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HOW EFFICIENT IS SEVERE PUNISHMENT, OR: MORE PUNISHMENT, LESS CRIME?

1. INTRODUCTION

In the last few years, German as well as international criminology has increasingly posed the question to what extent the attitudes towards punishment within the population, or sanctioning by official instances of control and punishment have become harsher. It was often concluded that the population indeed asks for more severe punishment, at least for certain offender groups like sex offenders or (juvenile) violent offenders, and that especially the terms of imprisonment imposed by courts, partially due to harsher laws, have been tightened¹. During the past decades, the population has become more sensitive to discussions about crime and homeland security which can be ascribed to certain social developments.

Considering the avowedly or only latently expressed demand for harsher punishment, politicians too, especially in election campaigns, have discovered the topic of harsher punishment and have increasingly used it for their goals. This can be related mainly to the fact that they know which simple answers the public assumedly approves of: the announcement of harsher sanctions against certain offender groups is (almost) invariably well received. At least partially, the uncritical claim for still harsher sanctions is supported by the yellow press.

The new use of the deterrence principle as a guideline for juridical political decisions most likely can also be interpreted as a symptom of our zeitgeist. To the same extent as to which everybody is made responsible for himself, the state can shift off responsibility for an individual's misconduct: the particular person in his "evilness" has chosen to commit the misconduct bearing in mind the consequences (= severity of the penalty) self-determined and in his own responsibility. This approach corresponds with the Rational Choice theory which implicates that man is self-determined. Thus, the offender's responsibility is stressed, while society, environment or other possible factors that may influence the offender are neglected². In contrast, empirical findings

¹ Cf. H. Kury (ed.), *Fear of Crime – Punitivity. New Developments in Theory and Research*, Universitätsverlag Brockmeyer, Bochum 2008; K. Krajewski, "Punitivität der polnischen Gesellschaft", in: J. Obergfell-Fuchs, M. Brandenstein (ed.), *Nationale und internationale Entwicklungen in der Kriminologie. Festschrift für Helmut Kury zum 65. Geburtstag*, Verlag für Polizeiwissenschaft, Frankfurt am Main 2006, p. 485–506; A. Kossowska, I. Rzeplińska, D. Woźniakowska, W. Klaus, "Criminal Policy Based on Fear of Crime – Case of Poland", in: H. Kury (ed.), *Fear of Crime – Punitivity. New Developments in Theory and Research*, Universitätsverlag Brockmeyer, Bochum 2008, p. 371–392; A. Serrano-Maillo, "Punitivität und Gesetzgebung – die Situation in Spanien", in: H. Kury (ed.), *Kriminalität und Kriminalprävention in Ländern des Umbruchs*, Universitätsverlag Brockmeyer, Bochum 2006, p. 245–252.

² Cf. K.-L. Kunz, *Kriminologie – eine Grundlegung*, 4th ed., Haupt Verlag, Bern et al. 2004.

underline that with every year that is added to a prison sentence the additional amount of deterrence effect declines³.

While in western and northern European industrial countries like e.g. Germany the attitudes towards punishment are relatively moderate, people in the states of the former Soviet Union claim more severe punishment in surveys. For example, this also applies for the former German Democratic Republic, where the population grew up with standards including harsh punishment and “learnt that this way crime can and must be kept under control”⁴. The tradition of how offences are sanctioned within a country also affects the attitudes of the people towards what is “necessary” to provide homeland security. Thus, as soon as crime rates raise factually, in the form of registered increases, or only by the number of media reports, more of the active ingredient, i.e. even more or harsher punishment is claimed.

In the following article, by outlining concrete examples and results of juridical political measures introduced in several countries, evidence shall be gathered to help answer the question to what extent harsh punishments can help decrease crime rates. This question is of considerable importance, for especially imprisonments are immensely expensive, let aside the intensive intrusion they mean for the lives of the persons and their families concerned.

2. WHAT DOES (SEVERE) PUNISHMENT CONTRIBUTE TO CRIME PREVENTION?

Crime politics, especially in the USA, where much empirical evidence resulting from corresponding research activity is provided, doesn’t use criminological findings to an extent one would wish from a rational approach of politics⁵. One also has to consider, though, that even criminological findings are not usually generally accepted. While criminological discussions about factual, probable or only assumed effects of punishment outside the juridical political context are ongoing, the empirical evidence of the effects resulting from what politics actually did to decrease crime is rather neglected. In the following chapter, this deficit shall be qualified by taking a look at actions implemented by politics.

2.1. The example of the US

For decades criminal policy in the US has had a coining effect on the juridical political climate of other countries⁶. However, it is not so much discussed for its outstanding original or effective means but for the exceptional position of the US

³ M. Vilsmeier, “Empirische Untersuchung der Abschreckungswirkung strafrechtlicher Sanktionen”, *Monatsschrift für Kriminologie und Strafrechtsreform* 1990, No. 5, p. 273–285; cf. also M. Brandenstein, “Strafzweckerfüllungen als abhängige Variable der Zeit”, in: J. Obergfell-Fuchs, M. Brandenstein (ed.), *Nationale und internationale Entwicklungen in der Kriminologie. Festschrift für Helmut Kury zum 65. Geburtstag*, Verlag für Polizeiwissenschaft, Frankfurt am Main 2006, p. 357–394.

⁴ A. Kossowska, I. Rzeplińska, D. Woźniakowska, W. Klaus, op. cit.

⁵ Cf. K.F. Schumann, “Ist der Traum von einer rationalen Kriminalpolitik ausgeträumt?”, in: K.-L. Kunz, C. Besozzi (ed.), *Soziale Reflexivität und qualitative Methodik – zum Selbstverständnis der Kriminologie in der Spätmoderne*, Haupt Verlag, Bern 2003, p. 189–211.

⁶ Cf. K.-L. Kunz, op. cit., esp. § 16 MN 6.

internationally. Significantly, the US pursues a crime policy that is considerably harsh in international comparison. For grave offences capital punishment is still executed in 36 states⁷. Discussions about “Zero Tolerance”, “Truth in Sentencing”, or “Three Strikes” in the past few years and decades have resulted in the enforcement of several harsher criminal policies and procedures by the States. Sentences increased and therefore also the imprisonment rate. In relation to the population, the USA today (2008) leads the worldwide list of imprisonment rates by a big gap with 751 prisoners (per 100,000 inhabitants), which puts pressure on the whole federation as well as the individual states almost beyond a bearable extent. A large part of the US population shows harsher attitudes towards punishment than in western European countries. The dominating harsh crime policy in the US was repeatedly discussed, also by politicians, e.g. in Germany.

The lengths of prison sentences differ quite considerably from region to region in the US. In 2004, the number of convicted prisoners per 100,000 inhabitants reached 486 (without jails) altogether. In the north-eastern states, the average rate was 295, in the mid-west – 378, in the west – 425, and in the south – 540.

When comparing the imprisonment rates with the crime rates of individual states, a correlation can be found in the way that states with a higher crime rate tend to also have a higher imprisonment rate. Although these numbers are not consistent, the correlation is $r = .50$ (cf. Fig. 1).

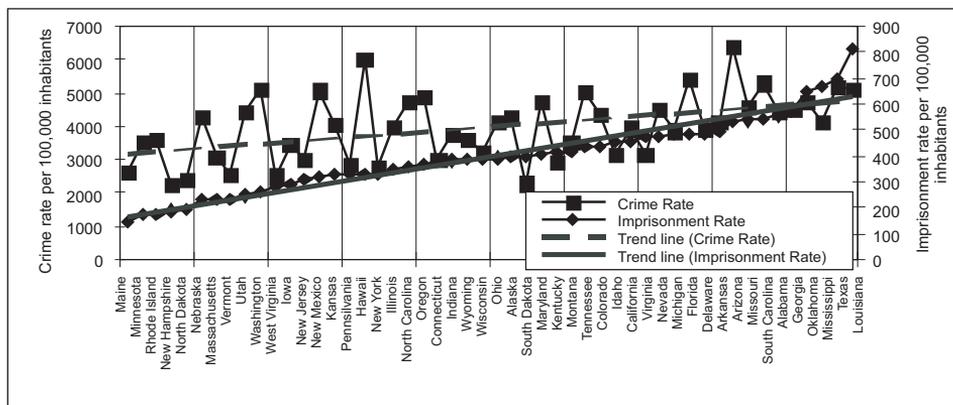


Fig. 1. Crime and imprisonment rate of individual US states for 2004, by imprisonment rate
 Source: Bureau of Justice Statistics: <http://www.ojp.usdoj.gov/bjs/>.

On the one hand, it seems plausible that a state with a higher crime rate needs to react more and therefore suffers a higher imprisonment rate. On the other hand, however, it has to be taken into account that from a deterrence point of view, and be it with a certain delay, the crime rate should decrease with rising imprisonment rates.

Of course, these figures can only be interpreted very carefully, all the more when considering that rather heterogenic purposes of punishment are pursued by criminal law. But what can be said is that there are huge differences between states. In the year

⁷ www.deathpenaltyinfo.org.

2004, the State of Louisiana had the highest imprisonment rate of 816 with a crime rate of 5,098. In comparison, North Carolina incarcerated less than half this amount (357) and with a lower crime rate of 4,721. Utah had an even smaller imprisonment rate with an even lower crime rate (4,452). Maine has the smallest imprisonment rate of 148 with a crime rate of 2,656. But the considerably higher imprisonment rate in Texas (694) compared to Washington State (264) obviously doesn't have a decreasing effect on the crime rate at all: in both states, the crime rate is approximately the same (5,190 vs. 5,107).

Similar crime rates despite considerably different imprisonment rates can be found e.g. in Michigan (3,874 – 483), Rhode Island (3,589 – 175), Wyoming (3,581 – 389), Minnesota (3,535 – 171), Montana (3,513 – 416) and Iowa (3,448 – 288). As we know from criminological research, the crime rate, among other factors, depends highly on the degree of urbanization within an area. That applies for these figures, too. While the crime rate in the entire US is 4,118.8, it reaches 4,409.1 in areas of capital cities where 80% of all inhabitants live, in other cities (8% of all inhabitants) – 4,524.0, and in rural areas (12% of all inhabitants) – only 1,908.7. For other groups of offenders, the crime rates are normally also lower in rural than in urban areas, except for homicides, where the crime rate in rural areas is lower than in areas of capital cities (which clearly have the highest rate), but higher than in other areas. These figures reflect the complexity of the conditions under which offences are committed. With regard to crime prevention, the severity of punishment, if at all, plays obviously only a minor role.

All in all states with low crime rates obviously do not have these because they punish harder or more, while states that punish relatively hard and extensively do not show lower crime rates. In line with theories of crime, it can be seen that obviously crime rates by far depend more on factors like e.g. socio-structural conditions etc. than on how the offences are reacted on in the context of sanctioning⁸.

Austin & Fabelo⁹ point out that after 1990 the crime rate for the whole USA declined: “Ironically, the decline in crime rates occurred for all states regardless of their use of prisons. At the same time, the financial crises in the states and unabated correctional costs have in turn put strains on the education and health and human services budgets. It is becoming increasingly clear that while prison systems are costing us more, they are becoming less effective in deterring crime.” As soon as opinions about the “crime problem” are voiced in the public, politicians tend to calm them down by promising harder punishment, a means that is easily implemented especially on a law level, while at the same time the attention is drawn off from the real, underlying social problems that accompany changing crime rates. Generating even harsher laws and promising to punish more severely demonstrates political action that takes care of the public's needs.

The general correlation between crime rates and imprisonment rates can also be found in terms of violent crime. Here, too, the imprisonment rate increases with the rate

⁸ Cf. e.g. D.R. Rose, T.R. Clear, “Incarceration, social capital, and crime: Implications for social disorganization theory”, *Criminology* 1998, No. 36, p. 441–479.

⁹ J. Austin, T. Fabelo, *The Diminishing Returns of Increased Incarceration. A Blueprint to Improve Public Safety and Reduce Costs*, The JFA Institute, Washington D.C. 2004, p. 2.

of violent crime, and again the ranges of registered violent crime differ considerably from state to state, and seem almost unaffected by the imprisonment rate (cf. Fig. 2).

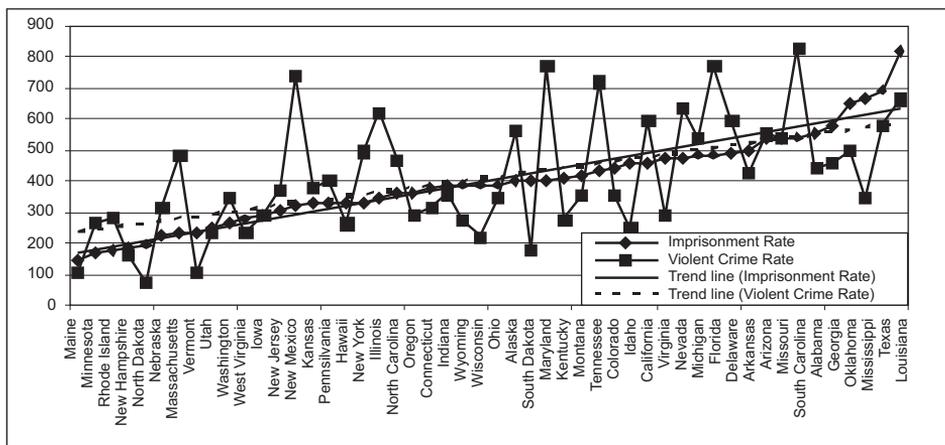


Fig. 2. Crime rates regarding violent crimes and imprisonment rates of individual US states for 2002
 Source: Bureau of Justice Statistics: <http://www.ojp.usdoj.gov/bjs/>.

When comparing the crime rates of states that use capital punishment to those that do not, doubts about a deterrent effect of this hardest sanction are confirmed. While in 1990 the homicide rates (number of registered homicides per 100,000 inhabitants) in states with death penalty amounted to 9.5, those without death penalty had a rate of 9.16 (-3.6%). Thus, the difference was relatively small but definitely didn't indicate a crime-reducing effect caused by the harshest punishment, rather the contrary. In the following years, the homicide rates in both sorts of states sunk considerably up to 2004, in the states with death penalty to 5.71, in those without to 4.02 (-42%). Thus, the homicide rates in the states without death penalty sank far more distinctly than in those states where the death penalty is still in use (cf. Fig. 3).

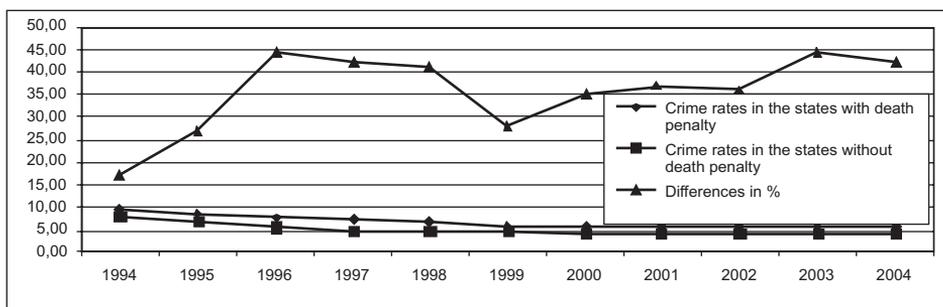


Fig. 3. Development of the homicide rates in states with and without death penalty with margins in percent between both groups
 Source: *Death Row Inmates by State and Size of Death Row by Year*, Death Penalty Information Center, Washington 2006, www.deathpenaltyinfo.org.

The number of imposed death penalties declined significantly from 1998 (300) to 2004 (125), to less than a half. This didn't lead to an increase of the crime rates, although one could think that from a deterrence point of view corresponding developments should be expected. The homicide rate decreased further, albeit in smaller gaps which may have to do with statistical effects¹⁰.

With regard to capital punishment and other grave sanctions in the US, a very critical correlation also has to be considered: repeatedly, it has been proven that over the past few years and decades to this day a superproportional amount of black people have been sentenced to death.

2.2. The example of Finland

Immediately after World War II, Finland showed a relatively high imprisonment rate of over 180 (per 100,000 inhabitants), while the corresponding rates of the other Nordic countries Denmark, Sweden, and Norway all amounted to a rate of about 60, i.e. a third of the Finnish rate. The Finnish government then undertook strict reforms that aimed at decreasing the imprisonment rate significantly. They managed to do so: within the following 40 years, the imprisonment rate sank to about 60 so that Finland reached a level comparable to their neighbour countries. The imprisonment rates in these Nordic countries hardly changed during this range of time. In Sweden it rose, in Denmark it declined, and by the end of the last decade all four countries had an imprisonment rate of about 60 (cf. Fig. 4)

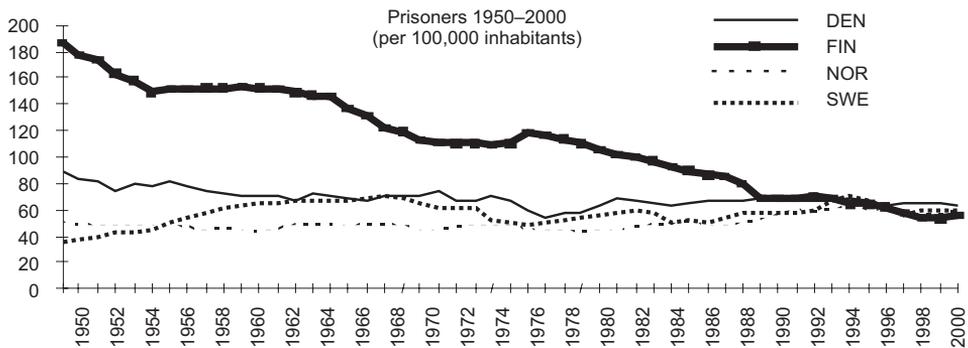


Fig. 4. Imprisonment rates in the Nordic countries: Finland, Denmark, Sweden and Norway, 1950–2000

Source: T. Lappi-Seppälä, "Penal Policy in Scandinavia", in: M. Tonry (ed.), *Crime and Justice: A Review of Research*, vol. 36, The University of Chicago Press, Chicago 2007, p. 217–295; idem, "Trust, welfare, and political economy. Explaining national differences in penal severity", in: M. Tonry (ed.), *Crime and Justice: A Review of Research*, vol. 37, The University of Chicago Press, Chicago 2008 (in print); S. Falck, H. von Hofer, A. Storgaard, *Nordic Criminal Statistics 1950–2000*, Stockholm University, Department of Criminology, Stockholm 2003, Report 2003/3.

Compared to earlier years, only a third of all offenders convicted to imprisonment served a sentence in prison. Again, if there was an efficient deterrent effect of impris-

¹⁰ Cf. *Death Row Inmates by State and Size of Death Row by Year*, Death Penalty Information Center, Washington 2006, www.deathpenaltyinfo.org.

onment, one would expect that with a decreasing level of punishment the crime rate in Denmark compared to those of the other Nordic countries would correspondingly rise quite clearly. The registered crime rate in Finland did indeed climb many times higher, but this rise was registered in all western European industrial countries, especially in the other three Nordic countries, while, as mentioned before, their imprisonment rates hardly changed. Compared to the crime rates of these countries, the rise in Finland was rather below average (Fig. 5).

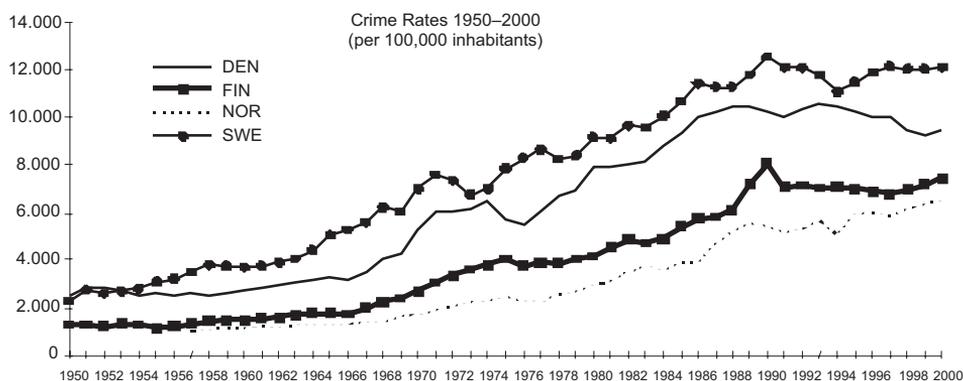


Fig. 5. Crime rates in the Nordic countries: Finland, Denmark, Sweden and Norway, 1950–2000

Source: T. Lappi-Seppälä, "Penal policy in Scandinavia", in: M. Tonry (ed.), *Crime and Justice: A Review of Research*, vol. 36, The University of Chicago Press, Chicago 2007, p. 217–295; idem, "Trust, welfare, and political economy. Explaining national differences in penal severity", in: M. Tonry (ed.), *Crime and Justice: A Review of Research*, vol. 37, The University of Chicago Press, Chicago 2008 (in print); S. Falck, H. von Hofer, A. Storgaard, *Nordic Criminal Statistics 1950–2000*, Stockholm University, Department of Criminology, Stockholm 2003, Report 2003/3.

Again, the rise of crime is obviously hardly attached to the level of punishment, but has rather to do with other factors, like social and environmental living conditions.

2.3. The example of Portugal

Another impressive example for the dubious effects of (harsh) punishments on the prevalence of crime can be found in Portugal, this time in the field of drugs which is a special and lively discussed area of deviant behaviour¹¹. Illegal drugs and their combat play a major role in practically every western industrial country. The US, for instance, extended its "war on crime" by "war on drugs"¹². By the end of the last decade, Portugal had a grave problem with illegal drugs. 369 drug fatalities were counted

¹¹ Cf. C. da Agra, *Requiem pour la guerre à la drogue: l'expérience portugaise de décriminalisation*, Porto 2008 (unpublished paper); J. Quintas, *Regulacao legal do consume de drogas: impactos da experiencia Portuguesa da descriminalizacao*, Porto 2006 (unpublished Ph.D. dissertation); J. Quintas, C. da Agra, *Criminalisation et décriminalisation de la consommation des drogues au Portugal*, Porto University, Faculty of Law, School of Criminology, Porto 2008 (unpublished paper).

¹² K. Beckett, T. Sasson, *The Politics of Injustice. Crime and Punishment in America*, SAGE Publications, Thousand Oaks et al. 2004, p. 60 ff.

in the year 1999, Germany in comparison counted 1,812 in the same year, whereas Germany has about 7.5 times as many inhabitants as Portugal (82.3 million vs. 11 million). By extrapolating the number of drug fatalities in Portugal for a population the size of Germany you receive 2,768 drug fatalities for Portugal (vs. 1,812 for Germany). The number of drug fatalities in Portugal in this light exceeds the analogous number in Germany by a factor of 1.5. Also, the number of drug casualties in Portugal drastically increased within the last year (1998: 337). In addition, infections due to drug consumption (especially HIV) rose from 434 cases in 1995 to 611 in 1999. In these areas, Portugal showed conspicuously high figures compared to other European countries. In many cities, but also in rural areas, an open drug scene had established itself.

This being the situation, the Portuguese Parliament came to the conclusion that the means of prevention, especially the applied sanctions against drug consuming were to no avail. In 1998, an international commission of scientists was asked to develop recommendations for a more constructive handling of illicit drug consumption. Already nine months later, a research report was presented that included the following recommendations:

- decriminalization of personal use and of possession of small amounts of hard drugs,
- implementation of substantial prevention programmes and measures to minimize addiction risks,
- extension of treatment and reintegration measures,
- expansion of scientific research in this field with strict evaluation of the implemented measures.

In order to consequently adopt these recommendations, the drug policy in the country was reorganized drastically. On 29 November 2000, the Portuguese Parliament passed Law 30/2000 that came into force in July 2001. According to this law, consumption and possession of all drugs for personal use, as long as it doesn't exceed the amount needed for about ten days, is no longer a crime. Drug use since then is regarded rather as a medical than as a juridical problem; the emphasis is on treatment, not on punishment. In cases of drug possession for personal use, the new law enables to scone a person with merely a fine of 25 € to 150 € which can even be suspended. Penal measures against persons that are "merely" drug addicts can therefore not be applied anymore, very well though, as hitherto, against drug dealers.

In connection with the international discussion and the subsequent enforcement of this law, Portugal was excoriated among others by the US and the UK, for making the country a "paradise for drug addicts". The effects of the new arrangement were consequently evaluated¹³. The results showed remarkable changes in terms of the structure and dimension of the drug problem, including the fact that the use of heroine and cocaine, i.e. hard drugs, declined significantly. On the other hand, the use of cannabis and amphetamines rose. However, these latter changes were hinted even before the new rules were put into force, and due to even more alarming developments in other European countries Portugal lost its top position among other European countries concerning the use of cannabis. Thus, in no way did Portugal turn into a "paradise

¹³ Cf. C. da Agra, *op. cit.*; J. Quintas, *op. cit.*

for drug addicts”, quite the contrary. The policy of tolerance in Portugal also had the effect that since 1998, the consumption of hard drugs and the possession of these drugs for personal use haven’t increased. Only 65% of the applied measures include imposed sanctions. A commission within the Health Ministry observes the development carefully, especially regarding the efficiency of prevention and supporting measures. The number of infections and death cases has become significantly smaller (cf. Table 1)¹⁴. However, the number of drug fatalities declined also in other European countries, e.g. in Germany from 2,030 in 2000 to 1,296 in 2006.

Table 1. Infections and drug fatalities through illegal drugs in Portugal per year

	1998	1999	2000	Total	(Aver.)	2001	2002	2003	Total	(Aver.)
Infect. (HIV)	605	611	528	1,744	(581)	505	433	271	1,209	(403)
Death Cases	337	369	318	1,024	(341)	208	156	152	516	(172)

These data indicate that persecution and sanctioning of drug addicts in order to reduce problems surrounding drug addiction are obviously hardly helpful. Penal measures have no or only very little favourable effect on the consumption of drugs, rather do they generate additional problems: money is obviously misspent for penal measures that have hardly any beneficial effects whatsoever, they rather intensify the problems of the affected, leave aside that the imprisonment of drug addicts is extremely expensive and costs money that is not available for other purposes. Drug addicts are forced into the underground, necessary medical help as well as support in coming off drugs can be provided less effectively. The penalization virtually drives drug addicts into drug-related crime, the prices of drugs on the black market increase which again retroacts on soaring drug-related crimes. Perfidiously, this cycle is all the more effective the more thoroughly law enforcement agencies pursue their task.

3. CONCLUSION

Over the past few years, an intensive criminological discussion has begun about the possible causes of a “new punitivity”. The discussion refers largely to the situation in the US, but increasingly also to European countries like Great Britain or Germany. Garland¹⁵ speaks of a “Culture of control” and of a “Culture of high crime societies”, and extracts numerous factors that could have led to the “punitive shift”. The initial point lies in the conclusion that the sanctioning policy has become harsher in many countries during the last decades, especially towards violent and sex criminals¹⁶. Lee¹⁷, for instance, sees the growing fear of crime as the main factor for the rising punitivity.

¹⁴ C. da Agra, op. cit.; J. Quintas, op. cit.

¹⁵ D. Garland, *The Culture of Control: Crime and Social Order in Contemporary Society*, University of Chicago Press, Chicago 2001; cf. also idem, “The Culture of High Crime Societies: Some Preconditions of Recent ‘Law and Order’ Policies”, *British Journal of Criminology* 2000, No. 40, p. 347–375.

¹⁶ Cf. S.A. Scheingold, *The Politics of Street Crime: Criminal Process and Cultural Obsession*, Temple University Press, Philadelphia 1999; M. Tonry, “Why Are U.S. Incarceration Rates So High?”, *Crime and Delinquency* 1999, No. 45, p. 419–437; idem, *Thinking About Crime: Sense and Sensibility in American Penal Culture*, Oxford University Press, Oxford 2004.

¹⁷ M. Lee, “The Genesis of ‘Fear of Crime’”, *Theoretical Criminology* 2001, No. 5, p. 467–485.

A corresponding crime policy may retroact on public attitudes to punishment. A rise of support for harsh punishments in the public can be found in such different countries as the US, Great Britain, or Japan, not as much in Germany though, although there are some tendencies of the public to approve of a harsher treatment of certain offender groups like violent and sex criminals.

From the viewpoint of crime prevention, long terms of imprisonment or even capital punishments are little effective. Threatening with long terms of imprisonment has hardly any deterrent effect. Apart from a relatively small number of dangerous offenders who have to be kept away alone for security reasons, it makes no sense, because it has no (beneficial) effects to incarcerate people for years when they have committed a crime, unless this time is used for measures of rehabilitation – which is not pursued regularly. Merely locking away the offenders and occupying them with mostly stultifying activities costs much money that could be used more sensibly, it jeopardizes their social competences and harms the prisoners even more, instead of rehabilitating them. In addition, the families who often play a key role within the rehabilitation process suffer considerably.

Offenders are increasingly kept in prisons without being released prematurely and therefore more often have to serve the full length of time of their prison sentence. It would be more sensible to offer rehabilitation measures to the prisoners straightaway and to offer the chance of a suspension of their sentence if they are willing to cooperate and make an active effort to prepare themselves for a life as an integrated member of society. Offering assistance would be more motivating than keeping them locked away in prison without any measures for help and rehabilitation. The possibilities of early releases should be used specifically to motivate the prisoners to change their lives and to cooperate as much as is appropriate within rehabilitation programmes. They need a clear perspective about how they can expect to be treated, in the case they decide to make a noticeable contribution to a future life without crime. If so, they should systematically receive the opportunity to be released on parole, as long as they do not show an indication of committing (severe) crimes in the future. The terms of imprisonment, then, would on average be shortened instead of extended which would also relieve the prisons. Considering these aspects, releases on parole as well as the establishment of open prisons should be extended, not restricted.

Paragraph 10 of the German General Penal Law declares the open prison to be the standard prison form which makes this form superior to the closed prison form¹⁸. But not only have these guidelines never been converted consequently on an administrative level, meanwhile even the German juvenile penal laws have repelled the prioritization of open prisons. Sanctions, also imprisonments, can indeed play an important role in respect of rehabilitative effects, especially then when they are connected with treatment offers¹⁹. Locking them away, particularly for many years, has hardly any rehabilitative effects, and is quite expensive.

¹⁸ Cf. also P. Höflich, W. Schriever, *Grundriss Vollzugsrecht. Das Recht des Strafvollzugs und der Untersuchungshaft für Ausbildung, Studium und Praxis*, 2nd ed., Springer, Berlin 1998.

¹⁹ Cf. for efficient treatment measures: W. Heinz, *Rückfall- und Wirkungsforschung – Ergebnisse aus Deutschland*, Lecture on 5 April 2007, Kansai University, Osaka, http://www.uni-konstanz.de/rtf/kis/Heinz_Rueckfall-und_Wirkungsforschung_he308.pdf.