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## **Delinquent Behaviour in Nordic Capital Cities**



**Scandinavian Research Council for Criminology  
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in Nordic Capital Cities**  
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# CONTENTS

## Foreword

1	FIFTY YEARS OF NORDIC SELF-REPORT RESEARCH.....	1
	Self-reported delinquency in Nordic capitals during early 1960s .....	2
	<i>Small-scale studies in Oslo, Uppsala and Gothenburg, 1959–1962</i> .....	2
	<i>Nordic Draftee Research (NDR) Project, 1961–1964</i> .....	3
	<i>A “failed project”?</i> .....	3
	<i>Meaningful pattern, after all?</i> .....	4
	<i>Possible interpretation</i> .....	6
	Subsequent developments in Nordic self-report research.....	8
	<i>From centre-stage to margin</i> .....	8
	<i>Re-emergence in the 1990s</i> .....	10
	The Nordic society .....	11
	<i>Similar societies</i> .....	12
	<i>Low repression and unity of laws</i> .....	12
	<i>Socially embedded crime prevention</i> .....	13
	Recent comparative studies of Nordic youth.....	14
2	SELF-REPORT METHOD IN CRIMINOLOGY.....	17
	Psychological foundations of self-report crime research.....	18
	<i>Autobiographical memory</i> .....	18
	<i>Differential salience of events</i> .....	18
	<i>Function of confession</i> .....	19
	Reliability.....	20
	Validity.....	20
	<i>Content validity</i> .....	20
	<i>Construct validity</i> .....	21
	<i>Criterion validity</i> .....	22
	<i>The problem of over-reporting and jokesters</i> .....	26
	<i>Cultural feasibility of the method</i> .....	27
	Criticism of “School Criminology” .....	32
3	DELINQUENT BEHAVIOUR IN NORDIC CAPITALS.....	35
	Data and principles of description .....	35
	<i>Research location</i> .....	35
	<i>Sample and response rate</i> .....	36
	<i>Data collection</i> .....	38
	<i>Age composition</i> .....	38
	<i>Descriptives and tests</i> .....	39
	<i>The problem of incidence estimates</i> .....	40
	<i>Report focus</i> .....	42

Substance use .....	43
<i>Prevalence of substance use</i> .....	43
<i>Additional data sources on substance use</i> .....	45
<i>Prevalence of substance use by grade</i> .....	46
<i>Prevalence of substance use by sex</i> .....	49
<i>Incidence of substance use among users</i> .....	49
<i>Summary</i> .....	50
Theft .....	51
<i>Prevalence of theft</i> .....	51
<i>Prevalence of theft by grade</i> .....	54
<i>Theft participation by sex</i> .....	55
<i>Incidence of theft among offenders</i> .....	56
<i>Summary</i> .....	57
Violence .....	57
<i>Prevalence of violence related offences</i> .....	58
<i>Prevalence of violence by grade</i> .....	60
<i>Violent behaviour by gender</i> .....	62
<i>Incidence of violence among offenders</i> .....	62
<i>Summary</i> .....	63
Other offences .....	63
<i>Prevalence of property destruction, hacking and drug selling</i> .....	64
<i>Other offences by grade</i> .....	64
<i>Other offences by gender</i> .....	65
<i>Incidence of property destruction, hacking and drug selling among offenders</i> .....	66
<i>Summary</i> .....	66
General patterns .....	66
<i>Gender structure of delinquency</i> .....	67
<i>General offending intensity</i> .....	68
<i>General delinquency patterns?</i> .....	71
Age of delinquency onset.....	73
<i>Methodological limitations</i> .....	73
<i>Age of onset as reported by seventh graders</i> .....	73
<i>Age of onset as reported by ninth graders</i> .....	76
<i>Summary</i> .....	77
Police contact .....	77
<i>Adolescents with police contact</i> .....	78
<i>Police contact likelihood in Nordic capitals</i> .....	79
<i>Police contact likelihood in Reykjavik</i> .....	81
<i>Police contact and offence intensity</i> .....	82
<i>Summary</i> .....	83
Summary of core findings.....	83
<i>Prevalence</i> .....	84
<i>Incidence</i> .....	85
<i>Patterns</i> .....	85

<i>Age of onset</i> .....	86
<i>Police contact</i> .....	86
<i>Reykjavik seventh graders</i> .....	86
<i>Impact of immigration</i> .....	87
4 THE CONTINUING NEED FOR SELF-REPORT STUDIES IN THE NORDIC AREA .....	89
Trends of delinquency in the Nordic area.....	90
Explaining the increase in law-abiding behaviour.....	92
<i>Distal control factors: demography</i> .....	92
<i>Proximate control factors: technology and policy</i> .....	95
<i>Change in attitudes</i> .....	96
<i>Cultural adaptation to economic strain</i> .....	97
<i>Other factors</i> .....	99
The next 50 years .....	100
<i>Draftee or school based system?</i> .....	101
<i>Developing national systems or creating a new indicator?</i> .....	101
<i>Need for wider context</i> .....	103
Literature .....	105
Appendix 1–4 Prevalence tables by gender .....	111
Appendix 5 The main offence questions of the ISRD-2 questionnaire in Nordic languages and in English.....	115
Appendix 6 Influence of weights in Copenhagen sample.....	117

## FOREWORD

The core of the empirical part (Part II) of this research publication is based on the *International Self-Report Delinquency Study 2* project. The project constitutes the second sweep of an international self-report delinquency survey.

The Nordic ISRD-2 data collection was financed, and co-ordinated in the Nordic context, by the Scandinavian Research Council for Criminology. The Nordic data collectors and their institutional affiliations are presented on a separate page. The Scandinavian Research Council for Criminology commissioned Janne Kivivuori to write this report, submitting the Nordic capital city sample to him for the purpose of writing the country report of the Nordic area. Dr. Kivivuori acts currently as the Research Director of the criminological unit of the Finnish National Research Institute of Legal Policy.

The Part II of this report describes the prevalence and intensity of delinquent behaviour in Nordic capitals. Concentrating on the capital cities, the report excludes the medium-sized city and small town samples collected in Sweden and Denmark. Clearly, more in-depth work remains to be done at both national and international levels.

The SRCC and the author of this report wish to express their warmest thanks to all members of the ISRD-2 steering group. Professor Josine Junger-Tas deserves to be singled out as the person whose tireless efforts have laid a solid foundation for the ISRD project.

Two anonymous referees selected by the Council have accepted this manuscript for publication. Mikko Aaltonen, Flemming Balvig, Mirja Kytökari, Britta Kyvsgaard and Jonas Ring also contributed to the report by commenting the manuscript. The report builds on the work of researchers who collected the national data. Of course, the most crucial contribution was made by the several thousand Nordic youths who participated in the study.

The author of this report has used the occasion to highlight the long tradition of Nordic self-report delinquency research, spanning a time period of nearly half a century. As it happens, when the Scandinavian Research Council of Criminology was established in 1962, its very first research initiative was a Nordic comparative self-report delinquency study. By commissioning this report, the Council is thus both reflecting on its own past and strengthening the future of Nordic self-report delinquency studies.

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# 1 FIFTY YEARS OF NORDIC SELF-REPORT RESEARCH

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The basic aim of this report is to describe findings of a self-report delinquency study which was conducted in all Nordic countries in 2006. This comparative work is based on a wider international co-operation in the context of the International Self-Report Delinquency Study Project (ISRDP) which comprises most European nations and the United States. In the Nordic area, the measurements were financed and co-ordinated by the Scandinavian Research Council for Criminology.

In many ways, the major role of the Scandinavian Research Council for Criminology (SRCC) was a logical continuation of a long tradition. The very first large-scale Nordic research project sponsored by the Council was a self-report delinquency study, the Nordic Drafter Research project (NDR). The data of the NDR were collected in Oslo, Copenhagen, Helsinki and Stockholm in the years 1961–1964. Through this report, the Nordic criminological research community returns to its roots by publishing self-report findings based on measurements in the same capital cities, plus the capital of Iceland, Reykjavik.

In this introductory chapter, I take the opportunity to re-visit the early days of the Nordic self-report delinquency research. First, because this study is about comparative self-report delinquency research in Nordic capitals, it is only natural that the most important predecessors are reviewed in some detail. Second, in view of the upcoming 50<sup>th</sup> anniversary of Nordic self-report research, some aspects of *research tradition* are highlighted. Third, I will utilize the historical angle to describe the *general social context* of this study. The Nordic societies form in many ways a homogeneous cluster when compared with other industrial or post-industrial nations of the world. As illustrated below, during the half-century which separates this study from its distant predecessor, the Nordic Drafter Research project, the societal outline of the Scandinavian countries has become even more homogeneous.

## Self-reported delinquency in Nordic capitals during early 1960s

### *Small-scale studies in Oslo, Uppsala and Gothenburg, 1959–1962*

If one year must be named as the year when Nordic self-report delinquency research tradition began, the year 1959 would be a strong candidate. In the spring term of that year, 125 male students in the law faculty of the University of Oslo, Norway, received a questionnaire containing 18 questions about the respondents' criminal behaviour. While it is impossible to say whether it was the first of its kind in the Nordic area, it was nevertheless one of the most significant early experiments. At first, the researchers did not even intend to publish the results (Andenaes et al. 1960, 102), but had a change of heart after reviewing the data at hand. They reported, for example, that 30 per cent of the law students had shoplifted, 12 per cent had participated in breaking and entering, and 22 per cent had committed other types of theft (ibid. 103). These figures were high enough to provoke sustained attention.

In the autumn of the same year (1959), a similar study of law students was conducted in the University of Uppsala (Nyquist & Strahl 1960). The Uppsala report was published in the journal *Nordisk Tidsskrift for Kriminalvidenskap* as part II of the Norwegian study. Yet another replication was fielded next year in Gothenburg, this time with students of medicine (Forssman & Gentz 1962). The Uppsala study had 98 respondents, the Gothenburg study 164 respondents. Both Swedish studies used variants of the Norwegian questionnaire.

Considered together, these three small-scale studies can be seen as a kind of miniature or nucleus version of the ambitious all-Nordic scheme that was to follow.<sup>2</sup> The Norwegian team considered the results so interesting that they needed to be repeated in a representative sample (Andenaes et al. 1960, 102). The team lived up to its own recommendations by creating the innovative draft research concept.

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<sup>2</sup> There is another lineage of Nordic self-report research, namely Elmhorn's (1969) research of the Stockholm school population in the early 1960s. That study was originally a methodological appendix of the Swedish 1957 *Klientelundersökning*. I emphasize the "NDR lineage" because the present study (ISR-2) resembles it in its comparative outline.

### ***Nordic Draftee Research (NDR) project, 1961–1964***

After the small-scale student samples, the Norwegians launched an ambitious large-scale study. The core idea was ingenious: young men were researched while being drafted to the army. The brilliance of this idea was that all young men were required by law to attend a drafting session. The study was conducted by the newly founded Nordic Research Council for Criminology. One of its first major concerted efforts was to disseminate the Norwegian draft model to other Nordic countries. Finland followed suit in 1962, Denmark and Sweden two years later (Stangeland & Hauge 1974, 18–19). All these studies based their national questionnaires on the Norwegian original, even though there were quite a lot of variations.

According to Stangeland and Hauge (1974, 39), NDR had two major goals. First, each country wanted to illuminate the patterns of crime and to test criminological theories. Second, and possibly the most important goal, was to undertake a thorough evaluation of the validity of recorded crime statistics. Each country wanted to know to what extent crime statistics reflected the real or full extent of crime. It was even thought that if the recorded crime statistics would prove very unreliable, each nation should repeat a self-report survey annually.

The early self-report researchers soon found that there was an in-built problem in transferring a national model to another country: national conditions and laws would dictate the use of national questions, but the need to compare the results cross-nationally meant that other countries should follow the Norwegian model closely. Thus the national questionnaires became compromises between comparability and national idiosyncrasies (Stangeland & Hauge 1974, 40).

### ***A “failed project”?***

A large comparative report comparing the findings of the Nordic draftee studies was never written. Greve (1972) published a comparison table in the Danish report. A decade after the original data collection, Stangeland and Hauge (1974) compared the results from Oslo, Helsinki, Copenhagen and Stockholm in their 1974 book *Nyanser I grått*.

Stangeland and Hauge bluntly stated that as a comparative research project, the Draftee study was a failure (*mislykket*) (Stangeland & Hauge 1974, 41). The reasons were many: Due to differences in military legislation, the age of the draftees differed slightly. The first Nordic draftee sweep 1961–1964 was based on modular samples. Each country sampled a big city and a small rural location. In Finland, these were respectively Helsinki,

the capital of Finland, and the Lappish town of Rovaniemi. Especially the rural towns selected to modular samples were not necessarily of the similar type. The inclusiveness of the drafting sessions also varied across nations (Stangeland & Hauge 1974, 42–44).

A major reason for the failure to compare nations was that the questions were not standardised. Discrepancies in question wording reduced the possibility of direct comparison. Stangeland and Hauge nevertheless summed up comparative findings for 12 offence categories. They did not present exact prevalence levels but divided the levels into three categories: low, middle and high criminality. Their conclusion was that the prevalence of various crime types was *very similar* among the young males of the Nordic capitals. In all four nations, rare offences tended to be rare, and frequent offences frequent. This as such is an interesting finding. Young males in the Nordic countries were equally involved in delinquent behaviour.

### ***Meaningful pattern, after all?***

No reanalysis of the original data is possible since only the Finnish 1962 data are available.<sup>3</sup> However, patterns can be detected on the grounds of published prevalence levels.

Stangeland and Hauge classified lifetime prevalence levels of 11 offences into three categories: low, middle and high prevalence. If these are given numerical values (low=0, middle=1 and high=2) and then summed, Copenhagen and Helsinki score 1,0, and Stockholm and Oslo 0,8 (mean score). The comparison thus suggests that in the early 1960s, young males in Copenhagen and Helsinki tended to be slightly more criminally active and/or versatile than their counterparts in Stockholm and Oslo.

In an attempt to go one step further, the published NDR results can be re-examined by transferring the original prevalence percentages to ranks. In this re-analysis, I used the table published by Greve (1972, 53). It should be noted, however, that this kind of transformation does not add any information or produce more accurate estimates. Instead, the idea is to reduce “noise” in the data. It should also be noted that the original draftee data are not based on samples; the data included all respondents in the selected research locations. In principle, all differences in the sample should equal population values, so that there is no need to ponder the question of statistical significance.

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<sup>3</sup> The Finnish 1962 questionnaires were stored in the archives of the National Research Institute of Legal Policy. The data were transferred to electronic format in 2006, and will be used as comparison material when the draftee study is replicated in Helsinki.

The rank transformation is shown in Table 1. The highest prevalence figure received the value 4, the second highest 3, the third highest 2, and the lowest 1. If only three observations were available, the highest prevalence scored 3, and so on.

**Table 1** Reanalysis of Nordic Drafted Self-report Delinquency Study (1961–1964) findings: ranks of lifetime prevalence.<sup>a</sup>

	Copenhagen	Oslo	Helsinki	Stockholm
<i>Theft dimension</i>				
Smuggling	4	2	1	3
Theft (workplace)	3		1	2
Shoplifting	1	3	2	4
Theft (restaurant)	4	4	1	2
Theft (vehicle)	3	1	2	4
Theft (vending machine)	2			1
Restaurant fraud	4	2	1	3
Receiving stolen goods	1	3	2	4
<i>Mean rank</i>	<i>2,8</i>	<i>2,5</i>	<i>1,4</i>	<i>2,9</i>
<i>Sex, drunkenness and vandalism dimension</i>				
Sex offence	3	1	3	4
Disturbing drunkenness	2	1	3	
Drunken driving	4	2	3	1
Vandalism	1		3	2
Breaking and entering	1	2	4	3
<i>Mean rank</i>	<i>2,2</i>	<i>1,5</i>	<i>3,2</i>	<i>2,5</i>

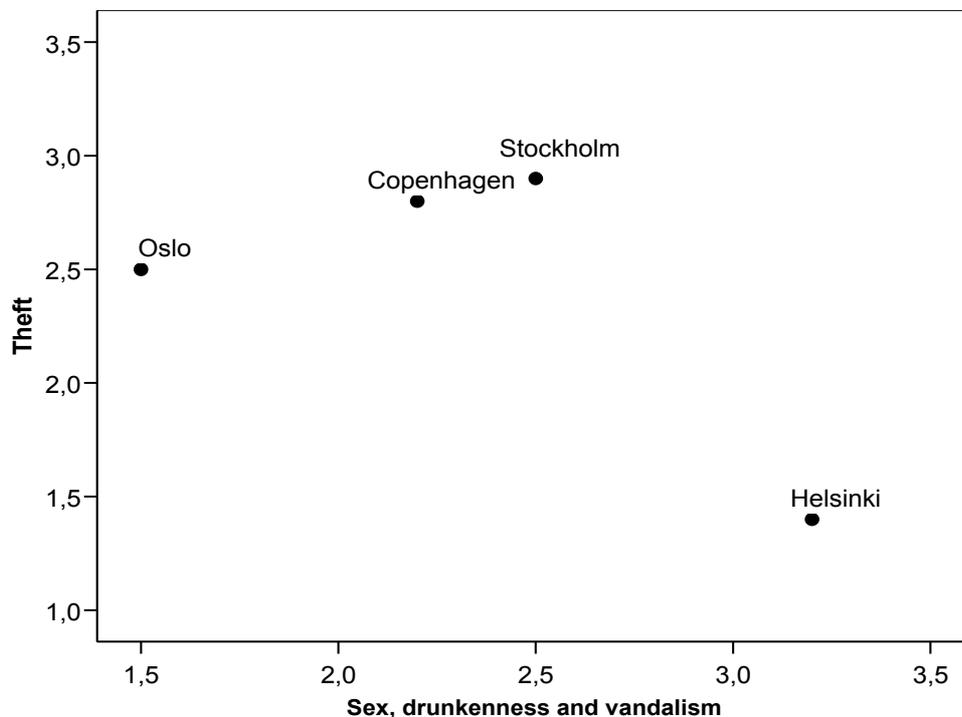
a) Based on prevalence tables of Greve (1972, 53) and Anttila (1966, 15).

The offences are not in the same order as in the original Greve table. Instead, the offences are divided into two clusters or dimensions: the first dimension includes theft related offences, the second all other offences, including sex offences, drunkenness related offences, vandalism, and breaking and entering. The inclusion of breaking and entering into this dimension (as opposed to theft) is justified because it involves more aggressiveness (forcible entry, damage to property, etc.) than theft by stealth. It is also a more serious offence than the offences of the theft dimension. The overall patterns do not change, however, if breaking and entering is excluded.

When ranks are used as the basis of re-examination, a tentative pattern emerges. To my knowledge this pattern was not detected by the original NDR research crews. Clearly, the Finnish males score the highest ranks on the dimension of sex, drunkenness and vandalism. Separated by a wide margin, they are followed on this dimension by Stockholm and Copenhagen males. The Oslo males scored the lowest ranks on this dimension.

In contrast, the theft dimension produces a different constellation. Stockholm and Copenhagen males tend to rank the highest on this dimen-

sion, followed in close proximity by the young males of Oslo. Helsinki males, on the other hand, score consistently low ranks on theft dimension.

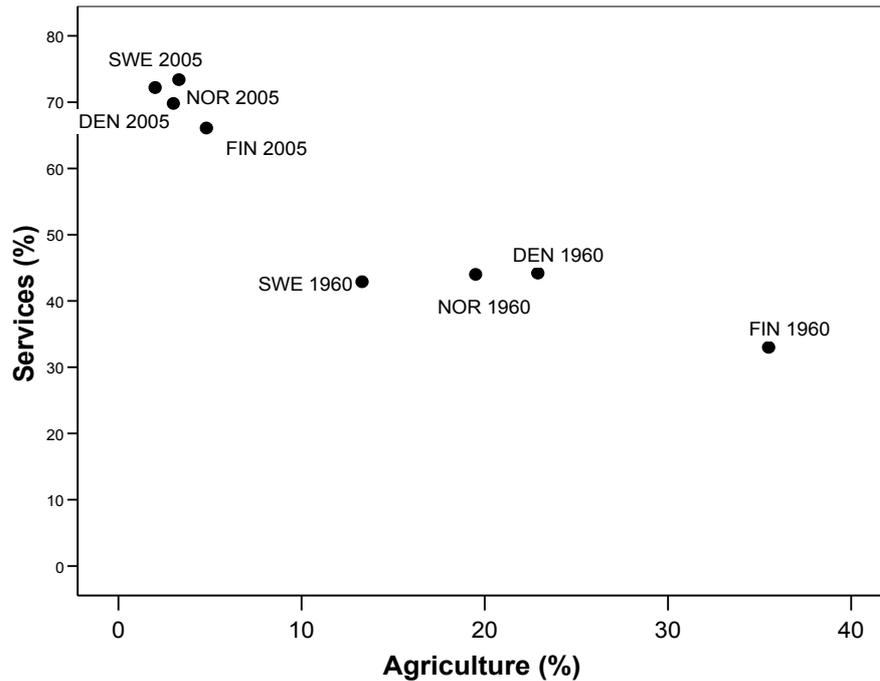


**Figure 1** Ranks of young males in the Nordic capitals on two delinquency dimensions. Re-analysis of the Nordic Drafter Self-report Delinquency Study findings from 1961–1964.

### ***Possible interpretation***

The pattern shown in Figure 1 above is interesting because it seems to have a meaningful interpretation related to the description of the general social context of the Nordic societies, and how that context has evolved during the past 50 years. If we look at the individual items of the theft dimension, many of them are clearly related to a *relatively affluent lifestyle*. Witness the inclusion of two offences which can only be committed by people who go to restaurants in the first place (restaurant theft and restaurant fraud). Workplace theft is probably also related to a specific opportunity structure: if men have jobs with plenty of items to steal, this is reflected in the prevalence. Differences in shoplifting may also be associated with differences in the level of general commercialism and possibly the structure of retail market. Cities that score high theft rank probably possess a more advanced kind of opportunity structure.

This is consistent with the fact that in the early 1960s, the Nordic countries were more dissimilar than they are today. Finland had a much lower standard of living than its three Nordic neighbours. For example, the Finnish economy was more agriculture-driven, and the proportion of people employed in the service sector was lower than in other Nordic countries. Figure 2 below underscores these differences and their gradual diminishment; today all Nordic countries are post-industrial economies.



**Figure 2** Socioeconomic structure of Nordic countries in 1960 and 2005. The proportion (%) of labour force employed in agriculture and service sector.

In 1962, only 18 years had passed since the war between Finland and the Soviet Union ended. Much of the post-war years were dominated by massive war compensations which were completed in 1952. The Finnish draftee respondents of 1962 had been born during the war and lived their childhood in a post-war economy. This societal background may explain why young Finnish males comparatively rarely committed thefts such as restaurant fraud, but scored high on the dimension of sex, drunkenness and vandalism. In contrast, the high ranks of Stockholm and Copenhagen on the theft dimension may reflect the affluence of these societies and the particular opportunity structures created by that affluence. Oslo is close behind on theft dimension but is particularly low on sex, drunkenness and vandalism.

## Subsequent developments in Nordic self-report research

### *From centre-stage to margin*

The Nordic Drafee Research program did not “take off” in the sense of becoming a repeated instrument like the modern ICVS (International Crime Victims Survey), or some national crime victimisation studies such as the British Crime Survey. In 1967, Norway repeated the drafee survey with a refined sampling frame. However, the second Norwegian sweep was the last of its kind. In 1975, the Finnish criminologist Patrik Törnudd noted that the enthusiasm for self-report research had “died away”:

When the first enthusiasm over self-reported criminality studies had died away, criminologists had to admit that occasional dark number studies could only offer a means of checking the validity of crime statistics, but could never replace these statistics. (Törnudd 1996 [1975], 42.)

There are probably multiple reasons why self-report research moved from centre-stage to the margin of Nordic criminology. As noted above, the final report of the NDR, published in 1974, regarded the project as a failure because many technical obstacles made international comparison nearly impossible. Stangeland and Hauge (1974, 48) noted that the NDR suffered also from many other defects: No one person or body directed the operation, and years could pass without anyone engaging in comparative work. When comparison was finally attempted, the researchers were different people than those who had initiated the project. Stangeland and Hauge also blamed “improvised research milieus” and suggested that the NDR project should have been based on a more solid team of social scientists.

The Nordic report writers had several additional arguments against large-scale self-report research. They pointed out that the NDR results largely replicated the findings of the early pilot studies of university students (Stangeland and Hauge 1974, 111–113). On the other hand, they also criticised the choice of young people as research objects. Young people were studied because they were easy to study and allowed themselves to be studied, as opposed to, say, bank directors who probably would have been more reluctant to respond to self-report surveys on economic crime. Studying young people meant that criminologists chose to study what was easiest to study, not what was important to study (Stangeland & Hauge 1974, 114). Stangeland and Hauge were early critics of what has later been called

“school criminology”, i.e. criminological research using easily available school populations.

According to Stangeland and Hauge, the way forward was not to use more sophisticated survey techniques in order to “look more scientific”. Instead, they recommended other methods such as participant observation, action research, and historical analyses. Quantitative data were not a primary means of understanding reality. They also referred to popular protests against governmental data gathering. (Stangeland and Hauge 1974, 114–118.)

Interestingly, Stangeland and Hauge recommended that self-report surveys should be replaced by victimisation surveys. While recognizing some of the drawbacks involved (such as inability to measure crimes without victims, and inability to describe offenders), they favoured victimisation surveys over self-report surveys. They also reflected that, as an alternative statistical source, self-report and/or victimisation surveys should be conducted either by the national statistical bureau or some opinion research firm (Stangeland & Hauge 1974, bid. 116–117). Whichever method would be chosen, the point was that academic researchers should involve themselves in other types of research.

In sum, the relative eclipse of the self-report delinquency research in the Nordic area reflected several developments. *First*, there were technical problems with the NDR design, making comparative work nearly impossible. *Second*, the NDR results partially supported the use of official statistics, because it was found that police detection likelihood reflected offending frequency (Christie et al. 1965). *Third*, during the pre-computer and early computer age, quantitative analysis was relatively difficult and time-consuming. *Fourth*, the spirit of the times took an anti-positivist turn. The early NDR design had reflected the influence of empirically oriented American social science. This emphasis lost much of its appeal towards the end of the 1960s as researchers wanted to engage politically and started to criticise quantitative methods. *Fifth*, to the extent that quantitative research was to be exercised, victimisation research was preferred to self-report research. At least in Finland, the 1970s and 1980s saw important progress in the development of national victim surveys, while the development of self-report crime surveys was brought to a virtual standstill.

### *Re-emergence in the 1990s*

The history of Nordic self-report research in crime and delinquency can be roughly divided into three phases: The first phase was one of enthusiasm and bold comparative designs, symbolised by the above described Nordic Drafee Research program. This phase centred around the data collection years of the NDR (1961–1964), but if the pilot phase and the extended period of reporting are included, the first phase spanned the years 1959–1974, starting with a short enthusiastic paper by Andenaes et al. (1960) and ending with the rather gloomy monograph by Stangeland and Hauge (1974). The second phase was one of relative standstill in the development of self-report indicators.

The third and current phase can be described as the re-emergence of self-report crime and delinquency studies in the Nordic area. This new period started in 1995 when both Finland and Sweden established national self-report delinquency indicators based on nationally representative samples of ninth graders (Ring 2003; Kivivuori 2005; Svensson 2006). The work that led to the Finnish national questionnaire (Kivivuori 1995) was partially financed by a SRCC research grant. However, the role of the SRCC was not as decisive in this development as it had been in the first NDR phase. The Swedish and Finnish national indicator systems were established independently from each other: In Finland, the National Research Institute of Legal Policy launched a national self-report indicator system in 1995. In Sweden, a similar system started at the same time, initiated by the Department of Criminology at the Stockholm University. After the first two sweeps the system was transferred to the Swedish National Council for Crime Prevention (Brottsförebyggande rådet). It is possible that the re-emergence of self-report studies was a natural consequence of the gradual increase in criminological research and university education in general.

The re-emergence of self-report delinquency studies in the Nordic area was an international development from the outset. In Finland, the national system was influenced by participation in the first sweep of the ISRD (Aromaa 1994). Finland was the only Nordic nation to participate in that study. In 2002–2003, Finland participated in the *Mare Balticum* research project, a survey of youth violence in the cities on the Baltic rim. Organised and directed by the German university of Greifswald, the project was mainly a victimisation survey, but included also a self-report element (Kivivuori & Savolainen 2003). In the second sweep of the ISRD, the Scandinavian Research Council of Criminology reassumed its traditional role as the major sponsor of Nordic self-report delinquency research. The Council financed, coordinated and supervised the collection of local ISRD-2 samples in all

Nordic countries. The basic results of that project are described in this report.

Like all historical phase divisions, the model of two Nordic self-report enthusiasms simplifies the full complexity of actual events. During the interim period, several important local self-report studies were conducted: In Sweden, the delinquency of ninth grade males in Örebro was measured in 1968, 1971 and again in 1996 (Olofsson 1971; Ward 1998). In Finland, Sipilä (1982) used self-report approach in a modular multiple-community sample. In Norway, large-scale delinquency surveys have been conducted in 1992 and 2002 (Pedersen & Wichstroem 1995; Storvoll et al. 2002; Pape & Falck 2003). In Denmark, Flemming Balvig and Britta Kyvsgaard have conducted important self-report delinquency studies in a Copenhagen suburb in 1979, 1989, 1999 and 2005, contradicting the suggested “three phases” pattern (see Kyvsgaard 1992; Balvig 2006). This Danish study is unique both theoretically (see the final chapter of this report) and duration-wise. In terms of time span, apparently only the Örebro series (Ward 1998) reaches further to the past. The situation will change, however, when the Finnish replication of the Helsinki 1962 draftee study will be reported in 2007.

Probably in every Nordic country important one-off studies with both descriptive and theoretical contributions have been conducted. The point of the suggested “three phases” concept is to emphasize the enthusiasm characterising the first and the third phase: In addition to large-scale projects of self-report delinquency research, the need for repeated and nationally representative self-report delinquency surveys was widely shared in the Nordic countries, and concrete efforts to that end launched. Additionally, the idea of Nordic comparative work was widely accepted.

## The Nordic society

In many ways, the Nordic area forms a natural unit for joint research projects and analyses. Recently, some observers have suggested that the “five swans” have fallen out of formation (Bondeson 2005). Whether that is the case or not probably depends on the standpoint: Looking from the inside, the differences stick out; from the outside, the similarities are striking. In this section, I will briefly describe the relative unity of the Nordic society from the standpoint of general social structure and special criminal justice culture.

### ***Similar societies***

The basic social structures of the Nordic nations have converged during the last 50 years as Finland has caught up with her neighbours. This “clustering” has been verified also by the most objective societal indicators: In the Human Development Index (HDI) of 2003, all Nordic countries rank near the top. Of the 177 nations included in the global comparison, Norway ranks first, Iceland second and Sweden sixth. Denmark and Finland occupy the ranks 13 and 14 with exactly the same HDI value. All Nordic countries are safely in the highest decile of the human development index.

Economically the Nordic countries share the same basic structure, comparatively high employment levels, large public sectors, high GDP shares of health expenditures, high investment in education, high female participation in labour force, comparatively low proportion of people currently married, and conversely, high proportion of cohabiting couples (Bondeson 2005, 65–67). In global comparison, the Nordic countries are known for a long history of affluence, which is comparatively evenly distributed in the population. Political development has favoured the creation of welfare states which seek to assure all citizens a wide social protection and high standard of living (Berntsson & Köhler 2001, 441). The countries are also relatively homogeneous from a religious point of view as about 85 per cent of the population belong to the Lutheran church. Immigration is also comparatively low (Bondeson 2005, 66–67). In a global context, and even when only developed nations are compared, it seems warranted to use the concept “Nordic society” as a singular concept describing, in an ideal-typical manner, the core features of society.

### ***Low repression and unity of laws***

As far as criminal justice systems are concerned, the Nordic model is often regarded as progressive, humanitarian and characterised by a low level of repression, even though there are some differences (Bondeson 2005, 68–70). Takala (2005) describes the Nordic countries as “societies with low repression”, while Träskman writes:

The general Nordic criminal policy requires rationality and humanism, accentuating the importance of limiting penal solutions to cases where this is ultimo ratio. Social problems must be solved primarily by other means. (Träskman 2005, 236.)

The generality and unity of the Nordic legal culture is embedded in the profound similarity of societies, but also builds on decades of cooperation,

which has sought to harmonize criminal law. A recent working group on juvenile delinquency concluded that to a large extent a “unity of laws prevails in the Nordic countries” (Nordisk arbejdsgruppe 2000, 147<sup>4</sup>). For example, in 1987, the minimum age of criminal culpability was harmonized when Norway raised the limit from 14 to 15. (Storgaard 2004, 189.)

Cooperation and harmonization have produced even more fundamental results. As observed by Takala (2005, 132), “the Nordic countries have acted as a peer group, used in putting into proportion the criminality and criminal policy of each country”. In a sense, this report also exemplifies how the Nordic countries use one another as a reference group when assessing the criminality of each variant of the Nordic society.

Recently, a trend, or pressure, towards a more repressive criminal policy has been observed in the Nordic countries. While these developments are very important, they fall out of the scope of the present study.<sup>5</sup>

### ***Socially embedded crime prevention***

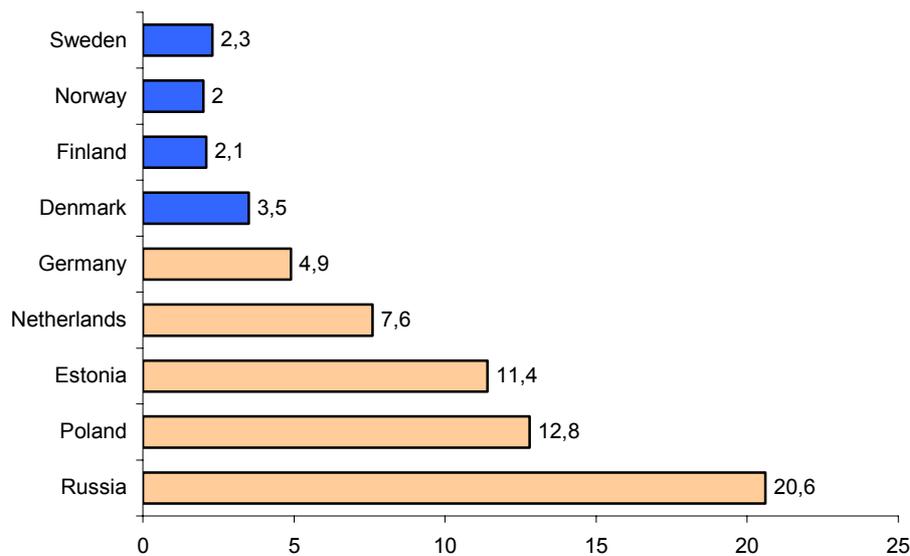
From the point of view of crime prevention, the Nordic nations share some basic institutional structures and principles. Some outside observers have correctly noted the central role of situational crime prevention in the Nordic society, but overlooked the importance of social prevention. This oversight is natural because many practices which outsiders may see as specific “social crime prevention projects” are institutionalised as regular features of the Nordic welfare society.

Income redistribution through progressive taxation has produced a high level of equality. As a sign of success, Figure 3 below shows the percentage of children living below poverty line. The Nordic countries cluster together as low child poverty countries. In education, the common goal has been to provide all children equal and free access to education, a policy which seems to produce good results in international comparison (Lie et al. 2003). These social arrangements are not normally defined as “crime prevention” (Takala 2005, 139). The legitimacy of the Nordic welfare state does not rest centrally on its likely crime reduction bonuses.

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<sup>4</sup> The original Danish text uses the concept *retsenhed i Norden*.

<sup>5</sup> For in-depth discussions, see Balvig 2005 and Träskman 2005.



**Figure 3** Percentage of children living below poverty line (two parent families) in the Nordic countries and their immediate geographic neighbours. Observation years vary. Source: Luxembourg Income Study.

As noted above, comparative studies of the Nordic countries hold constant certain basic societal features. They all are developed welfare states, and relatively homogeneous in terms of religious and ethnic composition. All Nordic countries are comparatively characterised by low levels of corruption and societal repression, while the level of general social trust tends to be high. If the Nordic countries differ in delinquency, it is unlikely that the differences can be explained by any fundamental social arrangements. Therefore, the general expectation is that there will be little variance in juvenile crime in the Nordic countries. Possible differences may reflect different cultural and historical trajectories more than basic social and institutional arrangements.

## Recent comparative studies of Nordic youth

In this section, some Nordic comparative youth studies are briefly described. The discussion is by no means exhaustive. It should also be noted that while the present study concentrates on 13–16-year-olds, many of the researches described below examine somewhat older youths.

*Quality of life.* According to a recent study, children in the Nordic countries enjoy a high standard of living and good quality of life (Berntsson & Köhler 2001, 441). The highest objective (and subjective) quality of life was found in Norway. Sweden, Denmark and Iceland occupied the middle positions, followed by Finland where both the objective and subjective

tive quality of life was the lowest. Interestingly, the objective quality of life increased between 1984 and 1996 while the subjective quality of life decreased.

*Effects of parental unemployment.* Reinhardt Pedersen and Madsen (2002) studied how parental unemployment influences children's health and well-being in the Nordic countries. They found that children in families with both parents unemployed manifested higher prevalence of recurrent psychosomatic symptoms. Health related implications and parents' labour market participation were associated in all five countries notwithstanding the country-specific variations in the extent of unemployment. While the level of the phenomenon (health problems) varied, the logic of causation was the same.

*Youth unemployment and deprivation.* Comparing the mental health of unemployed young people in the Nordic countries, Hammer (2000) found that the unemployed youth in Denmark had fewer mental health problems, were less isolated, and coped better with unemployment than their Nordic peers. Julkunen (2002) studied the material deprivation of the unemployed young people (aged 18–24) in five Nordic countries and Scotland. Deprivation was measured by asking the unemployed which normal life activities they could not afford, such as having a hot meal, buying necessary clothes, inviting friends to home, going to a pub or restaurant, etc. Although Julkunen found a very similar deprivation pattern in all countries, the unemployed youth in Scotland were more deprived than the youth in the Nordic countries, a difference that reflects the strength of the Nordic welfare model.

Corroborating Hammer's findings, Julkunen observed that the unemployed Danish youth were socially and materially least deprived (Julkunen 2002, 242–243). This would seem to indicate that in Nordic comparison, the Danish youth enjoy the strongest social protection, including state support and family support. Of special criminological interest may be the fact that the unemployed youth of Denmark somehow managed to continue visiting pubs and restaurants (Julkunen 2002, 242), and were able to maintain normal social interaction patterns better than their Nordic peers.

*Injuries.* Criminological theory predicts that "accident proneness" is positively associated with the likelihood of committing crimes and becoming a victim of crime (Gottfredson & Hirschi 1990). When the overall injury rates of the Nordic countries were compared (Melinder & Andersson 1998), Finland had the highest injury mortality rate, two times higher than Sweden which was by far the safest country in the Nordic area. The order of injury risk was the same in age bracket 0–14. More recent data on accidental (unintentional) injury also indicate that among the Nordic countries,

the rate of childhood injury mortality is the lowest in Sweden and the highest in Finland. In European comparison the Nordic nations cluster together as a region with a low rate of childhood injury mortality, Sweden being the safest country in Europe on this dimension. (Sethi et al. 2006, 20–21).

*Sexually transmitted infections.* This category of infections is relevant because unprotected sex among adolescents may reflect differences in the propensity to take risks, to act in an impulsive manner, and/or to alcohol abuse. At least in Finland, it is known that dating activity and delinquency are highly inter-correlated among adolescents: active daters tend to be active offenders (Kivivuori 1999, 65–69). Therefore, indicators of sexual activity, and especially indicators of unprotected sex, can be used as distant proxy variables for delinquency, too. Recent work by Panchaud et al. (2000, 28) indicates that the most typical infection during adolescence, chlamydia, is more prevalent in Denmark than in Sweden and Finland (Panchaud et al. 2000, 28).<sup>6</sup>

The general impression is that differences between Nordic youths tend to be relatively small. There are minor indications that the situation of the Danish youth may differ slightly from other Nordic nations; there, strong social protection, both formally and informally, seems to be associated with a rather relaxed lifestyle. However, this is extremely tentative. The basic outline is that the countries are quite similar. This suggests that the present comparative study of delinquency in Nordic capitals is unlikely to locate large differences. Moreover, the studies reviewed above suggest that the causal processes underlying social problems are roughly the same in the Nordic area. The purpose of Nordic comparison can hardly be to find different causal processes, or risk factors of delinquency and crime. On the other hand, the Nordic area has one potential advantage in causal analysis: if differences are detected, they can hardly be explained by fundamental differences in social arrangements. As the Nordic constellation holds constant certain factors of deep social causation, the role of cultural differences, pinpointing the cultural, historical and political specificity of a country as a potential culprit for any difference in crime and delinquency scene, is emphasized.

Perhaps the ultimate justification for Nordic comparison can be found in the similarity of the area. Why single out any one nation from such a homogeneous statistical area? After all, the individual Nordic countries seem to have been produced from a single mould. In what follows, acts of delinquency committed by the “Nordic peer group” are studied in detail.

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<sup>6</sup> Differences in recorded infections can of course reflect the efficiency of screening, or the availability of health education.

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## 2 SELF-REPORT METHOD IN CRIMINOLOGY

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Self-report method is one of the most widely used techniques in empirical social science (Stone et al. 2000). Countless surveys and interviews have been conducted by asking the respondents if they have done something, and to recall how many times they have done it. During the last 12 months, how many times have you visited a doctor? During the last month, how many times have you dined in a restaurant? Sometimes the thing that is being studied may be embarrassing and difficult to disclose: With how many people have you had sexual relations during the past month? Did you visit an abortion clinic last year? During the last month, how many times have you drunk alcohol? And finally, the respondents may even be asked if they have committed crimes during a specified time period.

The possibility of deliberate nondisclosure or underreporting is probably the number one “lay criticism” of self-report crime and delinquency studies; surely no-one will be honest when asked to report his or her crimes. Anonymous responding reassures some critics, but not all. Sometimes this lay disbelief is associated with the amount of trust placed in various institutions: as people rank the police as the most trusted institution, they are also inclined to think that police statistics must be a better source of information than surveys conducted by academic researchers.

In this short methodological chapter, I will briefly review the methodological foundations of the self-report crime and delinquency research tradition. Studies of the reliability and validity of self-report crime and delinquency research directly address the fear that no solid knowledge can be obtained by asking people to “confess”. The methodological research is the reason why researchers themselves trust the method. There are excellent reviews of methodological research in the self-report crime and delinquency studies. Most notably the reviews by Junger-Tas and Haen Marshall (1999), Tourangeau and McNeeley (2003) and Thornberry and Krohn (2000 and 2003) provide exhaustive treatment of relevant issues and problems. Taken together, their message is that self-report delinquency research is a fairly reliable and valid means of estimating criminal behaviour espe-

cially in child and adolescent populations. However, before describing the core findings of methodological research, a relatively neglected topic in methodology discussions will be briefly discussed: the psychological foundations of self-report crime research.

## Psychological foundations of self-report crime research

### *Autobiographical memory*

Irrespective of what is being asked, all self-report studies rest on a specific foundation: the human autobiographical memory. Memory is not perfect, and inability to retrieve past episodes can introduce error to self-report findings (Tourangeau 2000). People often use various kinds of judgement heuristics as a means of reducing complexity of survey responding. Therefore, it is important to be aware that responding is based on people's cognitive abilities and strategies. Cognitive psychologists claim that "people take whatever shortcuts they can to reduce the cognitive effort needed to answer the questions" (Tourangeau & Mcnealey 2003, 27).

### *Differential salience of events*

There is an extensive body of research on the link between autobiographical memory and emotional arousal related to the memorized event. Evidence suggests that events which are associated with emotions are remembered more accurately than neutral events (Levine & Pizarro 2004). Because commission of a crime is often associated with the fear of apprehension and/or the joy of rare transgression, it is quite plausible that crimes are highly salient events for autobiographical memory. Of course, it is one thing to remember an event and another to disclose it to others, but the likelihood of amnesia related under-reporting seems comparatively low.<sup>7</sup>

The research on human face memory suggests that norm-breaking behaviour enhances face memory (Chiappe et al. 2004). This finding on human cognition is highly relevant for crime victimization studies. The high

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<sup>7</sup> There is a large and versatile literature on the question whether crime victimisation, especially sexual abuse, can be totally forgotten or "repressed". The weight of evidence suggests that people remember crime victimisations very well (McNally 2003). I will not review this research because it is more central to crime victim surveys than self-report delinquency surveys.

salience of crime incidents supports the validity of victim surveys. Analogously, it is possible that people remember their own past crimes better than other incidents. If this is the case, the high memory salience of criminal behaviour is one of the psychological foundations of self-report delinquency studies. To the contrary of standard lay criticism, it seems plausible that certain aspects of crime may make it a more feasible object of self-report than other, “non-sensitive” topics. It is probably easier to remember how many times you have beaten someone up than, say, dined in a pizza parlour.

### ***Function of confession***

In addition to cognition and memory, there may be other relevant psychological human propensities that function as micro-level foundations of self-report crime and delinquency studies. One such candidate is the propensity to confess offences. Confession is a behavioural strategy which, associated with remorse, supports the confessor’s continuing membership in the primary group. Confession recovers the moral character of the offender and affirms the belief in the offended rule (Gold & Weiner 2000). Evolutionary accounts are sometimes applied to behaviours which seem to be irrational, like the human urge to confess undetected offences. It has been suggested that, as a pre-emptive strategy against punitive behaviour, confession had a marginal genetic-fitness payoff in ancestral environment (Trivers 2002, 41–42; Bering & Shakelford 2005).

There is a long religious tradition of anonymous confession which to a significant degree rests on a voluntary willingness to confess. This tradition is not limited to Catholic countries. In Lutheran countries, too, people still contact the clergy to give confession, sometimes in the context of norm-breaking behaviour (Kettunen 2002). While successful impression management requires a public, the normality of confession suggests that anonymous confession in a survey context may not be so hard after all. Both nondisclosure and disclosure of norm breaking behaviour seem to be *natural human behavioural strategies*. The normality of confession suggests that the lay belief that “no-one ever admits any crimes” is misplaced from the standpoint of basic human psychology. However, it should be underscored that these considerations do not prove or show the reliability or validity of self-report method. If the method is shown to be valid by methodological research, the validity probably rests on the psychological mechanisms discussed above.

## Reliability

Reliability refers to the extent to which a measuring device produces the same result on repeated trials. Reliability of social science measures is normally assessed by two approaches: internal consistency and test-retest consistency. Internal consistency is based on the expectation that multiple items measuring a single latent construct should be highly inter-correlated. While this expectation is reasonable in developing attitude scales, it has been criticised as a means of evaluating the reliability of self-report delinquency scales (Thornberry & Krohn 2003, 52–53). At least in principle, people can “specialize” in specific offence types. If a respondent admits shoplifting but denies assault, this cannot be judged “inconsistent” in the sense in which people can respond inconsistently to attitude items measuring a single attitude dimension.

There have been many studies assessing the test-retest reliability of self-report delinquency scales. In such studies, the same people respond to the same questionnaire two times. The time period between the tests should optimally be from one to four weeks (Thornberry & Krohn 2003, 53). Studies have repeatedly shown that self-report delinquency scales have high test-retest reliability. According to Thornberry and Krohn “self-report method possesses acceptable reliability for most analytic purposes” (Thornberry & Krohn 2000, 49).

## Validity

Validity refers to the degree to which the measure actually measures the phenomenon under investigation, and nothing else (Thornberry & Krohn 2003, 52). While reliability pertains to the stability of the measurement, validity refers to its correspondence to what the researcher aims to study. There are several ways to classify validity estimation.

### *Content validity*

Content validity refers to a subjective or logical assessment of the extent to which a measure adequately reflects the full scope of the phenomenon to be studied. To assess content validity, the object of measurement needs to be clearly defined. For example, Thornberry and Krohn define “delinquency and crime” as the

commission of behaviours that violate criminal law and that place the individual at some risk of arrest if the behaviour were known to the police. (Thornberry and Krohn 2003, 55–56).

This definition is relatively strict. Based on it, many items normally included in self-report scales should be removed. For example, truancy is not a crime in the Nordic countries, and the risk of being arrested thus non-existent. And while stealing from one's own parents could in principle be reported to the police, research indicates that parents are highly reluctant to do so. Based on the above definition, these items would seem to threaten the content validity of a self-report delinquency and crime instrument. However, if the study is based on a broader and more sociological delinquency concept, items such as truancy and stealing from home can be defended. Such a definition could define "delinquency and crime" as the

commission of behaviours that (a) violate informal or formal social norms, *and* (b) place the individual at risk of social sanctions if the behaviours were known to any institution which has a legally based right or obligation to enforce those norms (such as family, school, armed forces, criminal justice system).

This definition would exclude, for example, any behaviours which are sanctioned only by peer groups (let alone criminal gangs) because the second clause requires that sanction threat is based on a legal right or obligation to enforce the norm. The norm itself does not have to be included in the penal code. Of course, all legally defined crimes, including serious crimes, would be included in the domain of the concept so defined.

### ***Construct validity***

The second type of validity, construct validity, refers to how the delinquency and crime scale "behaves" with other concepts which are theoretically related to it. The scale has construct validity if it correlates in expected ways with variables measuring risk factors of delinquency. According to Thornberry and Krohn (2003, 56–57), self-report measures of delinquency and crime appear to have a high degree of construct validity. Self-reports collected under different conditions with different self-report scales tend to be similarly correlated with core variables explaining crime. So far, no-one seems to have been able to construct a delinquency and crime scale which would indicate that females commit more acts of physical violence than males, or that individuals who are extremely impulsive conduct fewer crimes than average. The absence of such surprising correlations suggests

that self-report crime and delinquency scales actually reflect something which really is “out there”.

### ***Criterion validity***

The third and possibly the most crucial type of validity, criterion validity, refers to the relationship between the results of self-report crime and delinquency scales, and some known external criterion that adequately measures crime and delinquency. As opposed to content validity assessment, which looked for the correspondence of the scale item composition with the definition of the measured concept, criterion validity assessment estimates the correspondence of the scale results with some independent data source on the criminality of the research subjects. If you were interested in studying people’s height by self-report, you might assess the validity of the self-reported height by simply measuring the height of the respondent. The results could indeed reveal some over-reporting related to the social, culture-bound desirability of tallness!

For self-reported crime and delinquency, there is no “gold standard” against which the validity of self-reports could be judged (Thornberry & Krohn 2000, 58). Instead, the problem can be tackled by comparing various flawed data sources on criminal involvement in order to see if they produce a similar picture. In what follows, three sources of comparison are briefly described: (1) other, possibly methodologically different self-report indicators, (2) studies using allegedly superior anonymity conditions, (3) official records, and (4) biochemical markers.

(1) *Comparison with other self-report indicators.* At the most rudimentary level, it is possible to compare different self-report measurements and see if they produce similar differences between areas or groups.<sup>8</sup> Similarity of different measurement strategies suggests that the various measures tap into the same reality of crime and delinquency. For example, in this study, the results of the Nordic ISRD-2 are in some cases contrasted with other survey based data sources such as ESPAD and HBSC. Especially with respect to ESPAD, ISRD-2 seems to produce consistent findings. This consistency may be interpreted as supporting the validity of both measurements. This is important also because these systems place the measurement of illegal behaviour in different contexts: ISRD is a “crime survey”, while

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<sup>8</sup> It could be argued that other self-report studies are not a proper criterion for assessing the validity of self-report method as such. However, if various self-report indicators produced very different results, this would question the validity of such measurements.

ESPAD concentrates on substance use and approaches the behaviour from a health studies viewpoint. A prior Finnish study comparing the “crime” and “health” survey contexts using identical self-report items suggests that the health survey context (with no follow-ups) produces higher prevalence levels than the crime survey context, even though both show similar associations with other variables (Kivivuori et al. 2001). It is likely that health context invites respondents to report relatively trivial incidents while the crime context taps into a more serious category of offending. As suggested by Tourangeau and McNealey (2003), more research is needed on how the “sponsorship” and the external trapping of the survey influence the results. This is highly pertinent for the validity of self-report research: it is important to know what exactly is being measured.

(2) *Comparison with allegedly superior anonymity condition.* According to some researchers, the greatest threat to the validity of self-report crime and delinquency research is deliberate nondisclosure. This is believed to result from the respondents’ fear that they are somehow at risk if the researcher gets to know their identity and their answers. To ensure complete anonymity, a special method called randomized response technique (RRT) has been developed. The basic idea of that method is that the data collector does not know how the respondent answers. The respondent is asked to randomize whether he or she responds to the question, or gives an automatic answer. A typical RRT question sounds like this:

If your coin flip is a heads *OR* if you are/were involved in the theft from your employer of from \$5.00–\$9.99 in cash, supplies, or merchandise in a month, please put an ‘X’ in the box to the right. Otherwise, do not mark the box; just go to the next question. (Wimbush & Dalton 1997, 758.)

That is, if a non-thief has his/her coin landing on heads, he/she will mark X; thieves will mark X no matter how their coin lands. The laws of probability state that 100 out of 200 respondents will mark X *because their coin landed on heads*. If responses indicate that 120 out of 200 respondents have X, the researcher concludes that 20 people who did not have heads in the coin flip marked the X because of theft. As half of the original 200 respondents should have left the box empty (coin landed on tails), the percentage of employee theft is 20 out of 100, that is, 20 per cent (Wimbush & Dalton 1997, 758).

There have been methodological studies comparing RRT with directly asked questions (DAQ) method, which is the standard procedure in self-report crime and delinquency research. According to a recent meta-

analysis, in sensitive topics research RRT produces more valid estimates than the standard DAQ method (Lensvelt-Mulders et al. 2005). With respect to crime and delinquency research, the question of RRT superiority remains open. According to Thornberry and Krohn (2003, 64–67) the results are mixed. At least one study has found no difference between RRT and DAQ, while another indicates that RRT is more valid. It may be of some significance that the study which showed no difference was made among adolescents, while the study supporting RRT superiority employed adults as subjects.

A cursory review of the literature suggests that most RRT tests have been conducted among adult populations. At least one study comparing DAQ and RRT in a drugs survey found that the prevalence based on RRT was higher in all age groups, the youngest group (18–25) excepted. In that age group, direct questioning produced a higher estimate of marijuana use. As quoted by Umesh and Peterson (1991, 116), the researchers suggested that the relative normality of marijuana use among young adults meant that the topic was not so sensitive after all. An early study of tobacco smoking among young people found no differences between DAQ and RRT (Akers et al. 1983). These findings may suggest that young people in general are more open to direct questioning than adults.

Why should RRT be more valid among adults but make no difference (or even have a negative impact) in adolescent populations? My guess is that the answer lies in the very high cognitive load the RRT places on the respondent. In short, RRT questions are difficult to understand (Beldt et al. 1982, 106). Psychological research in human reasoning suggests that people are generally relatively poor at estimating probabilities. Witness the above RRT question example and consider a criminally active, impulsive 13-year-old male responding to it. Moreover, criminological research is often conducted among populations with cognitive problems (dyslexia, for example). From the standpoint of criminological measurement, the more cognitive problems a young person has, the more interesting he/she tends to be. This may explain why the more intelligible DAQ may produce more valid estimates than the relatively bewildering RRT. And finally, little is known about how believable the concept of the randomizing device and consequent anonymity is to the respondents (Umesh & Peterson 1991, 130–132).

In sum, there is no reason to believe that *when studying adolescents*, the directly asked question method compromises the validity of the findings. As far as adults are concerned, the RRT design may produce more valid estimates. If you want to study the prevalence of, say, tax fraud, undeclared

work, social security fraud, or some economic crime committed by “normal” adults, the randomized response technique may be the best solution.

(3) *Comparison with official records.* Many studies have examined the validity of people’s responses to self-report crime and delinquency scales by comparing them with official records. Some studies have explored whether people admit having been arrested, and found that people are willing to report their involvement with the criminal justice system. Perhaps such self-reports are not regarded as threatening because the authorities already know about the incidents under scrutiny. Even more important is to assess the extent to which people are willing to self-report delinquent and criminal behaviour. Some studies indicate that while the majority of people report their criminal and delinquent behaviour correctly, a significant minority of respondents underreport such behaviour (Thornberry & Krohn 2003, 60). Accordingly, Thornberry and Krohn conclude that

Putting all this together leads to a somewhat mixed assessment of the validity of self-report measures. On the other hand, it seems that the overall validity of self-reports is in the moderate-to-strong range, especially for self-reports of being arrested. For the link between self-reported delinquent behaviour and official measures of delinquency [...], the overall correlations are somewhat smaller but still quite acceptable. (Thornberry & Krohn 2003, 61).

Studies based on official records checks suggest that African American males are more likely to underreport their offences than other groups. In the Nordic countries, there is no group with similar historical and social position, but there are immigrants who might pose an analogous problem.

(4) *Comparison with biochemical markers.* The closest equivalent to a “gold standard” can be found in the study of self-reported drugs use. Researchers can compare self-reported drug use to a biological marker, and assess the validity of self-reports by comparing them to the results of chemical assays (Akers et al. 1983, 235; McGregor & Makkai 2003; Webb et al. 2006, 236). This kind of methodological research started to proliferate in the 1980’s. Again, the general picture is that while a significant minority tends to underreport at least the more serious incidents, the majority of respondents offer correct self-reports.

Webb et al. (2006) have recently examined the self-reported drug use of arrested juveniles in Arizona by checking the findings against biological markers. Of the 939 adolescents included in the study, 77 per cent reported correctly whether they had used marijuana. 17 per cent were non-disclosers

who denied use but tested positive. A minority (6 %) reported marijuana use but tested negative, suggesting over-reporting. In cocaine use, the percentage of correct disclosers was even higher (91 per cent). The researchers were able to hold constant the gang membership status of the subjects, and observed that gang members and non-gang members were equally likely to report their drug use accurately (Webb et al. 2006, 243). The fear that serious apprehended offenders massively underreport, or that hardened gang members are even more likely to deny their crimes, seems to be unwarranted. There were, however, some variables that influenced the likelihood of correct disclosure. Adolescents 16 years and older were less likely to disclose correctly their drug use than the younger arrestees. Arrestees with higher number of prior arrests were less likely to disclose recent marijuana use. Webb et al. (2006, 247) nevertheless concluded that the self-reports of chronic offenders and gang members have satisfactory validity. The self-report methodology seems to be generally applicable to official and undetected delinquents alike, even though its peak performance seems to take place during early and mid-adolescence.

### ***The problem of over-reporting and jokesters***

Both under-reporting and over-reporting potentially threaten the internal validity of the self-report method. Underreporting means that an offender fails to report his/her offence for any reason (difficulty to recall, deliberate refusal to disclose, etc). Over-reporting means that a non-offender reports offending due to, say, memory error or deliberate willingness to “fake bad”.

There is a logical reason why over-reporting is a realistic and general threat to the validity of self-report delinquency research. As noted by Tourangeau and McNeeley (2003, 17), because crime is a relatively rare event, most respondents are not in a position to omit eligible incidents; they do not have anything to report. For the vast majority of non-offenders, over-reporting is the only error they can make, especially when rare offence types are examined. Recently, it has been noted that the prevalence levels of hard drugs use are susceptible to over-reporting (Pape & Storvoll 2006).

The reasons for over-reporting are as such irrelevant. It is possible that in most cases, over-reporting is a simple mistake or memory error. However, especially when juveniles are studied, the possibility of intentional over-reporting cannot be excluded. It is known, for example, that adolescents exaggerate their delinquent involvement to other adolescents because

they want to be seen as “tough” and bolder than they actually are (Kivivuori 2002). Similar motives can have a bearing on self-reporting even though the peers cannot know the answers. It is conceivable, for example, that an adolescent respondent over-reports his or her crimes in order to be able to boast later to his/her friends. In group situations, others can see how long it takes to fill in the questionnaire, and staying long in the class may signify toughness (especially as most adolescents are keen on getting out as fast as possible).

Recently, Fan et al. (2006) used self-administered questionnaires (SAQ) to study the so-called “jokester effect”. Based on additional home interviews and parental checks, they were able to detect students who had consistently offered false reports on questions concerning adoptee status, being born abroad, and having an artificial limb. Giving a wrong answer to any one of these questions was described as “inaccurate” responding, while students who gave at least two wrong answers were described as “jokesters”. The authors found that 2,6 per cent of adolescent respondents were inaccurate respondents and 0,6 per cent jokesters, and concluded that if the research focus is on large groups, the jokesters’ effect should not seriously bias the finding because the number of jokesters is usually very small (Fan et al. 2006, 238–239). In the analysis of associations, jokesters can, however, influence the results. Moreover, it is worth noting that inaccurate respondents reported higher mean scores for problem behaviour. It is not known whether this reflects reality (jokesters really have problems) or exaggeration.

### ***Cultural feasibility of the method***

Methods are always applied in social and cultural contexts. Potentially all factors that threaten the validity of self-report method can vary over time and across geographical units. For example, the students’ ability to comprehend questions may be different in different time periods and different locations. Factors increasing the likelihood of deliberate nondisclosure can also vary. For example, the attitudes towards illegal behaviour can change over time so that it becomes easier to answer truthfully. Furthermore, trust in researcher motives can differ. For example, cultures with low general trust in government officials may discourage truthful responding. The level of general punitivity is also relevant. It is conceivable that severe penal

sanctions may encourage under-reporting in self-report surveys because potential disclosure is associated with harsher sentencing.<sup>9</sup>

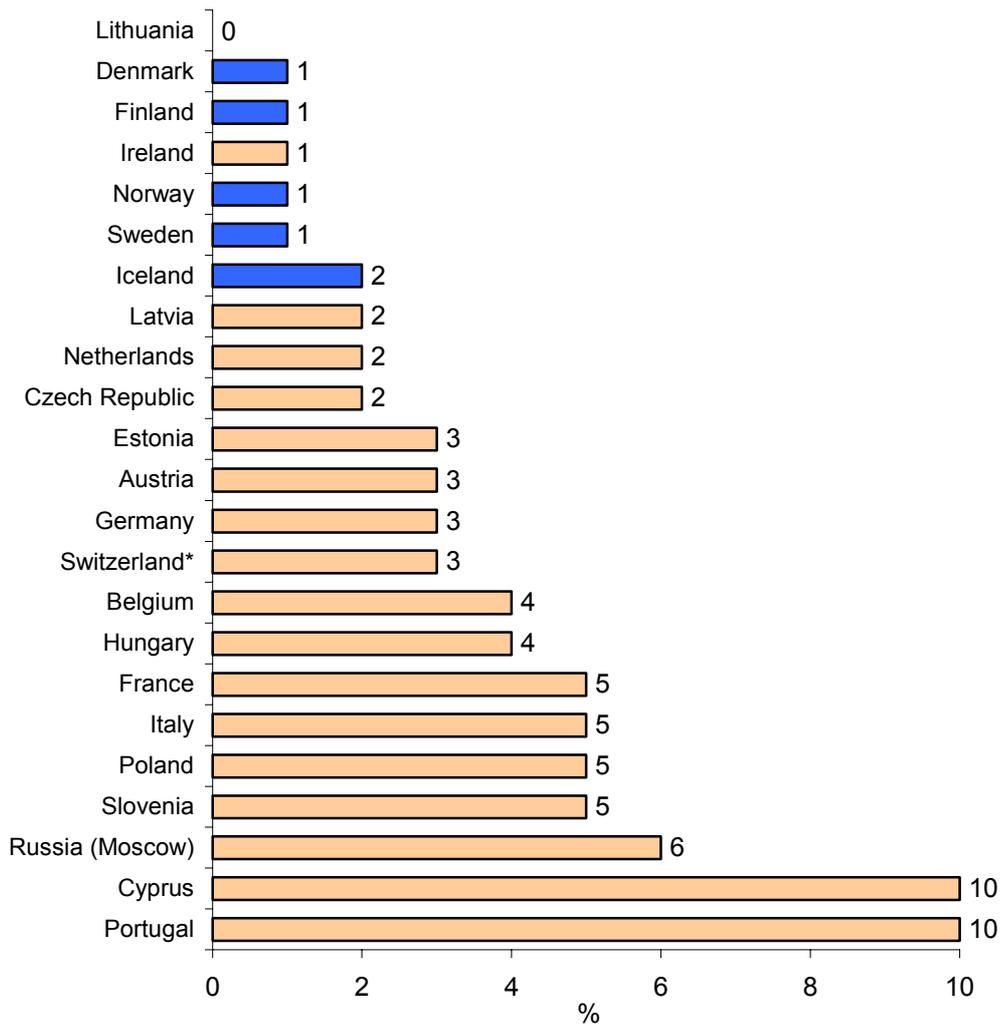
Moreover, the level of delinquency may itself be a contextual factor that has a bearing on the validity of self-report delinquency research. If some delinquency type is very prevalent, it may be easier to report. For instance, truthfulness in reporting drugs use may depend on the extent to which drugs use has been statistically “normalized” in the research area. These sources of differential validity are particularly relevant in international comparisons (Table 2).

**Table 2** Possible contextual factors influencing the validity of self-report delinquency research.

<p><i>Cognitive factors</i></p> <ul style="list-style-type: none"> <li>Degree of literacy in population</li> <li>Ability to comprehend complex questions in general</li> <li>Ability to comprehend law and delinquency related questions</li> <li>In Internet solutions, familiarity with computer and web use</li> <li>Familiarity with survey research in general</li> <li>Familiarity with sensitive topics survey research</li> </ul> <p><i>Factors related to social trust</i></p> <ul style="list-style-type: none"> <li>Special trust in the integrity of public sector officials</li> <li>Special trust in science</li> <li>General social trust</li> </ul> <p><i>Factors related to the measured construct (delinquency)</i></p> <ul style="list-style-type: none"> <li>General attitudes towards illegal behaviour</li> <li>General punitivity of society (sanction harshness)</li> <li>Prevalence and “normality degree” of delinquent behaviour</li> </ul>
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In the European alcohol and drug use survey (ESPAD), the question of differential validity was addressed in questionnaire design by, for example, checking the consistency of self-report. The results of some countries are shown in Figure 4 below. The Nordic countries manifest distinctly consistent reply patterns, and cluster together on this dimension.

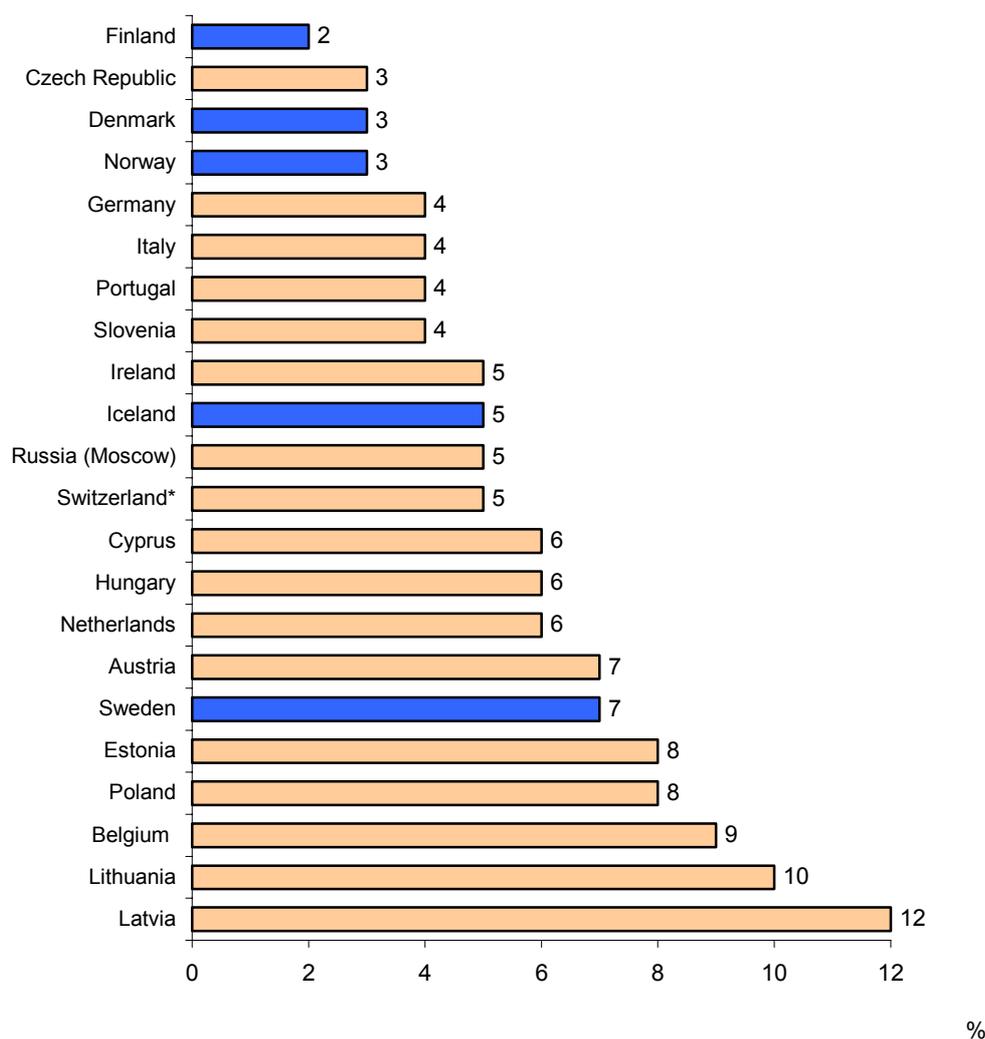
<sup>9</sup> Prior studies suggest that respondents representing ethnic or other minorities may be more likely to under-report (or over-report) in self-report delinquency studies (Junger-Tas & van Kesteren 1999, 41; Rosay et al. 2007). Here, the focus is, however, on the possibility of more general validity differences between countries.



**Figure 4** Percentage of students offering inconsistent answers to questions concerning alcohol use frequency. The ESPAD 2003 project. \*) Before the data cleaning process. Source: Hibell et al. 2004, 51.

Answering consistency may reflect question comprehension, which in turn is related to the level of literacy, and in some question types even to mathematical skills. It is even possible that in countries where school survey research is very normal, students have become good at comprehending questionnaire logic.

Another source of error is deliberate nondisclosure. The ESPAD researchers tentatively assessed this error source by asking each respondent a direct question, “If you had ever used marijuana or hashish, do you think that you would have said so in this questionnaire?”. The percentage of students answering “definitely not” is shown in Figure 5 below for a selection of countries.

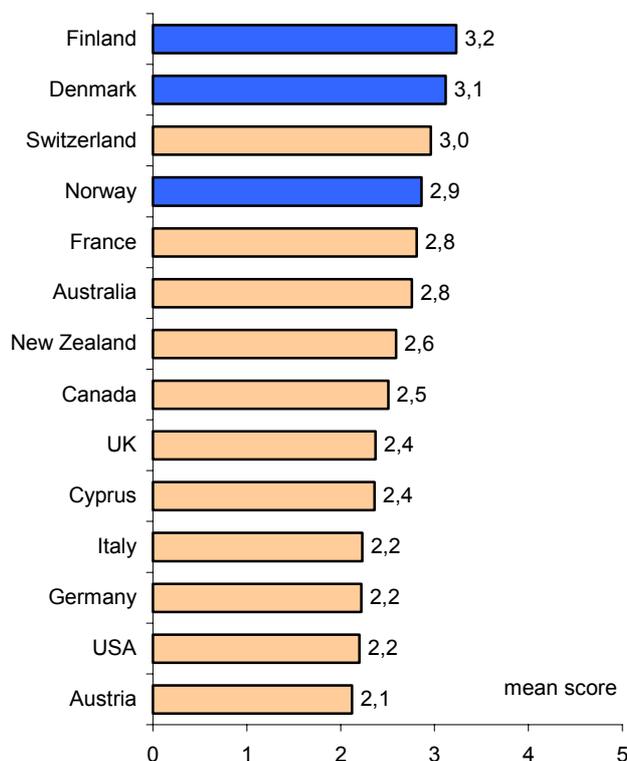


**Figure 5** Percentage of students responding that they would “definitely not” reveal possible cannabis use in the survey. The ESPAD 2003 project. \*) Before the data cleaning process. Source: Hibell et al. 2004, 51.

In potential deliberate nondisclosure, the Nordic cluster breaks down. Finland, Denmark and Norway manifest low potential under-reporting. In Sweden, seven per cent of the respondents replied that they would “definitely not” reveal cannabis use, while Iceland occupies the middle ground.

Why would a young person refuse to disclose his or her cannabis use in an anonymous survey? One important reason might be that he or she does not trust the researchers’ intentions. Maybe the researchers are, after all, “out to get you”, and able to identify the respondent by some trick? It seems that the general social trust in other people might be an important contextual factor influencing the validity of self reports. Conveniently, social trust is a construct that has been measured in international comparisons. For example, the International Social Survey Programme 2001 indi-

cators of trust include an attitude item, “if you are not careful, other people will take advantage of you”. Obviously, it is conceivable that nondisclosure of crimes can be motivated by such a fear of betrayal. The findings from a selection of countries are shown in Figure 6 below. The readings represent mean scores on the dimension of disagreement with the statement.



**Figure 6** Fearlessness of betrayal by other people. Disagreement with the statement, “if you are not careful, other people will take advantage of you”. Source: Kääriäinen & Lehtonen 2006, 44, using ISSP 2001 data. Observations not available for Sweden and Iceland.

It seems that the Finns, the Danes, the Swiss and the Norwegians are the least fearful of being betrayed by other people. More in-depth analyses of the same data suggest that the Nordic welfare state regime manifests consistently high levels of generalised trust (Kääriäinen & Lehtonen 2006). These findings are based on adult populations, but are nevertheless consistent with the ESPAD findings that Nordic adolescents are comparatively fearless in disclosing illegal behaviour. The link cannot be proved here, but trust differentials provide one plausible interpretation of differential readiness to self-report.

These observations tentatively indicate that self-report research has a comparatively robust contextual validity base in the Nordic area. The reasons for this are likely to be found in the factors enumerated in table 2

above. Nordic countries manifest 100 per cent literacy<sup>10</sup>; high achievement in education (PISA) specifically related to helping those adolescents who have cognitive problems; extreme frequency of survey research and familiarity with sensitive topics survey research; high trust in institutions including science; and high general social trust in people. The fact that the Nordic countries are “low repression” societies that actively seek to keep juveniles out of the criminal justice system (see the discussion in previous chapter) may also have some diffuse and indirect implications for the validity of self-reports. The general spirit of the system is that if a child is caught offending, he or she is to be protected and integrated, not punished. The role of delinquency related contextual factors is less clear. For example, in Finland, the adolescent attitudes toward delinquency have become more condemning (Kivivuori & Salmi 2005), a development that may encourage under-reporting by offenders.

This discussion on possible differential validity base should be interpreted with caution. Some of the findings coincide dangerously well with cultural stereotypes of Nordic people as particularly (or even stupidly) honest. Second, there is always the possibility of infinite regression: if respondents in some country are very prone to underreporting, they may also underreport underreporting, creating an illusion of supreme response integrity. The use of meta-questions in surveys is vulnerable to this kind of error spiral. However, the main point of these observations is to discuss the *possibility* of differential validity, and to suggest factors that might influence validity differences. If international comparisons are conducted, this possibility needs to be considered.

## Criticism of “School Criminology”

Self-report delinquency surveys are often conducted in schools. Recent evidence indicates that school based delinquency surveys are methodologically sound and strong. For example, it seems that ethnic minorities and socially deprived groups can be better reached by contacting them at school, instead of homes (Naplava etc. 2002). Nevertheless, school based research has a peculiar problem, namely the students who do not attend the classes.

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<sup>10</sup> All countries in Figures 5 and 6 which are shown in UIS database manifest nearly 100 per cent youth literacy in the age bracket 15–25 (UNESCO Institute for Statistics, September 2006).

At least three categories of missing students can pose problems for the validity of school based delinquency studies: (1) First, some adolescents may be completely outside the school system due to, for example, living on the street or being in prison. Some critics of self-report methodology have emphasized that these adolescents tend to be involved in serious crime but cannot be reached by “school criminology” (Cernkovich et al. 1985; Hagan & McCarthy 1999, 5–8). The relevance of this criticism probably varies depending on the country. For example, very few Finnish adolescents live on the street, and out of the population of 5 million, only two adolescents are in prison.

However, the two other categories of students who are often (but not necessarily) missing from school based criminology are relevant also to those countries which do not incarcerate young people and whose social policies prevent street living among youths: (2) Students placed in special education because of disciplinary or learning problems are sometimes excluded from the samples of school criminology. (3) Third, even in the regular classes, there are typically students who are absent during data gathering due to sickness, truancy, or some other reason.

All of these categories of missing students exemplify the concern *for selective non-response* in self-report delinquency research. Those students from whom self-reports are not obtained may be more likely than average to engage in delinquency (Junger-Tas & Haen Marshall 1999, 309). Recent methodological work in Finland suggests that both special education students and truant students are more delinquent than those attending regular classes and not skipping school. The exclusion of special education students and truant students has a relatively large impact on incidence estimation but relatively small impact on prevalence estimation (Kivivuori & Salmi 2006).



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## 3 DELINQUENT BEHAVIOUR IN NORDIC CAPITALS

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### Data and principles of description

This report is based on anonymous self-report surveys conducted in the five Nordic countries in the spring of 2006. These surveys were part of the second sweep of the International Self-Report Delinquency Study (ISRD-2). The standard ISRD-2 questionnaire was used in all Nordic countries. The main delinquency questions are shown in all five languages in Appendix 5. All ISRD-2 delinquency items are included with the sole exception of “downloading” whose illegality is in many cases doubtful and may vary greatly depending on the country. That question is therefore not covered in this report.

#### *Research location*

This report is based on self-report delinquency surveys conducted in the capital cities of the five Nordic countries. These cities are also the biggest cities of their respective countries.

**Table 3** Population of Nordic capitals<sup>a</sup>.

	Municipal population	Population including suburbs	% of total population <sup>b</sup>
Copenhagen	593 013	1 831 751	33,7
Helsinki	560 905	988 347	18,8
Oslo	583 411	1 039 536	22,4
Stockholm	771 083	1 889 945	20,9
Reykjavik	114 968	187 426	62,5

a) Source: Nordic Statistical Yearbook 2006. b) From the population incl. suburbs.

The capitals of the Faroe Islands, Greenland and Åland were not included in the study.

### *Sample and response rate*

Sweden and Norway had a so-called modular sample including the capital city, one medium-sized city and a small town. Denmark, Finland and Iceland had a one-city sample. This report compares the capital cities of the Nordic countries: Copenhagen, Helsinki, Oslo, Reykjavik and Stockholm. The targeted populations were comprehensive school students from grades 7–9.

**Table 4** Aspects of Nordic capital city samples.

	Data collection	Sampling	Sampling unit	Response rate (%) <sup>b</sup>
Copenhagen	Web	random?	class	85
Helsinki	Web <sup>a</sup>	random	class	87
Oslo	Paper & pencil	random	..	89
Stockholm	Paper & pencil	random	class	76
Reykjavik	Paper & pencil	random	class	..

a) Paper & pencil was used as a back-up in computer shortage or technical failure situations (8 % of the responses). .. = data not available. b) This is the response rate in classes which participated in the study.

Table 4 shows the response rates in the classes which participated in the study.

*School refusals in Copenhagen and Oslo.* In Copenhagen and Oslo, the original sampling was random. However, many classes refused research access. In Copenhagen, no replacement classes were drawn, creating a potential problem in the sampling frame. The refusal may have been random with respect to delinquency, so that the resulting sample could be described as random. However, erring on the side of caution, the sample could perhaps be described as a convenience sample. In Oslo, there were also school refusals. There, replacement classes were drawn, but there were eventually refusals in the reconstituted sample. If students in access-refusing classes are defined as “non-respondents”, the “response rate” is 48 per cent in Copenhagen and 66 per cent in Oslo.<sup>11</sup>

In analysing non-response, students who are “absent” because of school refusal cannot be equated with students who are absent from participating classes because of sickness or truancy. It is known that the latter group (the “true non-respondents”) is likely to be more delinquent than students who are present in the classes (Kivivuori & Salmi 2006). In contrast, school refusal excludes both delinquents and non-delinquents alike. The question boils down to whether refusing schools have above or less than average delinquency levels.

In both Copenhagen and Oslo, the core reason for refusals was the high burden of various school surveys. The local researchers in

<sup>11</sup> Based on figures given by the local researchers.

these cities did not detect socio-economic or socio-geographical bias in school refusal. In Copenhagen, the external validity of the sample was examined<sup>12</sup> by comparing the grade point averages of sample schools with all schools within the municipalities. No bias was detected: the sample schools did not manifest below average or above average GPA levels. Because GPA is known to be a very robust correlate of delinquency (Salmi & Kivivuori 2006, 138), this observation suggests that the Copenhagen sample is basically sound. It does not seem to be biased towards delinquent schools. In Oslo, one religious school declined to participate because of what was being studied, but otherwise the non-participating schools were located randomly in terms of socio-geographical areas. These estimates are based on the impressions of the local researchers and there is no reason to doubt their accuracy.

In the future, the correlates of school-level refusals should be studied from a methodological point of view. If high-delinquency schools are more likely to refuse research access, self-report analyses may underestimate delinquency. If low-delinquency schools are more likely to refuse research access, the analyses may overestimate the prevalence of delinquency.

The samples were randomly drawn from the list of classes in each city (see, however, the above discussion). The Helsinki sample was stratified according to school districts to ensure full socio-geographical representation. Different sampling ratios in the Helsinki strata are corrected by weights. Data from the other cities are not weighted.

*Examining the Copenhagen data.* As discussed above, there were problems in the creation of the Copenhagen sample. To study the validity of that sample, explorative weighting experiments were conducted.<sup>13</sup> The basic results are shown in Appendix 6. Two kinds of weights were used. First, a simple weight using municipalities as strata was fitted to the data, correcting for possible geographical biases of the sample. When used, it did not alter the Copenhagen results (Appendix 6, Table A).

The second weight used grades in each municipality as strata. The seven municipalities which had respondents from each grade were included in the test. These were comparatively large units, comprising 823 respondents or 60 per cent of the full sample. The results tentatively suggest that in Copenhagen, an un-weighted data-file may underestimate the prevalence of alcohol and drugs related offences. This in turn is largely a function of under-sampling in grade nine (older adolescents tend to have higher prevalence of al-

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<sup>12</sup> These observations were made by Britta Kyvsgaard.

<sup>13</sup> I would like to thank Nanna Gabrielsen and Britta Kyvsgaard for providing the necessary population estimates, and Flemming Balvig for important comments.

cohol and drugs related offences). There was no corresponding under-sampling of grade 9 in other cities (see Table 5). Other offence types are not influenced by weighting.

The Copenhagen figures shown in this report were kept un-weighted for five reasons. First, the weighting tests were retroactive (as opposed to stratified sampling as a controlled design feature of the Helsinki sample). Second, the population figures were estimated from the number of classes and the average class size. Third, these experiments yielded relatively large and variable weights. Fourth, the optimal solution could not be fitted to the complete Copenhagen dataset. Fifth, the weighting tests did not indicate that the substantial comparative results based on un-weighted data are compromised, and the differences were limited to alcohol and drugs related offences. With respect to such offences, the un-weighted data indicate comparatively high levels in Copenhagen. However, the reader should keep in mind that this report may underestimate the prevalence of alcohol and drugs related offending in Copenhagen. The error caused by un-weighted data may be around 3–4 percentage points in lifetime prevalence figures and even slightly more in last year prevalence figures (see Appendix 6, Table B).

### ***Data collection***

The data were collected in the early part of 2006.<sup>14</sup> In Copenhagen and Helsinki, the data was collected by using web survey methodology. In the other cities, paper & pencil solution was adopted. In Copenhagen and Stockholm, the data collection situation was supervised by a teacher while outside supervision was used in Helsinki. The results of the surveys, reported in this study, do not suggest that the survey implementation technique has a major influence on the results. Helsinki and Copenhagen, which used the web solution, do not “pair” in the analyses. On the contrary, in some analyses, they tend to occupy the opposite extremes of the relevant delinquency continuum.

### ***Age composition***

Most respondents (99,1 %) were 13–16-year-olds. There were 57 respondents who were either 11–12 or older than 16. As the number of these respondents varied in the five cities, possibly reflecting different institutional practices, they were excluded from the analyses for the purposes of data homogenization.

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<sup>14</sup> The calendar year which gives the best match with a 12-month recall period is 2005.

**Table 5** Number of respondents by age.

	Copenhagen	Helsinki	Oslo	Stockholm	Reykjavik	Total
13	410	326	249	429	316	1730
14	574	351	445	568	205	2143
15	334	539	375	550	0	1798
16	52	138	163	158	0	511
no answer	0 <sup>a</sup>	0 <sup>a</sup>	19	45	17	81
total	1370	1354	1251	1750	538	6263

a) Lack of missing data results from web survey methodology with forced answering before the respondent could proceed to other questions.

The decision to exclude “outlier ages” was also related to the fact that various types of *special education classes* were excluded from the samples. The presence of 17–18-year-olds in grades 7–9 probably reflects some type of integrated special education arrangement. For these reasons, the target population of this report is restricted to 13–16-year-old students attending grades seven to nine in regular comprehensive school education in the Nordic capital cities.

The Icelandic sample included only seventh grade respondents. Reykjavik is therefore included only in grade-disaggregated analyses. For special features of the Copenhagen sample, see the above discussion on weights.

With the partial exception of Reykjavik (54,5 % females), the sex composition of Copenhagen (51,4 %), Helsinki (49,7 %), Oslo (50,4 %) and Stockholm (50,7 %) samples was equally balanced.

### ***Descriptives and tests***

The present report describes the basic findings concerning the prevalence and incidence of delinquent behaviour in the Nordic capital cities. The report focuses on possible differences between the cities.

All figures are population estimates based on samples. Use of decimals would create an illusion of accuracy. In reporting prevalence levels and incidence means, *all figures are reported as integers*. The only exception to this rule is made in the analysis of delinquency onset age.

In reporting prevalence levels, chi-square tests are performed and reported.<sup>15</sup> This test indicates whether the observed values differ significantly from values which would be expected assuming that the prevalence level is the same in all cities. The test does not indicate that the difference between any two specific cities is statistically significant.

<sup>15</sup> I thank Reino Sirén for consultation on statistical testing.

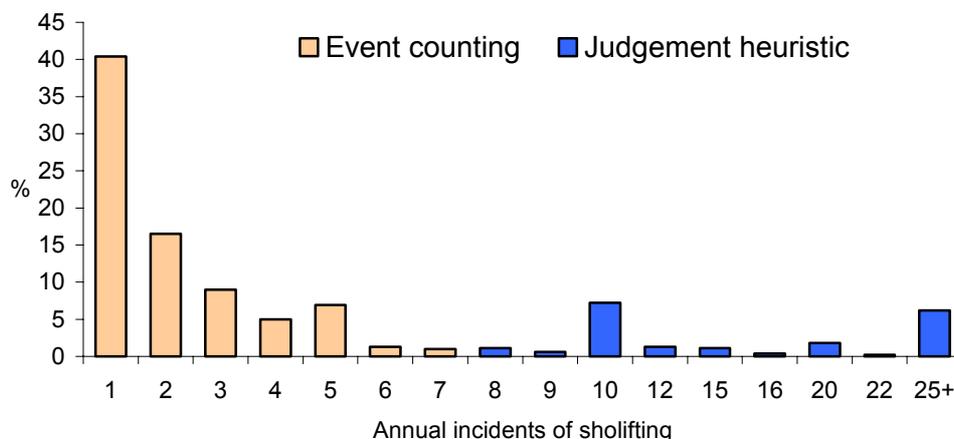
### *The problem of incidence estimates*

Incidence refers to the number of offences the respondent has committed during the preceding year (in alcohol related items, during the preceding month). Incidence questions were open-ended, meaning that the respondent gave an exact figure. Inclusion of open-ended incidence questions in self-report delinquency studies has been an important improvement; earlier, studies tended to use only prevalence questions or very roughly structured incidence questions. However, incidence questions also introduce new sources of error.

Methodologists have studied people's frequency judgements in detail, and found that individuals often cannot judge frequencies accurately. Ideally, the respondents should search their memory and retrieve memory-based information on events. However, it is believed that people often resort to various judgement heuristics in order to make the judgement process easier (Menon & Yorkston 2000, 64).

If there are many events within the time period, it is clear that people do not directly recall events and then sum them up. People give up trying to enumerate individual events when the number of occurrences within the time period is more than seven (plus or minus 2), the magic number of bits of information that we can hold in consciousness at one time. (Bradburn 2000, 55.)

When people give up event counting, they fall back on rate estimation ("I do this once a week so I must have done it about 50 times last year!"). What looks like an event count is actually based on estimation rule. This is likely to be the case also in self-report delinquency research, even though the subject of crime may facilitate the retrieval of the event from memory for direct "counting".



**Figure 7** The distribution of self-reported shoplifting incidents in combined Nordic capital city sample, by probable source of respondent's incidence estimation. Includes only students reporting last year shoplifting.

Figure 7 illustrates the distinction between event retrieval and judgemental heuristics in self-report delinquency research. It shows the self-reported number of shoplifting incidents using an enforced maximum of 25 annual offences. The dividing point between event counting and heuristics is set at seven, the “magic number” of cognitive psychology. Reports up to seven are thus believed to be based on event counting, and reports exceeding seven on heuristics such as “typical rate” heuristic. An examination of the columns suggests that even numbers such as 10 are often inflated by a “rounding” heuristic. Note also that the figure 5 is “overly represented” suggesting that some respondents who in fact have shoplifted 4, 6 or 7 times last year may have resorted to a rounding heuristic. Note also that some figures are altogether missing. Nobody reported having shoplifted 11, 13, 14, 17–19, 21, or 23–24 times. It is likely that the adolescents who have actually shoplifted, say, 13 or 21 times have rounded their report when unable to recall the exact number.

In delinquency surveys, some respondents report very high annual offence frequencies, raising the question of what such figures really mean. A single high number can influence the distribution mean drastically. Moreover, respondents may conceptualize offences differently (see Ring 1999, 77 for a discussion). In research literature, incidence self-reports are therefore often analysed using an upper limit or forced maximum of offences. In this report, all incidence analyses are based on a conservative upper limit

of 25 annual offences.<sup>16</sup> The figures should therefore not be seen as exact estimates of offences. Instead, the construct should be viewed as a measure of offending *intensity* among offenders. Whenever the concept “intensity” appears in this report, it refers to incidence of an offence among those respondents who participated in that offence type during the preceding year. Almost all incidence means given in this report are counted using the number of offenders as the base number (not all respondents).

When reporting incidence counts, standard analysis of variance test (F-test) is performed and reported. Again, this test indicates if the four city means differ significantly from one another. It does not test for differences between any two cities.

### ***Report focus***

This study is a primary Nordic area report of the findings. It focuses on describing the prevalence, incidence and patterns of delinquency in the Nordic capitals. Delinquency indices are systematically disaggregated only by grade and sex.

In the original questionnaire, there is a wealth of information on other matters (victimization, peer delinquency, group and gang formation, etc.) which are not reported in this study.

The original questionnaire also includes many questions that can be used as independent variables in analysing the causes of delinquency. For example, there are questions about family structure and other socio-economic aspects of the respondents’ lives. In future, these can be used in an explanatory analysis of the data. For example, it would be interesting to consider the possibility of differential causation of delinquency in various nations. While it is extremely unlikely that delinquency is caused by entirely different factors in different countries, there may be differences in how important certain factors are in country-specific institutional contexts.

The current report focuses on description and does not proceed to explanation. Of course, speculative and tentative interpretations are offered in many cases. These should be seen as suggestions for further research.

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<sup>16</sup> A few respondents reported having committed offences last year but did not give incidence figures. These missing data were replaced by the mode of the known distribution.

## Substance use

The questionnaire included two questions about alcohol use and three questions about drugs use. The respondents were asked if they had used mild alcoholic beverages (beer, breezers or wine) and strong alcoholic beverages (spirits). The three drug types included were cannabis drugs; ecstasy or speed; and LSD, heroin or cocaine. Two recall periods were used: lifetime and last month. All differences<sup>17</sup> in substance use prevalence, discussed below, are statistically significant. For reasons of brevity, I occasionally use the terms *offence* and *offenders*, even though national legislations may vary and some instances of substance use may not technically be crimes or offences.

### *Prevalence of substance use*

Alcohol use was most prevalent in Copenhagen (Figures 8 and 9). The second highest prevalence of alcohol use was found in Helsinki, while adolescents in Stockholm and especially in Oslo showed lower prevalence. In lifetime figures for beer and wine drinking (and use of any alcohol), Copenhagen and Helsinki are almost on a par.

The differences are most marked when alcohol consumption during the last four weeks is compared. Of the Danish respondents, 42 per cent had used alcohol during the preceding four weeks, while the corresponding figure was 30 in Finland, 24 in Norway and 22 in Sweden. The difference was even more marked with respect to drinking hard liquor (spirits). The last month prevalence of drinking spirits was two times higher in Copenhagen than in other Nordic capitals.

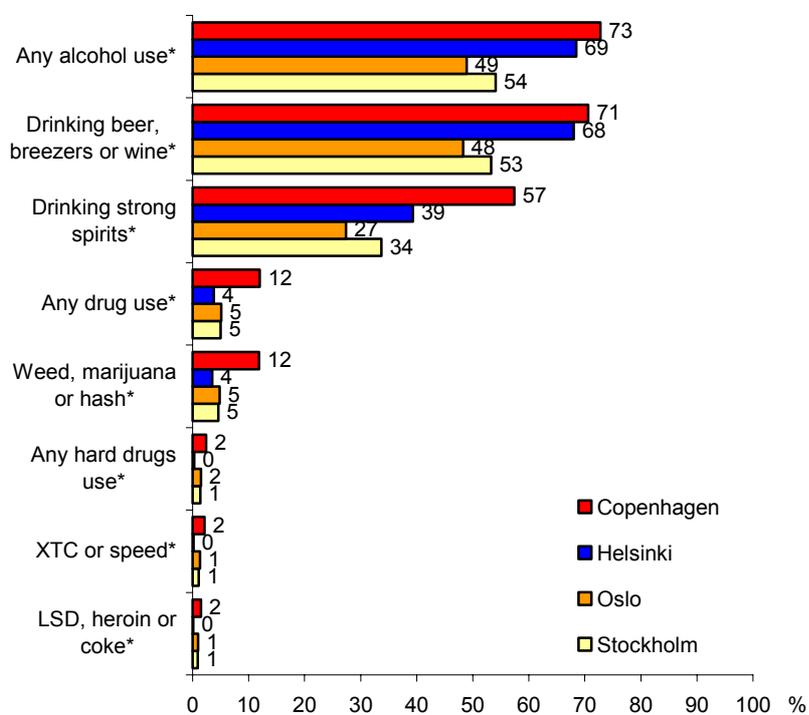
Drug use shows a similar pattern. Copenhagen adolescents report the highest prevalence levels on all measures. 12 per cent of Copenhagen adolescents had used weed, marijuana or hash at least once, while the corresponding last month prevalence was three per cent. In regard to hard drugs, the prevalence levels are so low that the results should be interpreted very carefully, even though the cross-tabulations reveal statistical significance (Pape & Storvoll 2006). It seems that Copenhagen adolescents have a higher prevalence in this respect, too. In all drugs items, Helsinki adolescents had the lowest prevalence levels.

If the prevalence of getting drunk on beer and on spirits is examined, the differences are quite similar. The prevalence of drunkenness is the

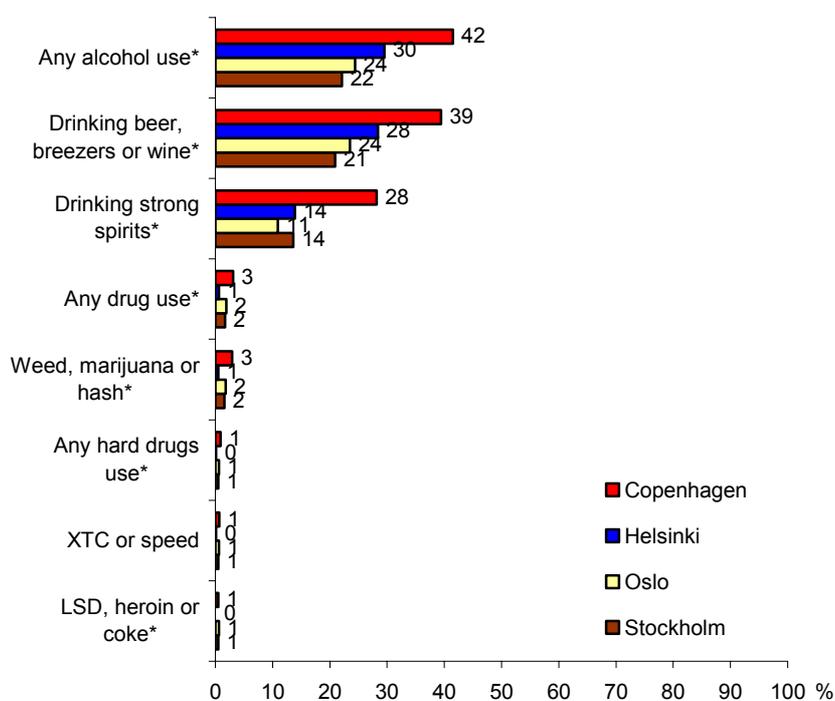
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<sup>17</sup> Last month use of XTC or speed is the only exception.

highest in Copenhagen. Helsinki occupies the middle position, while drunkenness is least prevalent in Stockholm and Oslo.



**Figure 8** Lifetime prevalence of substance use in Nordic capitals, % of 13–16-year-olds in Nordic capitals. \* =  $p < .05$  ( $\chi^2$ )

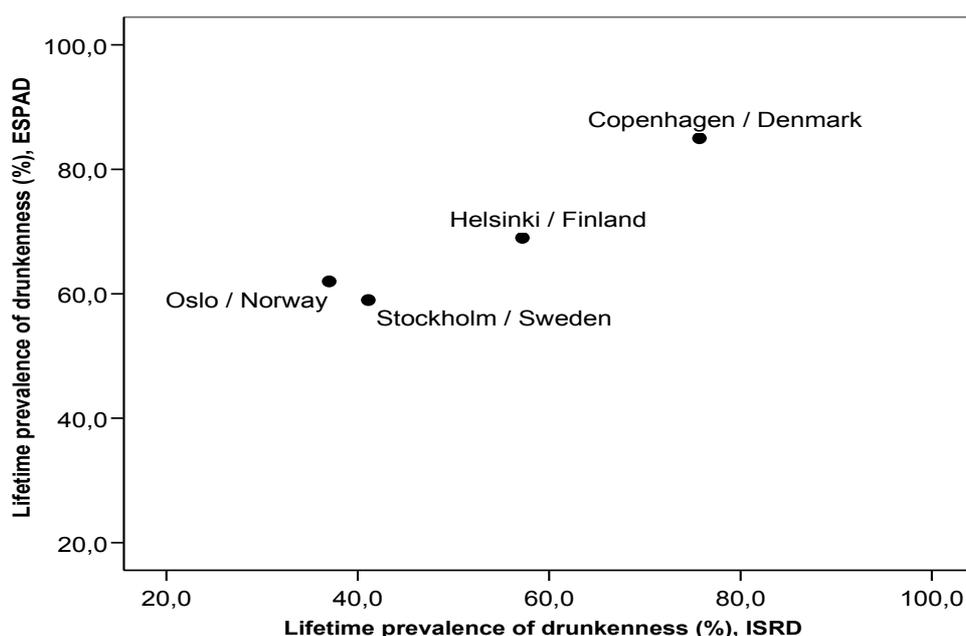


**Figure 9** Use of substances during the last month, % 13–16-year-olds in Nordic capitals. \* =  $p < .05$  ( $\chi^2$ )

### *Additional data sources on substance use*

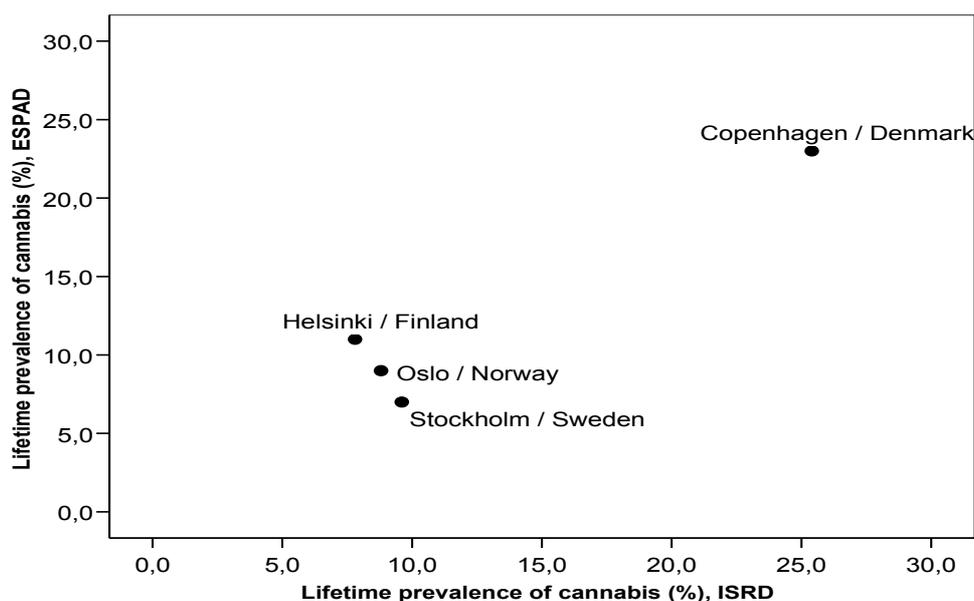
Alcohol use and drugs use differ from the other ISRD-2 offences in that for them we have good alternative self-report sources. Especially the European School Survey Project on Alcohol and Other Drugs (ESPAD) provides an interesting option for cross-validation. The most recent ESPAD survey was conducted in 2003 (Hibell et al 2004) with all Nordic countries participating. The study targeted ninth graders (approximately 15 years of age). In what follows, the ESPAD 2003 results are compared with the ISRD 2006 results. It should be underscored that the ESPAD data are based on national samples, and the ISRD-2 data on city samples. For ISRD-2, the comparisons are limited to ninth graders.

ISRD and ESPAD produce similar results on the prevalence of drunkenness in the Nordic countries (Figures 10 and 11). Both indicator systems place Denmark at the top, while Swedish and Norwegian youths manifest the lowest levels of drunkenness. Both indicators show that Finland lies somewhere in between these extremes.



**Figure 10** Lifetime prevalence of drunkenness in ISRD (2006) and ESPAD (2003) research projects. Note: ESPAD figures are based on national samples, ISRD figures on city samples.

Findings about cannabis use also indicate high validity of both indicator systems. Denmark shows the highest cannabis use levels in both ESPAD and ISRD. In contrast, the other three Nordic countries are clustered very close to one another. In the Nordic context, Denmark is an outlier in substance use.



**Figure 11** Lifetime prevalence of cannabis use in ISRD (2006) and ESPAD (2003) research projects.

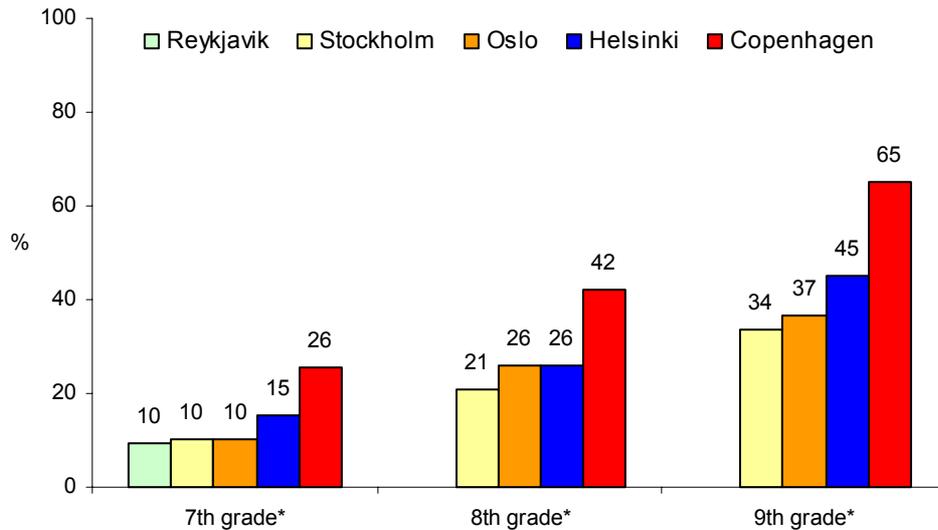
In addition to ESPAD, there is yet another large-scale internationally comparative survey with data on substance use, namely the Health Behaviour in School-aged Children Study (HBSC)<sup>18</sup>. This study contains questions on, for example, cannabis use (Currie et al. 2004, 86). According to the findings of the 2001/2002 HBSC sweep, the Danish youth have the highest Nordic lifetime and last-year prevalence levels of cannabis use (26 % for males). Finland (11 %) and Sweden (8 %) are far behind. These figures are very consistent with the ISRD and ESPAD findings.

Taken together, these comparisons indicate that the results of the ISRD reflect real difference in adolescent delinquency. It can be tentatively inferred that differences detected in other offence types similarly reflect real differences.

### ***Prevalence of substance use by grade***

The sampling of this study was targeted at three grade levels: the seventh, the eighth, and the ninth. It is therefore possible to compare the prevalence levels of various offences so that grade is held constant. When this is done, Iceland can be included in the comparison. These comparisons are limited to the one month recall period because grade differences in lifetime prevalence are likely to reflect cumulative aspects of offending (the older the group, the more time it has had to participate in offending).

<sup>18</sup> This indicator system is organized by the World Health Organization.

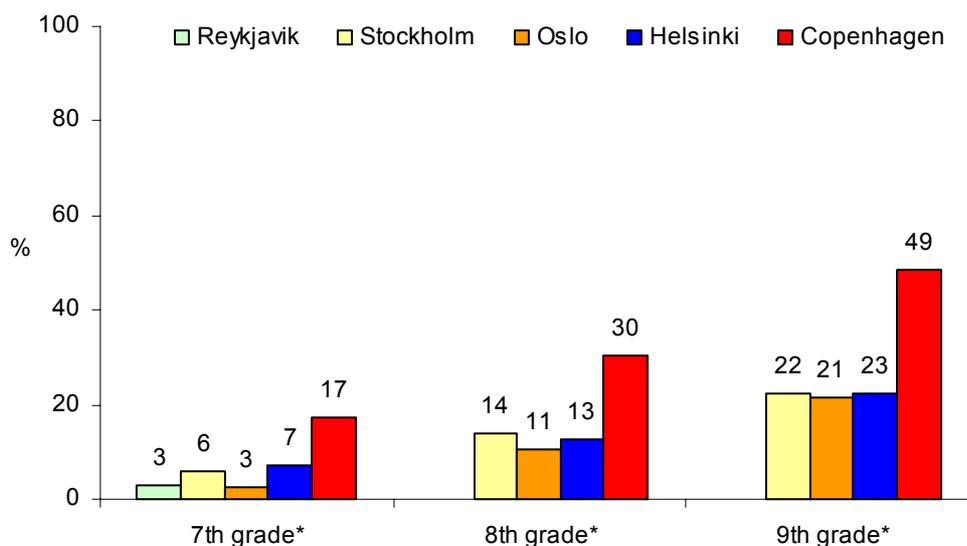


**Figure 12** Use of beer or wine during last month (%), by grade. 13–16-year-olds in Nordic capitals. \* =  $p < .05$  ( $\chi^2$ )

Adolescents in Copenhagen report the highest levels of beer and wine drinking in all grade levels (Figure 12). It is followed by Helsinki, even though among eight graders the difference between Helsinki and Oslo is minuscule. One in ten Reykjavik seventh graders have used beer or wine during the last month. The Icelandic youth are close to Stockholm and Oslo youths, comprising a low prevalence cluster.

In the four major Nordic capitals, the prevalence of beer and wine drinking increases as the adolescents proceed to higher grades.<sup>19</sup>

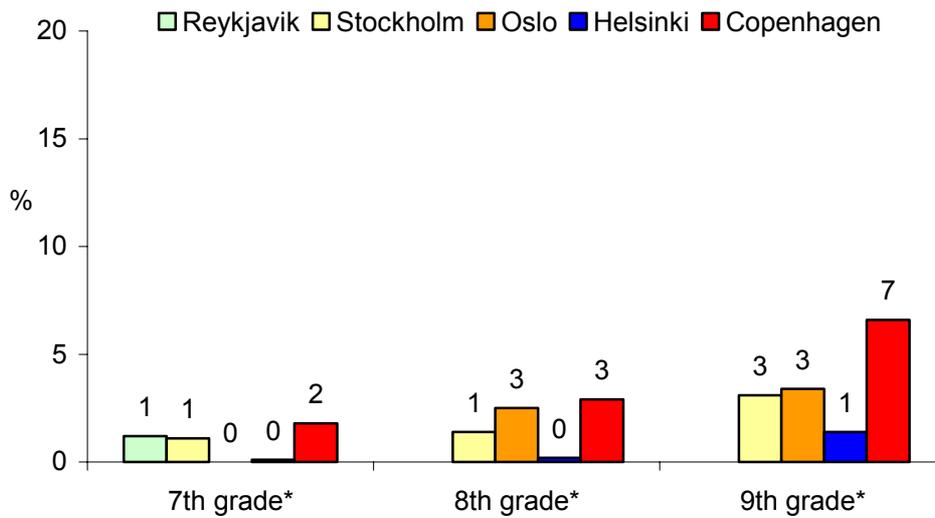
<sup>19</sup> Technically a cross-sectional sample does not allow this kind of "proceeding" because theoretically grade prevalence could reflect stable cohort differences. This is so unlikely that I will occasionally refer to age-related change of prevalence.



**Figure 13** Use of hard spirits during last month (%), by grade. 13–16-year-olds in Nordic capitals. \* =  $p < .05$  ( $\chi^2$ )

The basic outline is roughly the same when prevalence of spirits use is compared (Figure 13). Copenhagen adolescents stick out at all grade levels. The prevalence levels of other major Nordic countries are very close to one another. Oslo and Reykjavik seventh graders report the lowest levels of spirits use during the last month.

Last month drug use is so rare in all participating cities that grade-disaggregated analyses are based on a very small number of respondents reporting drugs use. This is especially true for the specific types of drugs. Figure 14, therefore, compares the prevalence of any last month drug use in the five Nordic capital cities.



**Figure 14** Use of any drugs during last month (%), by grade. 13–16-year-olds in Nordic capitals. \* =  $p < .05$  ( $\chi^2$ )

The analysis indicates that Copenhagen has the highest prevalence levels in all grades. Helsinki manifests consistently low prevalence levels. There is reason to believe that especially in regard to hard drugs, prevalence estimates should be treated with extreme caution (Pape & Storrø 2006).

### *Prevalence of substance use by sex*

The prevalence of substance use is roughly the same for both sexes in the Nordic capital cities (Appendix 1). In Copenhagen, males have higher alcohol use prevalence than females, while in Stockholm the situation is reversed. In Helsinki and Oslo, males and females are on the same level.

When recall period is limited to the previous month, the general patterns are roughly the same. In Helsinki and Stockholm, the females tend to “supersede” males in alcohol use when the recall period is shorter. This may reflect differential age-offence curves for males and females.

In regard to drug use, neither lifetime nor last month prevalence shows any gender-related differences.

### *Incidence of substance use among users*

Incidence data are based on an open-ended question about the number of times the respondent has committed the relevant offence during a specified recall period. In alcohol and drugs items, the recall period is last month, in

offences last year. In what follows, all mean incidence figures are based on those respondents who committed the relevant offence at least once. It is therefore of secondary interest to compare the incidence levels of different offences, because the number of non-offenders has a big influence on such differences. Instead, the comparisons are meant for comparing the offence frequency of *offenders* in the four Nordic capitals.

**Table 6** Average number of monthly substance use occasions<sup>a</sup> per substance user in the Nordic capitals. 13–16-year-old adolescents.

	Copenhagen	Helsinki	Oslo	Stockholm	F(p)
Beer & wine	..	2	3	3	0,86
Spirits	2	2	2	2	2,31
Cannabis	3	2	6	4	2,18

a) Calculations based on maximum of 25 monthly offences in a single offence category. \*= $p < .05$ , \*\*= $p < .01$ .

Using the standard criterion of statistical significance, alcohol and cannabis use frequency did not differ in the four Nordic capitals (Table 6). Differences in the intensity of cannabis use are marginally significant ( $p < .10$ ). This means that in Oslo and Stockholm, cannabis users have a higher frequency of cannabis use than in Copenhagen and Helsinki. This is interesting because cannabis use was most prevalent in Copenhagen. There seem to be comparatively many “low intensity” users in Copenhagen and comparatively many “high intensity” users in Oslo and Stockholm.

### **Summary**

When substance use is examined, Copenhagen sticks out as the city with the highest prevalence in the use of all substances ranging from beer and wine to hard spirits and drugs. The findings are remarkably consistent with other survey research projects such as ESPAD and HBSC. They corroborate the general picture which places Danish adolescents at the top of substance use in Nordic comparison (see also Kouvonen 2006).

However, if the incidence of substance use is explored among those who report offending, Copenhagen no longer stands out. For example, Oslo and Stockholm cannabis users use cannabis much more often than their Copenhagen peers. Copenhagen “substance use scene” seems to be characterised by comparatively high prevalence but relatively low intensity. It can be tentatively concluded that Stockholm and Oslo “scenes” are more polarised: less adolescents use more frequently. In contrast, Helsinki is characterised by low prevalence and low incidence of drugs use, suggesting a tightly controlled or suppressed drugs scene.

For Reykjavik, only seventh grade data was available. Reykjavik seventh graders report lower levels of beer and hard spirits drinking than seventh graders in the other Nordic capitals.

The Nordic prevalence of alcohol and drugs use does not seem to be gender-dependent.

## Theft

In the questionnaire, there were six questions concerning theft: one about shoplifting and five about more serious types of theft. In the following analyses, the concept “all theft” includes all six categories. The concept of “serious theft” excludes shoplifting and includes the five more serious types of theft: stealing a bicycle, moped, or scooter; purse or bag snatching; breaking & entering; stealing from a car; or stealing a car or a motorbike.

### *Prevalence of theft*

Lifetime participation in any theft was the highest in Copenhagen and Helsinki (Figure 15). Last year participation in theft was the highest in Copenhagen while the other three cities had rather similar prevalence levels in overall theft (Figure 16).

Helsinki adolescents had the highest lifetime prevalence of shoplifting, followed by Copenhagen, Stockholm and Oslo. There were no differences in last year shoplifting between the four cities.

Concerning serious theft, the high prevalence levels of Copenhagen stick out as an unexpected finding. This is largely explained by the high prevalence of stealing a bicycle, moped or scooter. About one in six Copenhagen adolescents report having committed this offence during his or her lifetime. Stockholm “lags” far behind (6 %) with twice as high a prevalence rate as Helsinki (3 %).

During last year, the Copenhagen prevalence of bicycle theft was 10 per cent, which is roughly three times higher than the corresponding figure in the other Nordic capitals.

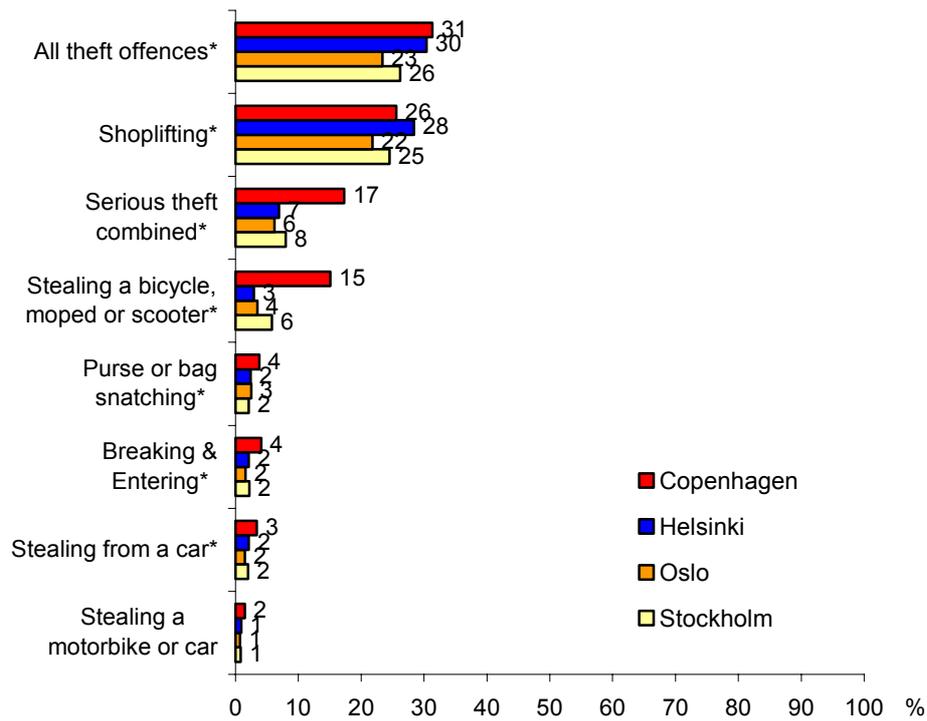
*Bicycle theft in Copenhagen.* The high prevalence of bicycle theft in Copenhagen may seem surprising, but it can be validated in reference to other self-report surveys. Kyvsgaard (1992) conducted self-report delinquency surveys in a suburb of the Copenhagen metropolitan area in 1979 and 1989. She targeted eighth graders. In 1979, the lifetime prevalence of bicycle theft was 19 per cent, and ten

years later 16 per cent. The 2006 figure, based on this study, is 17 per cent for Copenhagen eighth graders. The findings are consistent. This study adds to Kyvsgaard's findings by showing that Copenhagen adolescents are more likely to steal bicycles than adolescents in other Nordic capitals. A recent European crime victimisation survey shows consistent findings: Denmark ranks second after Netherlands in victimisation rate for bicycle theft. Finland and Sweden are just behind Denmark (van Dijk et al. 2006, 33–34).

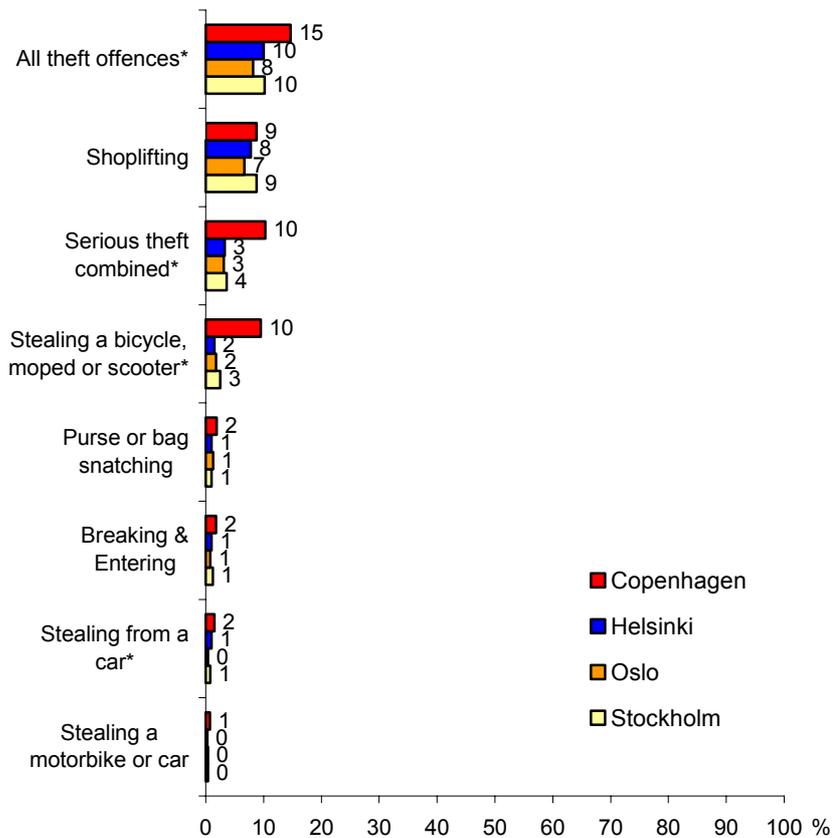
The difference of bicycle theft prevalence among the youth is not a simple function of how many people own bicycles: bicycle ownership was even more prevalent in Finland and Sweden than in Denmark (van Dijk et al. 2006, 107–108). Theft differences thus reflect the manner of bicycle use, creating differential opportunity structures. Copenhagen may have a “Dutch” type of bicycle culture with many bicycles parked along the city streets.

The ISRD-2 questionnaire included a question which can be used to assess the opportunity structure explanation of bicycle theft. The respondents were asked what means of transportation they use during the weekends. One option was a bike. The percentage of bike users was the highest in Copenhagen (45 %). Oslo (29 %), Helsinki (23 %) and especially Stockholm (10 %) were far behind. In contrast, adolescents in the other Nordic capitals were more likely to use public transportation. Taken together, these findings support the interpretation that high bicycle theft prevalence in Copenhagen reflects real differences, and is based on differential opportunity structures and routine activities among the youth.

The findings also indicate that purse snatching, breaking and entering, stealing from a car, and stealing a motorbike or a car are very rare offences among the 13–16-year-old population in the Nordic capitals. Using the lifetime recall period, all comparisons are statistically significant with the exception of stealing a motorbike or a car. Copenhagen scores high prevalence levels on all serious theft items. This finding would seem to contradict the opportunity structure interpretation of bicycle theft. If all serious theft types are above the Nordic average in Copenhagen, a different kind of interpretation is called for. It is possible that these findings correlate with the high prevalence of substance use in Copenhagen (although this interpretation is problematic from the standpoint of violence related results, see below).



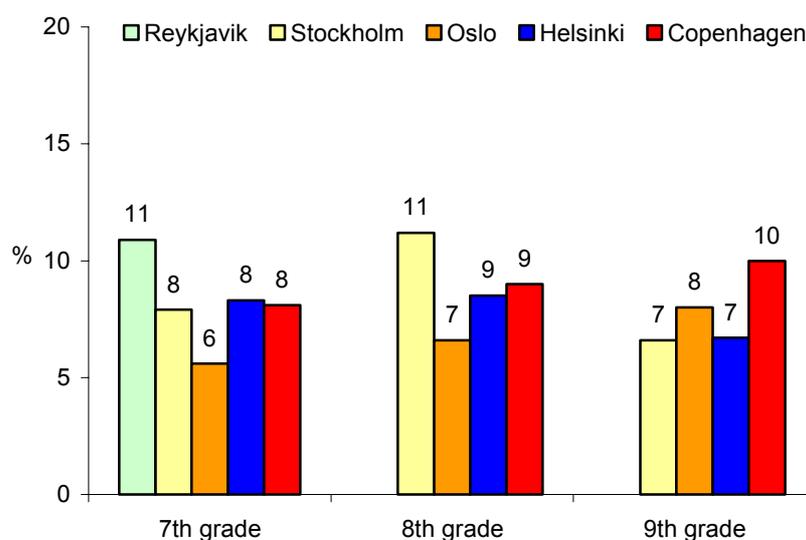
**Figure 15** Lifetime prevalence of theft in Nordic capitals, % of 13–16-year-olds in Nordic capitals. \* =  $p < .05$  ( $\chi^2$ )



**Figure 16** Last year prevalence of theft in Nordic capitals, % of 13–16-year-olds in Nordic capitals. \* =  $p < .05$  ( $\chi^2$ )

### *Prevalence of theft by grade*

In this section, participation in theft is explored separately in the seventh, eighth and ninth grade. The analyses are based on one year recall period. For seventh grade, Reykjavik is included in the comparisons. Most of the serious theft categories are so rare that grade-disaggregated analyses cannot be made. The analysis focuses on two constructs: (a) shoplifting and (b) any serious theft.



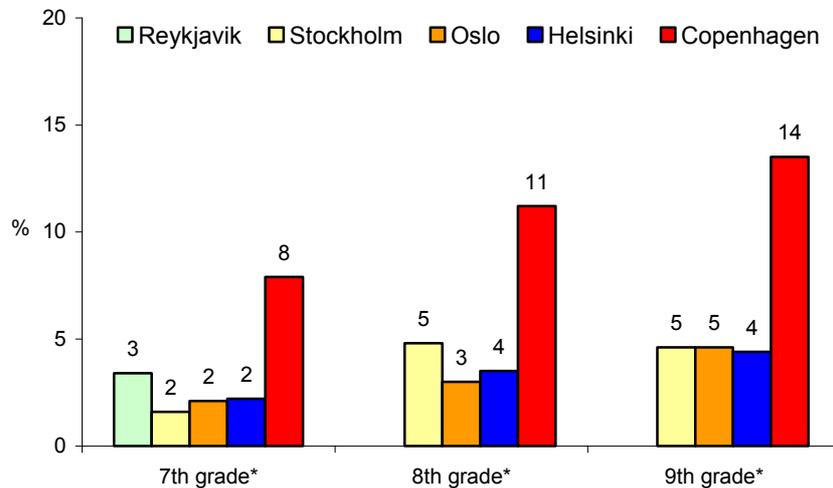
**Figure 17** Shoplifting during last year (%), by grade. 13–16-year-olds in Nordic capitals. \* =  $p < .05$  ( $\chi^2$ )

Participation in shoplifting is remarkably stable during adolescence (Figure 17 above). The all-Nordic averages at the three consecutive grade levels are respectively 8, 9 and 7 per cent. That is, less than one in ten 7–9 graders have shoplifted during the preceding year.

None of the grade-limited comparisons produce statistically significant differences between the Nordic capital cities. However, the seventh grade ( $p = .062$ ) and eighth grade ( $p = .087$ ) differences come close to the conventional limit of significance. It is therefore possible that Reykjavik seventh graders actually have the highest prevalence of shoplifting while the same holds true for Stockholm eighth graders.

In serious theft, Copenhagen adolescents have by far the highest participation rates at all grade levels (Figure 18 below). The above noted high rate of serious theft cannot be explained by the fact that the Copenhagen sample had the largest segment of seventh graders, and that a possible theft peak at that age could influence the overall comparison.

In contrast to shoplifting, participation in serious theft tends to increase as adolescents proceed to higher grade levels (Figure 18). Most such cases involve stealing a bicycle, especially in Copenhagen.



**Figure 18** Participation in some type of serious theft during last year (%), by grade. 13–16-year-olds in Nordic capitals. \* =  $p < .05$  ( $\chi^2$ )

Reykjavik has a slightly higher serious theft rate than Oslo, Stockholm and Helsinki, but it comes nowhere close to Copenhagen in that respect.

### *Theft participation by sex*

When the sample is disaggregated by sex, similar differences in theft participation emerge (Appendix 2). In other words, the differences cannot be explained by the behavioural tendencies of any one sex.

In overall lifetime stealing, Copenhagen and Helsinki males have a higher prevalence than Stockholm and Oslo males. Female participation ranges from the lowest level in Oslo to the highest level in Copenhagen.

In shoplifting, the Helsinki males have the highest prevalence, while females show no differences between the cities.

In serious theft, there is a deep divide between Copenhagen on one hand, and all the other cities on the other hand. This holds true for both sexes.

When the recall period is limited to the previous month, the general patterns remain roughly the same. Differences in the overall theft rate are largely explained by differential participation in serious theft. In Copenhagen, the male rate of serious theft is almost double the Nordic average (7%), and the corresponding female rate almost three times higher than the

Nordic average (3 %) and approximately four times higher than the typical rate in Helsinki, Oslo and Stockholm.

### *Incidence of theft among offenders*

As in all incidence analyses, the following data on last year incidence are based on those respondents who committed the relevant offence at least once. It is therefore of secondary interest to compare the incidence levels of the different offences, because the number of non-offenders has a big influence on such differences. Instead, the comparisons refer to the offence frequency of *offenders* in the four Nordic capitals.

**Table 7** Average number of annual thefts<sup>a</sup> per theft offender in the Nordic capitals. 13–16-year-old adolescents.

	Copenhagen	Helsinki	Oslo	Stockholm	F(p)
<i>Shoplifting</i>	4	4	7	5	3,43*
<i>Serious theft<sup>b</sup></i>	3	5	8	4	2,51
Burglary	4	2	4	2	1,20
Bicycle theft	4	2	3	2	1,55
Car theft	2	2	14	4	5,41**
Theft from car	5	1	6	4	1,29
Purse snatching	3	3	6	4	0,87

a) Calculations based on the maximum of 25 annual offences in a single offence category. b) All theft types excluding shoplifting (5-item sum variable range 0–125). \*= $p < .05$ , \*\*= $p < .01$ .

Adolescents who have participated in theft during the previous year differ in the intensity of stealing. Somewhat surprisingly, Oslo shoplifters seem to commit offences most frequently.

Differences in the intensity of serious theft (other theft types combined) were marginally significant ( $p < .10$ ). On that dimension too, Oslo shoplifters are more active than theft offenders on average in the other Nordic capitals. With respect to serious theft, the high frequency of Oslo offenders may be accounted for by a chance inclusion of a small number of active car thieves. However, it should be noted that high frequency stealing is evident also in shoplifting. Furthermore, Oslo has the highest offender incidence levels also in theft from car and purse snatching.

The prevalence analyses (see above) indicated that theft and serious theft in particular was most prevalent in Copenhagen. It is therefore interesting to note that the Copenhagen youths who steal *do not do so at a high intensity*. This is also the case in stealing bicycles, an offence whose prevalence was very high in Copenhagen. This finding may support the opportunity structure interpretation: the Copenhagen youth do not have a massive motivation to steal bicycles, but perhaps do so as the occasion arises.

The general picture is roughly the same as in substance use: Copenhagen shows high prevalence but low offence intensity, while Stockholm and Oslo combine low prevalence with relatively high offence intensity. The pattern of theft offences seems to be more polarized in Stockholm and Oslo.

### **Summary**

Stealing behaviour can be divided into two categories: shoplifting and serious theft. Shoplifting is equally prevalent among the Nordic adolescents, whereas serious theft is significantly more prevalent in Copenhagen than in the other Nordic capital cities. Prior Danish studies (Kyvsgaard 1992) suggest that this finding is robust.

Interestingly, those Copenhagen adolescents who have participated in theft have committed comparatively few theft offences. In other words, Copenhagen manifests a pattern which combines relatively high prevalence and relatively low incidence. This pattern may reflect some kind of cultural offence *normalization* involving a low threshold to occasional offending. In contrast, Stockholm and especially Oslo show a combination of low prevalence and high offending intensity among offenders. In other words, relatively few adolescents commit thefts, but those who do, commit many thefts. The “theft scene” in those cities is, therefore, comparatively *polarized*. Finland manifests yet another pattern characterised by both low prevalence and low incidence among offenders. This pattern could be tentatively named “suppressed”.

The sex difference in theft is roughly of the same magnitude in all Nordic capitals. The lifetime male prevalence is about 1,2 times higher than the female prevalence. In last year theft, males had a 1,3–1,9 times higher prevalence.

Reykjavik seventh graders had the highest last year prevalence of shoplifting (a non-significant difference). Yet only three per cent of Reykjavik seventh graders had participated in serious theft last year.

## **Violence**

There were four questions tapping various dimensions of violent behaviour: Participating in a group fight, carrying a weapon, intentionally beating someone up, and taking property by violent threats. The beating someone up question was framed, “Have you ever intentionally beaten someone

up, or hurt him with a stick or a knife, so badly that he had to see a doctor?”. The question about violent property taking was framed, “Have you ever threaten somebody with a weapon or a beating just to get money or other things from them?”. For brevity, these four offences are hereinafter referred to as “group fight”, “carrying a weapon”, “assault” and “robbery”.

Strictly speaking, carrying a weapon does not necessarily mean that the weapon would be used for violence. For reasons of brevity, this report uses “violence” in the sense of “violence related delinquency”.

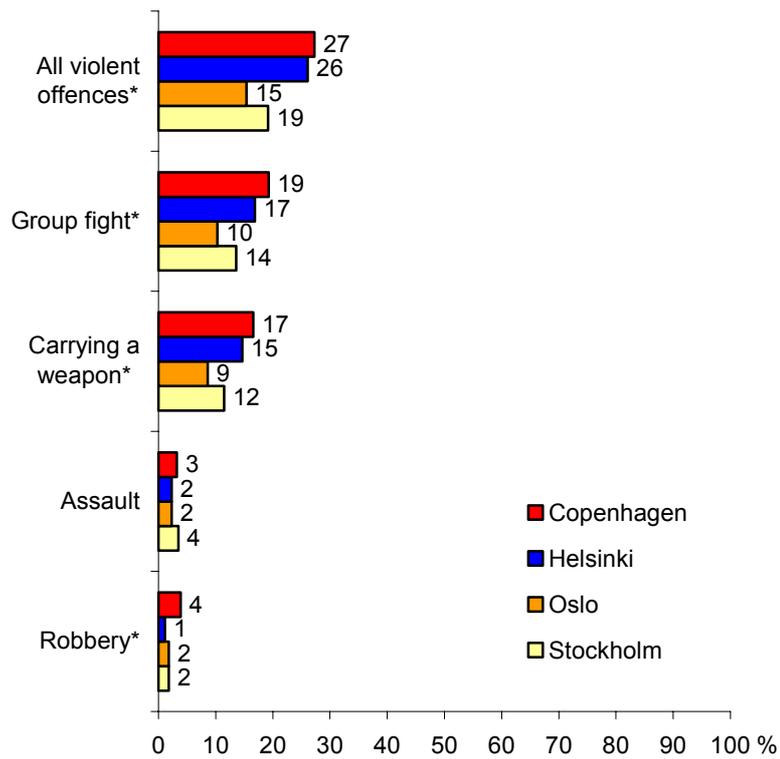
Participation in a group fight can also be a somewhat diffuse category. The level of personal involvement in such a fight, as well as the intensity of violence can vary greatly. In contrast, committing a robbery or beating up someone require direct personal aggression against another person.

### ***Prevalence of violence related offences***

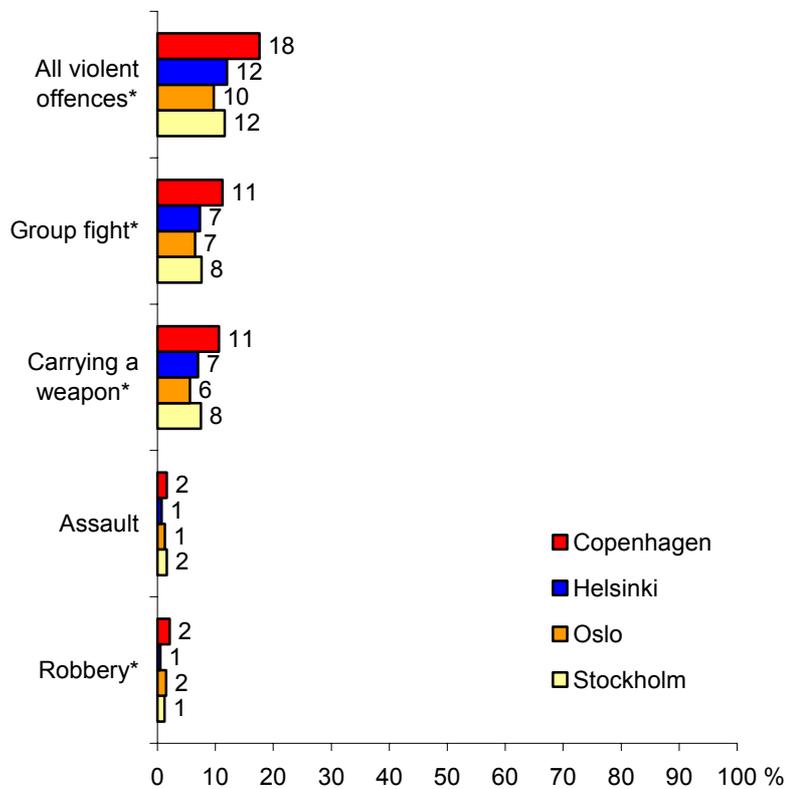
If lifetime participation in any type of violence related behaviour is examined, Denmark and Finland have the highest levels of violence among adolescents (Figure 19). The ranking largely results from weapon carrying and group fighting, in which Copenhagen and Helsinki cluster together, followed by Stockholm and Oslo.

If recall period is limited to the previous year, the situation is slightly different (Figure 20). Copenhagen still has the highest levels of group fighting and weapon carrying, but the other three nations manifest roughly equal levels of violence. This suggests that Finnish adolescents may have an earlier onset of violent behaviour, and that limiting the analysis to the preceding year has consequently a more drastic impact on the Finnish prevalence levels than the corresponding Danish figures. Age of delinquency onset is analysed in a separate chapter below.

There were no differences in the prevalence of “beating someone up” (assault) in the Nordic capitals. In robbery, Copenhagen has the highest lifetime prevalence. One may speculate that this could be somehow related to the high prevalence of substance use.



**Figure 19** Lifetime prevalence of violent behaviour in Nordic capitals, % of 13–16-year-olds in Nordic capitals. \* =  $p < .05$  ( $\chi^2$ )



**Figure 20** Last year prevalence of violent behaviour in Nordic capitals, % of 13–16-year-olds in Nordic capitals. \* =  $p < .05$  ( $\chi^2$ )

The Health Behaviour of School-aged Children (HBSC) survey project on health behaviour contains a question about physical fighting. In the 2001/2002 sweep, Norwegian adolescents had the highest last year prevalence of fighting (33 %). Denmark and Sweden were close to one another (31 % and 30 %) while Finland apparently had the lowest prevalence of fighting (25 %) (Currie et al. 2004, 140). The aforementioned order is inconsistent with the present findings which place Finland at the top in lifetime prevalence of group fighting and weapon carrying. In fact, Finland does not show significantly low prevalence levels in any of the violence related offence questions of the ISRD. One might argue that the apparent divergence results from the fact that HBSC is based on national sample while the ISRD figures shown in this report are based on city samples. However, in substance use, the findings of the present study and of the national sample based survey systems, such as HBSC and ESPAD, were highly consistent. Perhaps a more credible explanation for the inconsistency could be the wording: in the Finnish HBSC, the English expression “fight” (*tappelu*) is translated with the word *väkivalta* (violence) which has more serious connotations. If other Nordic HBSC measurements do not use the concept of violence in question wording, this may partially explain why Finland seems to have such a low prevalence of fighting. The terminological laxity and non-specificity of the HBSC violence question probably also explain the exceptionally high prevalence figures.

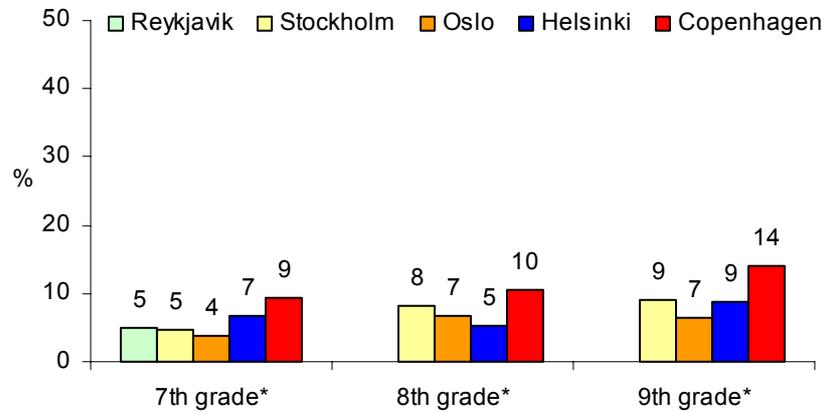
### ***Prevalence of violence by grade***

In this section, participation in violent behaviour is explored separately in the seventh, eighth and ninth grade. The analyses are based on one year recall period. For seventh grade, Reykjavik is included in comparisons. Two of the four violence items, namely assault and robbery, are so rare, that they are combined in this analysis.

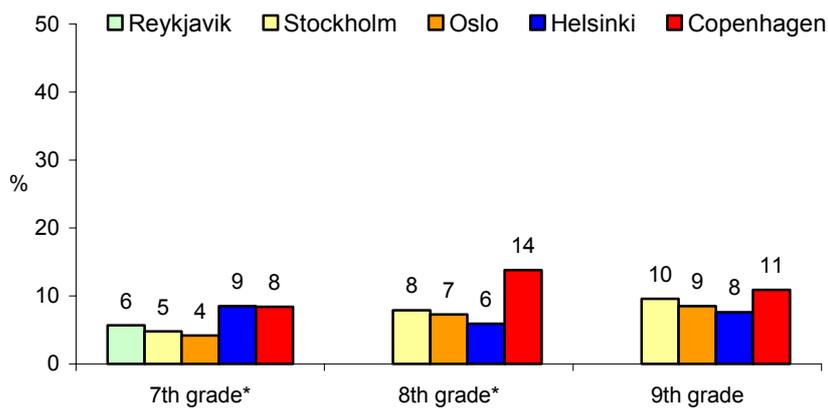
Carrying a weapon is most prevalent in Copenhagen at all grade levels. Seventh grade Helsinki adolescents have almost as high a prevalence as Copenhagen seventh graders (Figure 21).

Helsinki and Copenhagen seventh graders have the highest prevalence of participation in group fighting, while Reykjavik, Oslo and Stockholm are on a par in this respect (Figure 22). In eighth grade, Copenhagen adolescents regain their top position while the other three cities are on the same level. In the ninth grade, there are no significant differences. This suggests that adolescents from the other three cities “catch up” with their Copenhagen peers by the ninth grade.

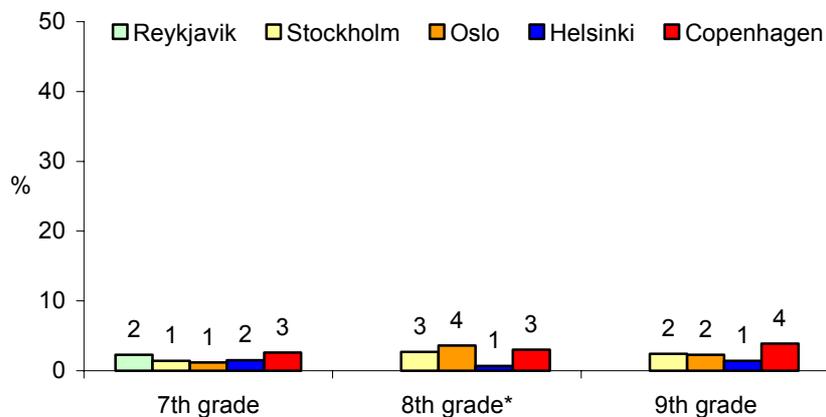
Participation in direct interpersonal aggression (robbery *or* assault) manifests very small differences between the cities (Figure 23).



**Figure 21** Carrying a weapon during last year (%), by grade. 13–16-year-olds in Nordic capitals. \* =  $p < .05$  ( $\chi^2$ )



**Figure 22** Participation in a group fight during last year (%), by grade. 13–16-year-olds in Nordic capitals. \* =  $p < .05$  ( $\chi^2$ )



**Figure 23** Committing a robbery *or* assault during last year (%), by grade. 13–16-year-olds in Nordic capitals. \* =  $p < .05$  ( $\chi^2$ )

The findings shown in Figures 21–23 tentatively suggest that the age-crime curve in violent behaviour possibly differs in Helsinki when compared with the other Nordic capitals. In other cities, weapon carrying and group fighting tend to increase as adolescents proceed to higher grades, while Helsinki manifests stability or even decrease.

### ***Violent behaviour by gender***

The relative positions of the cities are roughly the same for both male and female violence prevalence (Appendix 3). The high general violence prevalence of Copenhagen and Helsinki cannot be “pinpointed” to the behaviour of any one sex; both females and males have higher overall violence prevalence levels when compared to Oslo and Stockholm, even though the difference seems to be somewhat bigger in males.

If lifetime and last year figures are compared, Helsinki seems less violent when the recall period is limited to the preceding year. In the overall violence row of Table A in Appendix 3, Finland roughly clusters with Denmark, whereas in the corresponding row of Table B Finland clusters with Sweden and Norway. This may indirectly reflect differential age-crime curve in Finland (earlier onset, earlier desistance).

### ***Incidence of violence among offenders***

As in all incidence analyses, the following data on last year incidence are based on those respondents who committed the relevant violence related offence at least once during the preceding year.

**Table 8** Average number of annual violent offences<sup>a</sup> per violent offender in the Nordic capitals. 13–16-year-old adolescents.

	Copenhagen	Helsinki	Oslo	Stockholm	F(p)
<i>Violent offences<sup>b</sup></i>	8	6	7	7	0,60
Carrying a weapon	9	8	7	7	1,42
Group fighting	3	2	3	4	1,46
Robbery	3	3	6	6	1,02
Assault	3	3	3	2	0,27

a) Calculations based on the maximum of 25 annual offences in a single offence category. b) All violent offences combined (4-item sum variable range 0–100). \*= $p < .05$ , \*\*= $p < .01$ .

None of the comparisons in Table 8 are statistically significant. The intensity of violent offending is very similar in all four Nordic capitals. There are differences in the prevalence of violent offending, but not in the average intensity at which violent offenders engage in violent behaviour.

### *Summary*

When lifetime participation in violence is examined, Copenhagen and Helsinki adolescents have higher participation rates than their peers in Stockholm and Oslo. If recall period is limited to one year, Copenhagen has the highest prevalence of violence. These findings relate to carrying a weapon and to “group fighting”. Differences in robbery and assault prevalence were small and mostly non-significant.

There were no differences in the average number of offences committed by offenders. Here, the polarization-normalization interpretation is not as evident as in substance use or in theft. However, it can be said that Copenhagen’s high prevalence figure is *not* associated with an above-average offending intensity.

In all Nordic cities, male prevalence of violent offending is 2–3 times higher than the female prevalence. The male/female difference in violence participation was remarkably consistent in the Nordic capitals (see the chapter on general patterns). While substance use, and to some extent shoplifting, are equally prevalent among the sexes, violence is a much more male-dominated activity.

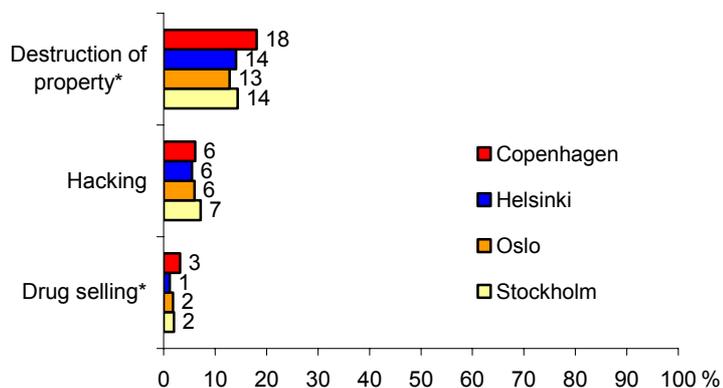
### Other offences

There were three offence types which do not belong to the above-examined larger offence categories: destruction of property, hacking, and selling drugs. Property destruction refers to purposeful damaging of property such as bus shelter, window, car etc. The drug selling question refers to dealing drugs or acting as an intermediary.

The hacking question was quite blunt: “Have you ever used your computer for ‘hacking’?” In the common Finnish usage, hacking refers to an unauthorised or illegal entry to electronically stored data for any purpose, including data theft, data destruction, extortion or sheer curiosity. In the spring of 2005, respondents to a small-scale Finnish pilot study were asked to describe their “hacking” behaviour. The sole student admitting hacking wrote that he had “hacked the passwords of the school Intranet”. However, the word hacking may have different meanings or connotations in different countries. Some Swedish respondents, for example, commented that in their opinion hacking is not associated with anything unlawful, and that the word “cracking” would be better when denoting illegal activities. It is possible that similar distinctions apply to other countries, including Finland, and the findings should be interpreted very cautiously.

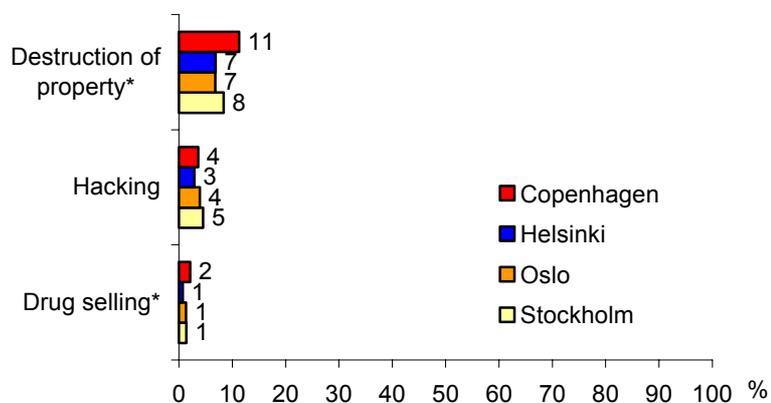
### *Prevalence of property destruction, hacking, and drug selling*

Lifetime participation in property destruction and selling drugs was most prevalent in Copenhagen (Figure 24). City-specific differences in self-reported computer hacking were not statistically significant, even though Stockholm appears to have the highest prevalence.



**Figure 24** Lifetime prevalence of other offences in Nordic capitals, % of 13–16-year-olds in Nordic capitals. \* =  $p < .05$  ( $\chi^2$ )

The results are the same when recall period is limited to last year (Figure 25).



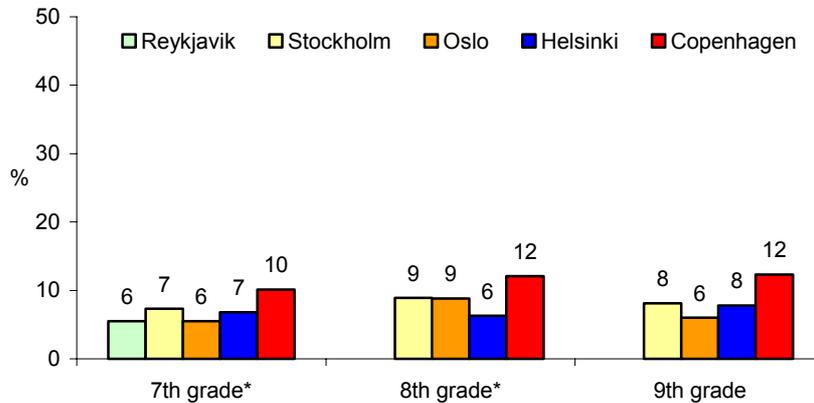
**Figure 25** Last year prevalence of other offences in Nordic capitals, % of 13–16-year-olds in Nordic capitals. \* =  $p < .05$  ( $\chi^2$ )

### *Other offences by grade*

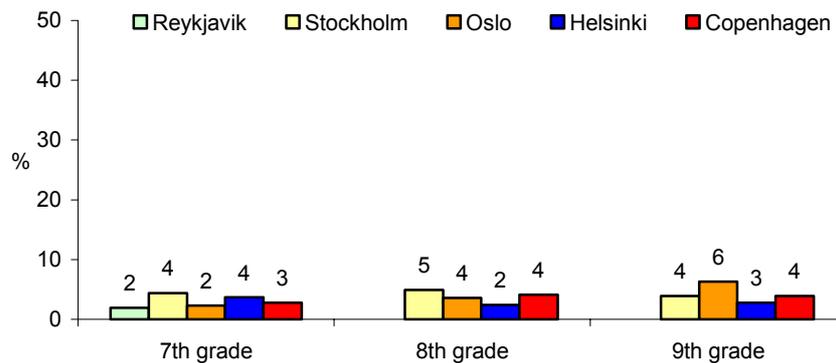
When the prevalence of property offending and hacking is examined separately at each grade level, high stability is detected. Copenhagen has the highest property destruction levels at all grade levels (Figure 26). Hacking is equally prevalent in all grades and all cities (Figure 27). The overall

prevalence of drug selling is so low that grade disaggregated analyses are not presented.

Among seventh-graders, Reykjavik adolescents have the lowest prevalence levels in both property destruction and hacking.



**Figure 26** Destruction of property during last year (%), by grade. 13–16-year-olds in Nordic capitals. \* =  $p < .05$  ( $\chi^2$ )



**Figure 27** Hacking during last year (%), by grade. 13–16-year-olds in Nordic capitals. \* =  $p < .05$  ( $\chi^2$ )

### *Other offences by gender*

When examined by gender, the city-specific differences follow the basic patterns of overall delinquency (Appendix 4). In all cities, the male prevalence of property destruction is 2–3 times higher than the corresponding female figure.

In hacking, it is interesting to note that Copenhagen males have the lowest lifetime prevalence, even though the difference is non-significant. Also, the difference between the sexes is very big, with the exception of Copenhagen where hacking is equally prevalent among males and females.

### ***Incidence of property destruction, hacking and drug selling among offenders***

There were no significant differences in the intensity at which the offenders committed these offences (Table 9).

Helsinki not only has the lowest prevalence of hacking (see above), but the Helsinki hackers also tend to hack less often than their Nordic colleagues. This is slightly surprising as Finland sometimes sees itself as the number one computer nation in the world. Of course, it may be that Finnish computers are better protected and therefore more difficult to hack.

Given the comparatively high prevalence of drugs use in Copenhagen (see above), it is perhaps not surprising that the intensity of drug selling is the highest among Copenhagen adolescents. After all, more users must mean more business for dealers. However, the difference is statistically not significant.

**Table 9** Average number of other offences<sup>a</sup> per offender in the Nordic capitals. 13–16-year-old adolescents.

	Copenhagen	Helsinki	Oslo	Stockholm	F(p)
Destruction of property	4	3	4	4	0,52
Hacking	5	3	6	5	1,91
Drug selling	7	3	4	4	0,83

a) Calculations based on the maximum of 25 annual offences in a single offence category. \*= $p < .05$ , \*\*= $p < .01$ .

### ***Summary***

Destruction of property shows a familiar pattern: Copenhagen has the highest prevalence levels, but offenders there do not have a distinctly high offending frequency.

There were no differences in the prevalence or incidence of hacking between the Nordic capitals.

Seventh grade comparisons, which include Reykjavik, suggest that Icelandic adolescents have a comparatively low prevalence of property destruction and hacking.

## **General patterns**

Above, different offence types were examined separately. In this chapter, more general patterns are explored. First, the gendered patterns of delinquency are briefly examined. Second, the general offending intensity of

offenders in the Nordic capitals is examined. Third, some overall patterns are tentatively explored by graphically examining how participation levels and offending intensity combine and interact in the Nordic capitals.

### ***Gender structure of delinquency***

In Appendices 1–4, offence-specific prevalence levels of each city are disaggregated by sex. In this section, I will briefly return to the question of sex differences in offending. The following analyses seek to summarize the findings so that the general patterns are highlighted.

In Table 10, the male/female prevalence ratios are shown for six offence types and all offences. For example, the adolescent all-Nordic male prevalence of serious theft was 6,8 while the corresponding all-Nordic figure for females was 3,0. When 6,8 is divided by 3,0, a ratio of 2,3 is detected. If male and female prevalence levels differ in a statistically significant way, the ratio is denoted with an asterisk.

The ratios can also be seen as “odds ratios” signifying the male risk of offending in relation to the female risk. It is thus 2,3 times more likely that adolescent Nordic males have participated in violent offences during the preceding year, if compared with the Nordic females of the same age group.

**Table 10** The male/female ratio of last year participation in delinquency by city. 13–16-year-olds.

	All Nordic	Copenhagen	Helsinki	Oslo	Stockholm
Alcohol <sup>a</sup>	1,0	1,0	0,9	1,0	0,8
Any drug use <sup>a</sup>	1,0	1,0	1,0	1,0	1,3
Shoplifting	1,3*	1,2	1,4*	1,9*	1,3
Serious theft	2,3*	1,8*	2,3*	2,0	2,7*
Violence	2,4*	2,3*	2,4*	2,9*	2,4*
Property destruction	2,6*	2,1*	2,6*	3,2*	2,5*
All offences <sup>b</sup>	1,9*	1,6*	1,9*	2,5*	1,8*

a) Last month. b) Excludes alcohol but includes drugs. \*= $p < .05$ , \*\*= $p < .01$ .

The most striking finding is the *similarity* of the sex-disaggregated Nordic delinquency patterns: In all Nordic capital cities, male and female adolescents are equally likely to have used alcohol and drugs during the preceding month. In all cities, males are slightly more likely to have shoplifted (although the difference is non-significant in Copenhagen and Stockholm). In all cities, males are approximately two to three times more likely to have participated in serious theft, violence related offences and property destruction.

In forms of delinquency which are not related to substance use, the male/female difference is the smallest in Copenhagen.

### *General offending intensity*

Above, the mean incidence levels of each offence type were examined. What if all offences are simultaneously included? This gives a very broad and general overview of the “criminality” of young people in four Nordic capitals. The following analyses are based on a sum variable including incidence counts of 16 offences (all offences excluding two alcohol items).

The first row of Table 11 shows the mean number of offences per all respondents (including non-offenders). This kind of analysis suggests that young people in the Nordic capitals demonstrate quite similar “criminality”. The mean offence counts do, however, differ significantly from one another. Copenhagen adolescents tend to commit slightly more offences than others.

**Table 11** Mean number of offences<sup>a</sup> in the Nordic capitals. 13–16-year-old adolescents.

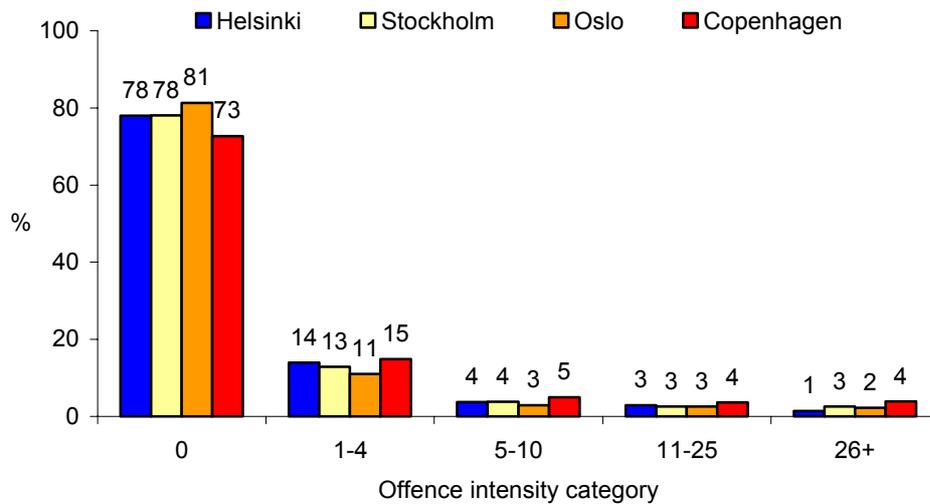
	Copenhagen	Helsinki	Oslo	Stockholm	F(p)
All respondents (sd)	3 (10,9)	2 (5,6)	2 (9,3)	2 (8,8)	7,04**
Offenders (sd)	11 (18,4)	7 (10,2)	11 (19,1)	10 (18,4)	4.03**

a) Calculations based on a 16-item sum variable (all offences excluding alcohol items and “downloading”). Counts based on the maximum of 25 annual offences in a single offence category (variable range 0–400). \*= $p < .05$ , \*\*= $p < .01$ . Standard deviation is shown in brackets.

The second row of Table 11 shows the mean number of offences per offender (excluding non-offenders). In this analysis, Helsinki offenders manifest slightly lower intensity than their peers in the other three Nordic capitals.

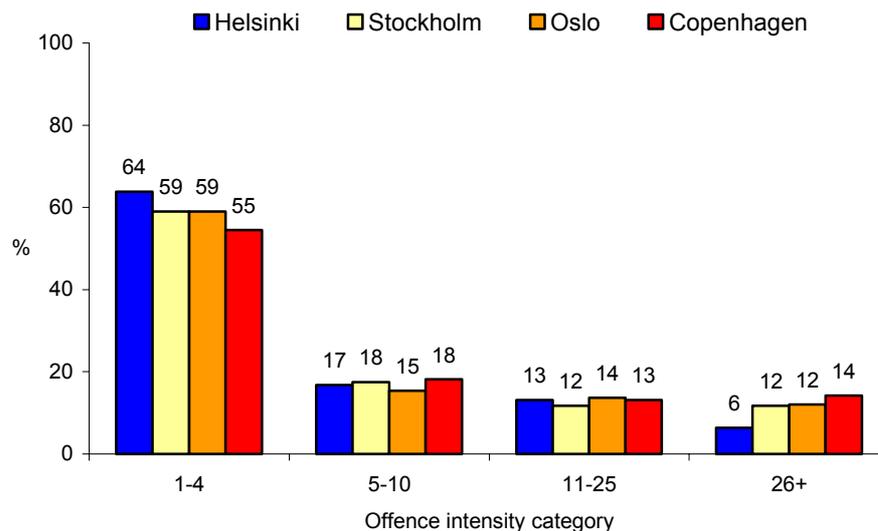
Helsinki also has the lowest standard deviations, meaning that the incidence scores are less dispersed around the mean in Helsinki.

For the purposes of further analyses, the general incidence variable was recoded into five categories representing different levels of last year incidence. The distributions of this variable were quite similar in the Nordic capitals (Figure 28). The proportion of “totally law abiding” adolescents was the lowest in Copenhagen (73 %) and the highest in Oslo (81 %). Helsinki and Stockholm were on a par in this respect (78 %). Figure 28 also indicates the rareness of multiple offending. It is statistically normal not to commit offences.



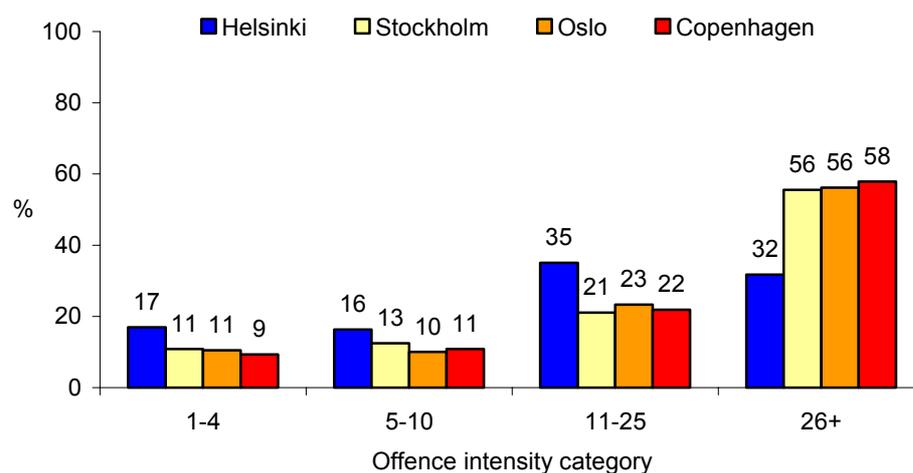
**Figure 28** Last year incidence of offences, % of 13–16-year-olds in Nordic capitals.  $p=.000$  ( $\chi^2=42.6$ ,  $df=12$ ).

The above Figure includes respondents who did not commit any offences in the preceding year. In the following Figure 29, the analysis is limited to those adolescents who committed at least one of the 16 offences at least once. For reasons of brevity, I will call these persons “offenders”. In all capital cities, the number of offences was usually limited to 1–4. For example, of all Helsinki offenders, 64 per cent committed 1–4 offences, while in Copenhagen the corresponding percentage was 55.



**Figure 29** Distribution of offenders (persons who have offended at least once) in offence intensity categories, % of 13–16-year-old offenders in Nordic capitals.  $p=.165$  ( $\chi^2=12.9$ ,  $df=9$ ).

The above figures count respondents. Based on self-reports concerning the number of offences, it is also possible to explore how offences “cumulate” to frequent offenders (Figure 30). Generally speaking, the group of offenders with more than 25 annual offences committed an overwhelming share of all offences. All Nordic capitals have a *minority of adolescents* who commit a *majority of offences*.



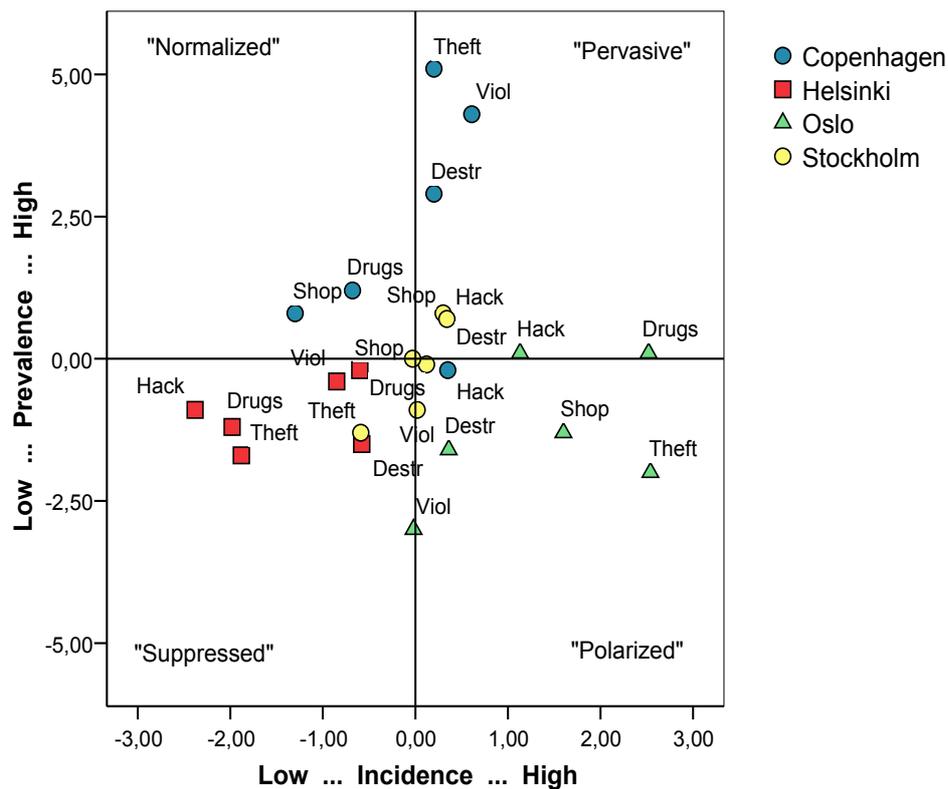
**Figure 30** Distribution of offences committed by persons in the four offending intensity categories, % of all offences committed by 13–16-year-olds in Nordic capitals.

In this offence-based and offender-limited analysis, Helsinki sticks out. There the group committing more than 25 offences committed a lesser share of offences than the group with 11–25 committed offences. The highest intensity offender group was comparatively small in Helsinki (Figures 28 and 29). This finding may reflect real differences, such as differences in age-crime curve for violence (see analyses below). However, institutional differences cannot be ruled out either. It is known, for example, that referral to special education has greatly increased in Finland over the recent years (Kivivuori & Salmi 2006). Furthermore, it is also known that in Finland, students placed in special education are significantly more criminal than students who remain in regular education. The effect of excluding special education students is particularly significant in the estimation of incidence levels. The abnormal Helsinki readings in incidence analysis could reflect the increasing segregation (or “tracking”, if you will) between “normal” students and those with behavioural problems. However, this must remain a hypothesis because it is not known whether Helsinki differs from other Nordic capitals in this respect. The finding concerning frequency of offending in Helsinki should be regarded as provisional until further corroboration from other studies.

### *General delinquency patterns?*

In what follows, some general patterns are explored in a tentative manner by using simple graphical presentations. The presentation of findings is based on only two dimensions: the prevalence and incidence of delinquency is simultaneously described so that each Nordic city receives a value on both dimensions for a selection of offences.

The findings are shown in Figure 31. The vertical axis represents the prevalence of committing the relevant offence at least once last year. The unit of the axis is percentage-point. The horizontal axis represents the incidence of the same offences last year (maximum number of incidences 25 per offence). The incidence means are calculated from those respondents who committed the offence at least once. The horizontal incidence axis thus measures the “intensity” at which offenders in each city offend in the particular offence category. The reference lines represent Nordic means of prevalence and incidence. In each offence, the figures reflect deviation from the Nordic mean (of prevalence and incidence).



**Figure 31** Deviation of Nordic capitals from the Nordic mean by crime type. Note: “Shop” = shoplifting, “Theft” = serious theft.

In Figure 31, the abbreviation “theft” refers to serious theft sum variable (5 items, excluding shoplifting), while “shop” refers to shoplifting. “Drugs”

refers to the use of marijuana or hashish during the last 4 weeks. “Destr” refers to intentional destruction of property, “hack” to hacking and “viol” to violence (4 item sum variable).

The markers of each city tend to cluster together, meaning that different offence dimensions differ in a similar fashion from the Nordic average.

Based on this analysis, the Copenhagen crime scene could be described as *relatively normalized*. The offender incidence levels are in some offences above average, and the prevalence levels comparatively high. Relatively many adolescents commit offences in a relatively intensive manner. However, it should be noted that the incidence levels of the Copenhagen offenders do not exceed the Nordic average.

In contrast, the Oslo offenders are relatively few in number, but offend in an intensive manner. The Oslo adolescents occupy a crime scene which could be described as *relatively polarized*. Polarization takes place when a relatively small proportion of adolescents participate in crimes, but this minority offends at a relatively high intensity.

The Helsinki crime scene could be described as *relatively suppressed*. The suppression dimension refers to comparatively low levels of both prevalence and incidence. The term “suppression” does not necessarily refer to social control as the reason why the levels are below average.

Stockholm clusters near the Nordic mean in all offence categories. The Stockholm delinquency scene could be characterised as *typical Nordic*. It does not “stick out”. It should be noted that there is no statistical necessity for one country to cluster near the mean in all offence types.

It should be strongly underscored that the interpretation grid is totally dependent on the countries which are included. If some other country with very different readings would be inserted in the grid, all the Nordic countries could suddenly cluster together in this kind of tentative graphical exploration. The dimensions should be read as referring to other cities in the grid. Thus Copenhagen delinquency scene is more “normalized” than that of the other Nordic cities, and Oslo adolescents manifest a more “polarized” situation than their Nordic peers. They are not “normalized” or “polarized” in any absolute sense.

Finally, it should be noted that the relative positions of the four cities in this grid can reflect differences in age-crime curves. The age bracket 13–16 is a limited “window” to the complete age-crime curve. For example, it is possible that among Helsinki adolescents, crime peaks earlier. They are neck and neck with the Copenhagen adolescents in many lifetime figures but lag behind in the last year figures. This suggests that the age bracket 13–16 may provide us a view of Helsinki adolescents at a time when their delinquency is declining more steeply than in the other Nordic countries.

## Age of delinquency onset

The respondents were asked how old they were when they committed the relevant offence for the first time. This question makes it possible to examine in a tentative manner possible differences in the typical age of delinquency onset in the Nordic capitals.

### *Methodological limitations*

Ideally, analysis of onset should be based on longitudinal studies following individuals over time. In contrast, the present data are based on retrospective method. Furthermore, respondents who at the time of the survey were 15 years of age could specify the age 14 as the time they started committing offences, while 13-year-old respondents could not. It would, therefore, be better to examine the different age levels separately, but this would result in small numbers of observations for most offences. Therefore, the following analyses are separately performed for seventh graders (mostly 13–14-year-olds) and ninth graders (mostly 15–16-year-olds) as a compromise between age-at-survey homogenization and statistical power.

It is also possible that the respondents remember the age of onset differently at different ages. The differences between the cohorts can partially reflect the fact that the respondents *telescope* past events towards the present. However, there is no reason to believe that the telescoping effect would vary from one Nordic capital to another.

For the purposes of the following analyses, all values ranging from 0 to 5 were recoded as missing. In other words, students replying that they first committed (for instance) an assault at the age of 4 are not included in the analysis. It is probable that such responses represent memory errors or “smart aleck” answers. If the report is correct, the presence of “criminal intent” can be disputed. The selection of age 6 as a cut-point is arbitrary, but is linked to the fact that many 6-year-olds go to school (at least in Finland). School age is defined as the meaningful range of delinquency onset. Because this study is based on 13–16-year-olds, occasional self-reports exceeding 16 were also excluded as illogical.

### *Age of onset as reported by seventh graders*

Shoplifting is the typical “first offence” for this age cohort of the Nordic adolescents (Table 12). Of course, there are great individual variations, but on the average, shoplifting has the lowest mean onset age. In this grade

cohort, shoplifting typically begins at the age of 10. The sequence of offences shows no clear pattern with the exception that drugs related offences, which clearly are late onset offences. When cities are compared, some interesting patterns emerge. Reykjavik, the capital of Iceland, manifests the lowest mean onset ages in shoplifting, property destruction and bicycle theft. Oslo adolescents have the earliest average onset ages in stealing of or from cars. This finding is consistent with the above reported analyses of annual incidence levels. In that context, it was observed that Oslo offenders had a high average intensity of car theft and theft from car. It was concluded that the Oslo sample includes a group of “auto thieves”. This analysis adds to the picture by indicating that this group also had an early onset of auto related theft.

**Table 12** Mean age of delinquency onset, **seventh graders** in Nordic capital cities.

	All Nordic	Copenhagen	Stockholm	Oslo	Helsinki	Reykjavik
Shoplifting*	10,7	11,2	11,0	10,7	10,6	<b>10,3</b>
Assault	11,1	12,0	11,0	11,4	10,7	10,1
Destruction of property*	11,2	11,7	11,4	11,5	10,9	<b>10,5</b>
Snatching a purse, bag	11,2	12,0	12,0	11,4	10,7	10,7
Theft from car <sup>a</sup>	11,4	12,1	12,0	<b>8,7</b>	11,9	11,0
Group fight*	11,4	12,3	12,0	11,7	<b>10,6</b>	11,0
Weapon carrying*	11,5	12,1	12,0	11,2	<b>10,9</b>	11,3
Beer drinking*	11,5	11,6	<b>11,1</b>	12,1	11,3	11,5
Theft of bicycle or moped <sup>b</sup>	11,8	11,9	12,0	11,5	12,5	<b>11,3</b>
Breaking & entering	11,8	12,3	12,0	10,8	12,6	11,5
Robbery	11,8	12,3	12,0	11,6	10,4	11,8
Spirits drinking*	12,0	<b>11,7</b>	11,9	12,7	12,0	12,2
LSD, heroin or cocaine use	12,1	12,0	11,3	13,0	.	13,5
Hacking	12,4	12,6	12,0	12,7	12,3	12,2
Theft of motorbike or car*	12,5	13,0	13,0	<b>10,0</b>	13,0	13,0
XTC or speed use	12,5	13,3	11,5	.	.	12,8
Drug dealing	12,7	.	13,0	.	14,0	.
Cannabis use	12,9	12,7	13,4	13,5	12,7	12,9

\* Differences of mean onset age  $p < .05$  (anova). a) Marginally significant,  $p = .058$ . b) Includes theft of scooter. Earliest mean onset age boldfaced in significant comparisons.

Helsinki adolescents have the earliest average onset ages for group fighting and weapon carrying (Table 12). Copenhagen and Stockholm score the earliest onset ages respectively for beer drinking and spirits drinking.

One way of exploring possible general patterns of onset is to replace means with ranks. For example, the first row of table 12 shows the mean ages of onset for shoplifting in the five cities. These are ranked so that Reykjavik, manifesting the earliest average onset, scores 1, Helsinki 2, Oslo 3, Stockholm 4, and Copenhagen 5. This transformation does *not* result in any better estimates concerning the real population values of each

city. This needs to be strongly underscored because cities receiving different ranks may have very similar mean ages of onset. However, ranking helps to compare the five samples in a manner that reduces “noise” in the data.

**Table 13** Ranking of Nordic capital cities in terms of delinquency onset. Seventh graders.

	Copenhagen	Stockholm	Oslo	Helsinki	Reykjavik
<i>Substance related offences</i>					
Beer and wine drinking*	4	1	5	2	3
Drinking strong spirits*	1	2	5	3	4
LSD, heroin or cocaine use*	2	1	3		4
XTC or speed use*	3	1			2
Drug dealing		1		2	
Cannabis use	1	4	5	1	3
<b>Mean rank</b>	<b>2,2</b>	<b>1,7</b>	<b>4,5</b>	<b>2,0</b>	<b>3,2</b>
<i>Property related offences</i>					
Shoplifting*	5	4	3	2	1
Destruction of property*	5	3	4	2	1
Snatching a purse or bag	4	4	3	1	1
Theft from car*	5	4	1	3	2
Theft of bicycle or moped <sup>a</sup>	3	4	2	5	1
Breaking and entering	4	3	1	5	2
Hacking	4	1	5	3	2
Theft of motorbike or car*	2	2	1	2	2
<b>Mean rank</b>	<b>4</b>	<b>3,1</b>	<b>2,5</b>	<b>2,9</b>	<b>1,5</b>
<i>Violence related offences</i>					
Assault	5	4	3	2	1
Group fight*	5	4	3	1	2
Weapon carrying*	5	4	2	1	3
Robbery	5	4	2	1	3
<b>Mean rank</b>	<b>5</b>	<b>4</b>	<b>2,5</b>	<b>1,3</b>	<b>2,3</b>
<b>Mean rank (all offences)</b>	<b>3,7</b>	<b>2,8</b>	<b>3,1</b>	<b>2,3</b>	<b>2,2</b>

\* Differences of mean onset age  $p < .05$  (anova) a) Includes theft of scooter.

In substance related offences, Stockholm has the lowest average rank, reflecting early average onset in most offence types with the exception of cannabis. Compared to the other Nordic capitals, Oslo shows a relatively late onset in substance related offences.

Iceland has the earliest average onset in many property related offences, meaning that the Reykjavik youths tend to start this kind of offending early. Copenhagen is a late onset city on this dimension.

Violent offences manifest a consistent pattern of typical onset. Helsinki adolescents have the earliest average onset in three of the four offences, resulting in the lowest rank on this dimension. Reykjavik and Oslo occupy a middle position while Stockholm scores 4 and Copenhagen 5 with remarkable consistency in all four violent offence categories.

Based on all offence items, each city can be given an overall mean rank in delinquency onset. Reykjavik and Helsinki tend to be “early onset” cities, while Oslo and especially Copenhagen are “late onset” cities in Nordic comparison. Stockholm occupies the middle position as a kind of “Nordic average”.

### *Age of onset as reported by ninth graders*

The mean onset ages of ninth graders are shown in Table 14. The first column shows aggregated Nordic data, and the offences are listed in sequence order. It seems that shoplifting is the typical “first offence” in the Nordic area, with typical onset age of 11. It is first followed by the destruction of property. Other theft offences and violence related offences are spread around the middle of the offence onset sequence. Drug related offences tend to form a late onset cluster.

In three offences, the mean onset ages of Nordic ninth grade adolescents differ in a statistically significant manner. These are shoplifting, group fighting and spirits drinking.

**Table 14** Mean age of delinquency onset, ninth graders in Nordic capital cities.

	All Nordic	Copenhagen	Stockholm	Oslo	Helsinki
Shoplifting*	11,6	12,4	11,5	11,4	<b>11,3</b>
Destruction of property	12,4	12,4	12,7	12,0	12,5
Weapon carrying	12,9	13,1	12,7	13,1	12,8
Group fight*	12,9	13,6	13,7	13,2	<b>11,7</b>
Beer drinking	13,0	12,9	13,0	13,1	12,9
Breaking & entering	13,1	13,9	12,5	13,2	13,0
Theft of bicycle or moped <sup>a</sup>	13,2	13,2	13,0	13,3	13,4
Snatching a purse, bag	13,2	12,8	13,6	13,2	13,2
Assault	13,6	14,6	12,9	14,8	12,5
Robbery	13,6	13,1	13,5	14,0	13,9
Drinking spirits*	13,7	<b>13,4</b>	13,5	13,9	13,9
Theft from car	13,7	13,6	13,3	13,7	14,2
XTC or speed use	13,7	13,6	13,8	14,5	10,4
Hacking	13,8	13,8	13,6	14,1	13,7
Cannabis use	14,1	13,9	14,2	14,0	14,4
Theft of motorbike or car	14,2	13,8	14,2	15,0	14,2
LSD, heroin or cocaine use	14,3	14,0	14,3	14,4	..
Drug dealing	14,3	14,0	14,1	14,5	14,6

\* Differences of mean onset age  $p < .05$  (anova). a) Includes theft of scooter. Earliest mean onset age boldfaced in significant comparisons.

In shoplifting and group fighting, Helsinki adolescents show an early average onset age. The difference is very pronounced in group fighting. Having scrutinised the question wording of the national questionnaires, it seems that the Finnish figure cannot be explained by differential question formulation or cultural connotation. Finnish adolescents are early beginners also in assault. It seems that Finland has a distinctive early-onset pattern in violence, even though the prevalence of violent offending is not higher in Helsinki. It is possible that in violent offences, the age-crime curve differs in Finland.

### *Summary*

In the Nordic capital cities, shoplifting tends to be the offence with the earliest onset. Use of various drugs is a late-onset offence. The typical onset sequence suggests that drugs are not a “route” or “door” to other types of offending. Perhaps drugs use is a consequence, not a cause, of delinquent involvement (or involvement, via delinquency, with older adolescents who may introduce younger children to drugs).

Tentative comparison of mean onset ages suggests that in violence related offences, Helsinki is an “early-onset” city, followed by Reykjavik and Oslo. Stockholm and Copenhagen are “late-onset” cities in that offence category. On the property crime dimension, Reykjavik has the earliest average onset. In substance use, Stockholm tends to have the earliest average onset. These tentative findings are based on seventh grade comparisons.

The additional analysis of ninth graders resulted in less distinct patterning. In this older group, there is more leeway for dispersal of observations around the sample mean. Conceivably ninth grade responses also have more memory related errors.

## Police contact

When Nordic self-report research began 50 years ago, it was centrally motivated by mistrust of official statistics. It was believed that the likelihood of police contact might be different in different countries, and comparing police statistics thus a very unreliable source of data (Stangeland and Hauge 1974, 39). Self-report method was a corrective. It bypassed the police control filter, targeting directly the “dark number” of crime. As a by-product, the method would simultaneously reveal differences in police con-

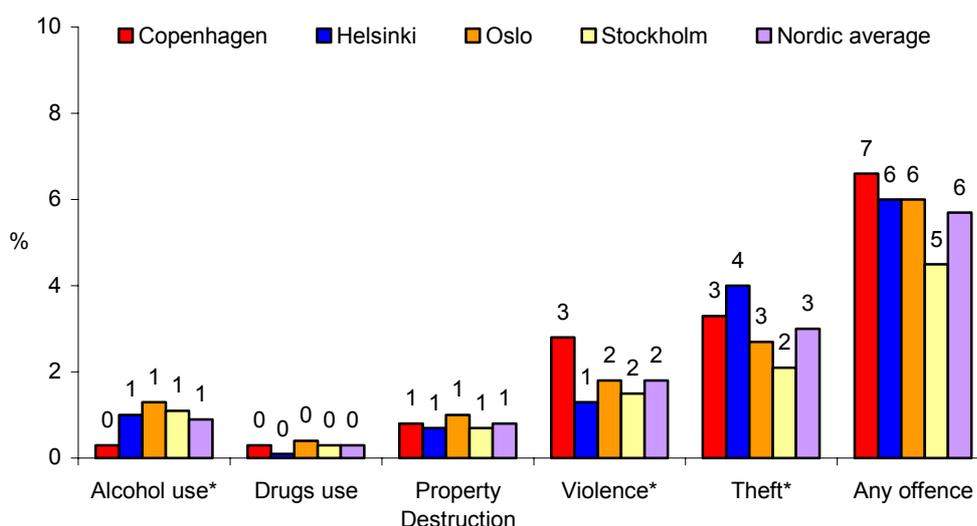
trol. Unfortunately, no systematic international comparisons of control efficiency were made.

In the present research (ISRD-2), the respondents were asked if their most recent offence had been detected by the police. It is therefore possible to describe the differential likelihood of police detection in the Nordic capitals. At the outset, it should be noted that police detection is a necessary but not a sufficient precondition for an offence to be registered and therefore included in the crime statistics.

In many specific offences, the number of respondents reporting police contact is quite low, especially when the data is disaggregated by country. Possible differences in the proportion of detected offenders are therefore probably based on random processes. However, if larger categories of offences are used, the resulting comparisons have a more solid basis. The following analyses are based on such aggregated analyses.

### *Adolescents with police contact*

The simplest way to look at the police contacts is to describe the percentage of adolescents who have been detected by the police in the context of an offence. Such a figure can be seen as a simple index of relatively serious juvenile crime, if police detection or attention is defined as a marker of offence seriousness.



**Figure 32** Percentage of adolescents reporting police contact in the Nordic capital cities. Based on 18 offences sum variable. \*=p<.05.

Figure 32 shows the percentage of respondents who reported police contact in the context of specific offence types. At the outset, it should be noted that the figures are quite low. It is statistically abnormal for a 13–16-year-old adolescent living in a Nordic capital to be a known offender. Roughly one in hundred has been detected using alcohol, while almost none have been detected using drugs. Again, about one per cent has been detected destroying property. The corresponding figures for violence (2 %) and theft (3 %) are also relatively low. The last cluster of columns in Figure 32 shows the percentage of adolescents who have been detected by the police when committing any of the 18 possible offences. Of all Nordic respondents, 6 per cent have been detected by the police when committing any offence included in the survey.

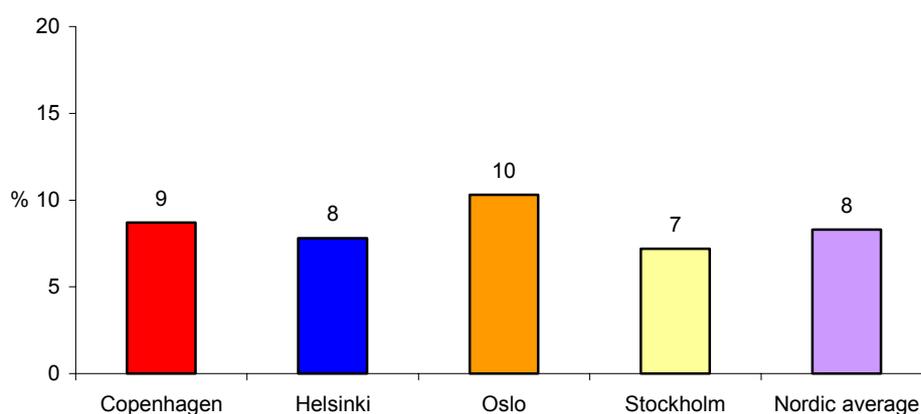
Some of the city-specific differences are statistically significant. For example, there are more “officially recorded alcohol users” in Oslo and Stockholm than in Copenhagen and Helsinki. Copenhagen has more officially recorded violence related offenders. Helsinki and Copenhagen rank high in officially recorded theft offenders.

### ***Police contact likelihood in Nordic capitals***

The above percentages were calculated from all respondents. Differences in the percentage of offenders known to the police can reflect the number of adolescents committing the crimes. Differential proportions of “official delinquents” would thus simply index differentials in offending propensity.

An alternative way of looking at the police contact data is to limit the analyses to offenders. This means that we hold criminal behaviour constant and focus on the efficiency of police control. In other words, how *likely* is it for an adolescent offender to be detected by the police in the different Nordic capitals?

Figure 33 below shows the percentage of *offenders* in each city who reported police contact in the context of at least one offence type. The percentages are calculated from persons who have committed at least one offence in their lifetime.



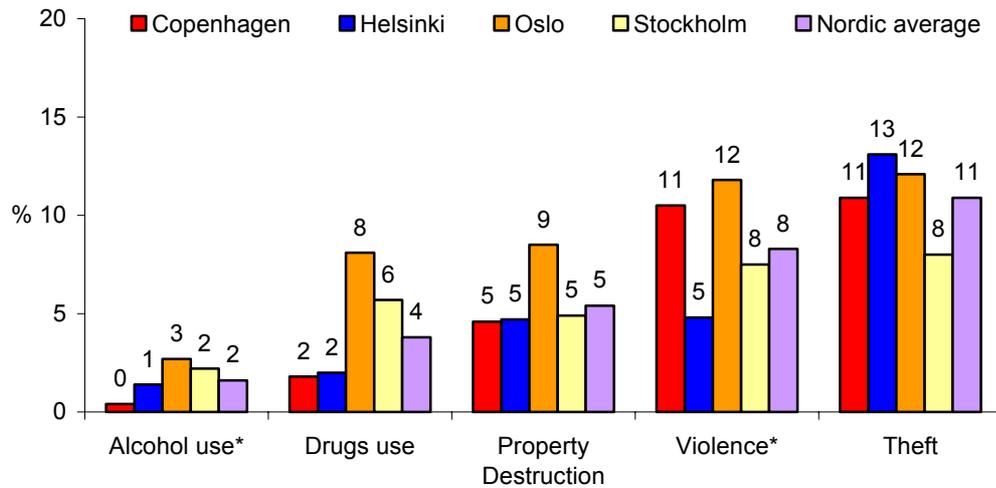
**Figure 33** Percentage of adolescent **offenders reporting police contact** in the Nordic capital cities. Based on 18 offences sum variable.

The result of this basic analysis is striking in that there are no significant differences. The likelihood of an offender becoming known to the police is the *same in all Nordic capitals*. About one in ten offenders are contacted by the police in the context of an offence. This suggests that the Nordic countries not only share the basic legal framework of juvenile justice (Nordisk arbeidsgruppe 2000), but that the actual efficiency of control apparatus is roughly the same in the case of adolescent crime.

This would seem to indicate that the official police statistics are, after all, reliable. However, it needs to be recalled that police contact does not necessarily lead to the offender being “booked” and registered. There is still room for differential social control processing, even though the primary police control seems very homogeneous in the Nordic capitals.

The likelihood of police contact in different offence types is shown in Figure 34. The offence types are presented from left to right in the order of increasing police detection risk. In the complete Nordic capital city dataset, 2 per cent of alcohol users had been detected by the police in the context of that behaviour. For other offence types, the corresponding percentages were 4 (drugs use), 5 (property destruction), 8 (violence) and 11 (theft). In all offence categories, a small minority of lifetime offenders have been detected by the police.

When the various offence types are separately compared, some interesting differences emerge. In alcohol and drugs use, Copenhagen and Helsinki manifest comparatively lenient (or ineffective) police control, compared with Oslo and Stockholm. In other words, in Oslo and Stockholm, adolescent alcohol users and drugs users are more likely to be contacted by the police in the context of that behaviour.



**Figure 34** Percentage of adolescent **offenders reporting police contact** in the Nordic capital cities, by offence type. \*= $p < .05$ .

In property destruction, Oslo stands out as a high control city while the other three cities manifest similar likelihood of police contact. In violence, Helsinki scores exceptionally low likelihood of police contact. This may relate to the relative paucity of frequent offending. In theft, the situation is reversed: Helsinki ranks first with the highest likelihood of police contact.

It is interesting to note that in four of the five offence types, Oslo manifests the highest likelihood of police contact. The police in Oslo are especially effective in controlling adolescent crime. This observation seems to be consistent with the above finding that the Oslo delinquency scene is relatively polarized. Few adolescents participate in offending, but the offending intensity of offenders is high. The police may have responded to this constellation with relatively efficient control measures. Or, alternatively, the police control may itself contribute to the polarization if the majority of youths are deterred from crime while a minority follows delinquent trajectory.

### ***Police contact likelihood in Reykjavik***

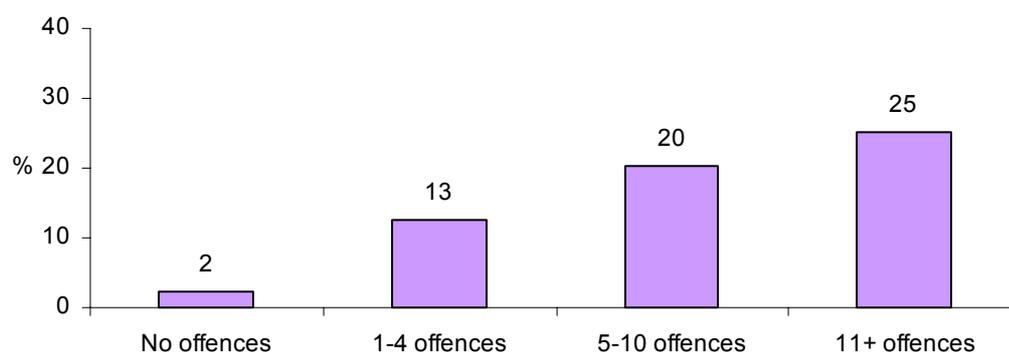
Analyses of police contact likelihood were re-run separately for seventh graders so that Reykjavik could be included. The first results indicated that 33 per cent of Reykjavik seventh grade offenders (any offence) were detected by the police while the Nordic average was 11 per cent. Offence-specific analyses indicated that this three-fold difference derived from the likelihood of violence detection. This finding may reflect the fact that

Reykjavik is a much smaller city than the other Nordic capitals, making super-efficient violence control possible. However, the finding should be interpreted very cautiously. The possibility of a technical explanation related to survey methodology cannot be excluded.

### ***Police contact and offence intensity***

In early self-report research, it was sometimes wondered if police control was entirely random and arbitrary. This would mean that the number or seriousness of offences committed by a person would have no connection whatsoever to him or her being detected and processed by the police. However, the early NDR researchers soon observed that police detection risk was highly correlated with the intensity of criminal behaviour: “The official system of control *does not select its cases at random*. By and large it is the case that the small group of officially registered criminals have also been involved in the largest amount of crime, as reported through the questionnaires.” (Christie et al. 1965, 112–113, original italics.)

Is this still the case? By and large, the Nordic ISRD-2 data replicate the findings of the early self-report researchers. Figure 35 below portrays the percentage of adolescents with lifetime police contact experience, disaggregated by last-year offending frequency. For example, 25 per cent of the adolescents who committed more than 10 offences last year report a police contact at some point in life. Of those adolescents who did not commit any offences last year, 2 per cent had a prior police contact. The more an adolescent commits offences, the more likely he or she is to have a police contact.



**Figure 35** Percentage of adolescent **offenders reporting police contact** in the Nordic capital cities, by last year offending frequency.  $p < .000$ .

The linkage between offending intensity and police contact likelihood was similar in all Nordic capitals. The association between last year offending and lifetime police contact probably reflects the continuity of criminal behaviour, plus of course the fact that police control targets frequent offenders. In addition, the finding is consistent with labelling effects: adolescents who have been detected by the police may be more likely to continue offending than adolescents who have not been detected.

### ***Summary***

Relatively few adolescents in the Nordic capitals have committed offences whose seriousness resulted in police attention. About five per cent of 13–16-year-olds report police contact in the context of an offence.

The *likelihood* of an offender becoming known to the police in the context of an offence is strikingly similar in the Nordic capitals. On average, about one in ten offenders report police contact. In Oslo, the likelihood of police detection may be a little higher.

Different offence types carry differential risks of police detection. The likelihood of police contact is the highest in theft offences, and second highest in violence related behaviour. In property destruction and drugs use, the average likelihood of detection is roughly 5 per cent. In alcohol use, the corresponding figure is 2 per cent. In alcohol use, drugs use, property destruction, and violence related offences, the likelihood of police contact was the highest in Oslo.

In all Nordic capitals, the likelihood of police contact is robustly associated with the intensity of offending. Adolescents who offend frequently are likely to be detected by the police.

## **Summary of core findings**

This report aimed at describing, in a comparative manner, delinquency in the Nordic capital cities. In the preceding chapters, the prevalence and incidence of 18 types of delinquency have been examined. Some general patterns were detected. Additionally, typical ages of onset and the likelihood of police contact were explored in a preliminary fashion.

When judging the results, the sampling problems in Copenhagen should be considered. Attempts to correct these problems by weighting (Appendix 6) suggested that the present results may underestimate the prevalence of alcohol and drugs use in Copenhagen, while other offence types (and com-

parative findings) seemed to be unaffected by weighting. Additionally, the findings based on the Copenhagen sample are consistent with the ESPAD results, suggesting that the sample has satisfactory criterion validity. Other aspects in which Copenhagen seems to stick out, such as bicycle theft, are consistent with prior research and also have some theoretical validity in the opportunity structure interpretation.

### *Prevalence*

The core findings concerning the prevalence of delinquency are:

- Copenhagen adolescents have the highest prevalence of alcohol use and drugs use.
- Shoplifting is equally prevalent in Nordic capitals.
- Bicycle theft is more prevalent in Copenhagen than in the other cities.
- Lifetime weapon carrying and group fighting<sup>20</sup> are the most prevalent in Copenhagen and Helsinki. Last year, Copenhagen adolescents showed the highest prevalence of these activities.
- Differences in assault and robbery were small and mostly non-significant.
- Prevalence of property destruction was the highest in Copenhagen.
- Computer related copyright offending is equally prevalent in Nordic capitals.

Findings relating to the high prevalence of substance use and serious theft in Copenhagen are corroborated by independent sources. The ESPAD project on substance use also indicates that Denmark is a Nordic outlier in alcohol and drugs use (Hibell et al. 2004). It is out of the scope of the present report to explain this. Denmark has a history of relatively liberal alcohol and drugs policies. As opposed to the other Nordic countries, use of drugs is not an offence in Denmark (Träskman 2005, 240). This tradition may have left cultural traces in the manner in which young people define certain behaviours as normal. Looking at the map, Denmark is situated the closest to Central Europe. It is conceivable that Danish delinquency patterns would in some respect cluster with other nations such as the United Kingdom and the Netherlands.

Earlier Danish self-report surveys also verify the relatively high prevalence of serious theft (Kyvsgaard 1992). Balvig (1987, 106) has com-

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<sup>20</sup> “Lifetime weapon carrying” and “lifetime group fighting” refer to the percentage of respondents who have committed these offences at least once in their lifetime.

mented that Danish crime trends cannot be understood without special consideration for bicycle theft. He raises the question whether this might reflect the opportunity structure created by the sheer number of bicycles. If that is the case, the high Danish figures in substance use and bicycle theft probably reflect the general routine activity patterns of the local youth.

### *Incidence*

In this report, incidence was mainly analysed from the point of view of how intensively offenders commit offences. The differences in offending intensity tended to be lesser than the differences in prevalence levels. Interestingly, the cities seem to rank differently on the contrasting dimensions of prevalence and offender intensity. In cannabis use frequency, Oslo and Stockholm users ranked the highest. In theft intensity, Oslo had the highest average offence frequency in the Nordic capital comparison. Few adolescents steal in Oslo, but those who steal do so at a high average intensity. This applied to both shoplifting and serious theft. In weapon violence related offences, no significant differences emerged.

### *Patterns*

The gender patterns of delinquency were extremely similar in the Nordic capitals. In all the cities, males and females participate equally in alcohol use and drugs use. The patterns of shoplifting are also very similar, with males slightly more likely to participate. In serious theft, violence and property destruction, males are 2–3 times more likely to have participated than females. These gender patterns are similar irrespective of the general prevalence of offending.

When prevalence of delinquency is contrasted with offending intensity of the offenders, interesting tentative findings emerge. In many offences, Copenhagen combines high prevalence and low offender intensity. Oslo manifests an opposite pattern: in many offences, Oslo adolescents combine low prevalence and high offender intensity. These comparative ideal types were tentatively named as comparatively *normalised* and comparatively *polarized* delinquency scenes. Stockholm did not stick out in this preliminary search for patterns. Its delinquency scene was thus described as *typical Nordic*. Helsinki manifested yet another pattern. There, the adolescents tended to have both low prevalence and low incidence, showing a relatively *suppressed* delinquency scene. As was noted, all these are compara-

tive ideal types. The insertion of more countries into the comparison might again shift the Nordic nations close to one another.

### *Age of onset*

In the Nordic capitals, shoplifting tends to be the offence with the earliest onset. Use of various drugs is a late onset offence. Drugs do not seem to be a “route” or “door” to other types of offending.

Tentative comparison of mean onset ages suggests that in violence related offences, Helsinki is an “early onset” city, followed by Reykjavik and Oslo. Stockholm and Copenhagen are “late onset” cities in that offence category. On the property crime dimension, Reykjavik has the earliest average onset. In substance use, Stockholm tends to have the earliest average onset. These tentative findings are based on seventh grade comparisons.

### *Police contact*

Five per cent of the 13–16-year-old adolescents living in Nordic capitals report police contact in the context of an offence.

The *likelihood* of an offender becoming known to the police in the context of an offence is strikingly similar in all Nordic capitals. On an average, about one in ten offenders report police contact. In Oslo, the likelihood of police detection may be a little higher.

The likelihood of police contact is the highest in theft offences and second highest in violence related behaviour. In property destruction and drugs use, the average likelihood of detection is roughly 5 per cent. In alcohol use, the corresponding figure is 2 per cent. In alcohol use, drugs use, property destruction, and violence related offences, the likelihood of police contact was the highest in Oslo. This finding may relate to the comparatively polarized local delinquency scene.

In all Nordic capitals, the likelihood of police contact is robustly associated with the intensity of offending. Adolescents who offend frequently are likely to be detected by the police.

### *Reykjavik seventh graders*

For Reykjavik, only seventh grade data was available. Reykjavik seventh graders report lower levels of drinking beer and hard spirits than seventh graders in the other Nordic capitals.

Reykjavik seventh graders had the highest last year prevalence of shoplifting (a non-significant difference). Only three per cent of Reykjavik seventh graders had participated in serious theft last year.

In violence, Reykjavik seventh graders belong to a low-prevalence cluster with Stockholm and Oslo as distinct from the high-prevalence cluster of Copenhagen and Helsinki. They also have a comparatively low prevalence of property destruction and hacking.

Analysis of onset age suggests that in property related offending, Reykjavik seventh graders tend to have an earlier average onset than seventh graders in the other Nordic capitals. The likelihood of police contact is on the same level as in the other Nordic capitals with the possible exception of violence which seems to be very efficiently controlled by the Icelandic police.

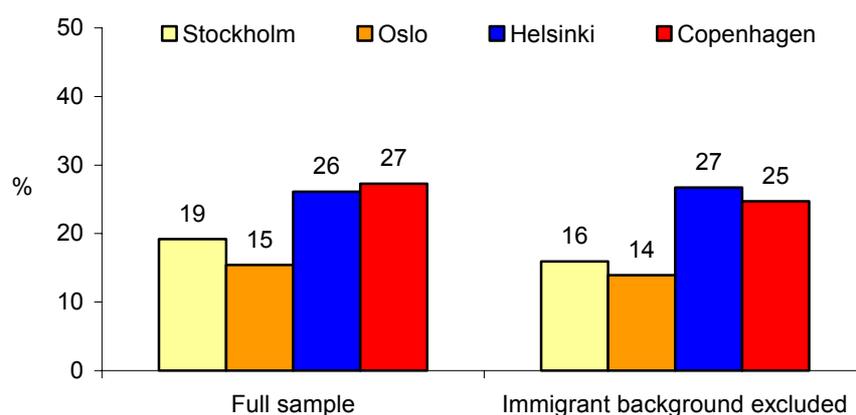
### ***Impact of immigration***

It has been beyond the scope of the present report to explain detected differences. One related factor, however, needs to be explicitly addressed in this respect: immigration.

The number and proportion of adolescents with an immigrant background differ in the city samples. Especially Oslo and Stockholm samples have a large proportion of respondents whose parents are immigrants. All the prevalence analyses were, therefore, repeated in a sub-sample consisting of respondents whose both parents had been born in the respective country. An example of this kind of disaggregation is shown in Figure 36 below which represents the lifetime prevalence of violence with and without respondents from immigrant backgrounds. The prevalence differentials of the cities remain the same even though there are minor changes in the exact prevalence levels.<sup>21</sup>

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<sup>21</sup> It is possible that if only "native" adolescents were studied, Helsinki would be relatively more "criminal" than indicated by this report. In Figure 36, Helsinki is the only city whose prevalence figure increases when immigrant background adolescents are excluded.



**Figure 36** Lifetime participation in any violence related offence, % of 13–16-year-olds in four Nordic cities, with and without adolescents from immigrant backgrounds.

The point of this exercise is to underscore that differences between the cities remain by and large the same. Whenever a high prevalence figure is reported in this report, it *cannot be explained* by the allegedly high criminality of immigrant minors or minors with an immigrant background. Nor can city differentials be explained by the number of immigrants in the city or in the sample. The differences reflect some other factors related to opportunity structure, social control, youth culture, and historically embedded traditions and patterns of alcohol and drugs use.

On the whole, the Nordic comparative dataset seems to function well. Comparisons to available similar survey research projects suggest that the findings are valid. Especially findings related to substance use are roughly consistent with the ESPAD and HBSC projects.

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## 4 THE CONTINUING NEED FOR SELF-REPORT STUDIES IN THE NORDIC AREA

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In 1959, Andenaes, Sveri and Hauge (1960) conducted a small-scale self-report survey in a population of Oslo law students. Soon after, a similar study was made among Uppsala law students. These two studies can be seen as pilots for the Nordic Drafee Research program, an ambitious comparative self-report research initiated by Norwegian criminologists. The Nordic Drafee Research (NDR) program was the first all-Nordic project sponsored by the Scandinavian Research Council for Criminology. Under the program's auspices, army draftees in Oslo, Copenhagen, Stockholm and Helsinki responded to an anonymous self-report delinquency questionnaire.

The findings of the 1961–1964 NDR project could be summarised as showing the essential similarity of delinquency and crime patterns in the Nordic countries (see chapter 1 above). The same applies to the results of the present study (Nordic ISRD-2). The results indicate that the patterns of delinquency are roughly the same in the Nordic capitals. Due to her specific history, Finland may have been somewhat of an “outlier” in the early 1960s, but today the Nordic nations are quite similar with respect to delinquency patterns and levels. The most striking differences are detected in substance use related offences, where Denmark tends to stick out from the otherwise homogenous group.

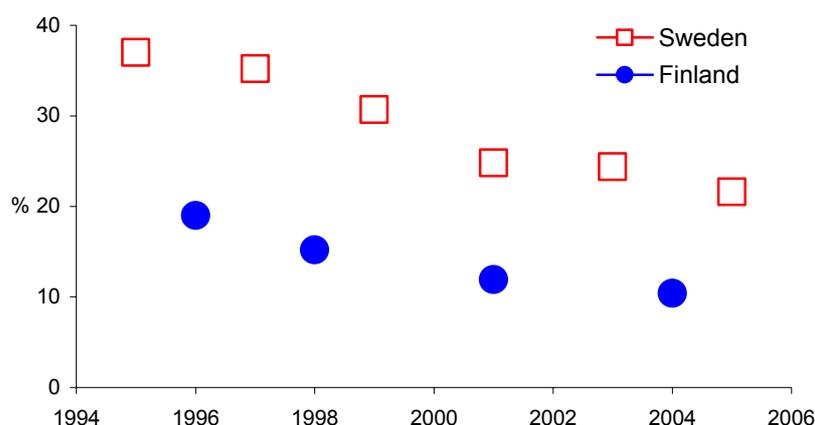
The parallelism of delinquency patterns is hardly surprising once the similarity of Nordic countries is considered. When contrasted with other nations, even neighbouring countries, the Nordic nations tend to form a cluster. This cluster is a culturally, socially and politically homogeneous area which in many ways is a natural unit for self-report research. It even seems that some of the characteristics of the Nordic society make self-report studies especially feasible in that context. For example, high social trust, as well as high trust in officials and science seem to enhance the prospects of method validity.

## Trends of delinquency in the Nordic area

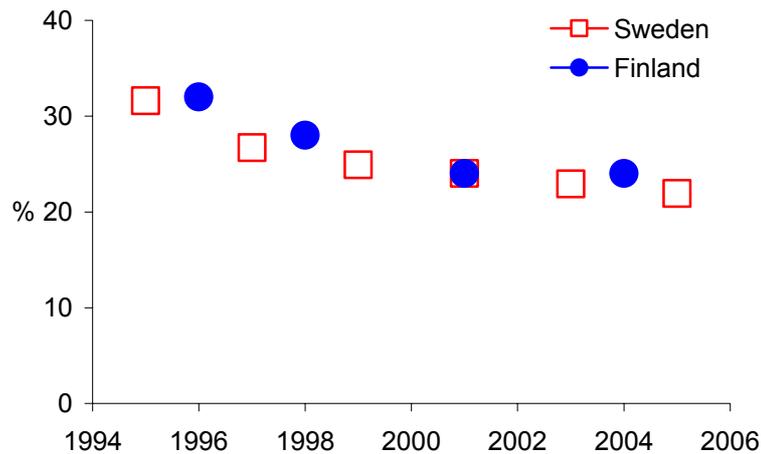
This report is based on five cross-sectional surveys conducted simultaneously in the Nordic capitals. As such, the resulting picture is like a snapshot freezing a continuous flow of events and trends. Having started this report by contextualising it within the tradition of early Nordic self-report studies, it is only appropriate to end it by discussing the present trends.

It seems that not only the *patterns* and *levels* of delinquency, but also the *trends* of self-report crime and delinquency are quite similar in the Nordic countries. This has been documented because of the lucky coincidence that both Sweden and Finland launched national self-report delinquency indicators in 1995, and because the Danes initiated an important series back in 1979. In this section, the similarity of the Swedish and Finnish trends is observed and discussed. The point of this brief discussion is to highlight the benefits of having similar self-report delinquency indicators in the Nordic countries.

There are some minor differences in the Swedish and Finnish question formulations. For example, the Swedish question on shoplifting refers to stealing from “shops or department stores”, while the Finnish question talks about stealing from “shops or kiosks”. The Finnish word “kauppa” (=“shop”) is a generic term which includes all kinds of shops, and a follow-up question indicates that 18 per cent of last year offences were committed in department stores. It is possible that some respondents who have stolen from department stores have not responded, explaining part of the difference between Finland and Sweden. However, the main point of the Figure 38 is the similarity of the decreasing trend.

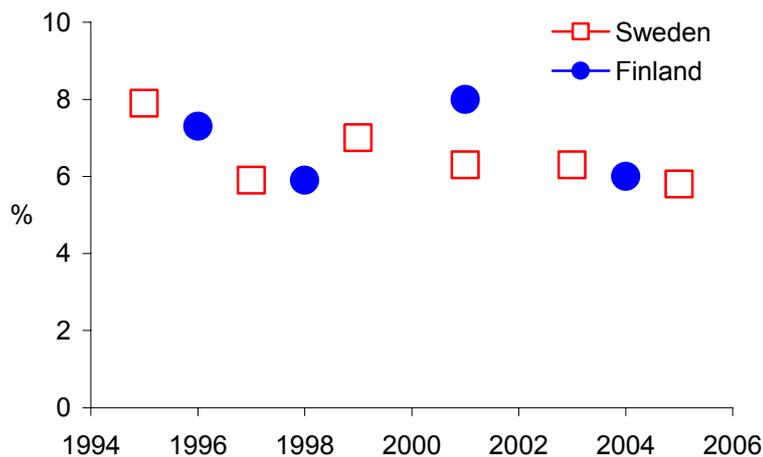


**Figure 37** Last year prevalence of **shoplifting** among ninth grade students in Sweden and Finland, % (Kivivuori & Salmi 2005; Svensson 2006).



**Figure 38** Last year prevalence of **property destruction** among ninth grade students in Sweden and Finland, % (Kivivuori & Salmi 2005; Svensson 2006).

Property destruction also shows extremely similar decreasing trends (Figure 38). In contrast, no sustained decrease in violent behaviour can be detected in either country (Figure 39). The pattern may be consistent with a “two decreases” model in both datasets, one after mid-1990s and the second during this decade, interrupted by a peak. At least in Finland, this and other juvenile violence indicators suggest that there indeed was a “millennium peak” followed by a moderate decrease. However, when compared with property offences, the picture is much less clear. Violent behaviour is more stable than property offences.



**Figure 39** Last year prevalence of **assault** among ninth grade students in Sweden and Finland, % (Kivivuori & Salmi 2005; Svensson 2006).

The above observations are based on Swedish and Finnish national self-report delinquency indicators. However, it is important to notice that in

Denmark, analogous developments were observed much earlier. Danish criminologists have conducted self-report delinquency surveys in a Copenhagen suburb in 1979, 1989, 1999 and 2005 (Kyvsgaard 1991, 1992; Balvig 2006), and found that adolescents have become increasingly law-abiding. The same finding applies to later measurements in Sweden and Finland: an increasing proportion of adolescents refrain from delinquency (at least from the traditional types of delinquency typically included in self-report delinquency surveys).

Norwegian researchers have conducted two large-scale youth surveys in 1992 and 2002 which included self-report delinquency questions (Pape & Falck 2003). There are some similarities with the Finnish and Swedish trends. Most notably, participation in shoplifting decreased between 1992 and 2002. There were, however, two developments which diverged from the Finnish and Swedish trends: in Norway, the prevalence of property destruction increased (decrease in Finland and Sweden) while the prevalence of violent behaviour decreased (relative stability in Finland and Sweden). However, these comparisons should be treated with caution. The Norwegian figures are based on a much larger age bracket (13–19-year-olds) than the figures from Denmark, Finland and Sweden. In the future, the trends should be compared by using a sub-sample of ninth graders from the Norwegian data.

## Explaining the increase in law-abiding behaviour

Why should property offences decrease consistently in Sweden and Finland? In Finland, several general social developments can be offered as an explanation. The following discussion aims to explicate these developments by dividing them into six categories. It is worth remembering that the observations are country-specific, and may not be completely applicable to Sweden or other Nordic countries.

### *Distal control factors: demography*

Having observed the decreasing juvenile crime in Denmark and Sweden, Kyvsgaard (1991) explained this phenomenon by the so-called Easterlin effect. The term refers to the way in which the size of an age cohort influences the life chances of its members, and, by conjecture, the likelihood of criminal involvement. Small cohort size is believed to lead to scarcity of labour, high salaries, low unemployment and low criminality. Kyvsgaard

observed decreasing trends of juvenile crime in Danish and Swedish police statistics and in Danish self-report surveys of 1979 and 1989, and associated this fact with the diminishing trend of young age cohorts. Her analysis is convincing, but may not be applicable to later developments; the drastic decrease in Finnish and Swedish self-reported delinquency after 1995 is not consistently related to smaller young age cohorts.

In 1991, when Kyvsgaard advanced her demographic interpretation, the size of young age cohorts had indeed been decreasing relatively drastically. However, subsequently, the trends first levelled and then reversed. The smallest cohorts of 15-year-olds were registered in 1988 (Finland), 1993 (Sweden), 1998 (Denmark) and 1999 (Norway). The Norwegian trend levelled, however, much earlier, around 1993. This makes Denmark the Nordic country where the size of the 15-year-old cohort decreased the longest.

However, the role of demographics cannot be fully disregarded when self-report delinquency trends in Denmark, Sweden and Finland are explained or interpreted. Perhaps we should pay less attention to the size of young cohorts per se, and more to the ratio of adults per young people. Focus on age structure seems to be warranted from the control theory viewpoint; if there are more adults per child, there are also potentially more people who can exert control over children.

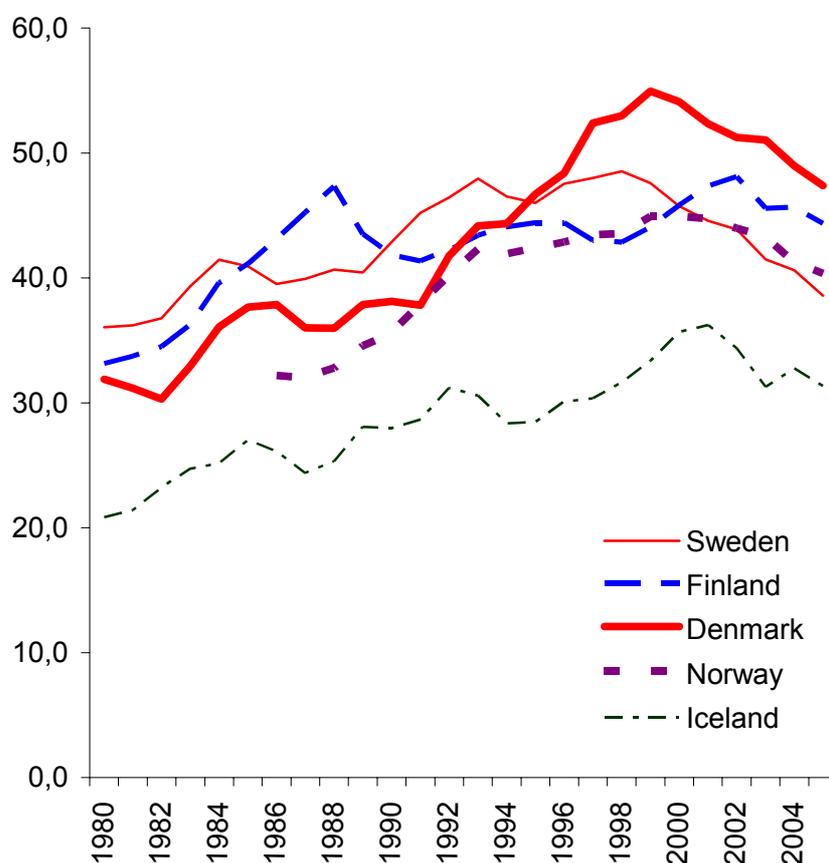
In what follows, this kind of control base has been tentatively explored in the Nordic area. The cohort of 15-year-olds<sup>22</sup> was chosen as the target-of-control group, and the combined category of 30–74-year-olds as the “source of potential control” group. Young adults below the age of 30 may not be very interested in controlling children and adolescents, while those aged 74 or more may no longer be capable of doing it. The question is: how many *potential adult controllers* are there per one 15-year-old adolescent?

The findings are shown in Figure 40. The figure indicates that the average number of adult controllers per one 15-year-old increased quite significantly and consistently from the early 1980s to the end of the century. In Denmark, for example, there were about 30 adults per each 15-year-old in 1980. By the turn of the century, the number had climbed to almost 55. There was a clear long-term demographical consolidation of the adult con-

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<sup>22</sup> The selection of 15-year-olds is based on the target population of the Swedish and Finnish national indicator systems. Note that the selection of one or more age cohorts is an arbitrary decision. The control ratios would be lower if a wider target population category was used. The point of this exercise is to look at *the trend*, not at the absolute values of the “control ratio”.

trol base. The *potential*<sup>23</sup> of adult control has greatly expanded in all Nordic countries since 1980. Clearly, this kind of increase in potential control pressure must be relevant when the increasingly law-abiding behaviour of adolescents is interpreted.



**Figure 40** Number of potential adult controllers (30–74 years of age) per one 15-year-old adolescent.

There is no perfect “match” between control demographical trends and self-reported crime trends in Sweden and Finland. The steepest rise in the number of potential adult controllers per adolescent took place prior to 1995, when data series for Swedish and Finnish delinquency were first launched. The decrease in property crimes after 1995 is not clearly associated with the expanding control base. On the contrary, first Sweden and then Finland actually manifested a slight relaxation of control pressure after the late 1990s peak. If delinquency was a simple reflection of control demographics, Swedish and Finnish self-report crime trends should have

<sup>23</sup> This discussion deliberately ignores the extent to which adults want to control juveniles. It is possible that the will to control is more important than the number of potential controlling adults.

gone up, not down. However, it should be noted that the most recent turn in control demographics is relatively small in comparison with the overall long-term change. And since the overall weight of potential adult control may be mediated by cultural, educational and historical factors, the effects (increasing conformity) may lag and be characterised by inertia. However, it is likely that the more proximate control mechanisms, described below, are criminologically more relevant than the rather distal mechanism of potential adult control.

### ***Proximate control factors: technology and policy***

The efficiency and pervasiveness of general social control has increased over the recent years. Public space is increasingly monitored by CCTV systems. The number of private guards has doubled in a decade. Shops use more and more technical equipment to detect theft. The general propensity to report violent offences to the police has increased. Even technological changes such as using mobile phones for emergency calls, or the use of Internet in filing police reports, may provide a partial explanation. At the same time, the demographic structure of the population has changed so that there are more adults per one adolescent (see the above discussion).

Simultaneously, the police have increasingly adopted community policing strategies. Local crime prevention programs have applied the techniques of situational crime prevention. Such programs have also supported closer contacts between the different crime prevention actors such as schools, the police, store owners, and social authorities, and thus facilitated information exchange and crime reporting. In a sense, these local initiatives indicate an increasingly co-ordinated nature of informal and formal social control, so that these mutually reinforce one another. Taken together, the surveillance of public space has greatly increased in the period covered by the Finnish Self-Report Delinquency system. That indicator also shows that between 1995–2004, the likelihood of police detection has increased in offences which are typically committed in public spaces (shoplifting, property destruction and violence). Interestingly, the trend of increasing detection risk started in the cities, spreading from the centres to the peripheries (Kivivuori 2005). It was probably propelled by the so-called zero tolerance movement which aimed at pacifying public spaces where adolescents typically commit their crimes. Moreover, at the same time the national crime prevention program sponsored intensive co-operation between local agencies in the fight against crime.

Norwegian criminologists have also shown that the police detection likelihood increased in Norway between 1992 and 2002 (Pape & Falck 2003). It seems highly probable that the increasing efficacy of police control is an all-Nordic phenomenon and not limited to Finland and Norway.

The problem with the social control explanation is that for some reason, violent offences have not followed the general decreasing trend of property offences. In the case of violence, the control effect might be suppressed by alcohol related factors. The Finnish FSRD indicates that more than two-thirds of violent fights in public spaces are committed under the influence of alcohol, while the corresponding percentage is lower in property destruction (49 %), shoplifting (11 %) and the destruction of school property (9 %). If the offender is under the influence of alcohol, he or she may not be deterred by social control and technical surveillance.

### *Change in attitudes*

In Finland, research clearly indicates that the adolescent attitudes toward crime have changed significantly (Kivivuori 2005). Young people increasingly condemn criminal activity. It is no longer regarded as a “normal” part or manifestation of adolescence. This trend interestingly contradicts the one detected by Balvig (2006) in Denmark. He has observed that the Danish youth increasingly reject “law morality”, or absolute belief in the sanctity of law. He concludes that increasing conformism cannot be explained by changes in law-related attitudes. In contrast, the Finnish youth are manifesting more law-abiding attitudes as they are simultaneously becoming more law-abiding. The reason for this apparent discrepancy may lie in the manner of attitude measurement. The Danish items tap general “law morality”, while the Finnish items are based on neutralization theory which focuses on justifications and excuses. It is unfortunate that apparently neither the Finnish nor the Danish system seems to have both types of items.

Finnish youths increasingly reject justifications and excuses of crime. Local youth researchers have located similar trends also in alcohol and drugs use (Lähteenmaa 2004). Finnish adolescents have begun to regard substance use as a sign of being a *luuseri* (loser) or a *juntti* (unsophisticated “redneck”, a jerk). Especially drunken teenage girls who behave publicly in an uncontrolled manner are seen as “lewd” and “trash” in Finnish youth culture (Salasuo 2006). The slow decrease in alcohol and tobacco use among Finnish adolescents during this decade has been partially explained by new attitudes which condemn uncontrolled behaviour (Rimpelä *ym.* 2005). It is very likely that similar attitudes are attached to law breaking, so

that law-abidingness is increasingly seen as a mark of controlled, successful life. Danish criminologists have suggested that the conforming youths are increasingly prone to reject the criminally active youths as morally inferior or even stupid (Balvig 2006, 63). Possibly the increasing “conservatism” of the youth is somehow related to the long-term demographical consolidation of the adult control base as shown above in Figure 40.

One factor that cannot be ruled out as a source of increasing anti-crime climate is the media. The increasing amount and intensity of attention toward youth crime is a rare candidate for a genuine “social construct”: it seems to be quite independent of the actual reality (Estrada 1999). As media intensify crime news reporting, this might influence people’s opinions so that the trend of increasing law-abidingness is buttressed.

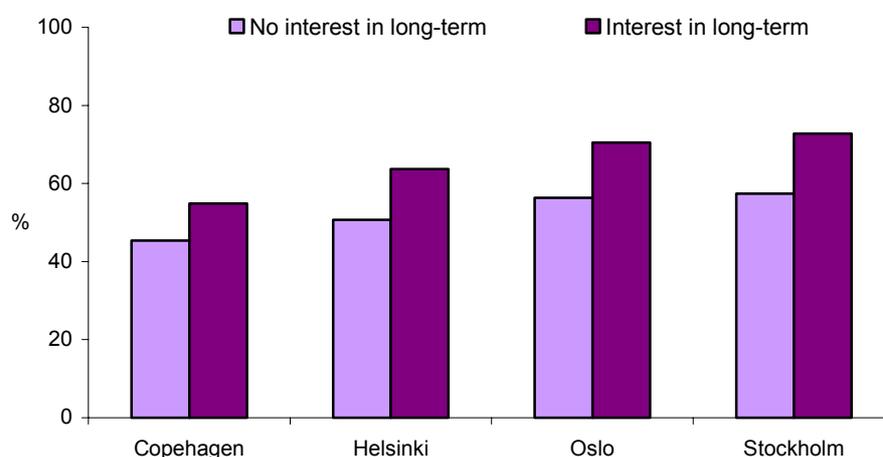
### ***Cultural adaptation to economic strain***

This interpretation is a variant of cultural explanation, but it stands in close connection with the more economy-related and structural explanations. It deserves separate discussion because it is probably the most developed explanation of increasing conformism among the Nordic youth. This theory is connected with the work of the Danish criminologist Flemming Balvig. He and other Danish criminologists have shown that the Danish youth have polarised into two camps: on one hand, there is an increasingly large group of totally law-abiding youths (Kyvsgaard 1992; Balvig 2006). On the other hand, there is a minority of frequent offenders. This finding is based on repeated self-report surveys conducted in a Copenhagen suburb in 1979–2005, and consistent with the findings of the Swedish and Finnish national self-report systems starting from the year 1995.

Balvig has gone beyond mere description and explained the increase in conformity by what he calls *fremtidsdisciplinering*. This concept is difficult to translate into English. It refers to a type of self-disciplinisation which takes place through individual management of future prospects in an economy that is increasingly perceived as competitive. Young people are increasingly anxious about their future life chances. They believe that crimes might tarnish and spoil their chances of securing an affluent, or at least a middle class, standard of living. Increasing conformity thus reflects a hardening society in which individual competition is perceived as rampant. Clearly, this self-disciplination theory seems to be a modern variant of the criminological strain theory and particularly Robert Merton’s anomie theory. Merton explained criminality as one possible adaptation to the strain caused by a mismatch of cultural expectations and economical possibilities.

Analogously, Balvig explains conformity as a reaction to perceived life chances in a competitive economy.

The logic of self-discipline theory can be illuminated with the present ISRD-2 data. The respondents were asked if they are interested in their own long-term future. Balvig's theory predicts that those who are interested in their long-term future are less likely to commit offences, and more likely to belong to a fully conformist category. As shown in Figure 41, this really is the case in all Nordic capitals. Students interested in their long-term future were significantly more likely to refrain from all kinds of delinquency. Of course, the figure says nothing about trends which are the focus of Balvig's theory.<sup>24</sup> Perhaps ironically, the association between interest in personal future and full conformism is the weakest in Copenhagen (and the strongest in Stockholm).



**Figure 41** Percentage of students who had refrained from 17 offence types during the preceding year, by interest in one's personal future.

Self-discipline theory is a strong candidate for explaining the all-Nordic rise in conformity. In practice it may be difficult to disentangle the influence of several concurrent societal processes which could produce similar results in delinquent behaviour. First, the rise of social control, as discussed above, might have delinquency-reducing and delinquency-detering effects even if adolescents had no fears about their future success in life. Second, if delinquency has only moved to cyberspace, the whole trend of increasing conformity may be an illusion. However, this may exacerbate polarisation if only well-off adolescents turn to cyber-crime, leaving the poor to commit old-fashioned street crimes (such as shoplifting)

<sup>24</sup> This is important because cross-sectional associations like the one in Figure 41 are equally consistent with various etiological theories stressing individual characteristics such as low self-control.

which carry a high risk of police detection. Of course, it could be argued that crime displacement to cyber-space, increasing technical surveillance and self-disciplination are all part of a bigger picture.

The self-disciplination theory seems to underscore the present situation (high conformity) as an anomaly in need of explanation. When a major change from high juvenile delinquency to low juvenile delinquency (or high polarisation) is detected, the first reaction of criminologists is to construe the change as caused by specific social factors. In contrast, it could be that the present decrease in conventional delinquency signifies a return to normalcy after a period of abnormally high delinquency, and a cultural normalisation of delinquency. Such a cycle could ultimately reflect the size of age cohorts. The baby boom generation was able to break norms with comparative impunity simply due to their sheer number, and they also supported the notion of “normalised” crime. When this era draws to an end, the old generation laments the conformity of today’s youth, describing them as paralysed and fearfully obedient. Balvig (2006, 63) has likened the law-abiding youth to stock market speculators, who invest in their own future and show little compassion for others. The implications of this moral criticism have not yet been properly worked out. Perhaps we should have more empathy for the focal concerns of today’s youth and appreciate the fact that so many of them refrain from crime.

### ***Other factors***

The general economic situation has improved during the recent decade (especially in Finland), meaning that adolescents might have more money to buy things they would otherwise steal. On the other hand, a booming economy may provide more opportunities for theft, and the juveniles may have more money to buy alcohol, meaning that there is no simple correlation between economic and crime trends.

The routine activities of young people may have changed. In Finland, the average daily time that the 10–17-year-olds spent on computer increased from 8 minutes to 44 minutes between 1987 and 1999. No other activity increased as much. Computer time was apparently taken from “socializing with friends” and “sports and outdoors activities” (Pääkkönen 2007, 241). They probably spend more time on computers (playing games, surfing the net, chatting, etc.) and less time socializing in public spaces such as streets and malls. This kind of change would be consistent with the observed trends in the patterns of criminal activity: the number of crimes

typically conducted in public spaces such as stores, malls and streets (shoplifting, destruction of property) has diminished.

However, it is also possible that the new information technologies have shifted the opportunity structure of delinquency so that different kinds of crimes are increasingly committed. The present research suggests that a significant minority of adolescents admit “hacking” when using computers. Analyses made in the context of the Finnish ISRD also indicated that the Internet is an ascendant domain of delinquency (Salmi 2007). Additionally, some traditional crimes may undergo *modus operandi* changes: for example, adolescents can threaten one another with violence by using e-mail or SMS messages. There is thus some evidence of the hypothesis that part of the conformity increase detected by self-report indicators is based on displacement instead of crime reduction. However, decrease in shoplifting and destruction of public property, and the consequent increase in public space safety, is in any case a positive change even if copyright offences etc. had become more common as a reflection of changing routine activities. The question of offenders’ identity also remains open: are the offenders of the cyber-space the same adolescents who, in the absence of computers, would commit offences in traditional public spaces.

Needless to say, the above discussion is based on interpretation of certain basic trends. The datasets of the FSRD and SSRD could and should be used for a more in-depth empirical analysis. In a sense, the comparative study of FSRD and SSRD systems shows that the dream of the early Nordic self-report researchers has come true. And of course, the ISRD-2, in which the Nordic countries effectively participated as a single country, also testifies to the great potential of regarding the Nordic area as single unit of research.

## The next 50 years

The analyses shown in this report indicate that the prevalence, patterns and trends of delinquent behaviour are quite similar in the Nordic countries. It looks as if the present ISRD-data from Nordic capitals capture a cross-sectional, frozen slice from a decreasing delinquency trend. Obviously, if we want to know what happens to that trend in the future, self-report delinquency surveys must be conducted on a regular basis. The present situation in this respect can be described as reasonably good especially in a wider international comparison (Figure 42). Two of the Nordic countries have nationally representative indicator systems while Denmark has an impor-

tant local/modular system.<sup>25</sup> In this final section, the future prospects of Nordic self-report research are briefly discussed.

### ***Draftee or school based systems?***

Finland is currently replicating the original Helsinki draftee study of 1961. One of the core reasons for this is to extend the self-report method to a slightly older age group of 18-year-old males. Concerning crime, the difference between the 15–16-year-olds (typically ninth graders) and the 18-year-olds can be quite significant. While ninth graders are still school children, 18-year-olds can be described as young adults. Additionally, the aim is to probe deeper into the past to study both crime trends and historical changes in the efficacy of social control. The only way to understand the present control scene is to place it in a historical context.

In Finland, the replication's eligibility is assured by the military draft procedure, which has remained reasonably similar over the decades. Each year a full age cohort of young males is legally obligated to be personally present at the drafting session (pre-military screening). Not even the increasing segment of young males who choose not to serve in the military is exempt. Draft-dodgers are, if necessary, escorted by the police to the draft. This means that the draftee context is presumably more versatile than school environment, criticized for too easy accessibility and the absence of chronic offenders.

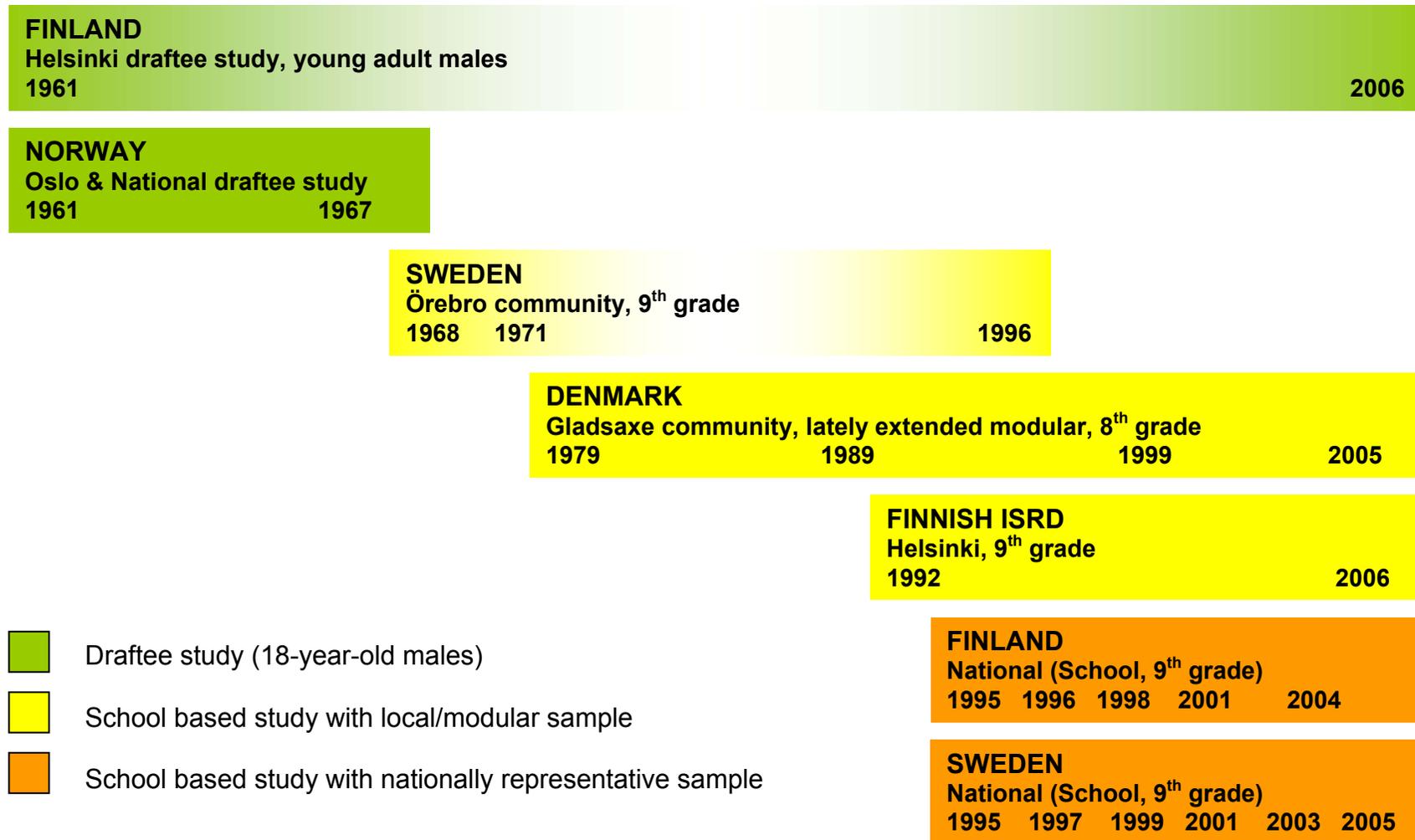
However, it is unlikely that the draftee concept could be revived in other countries, because the military framework is no longer the same or available in a similar manner. Moreover, the Finnish situation is unique because the original NDR questionnaires were saved and the data has been recently transferred to electronic format. For these reasons, school based surveys seem to be the best option for comparative self-report research.

### ***Developing national systems or creating a new indicator?***

In the future, school surveys could be promoted in a manner which would enable inter-Nordic comparisons. At least two basic approaches can be taken. The first option is to promote national samples in all Nordic countries. The second option is to create a new capital city based Nordic self-report delinquency and crime research indicator.

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<sup>25</sup> See also Pape & Falck 2003.



**Figure 42** A selection of Nordic Self-Report Delinquency Indicator Systems. The time axis running from left to right is truncated.  
 Note: this figure excludes possible important series produced in health survey contexts.

The first option would mean that Denmark, Iceland and Norway should launch their own national self-report delinquency indicators. This would be quite easy for Denmark which already has an important sequence of comparable studies using local and modular samples (Kyvsgaard 1992; Balvig 2006). Denmark might want to continue targeting eighth graders instead of ninth graders. Norway also has a good basis in earlier surveys (Pape & Falck 2003). The present Swedish and Finnish national indicator models began as separate projects (and therefore have similar but not identical questionnaires). Their present development is closely co-ordinated.

In the future, the national systems could be harmonised and the same questionnaire used. The measurements should be made simultaneously. The Swedish two-year interval is probably too short. Finland used to have a three-year interval, but there are plans to change it into a four-year interval. This seems to be the longest interval still useful for the everyday public demand for trend information. It also allows more time to be used in basic research. While the Danish system shows that even 10-year intervals produce rich databases, their interval seems to be converging on Swedish and Finnish intervals.

Another option is to create a new Nordic Self-Report Delinquency Study project (NSRD). This project is feasible because the Nordic area is socially homogeneous and many of its cultural structures seem to support self-report method. The NSRD should be devised to be an economically feasible system, perhaps based on capital city samples, web survey methodology and light organization.

The NSRD could be a ready-made Nordic area module of any future sweeps of the ISRD. However, there might be some theoretical emphases that the Nordic cluster would like to incorporate into the study design. One such addition might be the operationalisation of Balvig's self-disciplination theory with a scale explicitly developed for that purpose. Another dimension could be to measure the consequences and damages of crime more closely. This would be important because much of juvenile delinquency may have relatively trivial social costs.

### ***Need for wider context***

According to Takala (2005, 132), the Nordic countries have acted as a peer group, used in putting into proportion the criminality and criminal policy of each country. The present report exemplifies the close ties of the Nordic "peer group" and testifies to the similarity of its members in almost every respect: the level, the patterns, and the trends of juvenile crime are quite

similar. But the results could be interpreted also from another angle. It could be argued that the Nordic countries are so similar that the returns of further inter-Nordic comparisons might be diminishing. Perhaps the Nordic countries have become so alike that they form a culturally and socially homogeneous area, almost a nation which should be compared with other nations.

One interesting analytic question would be to compare the delinquency of the major welfare state regimes. Drawing on Esping-Andersen's original classification, Oorschot and Arts (2005) divide the welfare states into five welfare regimes: social-democratic Scandinavian, liberal Anglo-Saxon, conservative-corporatist Continental, Mediterranean, and the former communist Eastern and Central European countries. Kääriäinen and Lehtonen (2006) follow a rather similar classification, analysing the differentials of social capital in Nordic, Liberal, Conservative and Mediterranean welfare regimes. The present report has merely described the patterns of delinquency in the capital cities of the Nordic welfare regime. To understand its (possible) peculiarity, comparisons with other welfare regimes are clearly needed. Who knows, maybe the whole concept of a specifically Nordic delinquency pattern would turn out to be a myth. The analyses which are being conducted by the ISRD steering group will undoubtedly answer these and other interesting questions.

To place the Nordic area in a wider context, it should be represented in the possible future sweeps of the ISRD project. The wider context would enable more in-depth insight into the (possible) special nature of Nordic delinquency. In practical terms, this could be arranged by instituting a Nordic capital city research system which would use the standard ISRD questionnaire. The NSRD could proceed with its own regular intervals, preferably in sync with the future ISRD sweeps. The Nordic area would thus participate in the ISRD as a matter of course, and as a single unit. This would be an appropriate way of celebrating the pioneers of Nordic self-report delinquency research.

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## Appendix 1 Substance use by sex

**Table A** Lifetime substance use in Nordic capitals (%), by sex. 13–16-year-old adolescents.

	Copenhagen	Helsinki	Oslo	Stockholm
Any alcohol use				
Males*	76	68	50	51
Females*	70	69	49	58
Beer or wine				
Males*	73	67	49	51
Females*	68	69	48	56
Spirits use				
Males*	59	41	28	29
Females*	56	37	27	38
Any drug use				
Males*	12	4	6	5
Females*	12	4	5	5
Weed, marijuana or hash				
Males*	12	4	5	5
Females*	12	3	4	4
Hard drug use				
Males*	3	0	1	1
Females	2	0	2	2

\*=p<.05, \*\*=p<.01.

**Table B** Last month substance use in Nordic capitals (%), by sex. 13–16-year-old adolescents.

	Copenhagen	Helsinki	Oslo	Stockholm
Any alcohol use				
Males*	42	27	24	20
Females*	41	32	25	24
Beer or wine				
Males*	40	26	23	19
Females*	39	31	25	23
Spirits use				
Males*	27	11	11	10
Females*	29	17	16	12
Any drug use				
Males*	3	0	2	2
Females*	3	1	2	2
Weed, marijuana or hash				
Males*	3	0	2	2
Females*	3	1	2	1
Hard drug use				
Males	1	0	1	1
Females	1	0	1	0

\*=p<.05, \*\*=p<.01.

## Appendix 2 Theft by sex

**Table A** Lifetime prevalence of theft in Nordic capitals (%), by sex. 13–16-year-old adolescents.

	Copenhagen	Helsinki	Oslo	Stockholm
All theft types				
Males*	34	35	26	28
Females*	29	26	21	24
Shoplifting				
Males*	28	32	25	25
Females	24	25	19	24
Serious theft				
Males*	22	10	8	12
Females*	13	3	4	4

\*= $p < .05$ , \*\*= $p < .01$ .

**Table B** Last year prevalence of theft in Nordic capitals (%), by sex. 13–16-year-old adolescents.

	Copenhagen	Helsinki	Oslo	Stockholm
All theft types				
Males*	17	13	11	12
Females*	13	7	6	9
Shoplifting				
Males	10	9	9	10
Females*	8	6	5	8
Serious theft				
Males*	13	6	4	5
Females*	8	1	2	2

\*= $p < .05$ , \*\*= $p < .01$ .

## Appendix 3 Violence by sex

**Table A** Lifetime prevalence of violent offences in Nordic capitals (%), by sex. 13–16-year-old adolescents.

	Copenhagen	Helsinki	Oslo	Stockholm
<b>Any violent offence</b>				
<b>Males*</b>	<b>37</b>	<b>37</b>	<b>23</b>	<b>26</b>
<b>Females*</b>	<b>18</b>	<b>15</b>	<b>9</b>	<b>13</b>
Carrying a weapon				
Males*	24	20	13	15
Females*	10	10	4	8
Group fighting				
Males	27	27	14	19
Females*	12	7	7	8
Robbery or assault				
Males	8	4	5	6
Females*	4	2	1	3

\*=p<.05.

**Table B** Last year prevalence of violent offences in Nordic capitals (%), by sex. 13–16-year-old adolescents.

	Copenhagen	Helsinki	Oslo	Stockholm
<b>Any violent offence</b>				
<b>Males*</b>	<b>25</b>	<b>17</b>	<b>15</b>	<b>17</b>
<b>Females*</b>	<b>11</b>	<b>7</b>	<b>5</b>	<b>7</b>
Carrying a weapon				
Males*	15	9	9	10
Females*	6	5	2	5
Group fighting				
Males	16	11	9	12
Females*	7	4	4	4
Robbery or assault				
Males	4	2	4	4
Females	2	1	1	1

\*=p<.05, \*\*=p<.01.

## Appendix 4 Other offences by sex

**Table A** Lifetime prevalence of other offences in Nordic capitals (%), by sex. 13–16-year-old adolescents.

	Copenhagen	Helsinki	Oslo	Stockholm
Property destruction				
Males	24	20	19	21
Females*	13	8	8	8
Hacking				
Males	9	10	11	12
Females	4	2	2	3
Drug selling				
Males*	5	2	3	2
Females	2	1	1	2

\*=p<.05, \*\*=p<.01.

**Table B** Last year prevalence of other offences in Nordic capitals (%), by sex. 13–16-year-old adolescents.

	Copenhagen	Helsinki	Oslo	Stockholm
Property destruction				
Males*	16	10	11	12
Females*	7	4	3	5
Hacking				
Males	5	5	7	8
Females	2	1	2	1
Drug selling				
Males	3	1	2	2
Females	1	0	1	1

\*=p<.05, \*\*=p<.01.

## Appendix 5

### The main offence questions of the ISRD-2 questionnaire in Nordic languages and in English.

	Sweden	Norway	Denmark	Iceland	Finland	English
49.	Har du någonsin druckit öl, alkoholisk eller vin?	Har du noen gang drukket öl, vin eller rusbrus?	Har du nogensinde drukket öl, vin eller færdigblandede drikke som fx. Smirnoff Ice eller Bacardi Breezer?	Hefurðu einhvern tíma drukkið bjór, áfenga gosdrykki eða léttvin?	Oletko koskaan juonut olutta, siideriä, muuta mietoa alkoholiuomaa tai viiniä?	Have you ever drunk beer, breezers or wine?
50.	Har du någonsin druckit sprit (gin, rom, vodka eller whisky)?	Har du noen gang drukket sprit ( for eksempel gin, rom, vodka eller whisky)?	Har du nogensinde drukket spiritus (gin, rom, vodka eller whisky)?	Hefurðu einhvern tíma drukkið sterkt áfengi (t.d. gin, romm, vodka, whisky)?	Oletko koskaan juonut väkeviä alkoholijuomia (giniä, rommia, vodkaa, viskiä)?	Have you ever drunk strong spirits (gin, rom, vodka, whisky)?
51.	Har du någonsin använt hasch eller marijuana?	Har du noen gang brukt hasj eller marihuana?	Har du nogensinde brugt hash (pot, joints, marihuana)?	Hefurðu einhvern tíma notað hass eða marijuana?	Oletko koskaan käyttänyt marihuana tai hasista?	Have you ever used weed, marijuana or hash?
52.	Har du någonsin använt ecstasy eller amfetamin?	Har du noen gang tatt ecstasy eller amfetamin?	Har du nogensinde taget ecstasy eller speed/amfetamin?	Hefurðu einhvern tíma notað e-töflu eða amfetamín (spitt)?	Oletko koskaan käyttänyt sellaisia huumeita kuin ecstasy tai amfetamiini?	Have you ever used drugs such as XTC or speed?
53.	Har du någonsin använt LSD, heroin eller kokain?	Har du noen gang tatt LSD, heroin eller kokain?	Har du nogensinde taget narkotika som LSD, heroin eller kokain?	Hefurðu einhvern tíma notað vímuefni eins og LSD (sýru), heróín eða kókaín?	Oletko koskaan käyttänyt sellaisia huumeita kuin LSD, heroini tai kokaiini?	Have you ever used drugs such as LSD, heroin or coke?
54.	Har du någonsin förstört någonting med flit, som en busskur, ett fönster, en bil, ett sete på en buss eller på ett tåg?	Har du noen gang ødelagt noe med vilje, for eksempel et busskur, et vindu, en bil, ett sete på en buss eller på et tog eller noe annet?	Har du nogensinde ødelagt noget med vilje fx. et busstoppested, et vindue, en bil, et sæde i et offentligt transportmiddel eller andet?	Hefurðu einhvern tíma eyðilagt eitthvað viljandi í líkingu við strætóskýli, glugga, bil eða sæti í strætó?	Oletko koskaan tahallasi rikkonut tai vahingoittanut jotakin, kuten pysäkkikatosta, ikkunaa, autoa tai bussia tai junan istuinta?	Have you ever damaged something on purpose, such as a bus shelter, a window, a car or a seat in a bus or train?
55.	Har du någonsin stulit något från en affär eller ett varuhus?	Har du noen gang stjålet noe fra en butikk eller kjøpesenter?	Har du nogensinde stjålet noget fra en butik eller et stormagasin?	Hefurðu einhvern tíma stolið einhverju úr verslun?	Oletko koskaan varastanut jotakin kaupasta tai tavaratalosta?	Have you ever stolen something from a shop or a department store?
56.	Har du någonsin brutit dig in i en byggnad för att stjäla något?	Har du noen gang brutt deg inn i en bygning for å stjele noe?	Har du nogensinde brudt ind i en bygning for at stjæle noget?	Hefurðu einhvern tíma brotist inn í byggingu til að stela einhverju?	Oletko koskaan tunkeutunut luvatta tai murtautunut johonkin rakennukseen tarkoituksenasia varastaa jotakin?	Have you ever broken into a building with the purpose of stealing something?
57.	Har du någonsin stulit en cykel, moped eller scooter?	Har du noen gang stjålet en sykkel, moped eller scooter?	Har du nogensinde stjålet en cykel, scooter eller knallert?	Hefurðu einhvern tíma stolið hjóli eða vélhjóli?	Oletko koskaan varastanut polkupyörää, mopon tai skootterin?	Have you ever stolen a bicycle, moped or scooter?
58.	Har du någonsin stulit en motorcykel eller bil?	Har du noen gang stjålet en motorsykel eller bil?	Har du nogensinde stjålet en bil eller en motorcykel?	Hefurðu einhvern tíma stolið stóru mótorhjóli eða bíl?	Oletko koskaan varastanut moottoripyörää tai autoa?	Have you ever stolen a motorbike or a car?
60.	Har du någonsin använt datorn till "hacking"?	Har du noen gang brukt en datamaskin til "hacking"?	Har du nogensinde brugt en computer til at hacke?	Hefurðu einhvern tíma notað tölvuna þína til að brjótast inn í tölvu eða tölvukerfi annarra?	Oletko koskaan käyttänyt tietokonetta "hackerointiin"?	Have you ever used your computer for "hacking"?
61.	Har du någonsin stulit något ur en bil?	Har du noen gang stjålet noe fra en bil?	Har du nogensinde stjålet noget fra en bil?	Hefurðu einhvern tíma stolið einhverju úr bíl?	Oletko koskaan varastanut jotakin autossa säilytettyä tai autoon kuuluvaa?	Have you ever stolen something out of or from a car?
62.	Har du någonsin ryckt åt dig en plånbok, väska eller något annat från någon person?	Har du noen gang tatt en lommebok, håndveske, bag eller noe lignende fra en person?	Har du nogensinde stjålet en håndtaske eller lignende fra et andet menneske?	Hefurðu einhvern tíma stolið veski, tösku eða einhverju öðru frá annarri manneskju?	Oletko koskaan siepannut lompakon, laukun tai jotain muuta joltakin henkilöltä?	Have you ever snatched a purse, bag or something else from a person?
63.	Har du någonsin haft vapen på dig när du gått ut, såsom slagträ/påk, kedja eller kniv?	Har du noen gang gått med våpen, som for eksempel kjepp, kjetting eller kniv (ikke lommekniv)?	Har du nogensinde gået med våben som fx. et bat, en kniv eller en kæde?	Hefurðu einhvern tíma gengið með vopn á þer, svo sem barefli, hnif eða keðju (ekki vasahnif)?	Oletko koskaan pitänyt mukansa lyömä- tai teräasetta kuten veistä, rautaketjua tai muuta välinettä?	Have you ever carried a weapon, such as a stick, knife or chain (not a pocket-knife)?

64.	Har du någonsin hotat någon med ett vapen eller med stryk för att få pengar eller andra saker från dem?	Har du noen gang truet noen med våpen eller med å banke dem opp, for å få penger eller andre ting fra dem?	Har du nogensinde truet nogen med våben eller med tæsk for at få penge eller ting?	Hefurðu einhvern tíma ógnað einhverjum með vopni eða hótað að berja einhvern til þess eins að fá peninga eða annað frá þeim?	Oletko koskaan uhannut jotakuta aseella tai hakkaamisella, että saisit häneltä rahaa tai tavaroita?	Have you ever threaten somebody with a weapon or a beating just to get money or other things from them?
65.	Har du någonsin deltagit i ett gruppslagsmål på skolgården, på en fotbollsarena, på gatan eller offentlig plats?	Har du noen gang vært med i et gruppeslagsmål i skolegården, på en fotballstadion, på gata eller annen offentlig plass?	Har du nogensinde været med i et gruppeslagsmål fx. på skolen, et fodboldstadion, på gaden eller andet offentligt sted?	Hefurðu einhvern tíma lent í hópslagsmálum á skólalóðinni, á fótboltavelli, á götum úti eða á einhverjum opinberum stað?	Oletko koskaan osallistunut tappeluun koulun pihalla, jalkapallostadionilla, kadulla tai jollakin muulla yleisellä paikalla?	Have you ever participated in a group fight on schoolyard, football stadium, street or in any other public place?
66.	Har du med avsikt gett någon stryk, eller skadat honom med slagträ/påk eller kniv, så illa att han var tvungen att uppsöka läkare?	Har du noen gang med vilje banket opp noen eller skadet noen med kjepp eller kniv slik at vedkommende måtte oppsøke lege?	Har du nogensinde banket eller skadet nogen med en kniv eller en kæp så slemt, at vedkommende skulle til lægen bagefter?	Hefurðu einhvern tíma barið einhvern eða slasað með barefli eða hnif svo að hann/hún þurfti að fara til læknis?	Oletko koskaan hakannut jonkun tai satuttanut hanta lyömä-tai teräaseella niin pahasti, että hän on joutunut menemään lääkäriin?	Have you ever intentionally beaten someone up, or hurt him with a stick or a knife, so badly that he had to see a doctor?
67.	Har du någonsin salt någon typ av narkotika, eller fungerat som mellanhand?	Har du noen gang solgt noen form for narkotika, eller fungert som mellommann?	Har du nogensinde solgt nogen former for narkotika eller fungeret som mellemmand?	Hefurðu einhvern tíma selt einhvers konar vímuefni eða verið í hlutverki milliliðs?	Oletko koskaan myynyt (mietoja tai kovia) huumeita tai välittänyt niitä?	Have you ever sold any (soft or hard) drugs or acted as an intermediary?

## Appendix 6 Influence of weights on Copenhagen sample

**Table A** Prevalence of offending in Copenhagen: unweighted and weighted figures, and possible error (percentage points) caused by unweighted data.  
Weight 1: municipality as stratum.

	Lifetime prevalence			Last year <sup>a</sup> prevalence		
	Unweighted	Weighted	Possible error caused by un-weighted data (%-points)	Unweighted	Weighted	Possible error caused by un-weighted data (%-points)
Beer or wine drinking	71	70	+1	39	39	
Drinking strong spirits	57	57		28	27	+1
Cannabis use	12	12		3	3	
XTC or speed use	2	2		1	2	-1
LSD, heroin or cocaine use	2	2		1	1	
Destruction of property	18	17	+1	11	11	
Shoplifting	26	26		9	8	+1
Breaking and entering	4	4		2	2	
Theft of bicycle or moped	15	15		10	9	+1
Theft of motorbike or car	2	2		1	1	
Theft from a car	3	4	-1	2	2	
Snatching a purse or bag	4	4		2	2	
Hacking	6	6		4	3	+1
Weapon carrying	17	16	+1	11	9	+2
Robbery	4	4		2	2	
Group fight	19	18	+1	11	12	-1
Assault	3	3		2	2	
Drug dealing	3	3		2	2	

a) For alcohol and drugs use, 4 weeks prevalence.

**Table B** Prevalence of offending in Copenhagen: unweighted and weighted figures, and possible error (percentage points) caused by unweighted data. Weight2: municipality/grade cell as stratum. Only 7 municipalities with full grade coverage included (N=823).

	Lifetime prevalence			Last year <sup>a</sup> prevalence		
	Unweighted	Weighted	Possible error caused by un-weighted data (%-points)	Unweighted	Weighted	Possible error caused by un-weighted data (%-points)
Beer or wine drinking	70	73	-3	40	46	-6
Drinking strong spirits	57	61	-4	30	37	-7
Cannabis use	13	16	-3	3	6	-3
XTC or speed use	2	1	+1	≤0,5	≤0,5	
LSD, heroin or cocaine use	1	1		≤0,5	≤0,5	
Destruction of property	18	18		12	14	-2
Shoplifting	24	22	+2	9	9	
Breaking and entering	4	4		2	2	
Theft of bicycle or moped	14	15	-1	10	10	
Theft of motorbike or car	1	1		≤0,5	≤0,5	
Theft from a car	3	4	-1	2	2	
Snatching a purse or bag	4	4		2	1	+1
Hacking	5	5		3	2	+1
Weapon carrying	19	21	-2	13	13	
Robbery	4	3	+1	3	2	+1
Group fight	21	21		12	14	-2
Assault	4	4		2	1	+1
Drug dealing	3	7	-4	2	5	-3

a) For alcohol and drugs use, 4 weeks prevalence.