support a more repressive cocaine policy. Table 4.3b

shows that this is not entirely true. Although 43 percent of the abstinent respondents are in favor of a more repressive policy, in contrast to 26 percent of the regular cocaine users, the portion preferring a less repressive cocaine policy is almost the same in both groups.
The reasons for a more liberal policy are highly differentiated. They range from better quality control to philosophical arguments about civic responsibility. The reasons for more suppression are that cocaine is dangerous (seven persons), addictive (three persons), and unfit for some people (three persons).

Notes

1 We also asked the non-abstinent follow-up respondents if they would ever use cocaine again if they indicated they had not used it for the last three months. As described in Chapter 2, 41 respondents had not used cocaine in the three months prior to interview. Of these 41, 11 respondents had been given the complete interview schedule. Looking at all 41, we still see that 19 report they will 'certainly' use again, 16 say it might be possible, and only six deny any future possibility of cocaine use.

Appendices

1 Some details on four respondents who considered treatment

Of the 64 follow-up respondents, four reported having considered treatment in connection with their cocaine use. Only one respondent reported that he actually contacted a facility for alcohol or drug treatment for his use of both cocaine and alcohol. None of them sought treatment before 1987. In both 1987 and 1991, one respondent of these four reported that he had contacted a psychotherapist.

It is not difficult to describe these respondents as a group with common characteristics on some variables. Their ages are 26, 28, 29 and 40; so the group is mostly under 30. Three of them have a low level of education. They are all males. In 1987, all four respondents were unmarried. Since then, one of them got married. In 1991, two respondents lived alone. However, these four respondents have quite different incomes. They all report both positive and negative effects and aspects of cocaine; these points resemble those of all other cocaine users we investigated. These four report that cocaine use had an adverse effect on some of their relationships. Three respondents, however, also reported positive effects of cocaine use on relations with colleagues. Two persons reported positive effects on the relation with their partner. Compared to 1987, three persons reported more adverse effects of cocaine, one reported slightly less.

The development of their cocaine-using career has one common characteristic: *the period in which they started to use cocaine regularly is at the same time their period of heaviest use*. The length of time between initiation and first regular use varies between zero and three years. Unfortunately, we do not have detailed data on the career of one 40-years-old respondent, who first used cocaine at the age of 14. Only one of the four used cocaine during his top period at the level we defined as high (over 2.5 g a week). For the others the reported drug use data would not suggest excessive use. Either these data are wrong, or subjective feelings of loss of control can develop even at a low level of use.
The four respondents show an increased score on the "loss of control scale" since 1987. The score of two of them increased to 13 in 1991, which makes them the top scorers in our follow-up sample. In 1987, they scored four and six points. However, one of the top scorers of 1991 reports a low level of use during the top period after 1987! Part of the problem may be the attitude his girlfriend has towards the cocaine he uses and her perceptions of its effects.

The reports of the amount of money spent on cocaine vary remarkably. When asked for the value of the cocaine used during the last four weeks prior to the interview, one respondent said he did not use cocaine during this period. In 1987 he used only ƒ75 worth during the last four weeks prior to the interview. In contrast, one went down from ƒ1,500 in 1987 to ƒ800 in 1991. Another went from ƒ1,400 up to ƒ1,680, which he financed himself. His net income per month exceeded ƒ6,000. During his period of heaviest cocaine use, he used it at a high level; during the rest of his career, he never got below the medium level of cocaine use. He had one conviction for a criminal offense since 1987, but we do not know if this was related to his cocaine use. He did not report any criminal activities other than selling cocaine to pay for his own use.

One respondent reported that the financial consequences of his cocaine use, and the physical consequences of his use of alcohol, were the reasons he considered and actually received professional treatment. His opinion about the ideal Dutch policy concerning cocaine was that it should not be legalized. But he felt that a policy of active repression was not preferable either. He was quite content with the current situation.

The other respondents' reasons for considering treatment related largely to personal relations. They preferred a more repressive cocaine policy, more or less like heroin. Maybe they thought outside controls could help them. In 1987, two of them still supported a less repressive policy, like that for cannabis.

"My paranoid behavior and the financial consequences of cocaine use made my girlfriend insist on doing something about it. She helped me a lot."
(respondent 1002)

"I felt that I was depending on cocaine. I got sexual problems and trouble with my partner."
(respondent 1005)

"At first I thought cocaine was a relatively harmless drug but later on I noticed the danger of becoming addicted. There were moments I thought 'How do I get rid of this' but I did not consider treatment very seriously."
(respondent 2029)

"I got serious problems with my liver, partly due to excessive alcohol use. Together with the financial consequences of my cocaine use this was the motivation for seeking treatment. Cocaine enables you to drink more alcohol while remaining "sober" but the next morning you have to deal with the negative effects of both: an enormous hangover and a runny nose."
(respondent 2065)

Table A.1a Some characteristics of four follow-up respondents who considered treatment for their cocaine use

respondent 1002	**1987**	**1991**
sex	male	
age	24	28
net income per month	< ƒ1,000	ƒ1,000-ƒ1,500
education	elem. school	elem. school
profession	musician	musician (unemployed)
marital status	unmarried	unmarried
relation with partner	yes	no
living situation	with others, none a partner	alone
received treatment*	no	no
level of use in top period	medium	low
level of use at time of interview	low	none
usual amount used on one day at time of interview**	75 mg	none
interval initiation - first regular use	1 year	
length of career since first regular use	11 years	
score on loss of control scale	6	13
contact with psychotherapist*	yes	yes
reason for considering treatment	girlfriend demanded it	
conviction for criminal offence	yes	no
preferred cocaine policy	like cannabis	like heroin
score on adverse effects scale	11	16
value of cocaine used last 4 weeks	ƒ75.--	none
value of cocaine financed last 4 weeks	none	none

respondent 1005	**1987**	**1991**
sex	male	
age	25	29
net income per month	> ƒ6,000	> ƒ6,000
education	high level high school	high level high school
profession	assistant art-director	producer/studio manager
marital status	unmarried	married
relation with partner	yes	yes
living situation	alone	with partner
received treatment*	no	no
level of use in top period	high	high
level of use at time of interview	medium	medium
usual amount used on one day at time of interview**	500 mg	700 mg
interval initiation - first regular use	-	
length of career since first regular use	4 years	
score on loss of control scale	5	7
contact with psychotherapist*	no	no
reason for considering treatment	felt dependent, sexual problems, trouble with partner	
conviction for criminal offence	no	yes
preferred cocaine policy	like heroin	like heroin
score on adverse effects scale	20	17
value of cocaine used last 4 weeks	ƒ1,400.--	ƒ1,680.--
value of cocaine financed last 4 weeks	ƒ1,400.--	ƒ1,680.--

* In 1987 we asked about contacts with facilities for alcohol and drugs treatment and psychotherapist during the two years prior to the interview. In 1991 we asked about the occurrence of these contacts during the period between 1987 and 1991.
** We asked about the usual amount of cocaine the respondent used on a "typical" day during the three months prior to the interview.

Table A.1a
(continued)

respondent 2029	**1987**	**1991**
sex	male	
age	21	26
net income per month	ƒ1,000-ƒ1,500	ƒ2,000-ƒ2,500
education	low level high school	medium level vocational
profession	photographer	photographer
marital status	unmarried	unmarried
relation with partner	yes	yes
living situation	alone	with partner
received treatment*	no	no
level of use in top period	low	medium
level of use at time of interview	low	low
usual amount used on one day at time of interview**	125 mg	200 mg
interval initiation - first regular use	3 years	
length of career since first regular use	6 years	
score on loss of control scale	4	5
contact with psychotherapist*	no	no
reason for considering treatment	felt uncomfortable about cocaine use	
conviction for criminal offence	no	no
preferred cocaine policy	like cannabis	like heroin
score on adverse effects scale	8	11
value of cocaine used last 4 weeks	ƒ100.--	ƒ200.--
value of cocaine financed last 4 weeks	ƒ100.--	ƒ200.--

respondent 2065	**1987**	**1991**
sex	male	
age	37	40
net income per month	ƒ2,500-ƒ3,000	ƒ3,000-ƒ4,000
education	low level high school	low level high school
profession	stage manager	freelance journalist, light technician, handyman
marital status	unmarried	unmarried
relation with partner	yes	yes
living situation	with friend	alone
received treatment*	no	yes
level of use in top period	medium	medium
level of use at time of interview	medium	medium
usual amount used on one day at time of interview**	175 mg	250 mg
interval initiation - first regular use	no data	
length of career since first regular use	no data (career since initiation: 26 years)	
score on loss of control scale	4	13
contact with psychotherapist*	no	no
reason for considering treatment	alcohol-related liver disease, financial problems	
conviction for criminal offence	yes	no
preferred cocaine policy	as present	as present
score on adverse effects scale	11	18
value of cocaine used last 4 weeks	ƒ1,500.--	ƒ800.--
value of cocaine financed last 4 weeks	ƒ1,500.--	ƒ350.--

* In 1987 we asked about contacts with facilities for alcohol and drugs treatment and psychotherapist during the two years prior to the interview. In 1991 we asked about the occurrence of these contacts during the period between 1987 and 1991.
** We asked about the usual amount of cocaine the respondent used on a "typical" day during the three months prior to the interview.

2 "Loss of control" over the use of cocaine

In 1992 we started to work on a method to quantify "loss of control" over the use of cocaine. "Loss of control" is an interesting concept with far reaching assumptions about and implications for the nature of human behavior. Theoretically, this concept is unclear, however. Research on it is scarce, yet the concept seems to be essential to our thinking about the use of drugs and its consequences.
Investigating the psychopharmacological, psychiatric, and sociological literature on "loss of control", we tried to imagine what measurable elements of behavior would be relevant and valid operationalizations of "loss of control", or of parts or symptoms thereof (Cohen & Sas, 1992). This work is in statu nascendi.

Many behavioral aspects of cocaine users are known to us at least partly with one of the largest numbers of experienced cocaine users ever investigated in quantitative scientific research (267 different respondents). On these grounds we decided to use every possible operationalization of notions found in "the theory" about "loss of control". The resulting "loss of control" scale is not a scale in the Guttmann or Mokken sense of the term. Rather, it is a list that is best compared to a wide net with a very fine mesh. Few cocaine users could escape from this net entirely, we thought. But many did, to our surprise.

The items on this list are sometimes elaborated measurements, like scores on selected effect lists. The score a cocaine user measures on this "scale" has no meaning yet. We simply do not know what a score means, as long as we have no external validation. The maximum score that the scale permits is 57 points.[1] However, the highest score we ever measured among 267 subjects is 23. A possible external validation might be scales like ASI (Addiction Severity Index). Of course such scales are not built upon assumptions about "loss of control". And it is precisely this mysterious "loss of control" that we want to know more about.
Items on our "scale" relate to subjectively felt motivational forces; they relate to frequent use during one of the periods we distinguish in a cocaine career; to several breaks with "conventional" behavior; and to various other consequences, like reporting more than ten negative side effects. For a discussion of the theoretical background of such items, the reader is referred to Cohen & Sas, 1992.
Some of these items are weighted. For instance, borrowing money on three to ten occasions to buy cocaine gives you one point on the "loss of control" scale. But when it happens more than ten times, this item alone gives you a score of three.

In that way we declared some items less equal than others. We gave six points to people who consider cocaine as addictive both physically and mentally, etc. The different weighting factors are shown in the item list, Table A.2a, with explanatory notes. These weighting factors may change in the future and become less arbitrary.

Table A.2a Item list for the "loss of control" scale with weight and maximum score per item

item	weight	maximum score
cocaine ever an obsession	1	1
taking extra job to buy cocaine	1 or 3°	3
borrowing money to buy cocaine	1 or 3°	3
selling personal possessions to buy cocaine	1 or 3°	3
stealing from family or friends	1 or 3°	3
shoplifting to buy cocaine	1 or 3°	3
burglary to buy cocaine	1 or 3°	3
theft (face to face) to buy cocaine	1 or 3°	3
forging cheques to buy cocaine	1 or 3°	3
stealing cocaine	1 or 3°	3
engaging in prostitution to buy cocaine	1 or 3°	3
running con games to buy cocaine	1 or 3°	3
car breaking to buy cocaine	1 or 3°	3
trading sexual favors for cocaine	1 or 3°	3
had difficulty decreasing cocaine use	3	3
daily use during first year of use*	1	1
daily use during period of heaviest use**	1	1
daily use during last three months prior to interview	1	1
cocaine ever being the cause of divorce	1	1
general increase of cocaine use during career	1	1
never experienced periods of abstinence	1	1
cocaine being considered as "addictive"	3 and 3•	6
experienced more than ten adverse effects of cocaine	2	2
total maximum score		57

* In the 1991 survey we asked for the frequency of use in 1987 instead of their first year of use.
** In the 1991 survey we asked for the frequency of use in the period of heaviest use after 1987.
° If the respondent reported this item having occurred three to ten times, he or she got one point on the scale. If it happened more than ten times, he or she got three points.
• If the respondent considered cocaine as being either physically or mentally addictive, he or she got three points on the scale. If cocaine was considered as being both physically and mentally addictive, he or she got six points.

An important method of validation is to compute the correlation between the score on the "loss of control" scale and the level of use during the heaviest use period. We found a Pearson's r of 0.49 ($p < 0.01$) for the total group of 267 respondents (scale version 1.0). However, this method is only partly valid. It *assumes* that "loss of control" is a function of level of use, a thesis related to obsolete pharmacological models of drug use. This assumption cannot explain why user 1002 (see Appendix 1), for instance, shows a rise in the "loss of control" scale from 6 to 13 during the four-year period in which his maximum level of use decreases from medium to low.[2]

How can we find an acceptable validation measurement that enables us to elaborate the "loss of control" scale? The answer lies in elaborating theoretical notions first. This is work that needs to be done in the immediate future.
For the time being, the "loss of control" scale is one way of looking at cocaine users in a (softly) quantitative way. In this Appendix we show scores on the "loss of control" scale of the 96 non-response and the 64 follow-up respondents. The scores are shown per item (Table A.2b), which in itself is very meaningful as this gives detailed information about the different aggregates. Next, scores are shown as the score total of all items (Table A.2c).

Table A.2b Scores on items in the "loss of control" scale by follow-up respondents and non-response

	non-response in 1987 (N=96)		**follow-up in 1987** (N=64)	
item	n	**%**	n	**%**
cocaine ever an obsession	34	35	24	38
taking extra job to buy cocaine	5	5	-	-
borrowing money to buy cocaine	7	7	1	2
selling personal possessions to buy cocaine	7	7	-	-
stealing from family or friends	5	5	-	-
shoplifting to buy cocaine	3	3	-	-
burglary to buy cocaine	3	3	-	-
theft (face to face) to buy cocaine	-	-	-	-
forging cheques to buy cocaine	7	7	-	-
stealing cocaine	1	1	-	-
engaging in prostitution to buy cocaine	2	2	1	2
running con games to buy cocaine	4	4	1	2
car breaking to buy cocaine	-	-	-	-
trading sexual favors for cocaine	4	4	2	3
had difficulty decreasing cocaine use	15	16	8	13
daily use during first year of use*	-	-	2	3
daily use during period of heaviest use**	39	41	15	23
daily use during last three months prior to interview	2	2	-	-
cocaine ever being the cause of divorce	15	16	5	8
general increase of cocaine use during career	4	4	1	2
never experienced periods of abstinence	14	15	6	9
cocaine being considered as "addictive"	17	18	17	27
experienced more than ten adverse effects of cocaine	27	28	17	27

* In the 1991 survey, we asked for the frequency of use in 1987 instead of their first year of use.
** In the 1991 survey, we asked for the frequency of use in the period of heaviest use after 1987.

Table A.2c shows clearly that, contrary to expectation, large proportions of these groups have a zero score on the scale. Moreover the median score is nowhere higher than two (out of 57). Something must be wrong with:

- the scale (it does not measure well);
- the moment of measurement (scores would be higher at top periods of use);
- cocaine users in our sample (they do not loose control);
- explanatory models of cocaine use (only very few cocaine users show symptoms of "loss of control").

Table A.2d presents data on aggregates of users, differentiated according to their change in score on the scale. We can see that 13 users increase their score from 1987 to 1991, averaging 5.5 in 1991. Compared to all non-abstinent users in 1991 they have double the average score. None of the risers on the scale have a score of zero, whereas 44% of the complete group of non-abstinent users have a zero score.

Table A.2c Scores on the "loss of control" scale by non-response and follow-up respondents

	non-response in 1987 (N=96)		**follow-up in 1987** (N=64)	
score	n	**%**	n	**%**
none	30	31	19	30
1 or 2	24	25	14	22
3 to 5	21	22	18	28
6 to 10	13	14	13	20
more than 10	8	8	-	-
total	96	100	64	100
mean	3.5		2.7	
median	2.0		2.0	
maximum score	23		8	

Student's *t*=-1.58 (n.s.), df=156.17 (separate variance estimate (F=2.84, p<0.001), test on unclassed data)

We saw earlier, that only six users in this group increased their level of use during the top period after 1987 compared to top period before 1987. However, 13 users increased their score on the scale. Is this an artifact of the primitive measuring method? Or does this represent changes in the way people relate to cocaine, *apart from the development of their level of use?* If so, we can no longer assume for all cocaine users that diminishing one's use or becoming abstinent is sufficient to prevent "loss of control" symptoms.
Another possibility is that some users increase their score under the influence of outside agents (spouses, friends, doctors) who sway the attributions they make about themselves.[3] In the same vein conflicts and problems are blamed on cocaine use now or in the past or both. Irrespective of the correctness of such an attribution, it serves the needs of a person with a culturally accepted etiology of problems. At the same time, laying the blame elsewhere diminishes one's own responsibility (Davies, 1992). It is cocaine that causes these problems (and the State should ensure "that I can no longer find any"). This may explain the call for more suppression that is reported by some of these users (see e.g. three of the four cases described in Appendix 1).

In short, data coming from the "loss of control" scale might be helpful for our analysis of aggregates of users, grouped according to their behavior on the scale. It may help us solve some of the riddles posed by the dynamics of use and use

patterns. However, the "loss of control" scale is still no more than an undeveloped tool. It should not be adopted by anyone.

Table A.2d Changes on "loss of control" scale since 1987 in follow-up respondents (N=34)

	increased score since 1987		**decreased score since 1987**		**no change since 1987**	
score	n	**%**	n	**%**	n	**%**
none	-	-	8	73	7	70
1 or 2	3	23	1	9	1	10
3 to 5	5	38	2	18	2	20
6 to 10	3	23	-	-	-	-
more than 10	2	15	-	-	-	-
total	13	100	11	100	10	100
mean score	5.5		0.7		0.8	
median score	5.0		0.0		0.0	
maximum score	13		4		3	

Notes

1 The very first version of the scale as presented in Cohen & Sas, 1992, had a maximum score of 67. Later modification changed its maximum; this will probably happen more often during the process of elaborating this scale.

2 A problem with this "quantitative" method is that we do not know how reliable the quantities we measure really are. See Chapter 3 for comments.

3 Like: *"Maybe I have been trading sexual favors for cocaine. I always thought I liked them, but maybe the cocaine they offered me played a role."* Or: *"I have been enjoying cocaine, but she hates it. Could she be right? Am I addicted?"* Or: *"He is right. I am not a bad person. Forging these cheques was because of my cocaine use. It is cocaine that turns me into a thief."* Attributions are bound to have implications for the "loss of control" scale score.

3 Cocaine quality and some other data

In 1987, we decided to test the quality of the cocaine our respondents were referring to. When they talk about cocaine, what is the substance they are discussing in terms of purity, type of adulteration, and price, and where do they buy it? It seemed completely logical to check these aspects. If a researcher does not know anything about the substance the respondents are discussing, how can one compare data between different research locations? In fact, this was one of the problems we ran into when reviewing the differences we found between cocaine effects in Amsterdam, Toronto, and Miami.

In 1987, we bought 45 samples of cocaine from 117 respondents who were not abstinent at the time of interview.[1] Of these samples, six contained no cocaine at all. Respondents sold us gastric soda, vitamin C, or lidocaine. We do not know if what they told us about themselves and their use of cocaine was just as close to being "the real thing".
The remaining 39 cocaine samples, analyzed at the Police Narcotics Laboratory in Amsterdam, showed an average purity of 65% HCl, with a range from 14% to 90%. The average reported price was *f*180 per gram.

Table A.3a Purity of cocaine bought from the respondents in percentages of cocaine hydrochloride in nine samples

respondent number	% of cocaine hydrochloride
1099	0 (gastric soda)
1005	74.0
1104	78.4
1096	83.3
1029	87.4
2034	87.5
2067	93.1
2065	95.9
mean	86.9

From the 34 non-abstinent follow-up respondents, we were able to buy nine samples. We took those to the same laboratory and the same pharmacologist. One sample contained only gastric soda. The average purity of the remaining eight samples was 87% HCl, with a range between 74% and 96%. The average price paid during four weeks prior to interview was *f*149, representing an

average drop in price of 16%. We did not check the real weight of gram samples, because this (price/purity) work was being done in another research project.[2] The best cocaine sample, consisting of 96% HCl, was bought by the respondent for *f*130 per gram, well below the average price.

We asked respondents where they usually bought their cocaine. The eight cocaine samples we were able to buy were obtained by respondents from same dealer (5), different dealers (1), and friends (2). All samples were bought at the seller's home. This supports our impression that old hands in cocaine circles do not like to buy in public places or on the street.
The person who sold us the best sample (96% HCl) reported that the cocaine he bought "always" contains adulterants. In contrast, the respondent with the 83% HCl sample told us that cocaine he buys is "rarely" adulterated.

Notes

1 Formalities around this procedure and our security measures in relation to liability of respondents and interviewers will be described in the sequel to this report. That document, describing 108 "new users" in Amsterdam who started cocaine after 1986, will appear in 1994.
2 Korf, D. & H. Verbraeck, *De Amsterdamse drugs markt*. Criminologisch Instituut Bonger, University of Amsterdam, forthcoming 1993.

4 Questionnaires

Introduction

Respondent number: .....
Interviewer number: .....

Participation in survey?

1 yes
2 no

Reason for no interview:

1 person does not live at given address
2 refusal
3 illness
4 right address, not at home
5 wrong phone number
6 respondent had no time for interview
7 other: ...

Begin interview at: ... : ...
End interview at: ... : ...

A Have you used cocaine since 1987?

1 yes ..... B
2 no ..... D

B How many times have you used cocaine since the beginning of 1987?

1 none ..... D
2 between 1 and 5 times C
3 between 5 and 25 times ..... main questionnaire
4 between 25 and 100 times ..... main questionnaire
5 more than 100 times ..... main questionnaire

C Have you used any cocaine in the last three months?

1 yes ..... short questionnaire
2 no

D When was the last time you used cocaine?

year: .... short questionnaire

Main questionnaire

I Initiation of use

1 How old were you when you first used cocaine?

..... years

2 With whom did you use your first cocaine?

1 alone
2 with one friend
3 with a group of friends
4 with one or more colleagues
5 with others: .....

3a Where did you first use cocaine?

1 bar / cafe
2 discotheque
3 live music club
4 coffeeshop[1]
5 friend's home
6 home
7 work
8 a party
9 school
10 other: .....

3b Was this located in Amsterdam?

1 in Amsterdam
2 outside Amsterdam, in the Netherlands
3 in another country: .....
4 unknown / no answer

4 How did you first use cocaine?
(2 answers possible)

1 snorting
2 injecting
3 eating
4 rubbing on genitals
5 freebasing
6 smoking
7 other: ...

5 When you first used cocaine, was it offered to you, did you ask for it or did you buy it?

1 offered (unasked and free)
2 asked for it (got it free)
3 bought it myself

1 A coffeeshop is a place where coffee, fruit juices, cakes and cannabis products are sold.

6 Can you remember how much cocaine you used at that first time?
(measured in mgs or lines; 1 line = 25 mg)

..... lines / mg

II Level of use

These questions are about the way you used cocaine during four periods, namely

a the first year of cocaine use,
b your period of heaviest cocaine use,
c last year,
d the last three months.

7 This card shows some frequencies of use. Which frequency for cocaine was the most appropriate for you?
(show card 1: frequency)

a During your first year of use.

1 daily
2 not daily, but more than once a week
3 once a week
4 less than once a week, but at least once a month
5 less than once a month

b During your period of heaviest use.

1 daily
2 not daily, but more than once a week
3 once a week
4 less than once a week, but at least once a month
5 less than once a month

c During the last year.

1 daily
2 not daily, but more than once a week
3 once a week
4 less than once a week, but at least once a month
5 less than once a month
6 none 8

d During the last three months.

1 daily 9
2 not daily, but more than once a week 9
3 once a week 9
4 less than once a week, but at least once a month 9
5 less than once a month 9
6 none

8a Do you thing you will use cocaine in the future?

1 yes, definitely 9
2 possibly 9
3 no, definitely not

8b Why not?

.....

8c Do you consider yourself as someone who has stopped using cocaine?

1 yes
2 no

9 This card shows various methods of use. Which method of using cocaine is most appropriate for you?
(show card 2: methods)
(2 answers possible)

a During your first year of use.

1 snorting
2 injecting
3 eating
4 rubbing on genitals
5 freebasing
6 smoking
7 other: .....

b During your period of heaviest use.

1 snorting
2 injecting
3 eating
4 rubbing on genitals
5 freebasing
6 smoking
7 other: .....

c During the last year.

1 snorting
2 injecting
3 eating
4 rubbing on genitals
5 freebasing
6 smoking
7 other: .....

d During the last three months.

1 snorting
2 injecting
3 eating
4 rubbing on genitals
5 freebasing
6 smoking
7 other: .....

10 For this survey we have defined a standard line of cocaine as 25 mg. This means that there are 40 lines in a gram of cocaine. How many of such lines of cocaine did you use on a normal day when you used cocaine?

a During your first year of use.

..... lines

b During your period of heaviest use.

..... lines

c During the last year.

..... lines

d During the last three months.

..... lines

11 What was your maximum dosage on a day you used cocaine during the last four weeks?

..... lines

12a How often did you use this maximum dosage during the last four weeks?

..... times

12b What was your minimum dosage of cocaine on a day you used cocaine during the last four weeks?

..... lines

III Patterns of use over time

ATTENTION!
The next two questions (13 and 14) only for new users.

13 How long was it between your first and next use of cocaine?

..... years
..... months
..... weeks
..... days

Ten years of cocaine

14 How old were you when you started to use cocaine regularly? We define regularly as: with relatively short intervals, e.g. mostly every weekend, or every week.

..... years old

All respondents

15a How old were you when you used the most cocaine?
(Follow-up: applies also to period before 1987!)

..... years

15b How long was this period?

..... months
77 less than one month
78 less than one week

16a To get some idea about your cocaine use over the full period in which you used cocaine *(also the period before 1987)*, I will show you a card with some statements and graphs. Could you tell me which one resembles your pattern of use best in terms of regularity and frequency?
(Show card 3: patterns of use over time)

Pattern 1 I immediately started using large amounts after I first tried cocaine but gradually decreased since then.
Pattern 2 My cocaine use has gradually increased over the years.
Pattern 3 I started using cocaine at the same level that I still use, and the amount and frequency have not changed.
Pattern 4 My use increased gradually until it reached a peak, then it decreased.
Pattern 5 I have started and stopped using cocaine many times.
Pattern 6 My use pattern has varied considerably over the years.

ATTENTION!
Next question (16b) only for follow-up respondents

16b Can you do the same for your use *after* 1987?

..... pattern (see 16a)

All respondents

17 Could you tell me with this card which response best describes your experience over the last four weeks?
(show card 4)

1 I have used cocaine only on weekends.
2 I have used cocaine more on weekends than during the week.
3 I have used cocaine equally on weekends and during the week.
4 I have used cocaine more during the week than on weekends.
5 I have used cocaine only during the week.
6 I did not use any cocaine.

18 Could you tell me with this card which response best describes your most recent cocaine use?
(show card 5)

1 I use a little cocaine, I wait and then use some more.
2 I use some cocaine, then I stop.
3 I use cocaine without stopping until it is all gone.

IV Temporary abstinence and decreased use

19a Have you ever tried to quit cocaine totally?

1 yes 19c
2 no

19b Why not? 20

.....

19c Why?

.....

19d How often have you tried to quit cocaine?

1 1 or 2 times
2 between 3 and 5 times
3 between 6 and 10 times
4 more than 10 times

19e Did you succeed in quitting cocaine totally?

1 yes
2 no 19g

19f If yes, when did you quit cocaine?

month ..... in 19.....

19g Did you (in order to quit) follow special tactics (e.g. by avoiding certain situations)?

.....

20a Since you started to use regularly *(follow-up: since 1987)*, have you ever stopped using cocaine for longer than a month?

1 yes
2 no 22

20b If yes, how often did this occur?

1 1 or 2 times
2 between 3 and 5 times
3 between 6 and 10 times
4 more than 10 times

21 Can you name the most important reasons for your having stopped using cocaine for one month or longer?

.....

22 What was the longest period in which you did not use cocaine once you started using cocaine regularly *(follow-up: since 1987)*?

1 one month
..... months
77 less than 1 month 25
78 less than 1 week 25

23 When was that *(begin-date)*?

month ..... in 19 .....

24 What reasons did you have to stop temporarily during that period?

.....

25a Since 1987, have you ever decreased your cocaine use?

1 yes
2 no 26

25b Why?

.....

25c Did this decrease create any problems?

1 yes
2 no 26

25d Could you expand on that?

.....

V Method of use

26 I will name some ways in which cocaine can be used. Can you indicate which sentence best describes how you mostly use cocaine? Do this both for:
- your total period of cocaine use;
- the last four weeks.

(show card 6)

			total period	*last 4 weeks*
a	snorting:			
	1	always	1	1
	2	mostly (75% yes / 25% no)	2	2
	3	sometimes (50% yes / 50% no)	3	3
	4	mostly not (25% yes / 75% no)	4	4
	5	rarely	5	5
	6	never	6	6
b	injecting:			
	1	always	1	1
	2	mostly (75% yes / 25% no)	2	2
	3	sometimes (50% yes / 50% no)	3	3
	4	mostly not (25% yes / 75% no)	4	4
	5	rarely	5	5
	6	never	6	6
c	eating:			
	1	always	1	1
	2	mostly (75% yes / 25% no)	2	2
	3	sometimes (50% yes / 50% no)	3	3
	4	mostly not (25% yes / 75% no)	4	4
	5	rarely	5	5
	6	never	6	6
d	rubbing on genitals:			
	1	always	1	1
	2	mostly (75% yes / 25% no)	2	2
	3	sometimes (50% yes / 50% no)	3	3
	4	mostly not (25% yes / 75% no)	4	4
	5	rarely	5	5
	6	never	6	6
e	freebasing:			
	1	always	1	1
	2	mostly (75% yes / 25% no)	2	2
	3	sometimes (50% yes / 50% no)	3	3
	4	mostly not (25% yes / 75% no)	4	4
	5	rarely	5	5
	6	never	6	6
f	smoking:			
	1	always	1	1
	2	mostly (75% yes / 25% no)	2	2
	3	sometimes (50% yes / 50% no)	3	3
	4	mostly not (25% yes / 75% no)	4	4
	5	rarely	5	5
	6	never	6	6

27 *(This question only applies if for question 26 more than one route of ingestion was mentioned.)*
If you use different methods of ingesting cocaine, on what does your choice of route of ingestion depend?

1 the alternate method of use is less conspicuous
2 depends on how it is presented /obtained
3 the other method of use is an alternative for snorting when experiencing nose-problems
4 is more pleasant
5 other: .....

28 Can you name the advantages and disadvantages of the following 3 methods of use (you need not have experienced them yourself)?

a	snorting	advantages:	.....
		disadvantages:	.....
b	injecting	advantages:	.....
		disadvantages:	.....
c	freebasing	advantages:	.....
		disadvantages:	.....

VI Use with other drugs

29 Have you ever used the following substances?

a	alcohol	1	yes	2	no
	used during the last 2 weeks?	1	yes	2	no
b	tobacco	1	yes	2	no
	used during the last 2 weeks?	1	yes	2	no
c	tranquillizers (e.g. Valium)	1	yes	2	no
	how often have you used *since 1986?*	.....	times	77	unknown
	used during the last 2 weeks?	1	yes	2	no
d	hypnotics	1	yes	2	no
	how often have you used *since 1986?*	.....	times	77	unknown
	used during the last 2 weeks?	1	yes	2	no
e	hash or marihuana	1	yes	2	no
	how often have you used *since 1986?*	.....	times	77	unknown
	used during the last 2 weeks?	1	yes	2	no
f	LSD	1	yes	2	no
	how often have you used *since 1986?*	.....	times	77	unknown
	used during the last 2 weeks?	1	yes	2	no
g	solvents (ether, glue, paint thinners, etc.)	1	yes	2	no
	how often have you used this *since 1986?*	.....	times	77	unknown
	used during the last 2 weeks?	1	yes	2	no

h	opiates (opium, methadone, morphine heroin, etc.)	1	yes	2	no
	how often have you used *since 1986?*	.....	times	77	unknown
	used during the last 2 weeks?	1	yes	2	no
i	ecstasy (XTC, MDMA)	1	yes	2	no
	how often have you used *since 1986?*	.....	times	77	unknown
	used during the last 2 weeks?	1	yes	2	no
j	amphetamine	1	yes	2	no
	how often have you used *since 1986?*	.....	times	77	unknown
	used during the last 2 weeks?	1	yes	2	no

30 Have you ever used cocaine with the following substances? If so, how often does this occur?
(First ask if the combination occurs, then ask for the frequency)

a with alcohol

1 yes, always
2 yes, often
3 yes, sometimes
4 yes, but seldom
5 no, never

b with tobacco

1 yes, always
2 yes, often
3 yes, sometimes
4 yes, but seldom
5 no, never

c with tranquillizers (e.g. Valium)

1 yes, always
2 yes, often
3 yes, sometimes
4 yes, but seldom
5 no, never

d with hypnotics

1 yes, always
2 yes, often
3 yes, sometimes
4 yes, but seldom
5 no, never

e with hash or marihuana

1 yes, always
2 yes, often
3 yes, sometimes
4 yes, but seldom
5 no, never

f with LSD

1 yes, always
2 yes, often
3 yes, sometimes
4 yes, but seldom
5 no, never

g with solvents (ether, glue, paint thinners)

1 yes, always
2 yes, often
3 yes, sometimes
4 yes, but seldom
5 no, never

h with opiates

1 yes, always
2 yes, often
3 yes, sometimes
4 yes, but seldom
5 no, never

i with XTC/MDMA

1 yes, always
2 yes, often
3 yes, sometimes
4 yes, but seldom
5 no, never

j with amphetamine

1 yes, always
2 yes, often
3 yes, sometimes
4 yes, but seldom
5 no, never

31a Do you know exactly what "crack" is?

1 no
2 yes: .....

31b Have you ever used crack?

1 no 32
2 yes

31c How often?

..... times
77 unknown

31d When did you use crack for the first time?

month ..... in 19 .....

31e Where was that? In Amsterdam, outside Amsterdam but in the Netherlands, or outside the Netherlands?

1 in Amsterdam
2 outside Amsterdam but in the Netherlands
3 outside the Netherlands: .....
4 unknown / no answer

31f How do you usually get your crack?

1 I make it myself
2 I buy it
3 I get it free
4 other: .....

VII Buying cocaine

There are people who buy rather large quantities of cocaine, but give much of it away and use only a small amount for themselves. This is why we make a distinction between the amount you *use* yourself, and the amount you *buy*.

32a Can you tell as accurately as possible the value of the cocaine you used during the last 4 weeks?

f .....

32b How much of this was self-financed?

f .....

32c What was the price per gram that you paid during the last four weeks (or would have paid)?

f ..... per gram

33a From whom do you usually buy your cocaine?

1 a single dealer
2 varying dealers
3 friends and acquaintances
4 other: .....

33b Where do you usually buy your cocaine?

1 bar/cafe
2 disco
3 (hash) coffeeshop
4 dealer's house
5 other: .....

34 If you get cocaine free, from whom do you usually get it?

1 a single dealer
2 varying dealers
3 friends and acquaintances
4 other: .....

35a Suppose that cocaine becomes much cheaper in the Netherlands. Would you in that case use more? (*if respondent has quit:* Would you start using again?)

1 yes
2 no 35d
3 unknown / no answer

35b At what price per gram would you start using more / start using again?

f ..... per gram

35c If cocaine cost *f* ..... *(see 35b)*, do you think most cocaine users would start using more?

1 yes 36
2 no 36
3 unknown / no answer 36

35d If cocaine would cost *f*100, would most cocaine users in your opinion start using more?

1 yes
2 no
3 unknown / no answer

VIII Circumstances of use

36 Now I would like to ask a few questions about the circumstances, places or events where you have used cocaine over the last 3 months.

a Could you name some *situations* where you use cocaine? For example: "When I go to a football match", or "When I do some work in the garden", etc.

b How often do these situations in which you use cocaine occur?

c Could you say whether or not each of the circumstances you mentioned arouse a desire to use cocaine?

a *situations*	b *frequency*	c *arouses desire*
situation 1:	1 often 2 sometimes 3 seldom	1 yes 2 no
situation 2:	1 often 2 sometimes 3 seldom	1 yes 2 no

	situation 3:	1	often	1	yes
		2	sometimes	2	no
		3	seldom		

37a Are there certain emotions which, when you have them, arouse the desire for cocaine? (For example: "When I feel poetic")

1 yes
2 no 38

37b Could you describe some of these emotions?

37c How often do these emotions that arouse the desire to use cocaine occur?

b *emotions*	c *frequency*
situation 1:	1 often
	2 sometimes
	3 seldom
situation 2:	1 often
	2 sometimes
	3 seldom
situation 3:	1 often
	2 sometimes
	3 seldom

38a Are there any distinct *situations* in which you simply would *not* want to use cocaine?

1 yes
2 no

38b Please specify

.....

39a Are there any emotions that definitely do not combine with the use of cocaine?

1 yes
2 no

39b Please specify

.....

40 Do you ever use cocaine when you are alone?

1 yes
2 no

41a Are there people with whom you definitely would not use cocaine?

1 yes
2 no 42

41b If so, whom?

.....

42a This question is about possible personal rules you apply when using cocaine. (For example, some people have rules for drinking alcohol such as "no alcohol before 5 pm" or "if you have to get up early in the morning only wine during dinner", etc.)
Do you apply any similar rules with cocaine use? Could you tell me something about these rules?

.....

42b Do you stick by these rules?

.....

IX Advantages and disadvantages of use

43 As with other substances, cocaine has probably certain advantages and disadvantages for you.

a Could you list different aspects of cocaine that you find attractive? *(maximum of four)*

attractive aspect	*rank*
.....	.....
.....	.....
.....	.....
.....	.....

b Could you rank them in order of importance to you?

44 Does the dosage you use affect the occurrence of these advantages?

1 yes
2 no

45 Do the circumstances of use affect the occurrence of these advantages?

1 yes
2 no

46a What do you think are the most important disadvantages of cocaine use? *(maximum of four)*

disadvantage	*rank*
.....	.....
.....	.....
.....	.....
.....	.....

46b Could you rank them in order of importance to you?

47 Does the dosage you use affect the occurrence of these disadvantages?

1 yes
2 no

48 Do the circumstances of use affect the occurrence of these disadvantages?

1 yes
2 no

X Effects

49 I am now going to read out a long list of physical symptoms. For each one can you please tell:

a whether or not you have ever experienced it,
b if so, was it during the last year, and
c whether or not you regard it as a consequence of cocaine use.

(if possible to be filled up by the respondent)

		ever experienced		*last year experienced*		*consequence of cocaine use*		
		yes	no	yes	no	yes	no	?
1	high blood pressure	1	2	1	2	1	2	3
2	jaundice	1	2	1	2	1	2	3
3	pneumonia	1	2	1	2	1	2	3
4	respiratory problems	1	2	1	2	1	2	3
5	stomach ulcer	1	2	1	2	1	2	3
6	infections	1	2	1	2	1	2	3
7	diabetes	1	2	1	2	1	2	3
8	lack of sexual interest	1	2	1	2	1	2	3
9	lack of appetite	1	2	1	2	1	2	3
10	insomnia	1	2	1	2	1	2	3
11	inability to reach orgasm	1	2	1	2	1	2	3
12	*(man)* impotence	1	2	1	2	1	2	3
13	*(woman)* gynecological problem	1	2	1	2	1	2	3
14	runny nose	1	2	1	2	1	2	3
15	nasal infections	1	2	1	2	1	2	3
16	depression (>1 month)	1	2	1	2	1	2	3
17	restlessness	1	2	1	2	1	2	3
18	anxiety	1	2	1	2	1	2	3
19	delirium tremens	1	2	1	2	1	2	3
20	heart diseases	1	2	1	2	1	2	3
21	venereal diseases	1	2	1	2	1	2	3
22	kidney diseases	1	2	1	2	1	2	3
23	physically unfit (>1 month)	1	2	1	2	1	2	3
24	skin infections	1	2	1	2	1	2	3
25	fight wounds	1	2	1	2	1	2	3
26	accidents or serious injuries	1	2	1	2	1	2	3
27	nose/septum problems	1	2	1	2	1	2	3
28	hemorrhages	1	2	1	2	1	2	3
29	minor operation (e.g. tonsils)	1	2	1	2	1	2	3
30	drug overdose	1	2	1	2	1	2	3

50 The following questions are about the direct effects of cocaine use. I would like to know if you have experienced the following effects after using cocaine, and if so, did you experience it between one and five times or more than five times.
(if possible to be filled up by the respondent)

		never	*1 to 5 times*	*> 5 times*
1	cotton mouth	1	2	3
2	faster/irregular heartbeat	1	2	3
3	energetic feeling	1	2	3
4	self confidence	1	2	3
5	thinking faster	1	2	3
6	sweating	1	2	3
7	visual distortions	1	2	3
8	headache	1	2	3
9	tremor	1	2	3
10	dizziness	1	2	3
11	mind wandering	1	2	3
12	overly suspicious	1	2	3
13	nausea	1	2	3
14	teeth grinding	1	2	3
15	pre-occupation with meaningless tasks	1	2	3
16	skin bugs	1	2	3
17	feeling cold or impersonal	1	2	3
18	megalomania	1	2	3
19	mystical experiences	1	2	3
20	forget worries	1	2	3
21	breathing difficulties	1	2	3
22	hallucinations	1	2	3
23	depressions	1	2	3
24	insomnia	1	2	3
25	(woman) changes in menstrual cycle	1	2	3
26	nasal irritation / nose bleeding	1	2	3
27	difficult orgasms	1	2	3
28	convulsions	1	2	3
29	unconsciousness	1	2	3
30	restlessness/nervous	1	2	3
31	anxiety	1	2	3
32	loss of appetite	1	2	3
33	clear thinking	1	2	3
34	feeling separated from body/environment	1	2	3

51 The next list contains more side effects of cocaine use. Could you again state if you ever have experienced them yourself after using cocaine, and if so, did you experience each less or more than five times.
(if possible to be filled in by the respondent)

		never	*1 to 5 times*	*> 5 times*
1	dilation of pupils, sensitivity to light	1	2	3
2	tightness or pain in the chest	1	2	3
3	local numbness	1	2	3
4	yawning	1	2	3
5	weight loss	1	2	3
6	increased sensitivity/allergies	1	2	3
7	diarrhea	1	2	3
8	ringing in the ears	1	2	3

9	epileptic attacks	1	2	3
10	flashing lights during cocaine use	1	2	3
11	sense of well-being, euphoria	1	2	3
12	sense of perfectness	1	2	3
13	feeling "don't care about the world"	1	2	3
14	spontaneous orgasm after using cocaine	1	2	3
15	talkative	1	2	3
16	indifference to pain	1	2	3
17	lack of ambition	1	2	3
18	prolonged sex	1	2	3
19	sexual stimulation	1	2	3
20	better orgasms during cocaine use	1	2	3
21	panic	1	2	3
22	urge to carry weapons	1	2	3
23	running from imagined enemies	1	2	3
24	violence	1	2	3
25	urinate more often	1	2	3

52 Are there any other effects of cocaine use which have not been mentioned yet, but you think are important?
(write down the answer literally)

.....

53 What was the strongest effect you ever experienced after using cocaine?
(write down the answer literally, only one effect possible)

.....

XI Presence of adulterants

54a Do you know whether the cocaine you use contains adulterants?

1 yes
2 no 59

54b How often does the cocaine you use contain adulterants?

1 always
2 often
3 regularly
4 sometimes
5 hardly ever
6 never

55 Which adulterants are in the cocaine you use?

1 .....
2 .....
3 .....

56a Do you notice if there is any speed (amphetamine) in cocaine?

1 yes
2 no 57

56b How do you know?

.....

57a Do you check the purity when you buy cocaine?

1 yes
2 no 58

57b How do you do that? *(maximum of two answers)*

1 tasting
2 check the 'freeze'
3 chemically: adding a substance
4 chemically: burning
5 chemically: dissolving
6 visually
7 other: .....

58a Do you have any cocaine at the moment?

1 yes
2 no 59

58b What adulterants are in the cocaine that is presently in your possession?

1 .....
2 .....

58c How do you know that?

.....

XII Information / opinions about cocaine and other cocaine users

59a Do you remember having an opinion about cocaine and its users before you started using it yourself?

1 yes
2 no 59f

59b Can you tell me something about that?

.....

59c Do you remember how you got this information?

0 no, I don't remember
1 press/media
2 observation (of friends, of partner, of other users)
3 from friends
4 from books, articles
5 via school
6 via information about drugs
7 being told
8 current opinion
9 other: .....

59d Has your opinion about cocaine changed since you started using it yourself?

1 yes
2 no 59f

59e What was the most significant change in your opinion about cocaine?

.....

59f Do you remember what you thought about cocaine users, before you started to use cocaine yourself?

1 yes
2 no 60

59g Can you tell me something about that?

.....

59h Has your opinion of cocaine users changed since you started using it yourself?

1 yes
2 no 60

59i Could you tell me something about the most striking changes in your opinion of cocaine users?

.....

60a Which of these sources had an influence on forming your opinions of cocaine (during the total period of cocaine use)?
(read out)

	yes	*no*
- news	1	2
- books	1	2
- friends - non-users	1	2
- friends - cocaine users	1	2
- physicians	1	2
- addiction treatment institutions	1	2
- parents	1	2
- teachers	1	2

60b Could you indicate whether the following developments and/or information have influenced your opinion of cocaine and cocaine use?

	yes	*no*
- developments in the United States	1	2
- developments in South America	1	2
- information on crack	1	2

61 What advice would you give a novice cocaine user in terms of:

a method of use: .....

b dosage: .....

c circumstances of use: .....

d combination of cocaine and other drugs: .....

f possible disadvantages of cocaine and how to deal with them: .....

62a Have you ever dissuaded someone from cocaine use?

1 yes
2 no 62c

62b Who did you dissuade from using cocaine?

1 friends
2 partner
3 family
4 colleagues
5 others

62c For what reasons did you do this?

.....

62d Have you ever encouraged someone to start using cocaine?

1 yes
2 no 62f

62e Who did you encourage to use cocaine?

1 friends
2 partner
3 family
4 colleagues
5 others

62f For what reasons did you do this?

.....

63a The next question is about the Dutch policy regarding cocaine. Do you think cocaine should be treated in the same way as hash and marihuana, or more like heroin, or more like alcohol?

1 like hash and marihuana
2 like heroin
3 like alcohol
4 other: .....

63b How would you explain that view?

.....

63c Do the current laws regarding cocaine have a positive or a negative influence on your cocaine use, or does it make no difference?

1 positive
2 negative
3 no difference
4 do not know / no answer

63d Could you comment on that?

XIII Dependency

64a Do you believe that you control your cocaine use better than other people?

1 yes
2 no

64b Have you ever found yourself longing for cocaine?

1 yes
2 no 66a

64c How long did you use cocaine before you found yourself longing for cocaine?

1 less than 1 week
2 1 to 4 weeks
3 1 to 6 months
4 one half to two years
5 longer than two years
6 unknown / no answer

64d How often now do you feel this longing for cocaine when cocaine is around?

1 never
2 sometimes
3 25% of the time
4 50% of the time
5 75% of the time
6 always / almost always

64e Do you feel a craving for cocaine even when it is not around?

1 never
2 sometimes
3 25% of the time
4 50% of the time
5 75% of the time
6 always / almost always

65 Has cocaine ever been an obsession for you?

1 yes
2 no

66a Do you have a limit on the amount of money that you are prepared to spend on cocaine per month?

1 yes
2 no 67

66b What money limit do you apply?

f ..... per month

67 I now want to read out a list of different ways people have obtained cocaine. All these ways were actually reported by respondents studied by researchers in America. For each one, I would like you to tell me if each way: *(show card 7)*

1 never occurred with you, or
2 occurred very rarely/seldom
3 occurred between 3 and 10 times
4 occurred more than 10 times

		never	*seldom*	*3-9 times*	*over 10 times*
1	Taking a second job to buy cocaine	1	2	3	4
2	Borrowing money to buy cocaine	1	2	3	4
3	Selling personal possessions to buy cocaine	1	2	3	4
4	Stealing from family or friends to buy cocaine	1	2	3	4
5	Shoplifting to buy cocaine	1	2	3	4
6	Selling cocaine to pay for your own cocaine	1	2	3	4
7	Committing burglary to buy cocaine	1	2	3	4
8	Stealing money from a person face to face to buy cocaine	1	2	3	4

9	Forging or passing bad checks to buy cocaine	1	2	3	4
10	Stealing cocaine	1	2	3	4
11	Engaging in prostitution to get money to buy cocaine	1	2	3	4
12	Running con games to buy cocaine	1	2	3	4
13	Stealing cars to buy cocaine	1	2	3	4
14	Car breaking to buy cocaine	1	2	3	4
15	Trading sex for cocaine	1	2	3	4
16	Hanging around with people / being in a situation you did not like in order to get cocaine	1	2	3	4

XIV Using cocaine at work

Now I would like to ask you a few questions about work.

68a Are you employed at the moment?

1 yes, in full-time work 68b
2 yes, in part-time work 68b
3 no, unemployed 68c
4 no, housewife/man 71
5 other: .....

68b How many hours do you usually work per week?

..... hours 68e

68c Which social welfare benefits do you receive?
1 unemployment insurance (”WW“)
2 public assistance (”bijstand“)
3 workers compensation (”WAO“)
4 general widows and orphans benefit (”AWW“)
5 other: .....

68d How many months were you unemployed during the last two years?

..... months

68e What is your occupation? *(If the respondent has several occupations, choose the most important source of income.)*

.....

69 How many different jobs have you had in the last two years?

..... jobs

70 *If the respondent has been employed in the last three months.*
Have you ever been under the influence of any of these substances when at work? *(card 7)*

		never	*seldom*	*3-9 times*	*over 10 times*
a	alcohol	1	2	3	4
b	cocaine	1	2	3	4
c	marihuana	1	2	3	4
d	other drug:	1	2	3	4

71 Some people say that the use of cocaine will affect the way one performs at work or other areas. I have a few statements of possible influences here. Just answer *yes* or *no*.

		yes	*no*	*not applicable*
a	Did cocaine ever improve the quality of your work?	1	2	3
b	Did cocaine ever harm the quality of your work?	1	2	3
c	Did cocaine ever improve your relationship with your supervisor or colleagues?	1	2	3
d	Did cocaine ever harm your relationship with your supervisor or colleagues?	1	2	3
e	Did cocaine ever make you miss one or more days of work?	1	2	3
f	Did cocaine ever help you do your work better, or do more work?	1	2	3
g	Has cocaine ever improved your relationship with your partner?	1	2	3
h	Has cocaine ever harmed your relationship with your partner?	1	2	3
i	Has cocaine ever been the cause of a divorce?	1	2	3
j	Has cocaine ever improved your sexual relationships?	1	2	3
k	Has cocaine ever harmed your sexual relationships?	1	2	3
l	Has cocaine ever harmed you financially?	1	2	3

XV General information

72 What is your age?

..... years

73 *Write down gender.*

1 male
2 female

74a What is your marital status?

1 married
2 divorced
3 widowed
4 unmarried

74b Do you currently have a steady partner?

1 no
2 yes, less than 1 year
3 no, more than 1 year

75 What is your situation at home?

1 living alone
2 living with a partner
3 living without a partner, but with children
4 living with others, none a partner
5 commune
6 living with parents
7 other: .....

76 Do you have children? If so, where do they live?

1 no children
2 children living with respondent
3 children living elsewhere
4 some children living with respondent, some elsewhere

77a In which country were you born?

.....

77b And your father?

.....

77c And your mother?

.....

78a Could you indicate how many evenings per week you spend at home? I mean evenings without regular activities out of the house (e.g. courses) or appointments with other people.

1 5 to 7 evenings at home
2 3 or 4 evenings at home
3 1 or 2 evenings at home
4 almost never at home
5 irregular
6 I work in the evening

78b How many times did you visit cafés, night clubs or discotheques during the last *four* weeks?

1 never
2 one time
3 2 or 3 times
4 4 to 9 times
5 10 times or more
6 unknown

78c How many times did you visit restaurants during the last *four* weeks?

1 never
2 one time
3 2 or 3 times
4 4 to 9 times
5 10 times or more
6 unknown

78d How many times did you go to the cinema during the last *eight* weeks?

1 never
2 one time
3 2 or 3 times
4 4 to 9 times
5 10 times or more
6 unknown

78e How many times did you attend the theater, cabaret, opera or ballet during the last *eight* weeks?

1 never
2 one time
3 2 or 3 times
4 4 to 9 times
5 10 times or more
6 unknown

79a What educational level did you reach?

1 elementary school
2 low level vocational school (LBO)
3 low level high school (MAVO/MULO)
4 medium level vocational school (MBO)
5 medium level high school (HAVO)
6 high level high school (VWO)
7 high level vocational school (HBO)
8 university

79b Did you finish these studies, did you quit before a degree, or are you still studying?

1 finished
2 quit
3 still studying

80 What was your average monthly net income in 1990 *(in guilders)*?
(show card 8)

1 Less than *f*1.000
2 *f*1.000-*f*1.500
3 *f*1.500-*f*2.000
4 *f*2.000-*f*2.500
5 *f*2.500-*f*3.000
6 *f*3.000-*f*4.000
7 *f*4.000-*f*5.000
8 *f*5.000-*f*6.000
9 More than *f*6.000

81a Did you have any contact during the last two years with a facility for alcohol or drug treatment?

1 yes
2 no 81c

81b For which drugs? *(maximum of 3 answers)*

1 cocaine
2 alcohol
3 heroin / opiates
4 hypnotics / sedatives
5 other: .....

81c Did you ever consider treatment in connection with your cocaine use or in connection with certain experiences with cocaine?

1 yes
2 no 82

81d Could you explain this?

.....

82 Have you been convicted of a felony during the last four years?

1 yes
2 no

83a Did you receive any assistance from psychotherapeutic professionals during the last four years?

1 yes
2 no 84

83b Did this result in changes for the organization of your daily life (e.g. work less, quit job, being at home more often, admission)?

1 yes
2 no

XVI Knowledge of cocaine use

84a Has the total number of cocaine users increased, decreased, or remained stable in the last four years?

1 increased
2 decreased
3 remained stable
4 unknown / no answer

84b Could you tell me precisely how many persons you know who use cocaine (including casual users)?

..... persons

85 Of those, what proportion are male, and what proportion are female?

..... % male
..... % female

86a I would like to know if among the cocaine users you know, any use cocaine in a way you consider "risky"?

1 yes 86b
2 no 87

86b How many?

..... persons

87 How long would it take you to get cocaine at this moment?

1 half a day or less
2 1 or 2 days
3 3 days to 1 week
4 longer than 1 week
5 it would be very difficult

88 Do you want to mention anything about the use of cocaine not covered by this interview?

.....

89 As a conclusion of this interview I would like to ask you to give as many as possible initials of friends of whom you know started to use cocaine *after 1986*. They do not have to be a user at this moment. It is important to mention only friends you know well and whom you could ask to be interviewed by us. Please give their gender, age, profession / employment and frequency of use (casual, regularly, intensive, abstinent).

	initials	*sex*	*age*	*occupation*	*frequency of use*
1	.....	.....	.....	.....	.....
2	.....	.....	.....	.....	.....

(etc. up to 20)

(interviewer, select randomly new respondents, and ask the respondent to introduce you to them.)

90 Would you be prepared to take part in a medical examination? (For research: examination will take half a day. Benefit is a complete physical check up.)

1 yes
2 no

91 Do you have any cocaine available at the moment? If so, could I buy 50 mg from you at a payment of ƒ50,-? *(Interviewer, take a small quantity and seal in plastic container provided, leave item # on piece of paper inside bag.)*

1 yes
2 no

Short questionnaire

1 Do you think you will ever use cocaine again?

1 yes, certainly 4
2 possibly 4
3 no, certainly not 2

2 What were the most important reasons to quit cocaine?

.....

3 In order to quit, did you use special tactics (for instance avoiding certain situations)?

.....

4 Which method of ingestion was the most important when you used cocaine the last time? *(maximum of 2 answers)*

1 snorting
2 injecting
3 smoking
4 freebasing
5 other: ...

5a Has your opinion on cocaine changed since you stopped using it regularly?

1 yes
2 no 6

5b Could you tell me something about the most striking changes in your opinion?

.....

6a Which of these sources had an influence on forming your opinions of cocaine (during the total period of cocaine use)?
(read out)

		yes	*no*
-	news	1	2
-	books	1	2
-	friends - non users	1	2
-	friends - cocaine users	1	2
-	physicians	1	2
-	addiction treatment institutions	1	2
-	parents	1	2
-	teachers	1	2

6b Could you indicate whether the following developments and/or information have influenced your opinion of cocaine and cocaine use?

		yes	*no*
-	developments in the United States	1	2
-	developments in South America	1	2
-	information on crack	1	2

7a The next question is about the Dutch policy regarding cocaine. Do you think cocaine should be treated in the same way as hash and marihuana, or more like heroin, or more like alcohol?

1 like hash and marihuana
2 like heroin
3 like alcohol
4 other: .....

7b How would you explain that view?

.....

8a Have you ever felt a longing for cocaine in the last four years?

1 no, never
2 yes, sometimes
3 yes, regularly
4 yes, all the time
5 unknown / no answer

8b Could you tell me something about this longing?

.....

9 Since 1986, have you ever used any of the following substances?

a	alcohol	1	yes	2	no
	used during the last 2 weeks?	1	yes	2	no
b	tobacco	1	yes	2	no
	used during the last 2 weeks?	1	yes	2	no

c	tranquillizers (e.g. Valium)	1	yes	2	no
	how often have you used *since 1986?*	.....	times	77	unknown
	used during the last 2 weeks?	1	yes	2	no
d	hypnotics	1	yes	2	no
	how often have you used *since 1986?*	.....	times	77	unknown
	used during the last 2 weeks?	1	yes	2	no
e	hash or marihuana	1	yes	2	no
	how often have you used *since 1986?*	.....	times	77	unknown
	used during the last 2 weeks?	1	yes	2	no
f	LSD	1	yes	2	no
	how often have you used *since 1986?*	.....	times	77	unknown
	used during the last 2 weeks?	1	yes	2	no
g	solvents (ether, glue, paint thinners, etc.)	1	yes	2	no
	how often have you used *since 1986?*	.....	times	77	unknown
	used during the last 2 weeks?	1	yes	2	no
h	opiates (opium, methadone, morphine heroin, etc.)	1	yes	2	no
	how often have you used *since 1986?*	.....	times	77	unknown
	used during the last 2 weeks?	1	yes	2	no
i	ecstasy (XTC, MDMA)	1	yes	2	no
	how often have you used *since 1986?*	.....	times	77	unknown
	used during the last 2 weeks?	1	yes	2	no
j	amphetamine	1	yes	2	no
	how often have you used *since 1986?*	.....	times	77	unknown
	used during the last 2 weeks?	1	yes	2	no

10a Do you know exactly what "crack" is?

1 no
2 yes: .....

10b Have you ever used crack?

1 no 11
2 yes

10c How often?

..... times
77 unknown

10d When did you use crack for the first time?

month ..... in 19 .....

10e Where was that? In Amsterdam, outside Amsterdam but in the Netherlands, or outside the Netherlands?

1 in Amsterdam
2 outside Amsterdam but in the Netherlands
3 outside the Netherlands: .....
4 unknown / no answer

10f How do you usually get your crack?

1 I make it myself
2 I buy it
3 I get it free
4 other: .....

General information

11a What is your age?

..... years

11b *Write down gender.*

1 male
2 female

12a What is your marital status?

1 married
2 divorced
3 widowed
4 unmarried

12b Do you currently have a steady partner?

1 no
2 yes, less than 1 year
3 no, more than 1 year

13 What is your situation at home?

1 living alone
2 living with a partner
3 living without a partner, but with children
4 living with others, none a partner
5 commune
6 living with parents
7 other: .....

14 Do you have children? If so, where do they live?

1 no children
2 children living with respondent
3 children living elsewhere
4 some children living with respondent, some elsewhere

15a In which country were you born?

.....

15b And your father?

.....

15c And your mother?

.....

16a Could you indicate how many evenings per week you spend at home? I mean evenings without regular activities out of the house (e.g., courses or appointments with other people).

1 5 to 7 evenings at home
2 3 or 4 evenings at home
3 1 or 2 evenings at home
4 almost never at home
5 irregular
6 I work in the evening

16b How many times did you visit cafés, night clubs or discotheques during the last *four* weeks?

1 never
2 one time
3 2 or 3 times
4 4 to 9 times
5 10 times or more
6 unknown

16c How many times did you visit restaurants during the last *four* weeks?

1 never
2 one time
3 2 or 3 times
4 4 to 9 times
5 10 times or more
6 unknown

16d How many times did you go to the cinema during the last *eight* weeks?

1 never
2 one time
3 2 or 3 times
4 4 to 9 times
5 10 times or more
6 unknown

16e How many times did you attend the theater, cabaret, opera or ballet during the last *eight* weeks?

1 never
2 one time
3 2 or 3 times
4 4 to 9 times
5 10 times or more
6 unknown

17a What educational level did you reach?

1 elementary school
2 low level vocational school (LBO)
3 low level high school (MAVO/MULO)
4 medium level vocational school (MBO)
5 medium level high school (HAVO)
6 high level high school (VWO)
7 high level vocational school (HBO)
8 university

17b Did you finish these studies, did you quit before a degree, or are you still studying?

1 finished
2 quit
3 still studying

Now I would like to ask you a few questions about work.

18a Are you employed at the moment?

1 yes, in full-time work
2 yes, in part-time work
3 no, unemployed 18c
4 no, housewife/man 19
5 other: .....

18b How many hours do you usually work per week?

..... hours 18e

18c Which benefit do you receive?
1 unemployment insurance (”WW“)
2 public assistance (”bijstand“)
3 workers compensation (”WAO“)
4 general widows and orphans benefit (”AWW“)
5 other: .....

18d How many months were you unemployed in the last two years?

..... months

18e What is your occupation? *(If the respondent has several occupations, choose the most important source of income.)*

.....

18f How many different jobs have you had in the last two years?

..... jobs

19 What was your average monthly net income in 1990 *(in guilders)*?
(show card 8)

1 Less than *f*1.000
2 *f*1.000-*f*1.500
3 *f*1.500-*f*2.000
4 *f*2.000-*f*2.500
5 *f*2.500-*f*3.000
6 *f*3.000-*f*4.000
7 *f*4.000-*f*5.000
8 *f*5.000-*f*6.000
9 More than *f*6.000

20a Did you have any contact during the last two years with a facility for alcohol or drug treatment?

1 yes
2 no 20c

20b For which drugs? *(maximum of 3 answers)*

1 cocaine
2 alcohol
3 heroin / opiates
4 hypnotics / sedatives
5 other: .....

20c Did you ever consider treatment in connection with your cocaine use or in connection with certain experiences with cocaine?

1 yes
2 no 21

20d Could you explain this?

.....

21 Have you been convicted of a felony during the last four years?

1 yes
2 no

22a Did you receive any assistance from psychotherapeutic professionals during the last four years?

1 yes
2 no 23

22b Did this result in changes for the organization of your daily life (e.g. work less, quit job, being at home more often, admission)?

1 yes
2 no

Knowledge of cocaine use

23 Has the total number of cocaine users increased, decreased, or remained stable in the last four years?

1 increased
2 decreased
3 remained stable
4 unknown / no answer

24 Could you tell me precisely how many persons you know who use cocaine (including casual users)?

..... persons

25 Of those, what proportion are male, and what proportion are female?

..... % male
..... % female

26a I would like to know if among the cocaine users you know, any use cocaine in a way you consider "risky"?

1 yes
2 no 27

26b How many?

..... persons

27 How long would it take you to get cocaine at this moment?

1 half a day or less
2 1 or 2 days
3 3 days to 1 week
4 longer than 1 week
5 it would be very difficult

28 Do you want to mention anything about the use of cocaine not covered by this interview?

.....

29 As a conclusion of this interview I would like to ask you to give as many as possible initials of friends whom you know started to use cocaine *after 1986*. They do not have to be a user at this moment. It is important to mention only friends you know well and whom you could ask to be interviewed by us. Please give their gender, age, profession / employment and their frequency of use (casual, regularly, intensive, abstinent).

	initials	*sex*	*age*	*occupation*	*frequency of use*
1	.....	.....	.....	.....	.....
2	.....	.....	.....	.....	.....

(etc. up to 20)

(interviewer, select randomly new respondents, and ask the respondent to introduce you to them.)

Cards

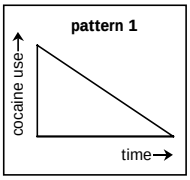
Card 1

1 Daily
2 Not daily, but more than once a week
3 Once a week
4 Less than once a week, but at least once a month
5 Less than once a month

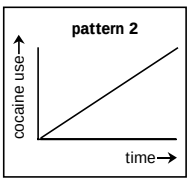
Card 2

1 Snorting
2 Injecting
3 Eating
4 Rubbing on genitals
5 Freebasing
6 Smoking

Card 3

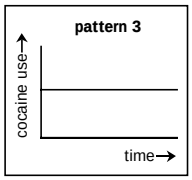


I immediately started using large amounts after I first tried cocaine, but gradually decreased since then.

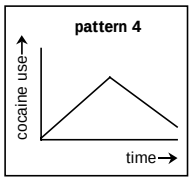


My cocaine use has gradually increased over the years.

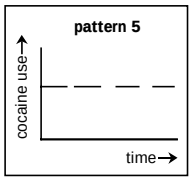
Ten years of cocaine



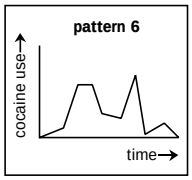
I started using cocaine at the same level that I still use, and the amount and frequency haven't changed.



My use increased gradually until it reached a peak, then it decreased.



I have started and stopped using cocaine many times.



My use pattern has been varied considerably over the years.

Card 4

1 I have used cocaine only on weekends.
2 I have used cocaine more on weekends than during the week.
3 I have used cocaine equally on weekends and during the week.
4 I have used cocaine more during the week than on weekends.
5 I have used cocaine only during the week.
6 I did not use any cocaine.

Card 5

1 I use a little cocaine, wait, then use some more
2 I use some cocaine, then stop
3 I use cocaine without stopping until it is all gone

Card 6

1 Always
2 Mostly (75% yes/ 25% no)
3 Sometimes (50% yes/ 50% no)
4 Mostly not (25% yes/ 75% no)
5 Rarely
6 Never

Card 7

1 Never
2 Seldom
3 Between 3 and 9 times
4 More than 10 times

Card 8

1 Less than *f*1.000
2 *f*1.000-*f*1.500
3 *f*1.500-*f*2.000
4 *f*2.000-*f*2.500
5 *f*2.500-*f*3.000
6 *f*3.000-*f*4.000
7 *f*4.000-*f*5.000
8 *f*5.000-*f*6.000
9 More than *f*6.000

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