Cannabis control: consequences for consumption and cultivation

Wouters, M.

Citation for published version (APA):

General rights
It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

Disclaimer/Complaints regulations
If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: https://uba.uva.nl/en/contact, or a letter to: Library of the University of Amsterdam, Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.
Chapter 7: Conclusion & Discussion
In the Netherlands, the sale of cannabis to consumers is tolerated through so-called coffee shops. The form this takes has changed considerably over the years. Since the mid-1990s, stricter legislation and guidelines have been introduced. More recently combating the cannabis cultivation has been intensified as well. These developments in the Dutch cannabis policy raise questions that are at the core of criminology. Answering these questions can contribute significantly to the ongoing international debate on the effects of drug policy as well as contribute to further developing criminological theories.

The central question of this study, as formulated in Chapter 1, refers to consequences that formal changes in the Dutch cannabis policy since the middle of the 1990s have had for the legal regulation of the cannabis market in practice. How and to what extent do these developments relate to (developments at) the supply side of the cannabis market, the sale of cannabis at consumer level, and the consumption of cannabis and other drugs? In chapters 2 to 6, the central question was translated into more specific and detailed research questions. In this chapter, findings from the previous chapters will be brought together and discussed.

7.1 Availability and local politics
Local cannabis policy in the Netherlands is not always the same as the national policy. This can be seen in the decision to allow coffee shops or not. Chapter 2 looked at how the interlocal variations in the availability of cannabis through coffee shops have arisen, how large such variations are and how they can be explained. This chapter showed that municipalities with a majority of progressive seats often allow coffee shops, while those with a majority of confessional seats do not. In addition, the demand for cannabis in a municipality has to be sufficient for it to allow coffee shops, in other words: there should be enough potential customers for the coffee shops. Finally, the degree of urbanisation also matters. In the number of coffee shops that is condoned in a municipality, the demand (number of potential customers, for which the number of inhabitants was used as a proximal measure) has the most important role, followed by municipality spread (which is negatively related to degree of urbanisation). Exceptions to these rules are smaller municipalities that have one or more coffee shops; these often have a regional function, which means that in the area, night life or shopping activities are concentrated in this municipality, or many tourists visit them. Larger municipalities without coffee shops are also exceptions; they are often next to a relatively larger municipality with a high concentration of coffee shops, or they have a relatively low urbanicity. Surprisingly, the percentage of young adults (the group with the highest percentage of cannabis users) did not make a difference.

Based on a study by Lenke and Olsson (1996) we expected the presence or absence of conservative parties to be the most influential in the decision whether to allow a coffee shop or not. However, this was not confirmed: we found that the percentage of progressive seats was most important. The percentage of conservative seats did not make difference but the percentage of confessional seats did. Internationally, one might consider confessional parties to be generally conservative in their political opinions; for the Dutch situation this does not hold true. Sometimes Dutch confessional parties would internationally be seen as progressive with regard to certain social or economic issues.
There are several differences between our study and Lenke and Olsson’s that could explain the discrepancy between the two. Firstly, our study looked at local politics, not national. At a local level, other dynamics might be at work. Secondly, in the past years the classical pattern of a working class that votes for left-wing parties, and a middle class that votes for right-wing parties has changed. In addition, there has been a rise of ‘new right’ parties in several countries, including the Netherlands (Achterberg, 2005). Although older themes concerning economic redistribution did not disappear, cultural themes such as norms and values, and safety, have become more important. Increased prosperity and material security have led to a lessened interest in old themes, and cultural themes have been gaining ground. The ‘new right’ parties combine economically left-leaning standpoints with right-wing outlooks when it concerns cultural themes. This might have influenced the process of decision making at a political level.

7.4 Availability, cannabis use and cannabis buying behaviour

Why do cannabis users in the Netherlands buy marijuana or hashish at sales points other than coffee shops? If cannabis users buy through illegal channels, they often do this through delivery services and home dealers, but also through home growers, under-the-counter sellers and street dealers. With street dealers in particular there is a risk of exposure to other drugs, but even in the case of other sales points still twenty to thirty per cent sold other drugs in addition to marijuana or hashish. Chapter 3 showed that cannabis users that live in towns where there are few or no coffee shops, buy through non-tolerated sellers more often. In addition to cannabis buying behaviour, availability of coffee shops can influence the use of marijuana or hashish. In Chapter 4 no relationship was found between proximity to coffee shops and last year cannabis use, nor frequency of use and amounts used. Those that buy exclusively in coffee shops did prove to be more frequent and more intense users of cannabis. However, there was no relationship between proximity to coffee shops and the use of hard drugs in the year prior to the survey. It is possible that the availability of coffee shops does not influence the prevalence of cannabis use, but does stimulate more frequent and more intense use. Conversely it can also mean that specifically the frequent users prefer the coffee shop above non-tolerated sellers, because of a guaranteed availability of cannabis, a relatively stable quality and perhaps also the social interaction with coffee shop employees and other customers.

Generally, one would expect users of cannabis to prefer buying it through legal channels. However, although most cannabis users in the Netherlands predominantly buy it in coffee shops, some (also) buy from illegal dealers. This can be explained by several factors. Firstly, coffee shops are not omnipresent in the Netherlands. However, even in municipalities with a high coffee shops density, not all cannabis users buy at a coffee shop. In addition to the geographical location, other factors might play a role in cannabis users’ buying decisions. Some of these factors were discussed in a report by Korf et al. (2005), in which an ethnographic field study indicated that opening hours were one of the factors; many municipalities restrict the opening hours and sometimes these are very limited. Other factors that they found are prices (some non-tolerated sellers have a lower price), quality and larger amounts per purchase.
In studying the relationship between availability of coffee shops and cannabis use, criminological theories are of interest. Firstly, Routine Activity Theory might explain the choice of buying in a coffee shop or elsewhere. According to this theory, individuals encounter opportunities for crime in their daily life and this leads to criminal behaviour. In this case, it would mean that persons who come across illegal sellers of cannabis at a moment when they are willing to buy cannabis, before they pass a coffee shop, they will buy from this illegal seller. Within the framework of Routine Activity Theory, the concept of “awareness space” has been addressed (Bernasco, 2010). Awareness space refers to the areas and places offenders are familiar with as they go about their daily life. In future studies it would be interesting to further expand the variables taken into consideration when studying the relationship between availability of coffee shops and cannabis buying behaviour, and cannabis use. It would be wise to take for instance opening hours, daily travel routines, and other significant places outside of location of residence, such as school or work locations, and most used supermarket.

Secondly, one might consider Rational Choice Theory; this theory states that criminals weigh pros and cons of criminal behaviour and make rational decisions on where and when to commit crimes. This would mean that for cannabis users to resort to non-tolerated cannabis sales points, coffee shops would need to be limited in their availability. This could take the form of being far away, inaccessible due to minimum age, but also very limited opening hours, high prices or even an unpleasant atmosphere would increase the threshold to coffee shops. Empirical studies show, within the perspective of Rational Choice Theory, that there are greater gains for greater distances travelled, but also that offenders commit fewer crimes when the distance to their home increases. This would mean that cannabis users are more likely to buy at non-tolerated cannabis sellers when these are close to their home or other places they frequent in their daily routines.

No relationship was found between proximity to coffee shops and current use of cannabis. From other studies in for instance the field of tobacco (Leatherdale & Strath, 2007; Pokorny, Jason & Schoeny, 2003), it can be deduced that the relationship between proximity, or more generally availability, of coffee shops and cannabis behaviour might be a dynamic one. The relationship might differ according to the stage in cannabis career; while a beginning user might get his or her cannabis for free, when continuing this use and becoming a more frequent user, the user might stop depending on friends to support this habit, and the user might start buying at coffee shops (more often), and thus be more influenced by their availability. If the user is a very frequent user, one would also expect a different relationship between coffee shop availability and the buying and using of cannabis than if they use less frequent.

7.3 Coffee shops and minors

Although minors are not allowed to buy in coffee shops, some do still use cannabis. Does a higher minimum age deter the use of cannabis, resulting in fewer minors that use cannabis, or postponing the use of marijuana or hashish? This might work for some minors; however, despite minimum age for coffee shops being enforced, there are youth that do start using cannabis before the age of 18. Many studies have shown that with alcohol, raising the minimum legal age does reduce the use of
alcohol among minors, but also that underage drinking does not disappear completely (Wagenaar & Toomey, 2002; Willner & Hart, 2001; Wolfson & Hourigan, 1997).

Chapter 5 shows that among the secondary school students in the Netherlands, there is a decrease in prevalence of cannabis use from 1997 onwards. To what extent can this decrease be attributed to raising the minimum legal age for coffee shops in 1996? The declining trend from 1997 onwards in national prevalence rates of cannabis use among students of secondary education can be seen in Amsterdam as well. However, when this declining trend in Amsterdam is broken down for subgroups according to sex, ethnicity and educational level, a large variation in how these prevalence rates have developed can be observed. The changes in cannabis prevalence rates in Amsterdam seem to be more attributable to changes in the demographic characteristics of the population than to the change in policy. This is at odds with the results of the national evaluation of the Dutch drug policy (Van Laar & Van Ooyen-Houben, 2009), which showed that after controlling for changes in the demographics of the national population of students, there still was slight decline in prevalence rates after raising the minimum age. Perhaps surprising at first sight, the percentage of current cannabis users among 16 & 17 year olds in Amsterdam that buy cannabis did not change over time. However, the absolute number of 16 & 17 year olds that buy cannabis did decrease since the total number of cannabis users decreased. The place where students of secondary education in Amsterdam acquired their cannabis shifted from coffee shops to other sources, including non-tolerated dealers. Similarly, Chapter 3 showed that minors that use cannabis, buy cannabis less often than young adult cannabis users, but also that being a minor does increase the chance of buying through non-tolerated sellers. It should not come as a great surprise that raising the minimum age for coffee shops as such had a limited influence on underage youth. Generally speaking they do not buy their own marijuana or hashish that often, after initiation into cannabis use many consumers take some time to develop into buyers of cannabis. Often they get marijuana or hashish for free from friends (Abraham, Kaal & Cohen, 2002; Korf, Nabben & Benschop, 2003; Ogilvie, Gruer & Haw, 2005). The finding that raising the minimum age for coffee shops has had little influence on the decline in prevalence rates of cannabis use and buying behaviour, gives cause to investigate more closely what did curb the prevalence rates among youth. It may be something that changes in the future, causing prevalence rates to go up again. Also, it could be that these are ‘natural’ fluctuations over time, that do not relate to policy changes.

7.4 Separation of markets

When cannabis users buy cannabis from non-tolerated sellers, it increases their chance of being exposed to the sale of hard drugs. Chapter 3 shows that a majority of unlicensed cannabis selling points predominantly sells cannabis only. However, a substantial number sells other drugs as well, thereby increasing the risk of exposure to hard drugs when buying soft drugs. As mentioned above, there is a possibility that problem youth buy their cannabis from this illegal network, and this might add to their level of marginalisation.

In Chapter 4, the separation of markets policy does not seem to have much influence on the use of hard drugs among Dutch party-goers and clubbers. Buying cannabis at coffee shops did not reduce
the chances of having used hard drugs to zero. For last year use of hard drugs, having used cannabis at an early age was an important factor in our study, confirming earlier findings (Baumeister & Tossmann, 2005; Lynskey, 2003; Lynskey, Vink & Boomsma, 2006). Although a decrease in the availability in coffee shops will hazard the notion of the separation of markets policy, there does not seem to be a direct influence on the use of hard drugs. It is more likely that other factors such as risk seeking behaviour, or a socially deprived background, causes or increases the chances of hard drugs use.

7.5 Dismantling cannabis cultivation sites

From the 1990s onwards, the Dutch cannabis market has become increasingly self-provisioning. Since then import substitution has resulted in an overwhelming proportion of cannabis consumed in the Netherlands being domestically grown (Korf, 2011; Potter, Bouchard & Decorte, 2011). To sell the product through coffee shops to consumers calling at the ‘front door’, the coffee shops have to supply themselves illegally via the ‘back door’. Although the increasing domestic cultivation of marijuana is not an exclusively Dutch phenomenon, the ‘back door’ policy and the coffee shops are. Since the mid-1990s, cannabis has increasingly been defined as a problem in the Netherlands, just as in neighbouring countries. Alongside the media reports of growing involvement of organised crime in the cultivation of marijuana, generally more problematic sides of the Dutch cannabis and coffee shop policy are discussed, resulting in more repressive strategies against marijuana cultivation. Chapter 6 looked at how the dismantling of cannabis cultivation sites is put into practice, and what the effects are on the cannabis consumer market. In addition, the possible negative consequences of this policy were analysed. In practice, the Dutch strategy has largely consisted of dismantling large numbers of cannabis cultivation sites; to a lesser extent, there are longer-term police investigations into criminal networks and organisers of mainly large-scale marijuana cultivation. Approximately 6,000 marijuana cultivation sites were dismantled in 2006. In 2010 and 2011 this was around 5,500 cultivation sites. As Korf points out, dismantling has become a ‘structured, streamlined and even routinely conducted campaign’ (Korf, 2011). The marijuana from the confiscated plants was now destroyed, and therefore did not enter the market. The figures pertain only to the numbers of sites actually dismantled; there is no information about the total number of marijuana cultivation sites in the Netherlands, but the conclusion seems justified that the supply chains to the cannabis coffee shops were under serious strain. There were some observations of shifts in the types of cultivation sites. In 2006 there was a slight increase in the price of cannabis at the kilogram level, but our impression was that the prices had begun to decline by the Spring 2007. However, since then, there has been a steady increase in cannabis prices; in 2006 the price per kilo for the most often sold “netherweed” was €3,200 - € 3,600, while around Spring 2010 this had increased to € 3,500 - € 4,000. The average price of Dutch-grown cannabis in coffee shops increased significantly, from €7.30 per gram in 2006/2007 to €9.30 in 2011/2012 (Niesink & Rigter, 2012).

---

24 Personal communication, Jan van der Kleijn, 11 October 2012.
Broadly speaking, Garlands ‘Culture of Control’ helps to understand the shift towards a more repressive drug policy that has taken place since the mid-1990s in the Netherlands. According to Garland (2001), policies are more and more repressive, less is being tolerated when it comes to judiciary rules. Compared to the 1980s, both progressive and conservative parties increasingly are proponents of repressive measures. Crime is explained more in terms of lack of control than of deprivation, as was the case before, and drug use and drugs markets are viewed from a law-and-order perspective, rather than in public health terms. Within the scope of the cannabis debate, we see that there is more emphasis on the problematic aspects of cannabis use (Vuillaume, 2008). More specifically for the Netherlands, this leaves less room for coffee shops; the debate centres around the nuisance caused by coffee shops, the dilemma of the cannabis supply chain, and the dangers of cannabis use at an early age.

Garland describes how the boundaries between public and private spheres are blurring. While law enforcement was previously the unique domain of the state, increasingly responsibilities are being shared with citizens and with commercial enterprises. The possibility to report crime anonymously by phone (“MMA”) is an example of sharing this responsibility with citizens. However, involving citizens in safeguarding public order risks abuse for personal gain. Since MMA is anonymous, nothing is known about the individuals reporting suspected cannabis cultivation sites. Why do people report cultivation sites? Are the informers simply law-abiding citizens performing their civic duty, or do people abuse it to plague neighbours they do not get along with? Or will cannabis growers abuse the hotline to eliminate the competition, leading to the police unknowingly assisting criminals? The involvement of dismantling companies, who are hired by the police to dismantle cannabis cultivation sites, as well as energy companies, is an example of commercial enterprises being involved. This commercialisation of the dismantling activities might lead to companies taking advantage of the dependency of the police on their services and cooperation during these dismantling activities (see also Korf, 2011; Wouters, 2008). Commercialisation might also apply to law enforcement. Confiscations of criminal proceeds of cannabis cultivation sites covered around one third of all criminal proceeds in 2006. Court districts have concrete targets for proceeds of confiscations, and cannabis cultivation sites play an important role in achieving these goals. Finally, there is a risk of ‘goal displacement’ (Lipsky, 1980) taking place with the dismantling of cannabis cultivation sites; here dismantling a maximum number of sites might take precedence over the dismantling serving the purpose of public order and safety.

7.6 Methodological reflections
Although the data used in the various chapters were suitable for studying the issues put forward and in some ways even unique, they were not perfect. The methodological limitations will be discussed below, among which those related to the variables used, representativeness and causality.

Our measures for coffee shop availability had some limitations; one of the variables was not measured at an individual level, and another did not provide a large range of distances. Also, due to the skewed distribution of several variables, these were often recalculated into dichotomous variables. This also leads to less differentiation in the measures. Some of the variables had rather low cut-off
points, for instance for frequency of use or amount used, so when referring to ‘frequent’ or ‘more intense’ users, this does not represent a very intensely using group. Also, regarding cannabis buying behaviour, groups of non-buyers, coffee shop only buyers and (also) elsewhere buyers were distinguished. It should be noted that the last group still purchased most of their cannabis at coffee shops. Conclusions on the relationship between cannabis buying behaviour and intensity of use should therefore be treated with some caution. The fact that differences between these groups were found, however, is still interesting, especially since the difference in buying behaviour is relatively subtle. Also, the methods used in Chapter 5 are not perfectly suited to studying the causal relationship between raising the minimum age for coffee shops and prevalence of cannabis use. Ideally, other types of methods and data should be used to assess the influence of the change in minimum age for coffee shops; however, these were not available.

In three chapters, surveys were used to study cannabis use and cannabis buying behaviour. In Chapter 5, representative samples from a recurring study among students of secondary education in Amsterdam were used. The other two chapters (3 and 4) did not use random, representative population samples. Therefore, we cannot contend that the users surveyed are statistically representative of the entire population of cannabis users in the Netherlands. Since the proportion of current users of cannabis is low in the general population, a very large and prohibitively expensive sample would be needed to make generalizable claims about cannabis use and cannabis buying behaviour of all cannabis users in the country. For instance, in the most recent general population study on substance use in the Netherlands from 2009, 4.2% had used cannabis in the last month, or 242 of a total of 5,769 respondents (Van Rooij, Schoenmakers & Van de Mheen, 2011). From this proportion it can be deduced that inclusion of, for example, 800 respondents that had used cannabis, would have required about 19,000 respondents in total. Since this is a very costly and time intensive task, a more pragmatic solution was chosen, namely intercept survey strategies by interviewing convenience samples. For chapters 3 and 4 these convenience samples were recruited at neutral locations with regard to the types of cannabis users that might be present; either outside on the streets or in night life locations. Throughout the different chapters, different types of populations were studied, thus providing a large variation in types of cannabis users.

When studying minors, data from Amsterdam were used. The developments among school youth in this largest Dutch city is somewhat different from other cities in the country. Firstly, because the population characteristics are different. The percentage of ethnic youth increased much more compared to smaller cities. Also, population in urban areas is known to use cannabis more often (Van Laar et al., 2011). Thirdly, Amsterdam has a very high number of coffee shops which might influence the effect of raising the age limit. There also was a substantial overlap between ethnicity and educational level in the study among minors. For example, around two thirds of the students in lower level education were of non-Western ethnicity, while in higher education this was one third. In addition, educational level represents social economic status. Although technically this did not prove to be a problem in the logistic
regression analyses, the interpretation of the influence of ethnicity might be complicated by the overlap.

When looking at the relationship between coffee shops, and cannabis use and buying behaviour, there can be different effects for different sizes and locations of coffee shops. Some coffee shops are small and draw limited clienteles, whereas others are much larger and have far more customers. It has not been possible to take this aspect into account in the previous chapters. Larger coffee shops might be more often located near the border for instance, thus explaining why only a few such border towns emerged in Chapter 2 as having high coffee shop densities relative to the local population.

Although temporal precedence and determining covariation of cause and effect are possible to achieve when studying the consequences of policies, excluding other plausible explanations is much harder. Even when a more lenient drug policy is followed by an increase in drug use, or a more repressive drug policy by a decrease in drug use, there are other factors that need to be taken into account, for instance population characteristics. One of the ways to establish whether drug policy influences drug use is comparing policies and drug use levels of different countries. A problem is that many of the indicators of drug policy and of cannabis use are not easily comparable. In addition, formal policy is different from how a policy is implemented. For example, there are countries with stricter policies than the Netherlands, but because of the (lack of) implementation, in practice the situations might turn out to be similar; even though a behaviour is legally punishable, does not mean the punishment is always implemented. In the EMCDDA Annual report 2011, no direct association was found between prevalence rates in recent cannabis use and changes made to either increase or decrease penalties for use. According to the EMCDDA this suggests “that more complex processes are at work” (EMCDDA, 2011). Determining the causal relation between (changes in) drug policy and drug use prevalence is a complicated task.

7.7 Future studies

Earlier in this chapter, some suggestions for future studies have already been made. However, more issues for future research have emerged. In Chapter 4, current use and proximity to coffee shops did not correlate, but the early use of cannabis might still be influenced by the proximity or availability of coffee shops. Therefore, it would be wise to include the different stages of use in future studies. Research with a longitudinal design where different stages of using careers are studied can perhaps shed some light on this specific issue. A longitudinal study where different stages of use are studied would also be ideal to further unravel the relationship between availability of coffee shops and cannabis use. In such a design daily routines can also be included as factors of interest.

Since the current study showed that population characteristics influence the prevalence rates of cannabis use, in the future, studies on the consequences of changes in population characteristics for prevalence rates would be helpful in understanding changes in prevalence rates over time. So far, international comparisons have not been very helpful in understanding the influence of drug policies.
Taking the population characteristics into consideration, might help to understand international differences and similarities, and thus unravel the relation between drug policy and the use of drugs.

### 7.8 Policy reflections

An illegal (drug) market is hard to control, apart from trying to eradicate it completely. By condoning some of the sales, there are more possibilities for regulation. However, the criteria for condoning should ideally fit the practice of a drug market. When there is a discrepancy between the practice of the market and the rules, the chances of the rules being broken increases. In the current Dutch coffee shop policy one can see this happening among minors. If we assume raising the minimum age for coffee shops has worked to a certain extent as a general prevention measure, it may have had contradictory effects when considering targeted prevention. While general prevention measures aim to decrease risks for the entire population, targeted prevention aims at high risk groups specifically. Even with a minimum age of 18 for coffee shops, a substantial group of 16 & 17 year olds continue to use cannabis. And some of them buy their own cannabis. This group will have to buy cannabis through non-tolerated channels, thus experiencing marginalisation and increasing the risk of getting arrested. Since many already high risk groups of youth start using cannabis before their 18th birthday, this group might experience even further marginalisation than they would otherwise.

In the past years, there has been much debate about coffee shops in border towns. Some of the border towns experienced nuisance from drug tourists that visited the Netherlands to buy drugs. There was a lot of debate about the busy coffee shops that were frequented mainly by visitors from Germany, Belgium and France. In 2009 several of these coffee shops were closed (Beke & van der Torre, 2011). More recently, in addition to the AHOI-G criteria, the government introduced the B and I-criteria in October 2011. The B stands for ‘Besloten clubmodel’, which means that coffee shops will be transformed into private clubs, of which the members have to be registered. In addition, the I-criterion (‘Ingezeten’) states that these members must be residents of the Netherlands. These criteria have been introduced on May 1st 2012 in the Southern provinces of the Netherlands (Limburg, Noord Brabant and Zeeland), and are scheduled to be introduced in the rest of the country on January 1st 2013. At the same time, a limit of 2,000 members per coffee shop is planned at the national level. In addition, the minimum distance of 250 meters between coffee shops and schools for secondary education is to be expanded to 350 meters. The elections of September 2012 resulted in a victory for both the PvdA (progressive) and the VVD (right-wing). In negotiations to form a new government, the new criteria were altered somewhat, resulting in cancellation of the registration of coffee shop members. However, visitors of coffee shops will still need to identify themselves as residents of the Netherlands.

26 “Bruggen Slaan. Regeerakkoord VVD-PvdA. 29 oktober 2012.”
In the new Dutch drug policy memorandum of 2011\textsuperscript{27}, the aforementioned B and I-criteria were introduced, as well as more stringent measures regarding cannabis cultivation. It describes how the goals and assumptions of the policy are redefined, focusing on reduction of use, more specifically on the negative social and health consequences. Formerly, the drug policy was aimed at having a “realistic, evidence-based and proportional” drug policy\textsuperscript{28}. In addition, the new coffee shop policy is said to be aimed at: returning to catering only to the local population; controlling the number of coffee shops by taking the local situation into account; and carrying on the integral combat against organized crime (involved in cannabis cultivation).

Experiments with regulated cannabis cultivation are ruled out, because of international obligations. As Van de Wijngaart (1990) has said, it is hard to declare the Dutch drug policy a success or a failure, since it is impossible to know what the situation would have been, had the policy not been adopted. Even an informed guess about what the cannabis prevalence rates would have been otherwise, would be hard to make. In addition, drug use develops in the context of its specific cultural and historical situation. As Van de Wijngaart stated: “By its very nature, this understanding cannot simply be extrapolated to other social contexts.” (Wijngaart, 1990).

According to Nelen (2008) the evaluation of preventive measures is not easy, since the aim is to prove that the presence of the preventive measure is a plausible explanation for the absence of the phenomenon. He states that is not just important to know whether a preventive measure works or not, but also why it works, for whom it would (or would not) be successful and under what circumstances the measure would be effective. Overall, from the current study it can be concluded that the formal changes in policy has had consequences for enforcement and detection. It influences the shape cannabis cultivation takes, but not whether it takes place or not. Considering the consumer level, changes in the cannabis policy have influenced how cannabis buying takes place, but not whether cannabis users buy. Also, it seems to have a limited influence on the prevalence of cannabis use or the consumption of other drugs. Cannabis use, cannabis buying and cannabis cultivation are all dynamic behaviours that change shape according to the implemented policy, but policy does not influence the existence of these behaviours.

When considering Rational Choice Theory, it would make sense to not further limit the availability of coffee shops, since this would motivate more cannabis users to buy at illegal sales points – as can be concluded from previous chapters. In line with Rational Choice Theory, most cannabis users prefer buying at coffee shops. Therefore if the aim is to control cannabis consumption, the coffee shop would be a very suitable place to do this. For instance through education on risks of cannabis use and information on addiction care. In addition, the quality of the sold goods can be monitored more closely. From this study it becomes clear that increasing the threshold to coffee shops will make cannabis users less inclined to buy there. Cynically speaking one could say that humans are lazy beings that want the maximum gain with the least effort.

The introduction of the B- and I-criteria are not in line with Rational Choice Theory, since this would generate a decrease in coffee shop availability for Dutch residents. These new criteria are aimed at

\textsuperscript{28} Hoofdlijnenbrief drugsbeleid d.d. 11 september 2009. VGP/ADT 2955486 (2009).
reducing the number of drug tourists, but also have consequences for Dutch residents. However, both groups of cannabis users are potential customers for non-tolerated cannabis dealers. This leads to the careful conclusion that introducing the B and I-criteria will result in an increased illegal cannabis market, which – based on this study – will mainly take the shape of mobile phone dealers and home dealers, in addition to buying it through friends and acquaintances. It can be expected that many cannabis users that currently buy in coffee shops will not continue buying there (Korf, Wouters & Benschop, 2011). And as a result, the cannabis market will become less transparent, and risks to users will increase. Also, with an expanding illegal cannabis market the sales to minors, which already are partially taking place through an underground market, will most likely increase. The increased availability of cannabis through illegal channels will have an effect on the availability among minors, since a growing illegal market will make cannabis easier for them to buy. In future studies, it would be good to take a further look at the relationship between the coffee shop policy and cannabis use. Especially the introduction of the B- and I-criteria provides us with an excellent opportunity to study the effects of a diminished availability of coffee shops on the use of cannabis, buying behaviour and changes in the illegal market.

Nelen (2008) compared criminologists with Theseus walking through a labyrinth of proof, trying to find the way. Scientific evidence is not easy to interpret, and finding the truth is a complicated task. Although the last word about the effects of the Dutch drug policy has not been said, with the current study some of the outlines of the labyrinth have become more visible.