POLICE USE OF FIRERARMS A CONSTANT?
THE SWEDISH AND NORWEGIAN EXPERIENCE

To fulfill their mission, the police have been granted the mandate to use force, including the ultimate deadly force by means of firearms. In general, the police may use their weapons according to legal powers and for the purpose of self-defence. Police officers may thus use their firearms to intervene against some very serious forms of criminal activity and against dangerous persons, and to protect their own or others’ life.

There seems to be an almost universal tendency to assume that police work is getting increasingly harder, and, that the police, as a consequence, have to use their firearms more frequently. A special case is the occurrence of ‘cascading events’. Cascading event signifies a single incident with major consequences. The Danish police thus shifted from unarmed to a regularly armed force after an incident where four police officers were shot to death (Holmberg, 2004).

In the paper tendencies in police use of firearms in the Swedish and Norwegian police forces during the last decades of the last century will be discussed. Even if Sweden and Norway are very similar, there is one fundamental difference when policing is considered. Sweden has a regularly armed police force, while Norway has an unarmed force.

USE OF FIREARM

The use of firearms is part of the police exercise of force. It should be looked upon in accordance with a continual scale (see Skolnick & Fyfe, 1993). The realization that the police have access to firearms may thus be a factor that affects behaviour, even if in this case it is not a question of active use. In situations where the police draw their weapons and threaten to shoot, it is definitively an active use. The police want to achieve an immediate effect by the threat. Even when shoots are fired it may be to threat. The intent with both the threat to shoot and warning shots is to affect the counterpart and to make him obey the will of the police by a realization that this is indeed a serious state of affairs. If the counterpart does not obey, next step in the process of escalation may be effective fire. Only then is it through the direct effect of bullets that the police want to get the intended effect. The counterpart shall be put out of play. At the end of the scale are shots that in very extreme situations are fired with the intent to kill.

Counter to the other Scandinavian countries, cases where police officers have used their weapons only for the purpose of threat do not have to be reported to central administrative authority in Sweden. Thus, it is not possible on a routine basis to establish the extent to which Swedish police officers have used their weapons according to a more broad definition of weapon use.

POLICIES OF ARMAMENT

In 1965 there was a major reform of the Swedish police force, where the state took over the total responsibility for the police function. As part of the reform, the police changed to a regularly armed police force. The police were equipped with Walther PP (Polizei Pistol) 7.65 mm as service weapon. During the later part of the 1980ies the Walther pistol was changed to Sig Sauer 9 mm.
The transformation to a regularly armed force must be seen in a longer time perspective and may best be described as a gradual process. In the early days the standard weapon for the police was the sabre; a weapon that was kept until 1965. The police was only armed with firearms on a need to use basis. When the police started to use patrol cars with radio communication in Stockholm and Gothenburg during the late 30ies, the crews had access to pistols. During the Second World War, in which Sweden was neutral, the police was part of the defence, and all officers were equipped with firearms. From 1945 to 1964 police officers in service during night (after 6 pm) were armed. The change to a regularly armed force in 1965 does not seem to have been an issue for debate. It was probably looked upon as a natural and necessary part of a modernization process.

The Norwegian police force has a peaceful history (Naeshagen, 2000) and has never been regularly armed with firearms. Sabres were a part of officers’ uniform in the 19th century and at least until 1935, but it appears that they mainly were used for pageantry and special occasions, such as parades, royal celebrations, and so on. The handguns consisted earlier of Walther PP 7.65 mm pistols, but were changed to the Smith & Wesson cal. 38 revolver in the mid 1980ies.

However, a comparison between the Norwegian and the Swedish instruction shows that the police may use and fire guns in about the same situations. The fundamental difference being that armament, as a rule, may only occur by order of a chief of police. There are also standing orders stating under which circumstances officers may arm themselves, e.g., when an armed robbery has occurred. The arms are either stored in police stations, or may in case of handguns, be stowed unloaded in sealed bags in the service cars.

All officers in both countries are trained in the use of firearms during basic training, and the weapons training seems to be highly comparable. To be ordered to get armed when in service (Norway) or to keep the personal weapon (Sweden) the officers must pass an annual shooting test.

In essence, the difference between the two countries is one of gun availability. Swedish officers have immediate access to firearms while Norwegian officers after a delay. In practice, the delay may vary from minutes to hours.

DATA

In Sweden only incidents where shots have been fired in line of service have to be reported to the National Police Board. Primarily using these reports, former superintendent Sven Silverudd has created a database that contains all police shoting incidents that has occurred since 1985. This database is the source for the present study and covers the period 1985 to 2002. Some of the analyses cover the period 1985-1998.

In Norway incidents where firearms have been used shall be reported to the Police Directorate. However, in this context the term use has a wider meaning since incidents where firearms have been used to threat are also required to be reported. The data for Norway has been collected from these documents and covers the period 1990 to 2002.

SWEDISH DEVELOPMENT 1985-2002

From 1985 until 2002 the yearly number of incidents has varied from 19 to 35 (see Figure 1).

2
Figure 1. Number of incidents where police officers in line of duty have opened fire.

The trend is slightly downwards, but is not significant.²

CASCADING EVENT – MALEXANDER 1999

In May 1999 two police officers pursuing three bankrobbers got involved in exchange of fire in Malexander – a small community on the countryside. The incident ended with both officers getting killed with their own service weapons by the robbers. The murders were extensively covered by the mass media. It was claimed that the incident had a dramatic effect on the propensity of the police to use their firearms; that they were used much more frequently with more civilians injured and killed. It would thus be a case of cascading event.

In order to check whether this is the case, an analysis has been carried out, using monthly data. The average number of incidents before and after the murders has been compared. Contrary to the claims, the average is somewhat lower after the incident (see Figure 2).

The mean monthly value for the 43 months prior to the incident is 2.28 and 1.93 for the period after. However, the slight decrease is not statistically significant. See Table 1.

Table 1. Means October 1995 to April 1999 and June 1999 to December 2002 and test of significance for differences of means. Incidents where officers in line of duty have opened fire, injured civilians and killed civilians. Monthly values, Sweden.

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>T-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incidents</td>
<td>2.28</td>
<td>1.93</td>
</tr>
<tr>
<td>Injured</td>
<td>.49</td>
<td>.51</td>
</tr>
<tr>
<td>Killed</td>
<td>.05</td>
<td>.16</td>
</tr>
<tr>
<td>Injured or killed</td>
<td>.53</td>
<td>.67</td>
</tr>
</tbody>
</table>
The average number of incidents with injured civilians is about the same, but there is an increase in number of incidents where civilians have been killed when police officers have fired their arms. Yet, the difference is not statistically significant. It is chance factors that give the result in the absolute majority of the cases with deadly outcomes. That police shoot with the intent to kill is extremely rare. Thus it makes sense to analyse cases with injured and killed victims added. The slightly higher mean for the period after the Malexander incident is not statistically significantly different from that of the prior period. Thus, there is no clear apparent support for the notion that the Malexander incident has had the effect of a cascading event.
NUMBER OF INJURED AND KILLED CIVILIANS

On the average, on a yearly basis, there have been 7.1 incidents where police officers have injured civilians. There is no statistically significant trend. See Figure 3.

Figure 3. Number of incidents where civilians have been injured or killed, Sweden 1985-2002.

Number of killed civilians varies between 0 and 3, with a mean value of 1.1. There is no statistically significant trend.

NUMBER OF INJURED AND KILLED POLICE OFFICERS

On the average there have been 2.4 incidents per year where police officers have been injured or killed when involved in incidents where police officers have used their firearms. There is no statistically significant trend. See Figure 4.

Figure 4. Number of incidents where police officers have opened fire and where officers have been injured or killed.
In one of the incidents, two officers got killed (Malexander). In all other incidents the injuries were non fatal.

When civilians get injured or killed the cause is bullets fired by the police. For police officers the picture is more mixed. About a third of the injured officers have been hit by own accidental fire. Others have been injured by sharp objects like knives, axes and the like, and some have been hit by cars.

**CHANGES IN STRUCTURE OF INCIDENTS?**

On the whole, there do not seem to be any evident trends in number of incidents where police have fired their arms or as to the consequences. However, it may be the case that there have been changes in the structure of the incidents that do not appear since the data are on an aggregate level.

The most frequent reason for police officers to shoot is self defense. This is valid for almost 80 percent of the cases. Instances of self defense may be divided into six subcategories. In cases of Assumed armed, the officer is uncertain whether the suspect carries a weapon or not. Usually the suspects have not obeyed commands from the officer to show their hands. To be on the safe side, the officer decide to shoot; in the majority of the incidents a warning shot. The category Firearms includes all events where guns have been present from the side of the counterpart, irrespective of whether they were fired or they were real weapons. The important aspect is what the officer perceived in the situation. Threats with knife or other sharp object, and Assault with knife or sharp object differs in the action by the counterpart. In Assault with vehicle suspects have tried to run down officers most often with a car. A final category, Other, is small (nine incidents) and consists of diverse cases. They will be excluded from further analysis.

On an annual basis, none of the situations are very frequent. Most common is Assumed armed, with less that six cases per year. The statistical tests have been carried out in a similar way as all others. See Table 2.

<table>
<thead>
<tr>
<th>Category</th>
<th>Mean 85-91</th>
<th>Mean 92-98</th>
<th>T-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assumed armed</td>
<td>7.57</td>
<td>3.57</td>
<td>**</td>
</tr>
<tr>
<td>Firearms</td>
<td>5.14</td>
<td>4.29</td>
<td>n.s.</td>
</tr>
<tr>
<td>Threat with knife or other sharp object</td>
<td>3.86</td>
<td>4.14</td>
<td>n.s.</td>
</tr>
<tr>
<td>Assault with knife or sharp object</td>
<td>4.29</td>
<td>4.00</td>
<td>n.s.</td>
</tr>
<tr>
<td>Assault with vehicle</td>
<td>3.00</td>
<td>5.71</td>
<td>n.s.</td>
</tr>
</tbody>
</table>

n.s. = not significant, * = p < 05 , ** = p < 01 , *** = p < 001

There is only one category where a significant change has occurred. The mean has decreased significantly for assumed arms situations – from 7.57 to 3.57. Assault with vehicles has increased somewhat, but not significantly. With one exception, the structure among the different categories seem to be rather stable.

**NORWEGIAN DEVELOPMENT 1990-2002**

From 1990 and until 1996 the number of incidents where police officers have used their weapon for the purpose of threat varies between 15 and 29 per year. During 1997
a marked increase starts. Number of reported incidents are almost three folded in a couple of years time. In 2002 number of incidents decreased somewhat and 70 incidents were reported. See Figure 5.

Figure 5. Number of incidents where police officers in line of duty have used their firearms for the purpose of threat. Norway 1990-2002.

When it comes to incidents where police officers have opened fire, the figures are much lower. On a yearly basis the number of incidents varies between 1 and 5. See Figure 6.

Figure 6. Number of incidents where police officers in line of duty have fired their arms. Norway 1990-2002.

In contrast to the development of threat incidents, there is no increase in shooting cases. On the contrary, the level is somewhat lower from 1997 and on. How come there is such a strong increase in reported incidents where firearms have been used for the purpose of threat but not when actual shootings have occurred?
CASCADING EVENT – AUSTBØ 1997

In March 1997 two police officers were shot to death by a man with psychiatric problems. Both officers were armed but were not in a position to use their arms neither for threat nor to shoot. The tragic incident naturally caused a lot of media attention and a debate about how mentally ill persons are cared for followed. As an explanation for the increase in number of reported cases of firearms use by the police, the Austbø incident has been mentioned. This could be an example of cascading event. The same strategy as has been used to check the Malexander incident has been employed.

As can be seen in Figure 7, there is a shift in level of firearms use after the Austbø incident. The monthly mean value has increased from 1.84 to 5.30 – an almost 3 times higher value.

**Figure 7. Number of incidents where police in line of duty have threatened with firearms or have fired shots, January 1991 to December 2002. Monthly values. Mean and 95% confidence intervals before and after Austbø incident March 1999 marked.**

On the other hand, there is no change when it comes to actually firing the arms. Actually, the level seems to be somewhat lower. The increase in use for the purpose of threat is statistically significant, but not the decrease for shooting. See Table 3.
Table 3. Means January 1991 to February 1997, April 1997 to December 2002 and test of significance for differences of means. Incidents where officers in line of duty have used their firearms to threat, opened fire and proportion (%) of incidents where shooting have occurred. Monthly values, Norway.

<table>
<thead>
<tr>
<th>Category</th>
<th>Mean</th>
<th>T-test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Jan 91 - Feb 97</td>
<td>April 97 - Dec 02</td>
</tr>
<tr>
<td>Threat</td>
<td>1.84</td>
<td>5.30</td>
</tr>
<tr>
<td>Fire</td>
<td>.28</td>
<td>.14</td>
</tr>
<tr>
<td>Proportion with fire</td>
<td>13.8</td>
<td>2.8</td>
</tr>
</tbody>
</table>

n.s. = not significant, * = p < .05, ** = p < .01, *** = p < .001

The consequence of the development is that the proportion of incidentes where firearms actually are fired have decreased significantly – from almost 14 to about 3 percent.

A likely explanation to this finding is that the police have changed their tactic, and not that there is an increase in critical incidents. If that was the case, there would presumably also be an increase in number of incidents were police fired their arms. Thus, instead of trying to solve situations without resorting to use firearms, the police, to be on the safe side, use their arms, but only for the purpose of threat.

INJURED CIVILIANS

From 1990 to 2002 four civilians have been killed. The yearly mean value is 0.3. During the same period 10 civilians have been injured. The number of injured civilians varies between 0 and 2. See Figure 8.

Figure 8. Number of incidents where civilians have been injured or killed, Norway 1990-2002.

As readily can be seen, there are no trends in either killed or injured civilians.
NUMBER OF INJURED AND KILLED POLICE OFFICERS

In no incident when police in service have used their firearm both in the more wide sense and the narrow, has any Norwegian police officer been injured or killed. As has been mentioned, the officers that got killed in the Austbø officers were not in a position to use there weapons before they were shot to death.

CONCLUSION

The most fundamental finding is the stability in both Sweden and Norway when it comes to incidents where police in the line of duty actually fire their arms and as to the consequences in number of injured injured or killed civilians. The same holds for police officers.

In one of the claimed two cascading events that have occurred, there seems to be a clear effect. Norwegian officers have probably changed their tactics. They use their firears more frequently for the purpose of threat, but do not fire them more often. In Sweden there is a tendency to shoot less frequent. A reasonable explanation is that police, as a result of these two incidents have become more cautious.

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ENDNOTES

1 Before the 2000 Police Reform reports were filed to Ministry of Justice.
2 The tests have been conducted with the T-test. The period has been divided in two parts, and the means have been compared to check if eventual difference is statistically different.

REFERENCES
