

DIFFERENCES IN INDIVIDUAL PRODUCTIVITY AMONG UNIFORMED POLICE OFFICERS

Stefan Holgersson¹ and Johannes Knutsson²

Abstract: In a focused study the productivity of uniformed officers and the quality of their work has been studied by means of participant observation, interviews and archival data on number of performed proactive interventions. With increase in number of years in service, the productivity decreased, indicating a diminished motivation. In order to measure quality of uniformed police work, as scale was employed from not acceptable to highest standard. Officers that could not interact with citizens in an acceptable manner and/or did not apply rules or routines in a proper manner did not pass. Officers merely responding to calls but who did not take initiatives by themselves received the lowest grade. If they in addition made proactive interventions, a higher mark was received. In order to get the highest grade, officers also had to perform police work indicating high professionalism. Only a small fraction was judged to reach the highest standard. These officers were characterized by high motivation, strong integrity, high competence and physical fitness. There are different reasons for the failing motivation among the majority of officers, among them quantitative goals set for the police. It is argued that a too strong focus on such goals is counterproductive, decreasing motivation.

Introduction

How efficient is the police organization? Is it really up to standard? Since the output of an organization ultimately is determined by the sum the contributions of its constituents, a possibility to get an answer is to examine the achievements of the individuals that make up the organization.

In the research literature studies of differences in performance is rather limited (Reiner, 1998). Studies have mainly focused on activities concerning efforts to fight crime. Bayley (1998) mentions e.g. that a small group in a police force accounted for a large proportion of the production as measured in number of arrested suspects. About 8% of the personnel made over half of the arrests ending up in convictions. More than 60% of the officers had no arrests with convictions by court, and a little less than half of officers had not made any arrests at all. Sherman et al. (1995) studied how crimes conducted by means of firearms were affected by confiscation of firearms in the streets by police officers. Only a few of the officers were engaged in efforts to find and seize firearms while 10% of the officers accounted for more than half of the appropriated arms. Brown (1988) noticed a clear difference in the motivation to perform certain types of interventions among personnel with 2 to 4 years of service compared to those with 5 or more, who were considerable less motivated. Robinette (1982) could also show a clear relationship between years of service and decreased productivity. Zhao and Thurman (2004) found agreements among researchers that have studied the correspondence between number of years in service and the officers' satisfaction with their occupation. The more senior they were, the more negative their opinion. This could be an explanation of the decreasing activity level.

In the studies differences in number of measures taken, e.g. arrests, have been investigated. However, they have little to say about the *quality* of the officers' performance. To study this aspect of police work other methods have to be employed. Reiner (1998) and other researchers (Finstad, 2000) make the point that it is very difficult to study the standard of officers' performance, since policing contains many dimensions that are hard to assess. Reiner claims that the judgment of what professional police work in practice only can be made by an experienced practitioner used to the

¹ Stockholm County Police.

² Norwegian Police University College.

ambiguous, unpredictable, confused and often to their nature situations hard to solve, that police officers are supposed to deal with. That police officers themselves are the most suited to make judgments of what good police craft constitutes, is not unique for police work. Which one who is a good plumber, lawyer, hair dresser or physician can best be judged by an experienced practitioner of respective trade. Customers and clients might of course have more or less well founded opinions about the quality of an accomplishment, but as to its execution the situation is different. It is the experienced practitioner that has an expert capability to make judgments about the quality of an accomplishment, e.g. whether the chosen procedure was accurate and how it was executed.

There is of course a danger with such judgments, namely that they might suffer in objectivity. Here, as for research in general, a critical attitude is necessary in combination of adhering to basic principles of research. Preconditions for the undertaking must be clearly stated in order for an examination of the end product to be made.

When it comes to judgments of what constitutes good police work with individual performance as a basis, the scarcity of studies is large. Even more scarce are studies that look upon performance in both the quantitative and qualitative dimensions.

Data and Method

One of the authors (Stefan Holgersson) works as a police officer. He has vast experiences of making participant observation while acting as a police officer (Holgersson, 2005). By triangulation of data (Denzin & Lincoln, 1994) a fundament has been created that reflects both the quantitative and qualitative aspects of police work. All data collection has been carried out by Holgersson. He has 1) assembled archival data about the officers' age, sex, years of service, number of performed shifts during the observation period (altogether six months) and documented interventions for a number of pre determined categories. In addition 2) participant observation was performed by Holgersson in his capacity as a police officer while working together with the studied officers. During these observations 3) field interviews were also conducted (Patton, 1990). Where clarifications were necessary, e.g. about standard of performance of particular officers, data were complemented with interviews of other members of the organization, like shift leaders. In this manner comprehensive information about each officer that is part of the study was gathered.

Geographical Area of Study

In order to capture crime and public order problems characteristic of urban areas as well as of typical country side problems like large distances and low population density, a police district was selected in the outskirts of a large city. In sum the area represents police Sweden in miniature.

Altogether quantitative data was collected for 127 officers, and for 110 of them in addition qualitative data. For different reasons e.g. maternity or paternity leave, observations of 17 of the officers were not possible to make. Distribution of sex, age and number of years in service is shown in Table 1.

Table 1. Number of Officers, Sex, Age and Number of Years in Service.

	N	Age		Years in service	
		Average	Median	Average	Median
Female	30	35.4	35	9.4	11
Male	97	36.3 n.s.	35	10.5 n.s.	10
Sum	127	35	35	10	10

n.s.=non significant, *** $p \leq .001$, ** $p \leq .01$, * $p \leq .05$

The sex differences as to age and years in service are non significant ($p > .05$).

Differences in Level of Recorded Proactive Interventions

The predetermined categories were chosen to reflect the extent to which the officers take own initiatives to act or intervene. The categories comprise of 1) fines handed out (in most cases for traffic offenses), 2) primary reports (mostly cases where the officers intervene against known habitual offenders), 3) arrests (mostly wanted criminals or thieves caught in the act) and 4) interventions against drunken driving or narcotics offenses. Number of interventions for each category was added to a score for each officer. In sum, the score intends to measure level of individual propensity to be proactive.

The officers were allocated to four groups based on quartiles according to their level of activity. The officers in the first quartile have been classified as Low producing. Per shift they have on the average accomplished between 0 and 0.1408 interventions. As High producing, with an average of 0.3811 to 3.0968 interventions per shift, the officers in the fourth quartile have been graded. See Table 2.

Table 2. Average Number of Interventions per Shift, Interval for Averages per Shift and Proportion (%) of Carried out Interventions, According to Productivity Group.

Productivity-group	Quartile	Average per shift	Average per shift (interval)	Proportion (%) of interventions
Low	1st	0.0749	0 - 0.1408	5
Low-middle	2nd	0.1888	0.1409 - 0.2400	14
High-middle	3rd	0.3148	0.2401 - 0.3810	23
High	4th	0.8021	0.3811 - 3.0968	58

Officers in second and third quartile have been classified as Low-middle respectively High-middle producing. The most active group accounted for 58% of all 2 246 recorded interventions, while the low producing only contributed with 5%.

Years of Service and Level of Recorded Proactive Interventions

In agreement with earlier research, the study demonstrates a clear and significant relationship between years of service and productivity. Among those with 3 years of service or less, 40.4% were classified as High producing, but only 7.4% of those with 15 years or more. More than half of the latter group had low productivity. The group with 4 to 14 years had a more even distribution between the productivity groups (Table 3).

Table 3. Productivity Group According to Years of Service (%).

Productivity group	- 3 years	4 - 14 years	15 - years
Low	4.3	26.9	55.6
Low-middle	19.1	36.5	18.5
High-middle	36.2	17.3	18.5
High	40.4	19.2	7.4
Sum	100	100	100
N	47	52	27

Chi-2, 34.88, df=6, p<.001. Gamma 0.43, p<.001

A not uncommon opinion, especially among male officers, is that female officers are not as active in taking own initiatives to intervene. There is a significant difference between the sexes, with females on the average having a somewhat lower productivity. However, this is due to a few extremely active males. If the three most active male officers are excluded, the difference decreases and is no longer significant.

Criteria for Judging Standard of Policing

In order to make judgments of the quality of the officers' achievements an accumulative scale was constructed. The underlying idea is to catch intentions about how police work ought to be conducted as expressed in the last extensive reforms of the Swedish police. Both the 1985 reform and the community police reform from the mid 1990s were aimed at leaving the reactive and calls for service dominated style of policing, in favor of a more preventive and community based police activity. One of the strongest influences, especially in the latest reform was the philosophy of problem-oriented policing (Goldstein, 1979; 1990). Given these preconditions and the tasks of the observed officers, three different levels of acceptable performance have been established.

Level I – demeanor and capability of conducting given tasks

Fundamental is of course the police officers' demeanor towards people they interact with. The officers must behave in a correct manner and they must execute assignments they are ordered to carry out by the dispatch center in an acceptable manner. To do this they must be updated as to current laws, regulations and procedures. They must also have the ability to execute adequate measures at scenes of crime and be capable to make the ensuing documentation and paper work in an acceptable manner, using accurate routines and filling out the correct forms making use of the different computer systems.

Level II – own initiatives to intervene

In addition to fulfill requirements to pass level I they must also to a reasonable extent take own initiatives to hand out fines, write primary reports, make arrests and intervene against drunken drivers or suspects for narcotic offenses. By reasonable means having an activity level required for productivity group High or High-middle. It is however possible to compensate low activity by being extra protruding in other activities as for instance victim support.

Level III – problem solving

In addition to pass Level I and II the officers also have to deal with assignments in a problem solving manner. In order to do this they often have to take initiatives to cooperate with other agencies. It takes competence, experience and creativity to fulfill these requirements. Level III is close to the police performance envisaged in the last police reforms.

Comment to Problem Solving

Problem solving means that instead of taking care of an assignment as fast as possible, the officers instigate measures that preferably make further calls needless. It is if for instance not uncommon with people repeatedly calling the police requiring assistance. A patrol is assigned, solves the acute problem and leaves the place. After a shorter or longer time period the incident is repeated with new calls for service. A problem solving approach in this case would be to find out measures that minimize or preferably neutralize the underlying immediate causes for the problem, thus making further calls for service unnecessary (see Clarke, 2002).

However, there are some misunderstandings in this connection. Problem solving is not the same thing as problem-oriented policing. For an activity to be considered proper problem-oriented policing all steps in the SARA-process³ have to be executed (Eck & Spelman, 1987; Clarke, 2002). To somewhat simplify, it takes to start with something considerable larger than single occurrences for to be defined as a problem when conducting problem-oriented policing. Problems usually require an extensive investigation to be pinpointed, followed by an analysis with an aim to establish the immediate causes of the problem's continuation. Next step is to come up with tailor made responses that will prevent the problem from occurring again and then see to that the responses are implemented. And last but not least an evaluation of the extent to which the problem is affected must be carried out (Goldstein, 1979; 1990; Eck & Spelman, 1987). To carry out proper problem-oriented policing is a complex task that often requires support from analysts with adequate competence (Goldstein, 2003; Clarke & Eck, 2003; Knutsson, 2003; 2009).

Quality of Policing

By combining data from the different sources the officers have been judged to the extent they pass the requirements for the different levels. There is of course a subjective element when quality of performance is determined. In our opinion the criteria are clear enough for other judges to make the same classifications.

12.8% of the studied police officers' performance was judged as unacceptable. In most cases the issue was not lacking demeanor, but the way assignments were handled and/or the paper work process, which was not up to standard. Remaining officers thus had an acceptable demeanor towards people irrespective if they were victims, suspects or witnesses, dealt with assignments in a passable way and did the paper work in a good enough manner. 41.3% did not make proactive interventions frequent enough and ended up in Level I. Another 41.3% were adequately active to pass the criterion for Level II. Some officers in this group were actually not sufficiently active as to own initiatives, but compensated by carrying out other for policing important functions in a first-rate manner. Only a few officers, 4.6%, applied problem solving, beside, of course, fulfilling the criteria for Level I and II. See table 4.

³ The SARA acronym stands for Scanning, Analysis, Response and Assessment.

Table 4. Level of Quality of Policing According to Years of Service (%).

Level	- 3 years	4 - 14 years	15 - years	Total
0	9.7	5.9	29.6	12.8
I	19.4	45.1	59.3	41.3
II	71.0	39.2	11.1	41.3
III	0	9.8	0	4.6
Sum	100	100	100	100
N	31	47	27	105

Gamma -0.53, p<.001

The task of performing police service is diversified and contains many skills that take a long learning process (Holgersson, 2006). This will of course affect the relationship between years of service and the quality of performance.

Largest proportion non acceptable is found in the group with 15 years of service or more. Almost 30% of these officers did not even pass the criterions for Level I. But the proportions were not diminutive for those with shorter time of service. In the group of officers with shortest time of service, usually keen to act, as high proportion as 19.4% did not have a level of proactive initiatives sufficient enough to pass Level II, but ended up classified as Level I officers. However, the majority of the officers with shortest time of service, 71.0%, reached the standard for Level II. For officers with longer service the pattern is different. There is a clear dominance of Level I. The crucial difference is the extent to which proactive interventions were carried out. The proportion that passed criterions for Level II decreased considerably among those with longest period of service – only 11.1% were active enough. It takes extensive experience in order to reach the standard for Level III. None in the group with shortest period of service managed to pass criterions for Level III. Among those with longest experience lack of initiative for proactive activity is a major obstacle – they were simply not active enough. In the group of 4-14 years of service 9.8% passed the criterions for Level III. There is no statistical significant difference as to distribution among the different levels of quality of carrying out policing between males and females.

Combining data of recorded interventions with information from the observations and interviews gives the result displayed in Table 5.

Table 5. Quality of Performance According to Productivity (%).

Level	Productivity group				Sum
	High	High - middle	Low-middle	Low	
0	2.7	4.5	1.8	4.5	12.8
I	0	0	19.1	21.8	41.3
II	16.4	19.1	5.5	0	41.3
III	4.5	0	0	0	4.6
Sum	23.6	23.6	26.4	26.4	100.0
N	26	26	29	29	110

Gamma – 0.69, p<.001

Officers whose standard was judged as unacceptable are found in all productivity groups. By definition only those who displayed acceptable standard of conduct and of dealing with assignments and who had ended up in productivity groups Low-middle or Low fulfilled the standards for Level I.

To reach Level II the officers must, besides having a good enough demeanor and taking care of assignments in a passable manner, be sufficiently active to end up in productivity group High or High-middle. A few police officers have also, because of excellence in important activities for policing like producing intelligence reports or supporting victims, been judged as Level II officers. The few Level III officers belonged all to productivity group High. The correlation between productivity group and level should be relative strong (Gamma 0.69) – to some extent depending on the definitions of levels.

Characteristics of Level III Officers

All of officers in Level III had about 10 years of service and were about 35 years of age. Besides that, differences in background, education and earlier job experiences were large as well as their personalities. They had however some traits in common. All were *highly motivated, had high competence, had strong sense of integrity* and were in an excellent *physically good condition*.

The motivation factor takes a comment. It is possible to find highly motivated police officers that do not live up to the standard of the criterions for Level II by for instance an obsession of being available for calls for service, with the result that they do not engage in proactive interventions since that could affect availability or that they do not stay at scenes of crime long enough to carry out required tasks. Their competence differed somewhat, depending on interest and talent. Some had well developed social skills; they were e.g. good at taking care of and questioning victims and witnesses. Others were good at law and all the different procedures to follow when conducting investigations. Most of them had a strong drive to catch criminals, but also applied a counter-part perspective. They had an open attitude to people they encountered in the line of service, even if they believed that some were habitual offenders hard to reform. None had difficulties in standing up for their own opinions, even if they were not in agreement with the commonly held views. This includes views of their leaders. All were self reliant and did not yield to negative influences, especially on motivation. It takes a strong sense of integrity and will to resist the negative socialization process from the existing police culture. They had all a good physical form and exercised regularly. In order to work shifts and to be able to perform well, physical fitness is a necessity.

How Can Quality of Policing Be Improved?

It is of course a gloomy state of affairs when among the uniformed officers with the longest period of service, a significant proportion has an unacceptable standard of performance. It is likewise not a delightful situation when so few officers live up to the highest standard of police craft.

Our study points to two processes that run parallel over time and that are counter acting each other. One develops the officers, giving them the experience that enables them to conduct high quality police work, while the other decreases their motivation to fully engage in their line of work. What demotivates is a complex issue, varying between officers. Themes that often come up when officers describe what they consider most frustrating are: irrational documentation procedures, lack of feedback, top down leadership, lack of opportunities for further education and development in their profession (Holgersson, 2005). The police organization has to focus on these issues and must try to remove or mitigate their negative impact. There is already an ongoing process and some improvements have been made. Yet, there must be a strong realization of the necessity to diminish the influence of these factors.

In order for the officers to be able to develop into police professionals, they must be encouraged to remain and function as uniformed police officers for an extended period, thereby giving them the opportunity to mature and to build up the expertise it takes to conduct high class police service. Earlier it took years before the officers were appointed to work in this function. Nowadays young and inexperienced officers are supposed to function in this demanding role without much practice.

Furthermore, rather inexperienced officers instruct the new ones. A possibility to motivate senior officers to remain in the function as first line police officers is to reform the reward structure, making it more interesting to perform high quality police service. It is not solely a monetary issue but also a question of active leadership that promotes first rate uniformed police work. Furthermore, it is of vital importance to stimulate a strong spirit in the groups that uniformed officers are part of, encouraging them to get engaged in their tasks and to be achievers.

Significance of Management Policy

Even if there recently has been a tendency to somewhat play down on the focus to easily identifiable and measureable production goals for the police, the underlying philosophy is still in place. In order for the police organization to reach the stated targets, the individual officers are supposed to energetically assist and still to be active and productive in activities that are not measured by these quantitative measurements. The fundamental assumption is of course that the employed measure is a trustworthy indicator of an activity that is supposed to contribute to important goals for the police, like the prevention of crime. Such measurements did not exist earlier and it can be positive for the management to point out that they expect the officers to live up to required goals (Holgersson, 2007).

However, goals of this kind have little to say about the total production of the police, since only a few activities might be defined by such measures. There is in fact a contradiction in the management philosophy for the officers. On one hand they are, without being involved in goal setting and planning of the task, supposed to strictly follow a command and control philosophy and make contributions to reach the quantitative goals set for the police. For other activities like problem-solving, they are on the other hand expected to act in an opposite way, where they must take initiatives and by themselves decide about the best way of acting. Such a double message is demotivating, especially when the management's goal setting in their opinion is inadequate for achieving the best results of the effort (Seddon, 2003).

Secondly, there is in fact a danger that such a philosophy might be counter-productive, especially if the targets are set very high (see Merton, 1968; Marx, 1981; Bruzelius & Skärvad, 1989; Johansson, 1992; Miller, 1996; Holgersson, 2005). One reason is goal displacement; the goal will become a goal in itself – just to produce the number of entities set by the target. There is a considerable danger that, with as little effort as possible, sometimes even by cheating, the fixed figure will be reached without considerations of the effect the activity is supposed to bring about (see McGregor, 1966; Miller, 1996; Holgersson, 2005; 2007). An example is breath analyze tests carried out by the police. The idea is to increase the objective and/or subjective risk of drunken drivers getting caught. However, examples exist of police, that in order to reach the stated goals of number of carried out tests, perform them in such a manner that they maximize number of controlled drivers without considering effects on the perceived risk, and even in a way that they avoid getting drunken drivers. If they did, the time and resources it takes to process the offenders would mean that fewer tests could be carried out, with the consequence that the target would be harder to achieve. There are even examples of ingenious ways officers have found out to accomplish “tests” without a real test being performed (Woxblom et al., 2008). Another example is from police activities concerning narcotics. Instead of following a plan to maximize the risk of dealing with drugs to make it as little available as possible, the police might catch the same offender again and again thereby with least effort producing points that will support reaching the set target. Even if the same amount of crimes would be detected, the first mode would in all likelihood have stronger effects on the drug situation, albeit taking more resources, than the second. In both cases the targets could be met, pleasing the administration. Intended effects would however probably only be achieved in the case where police follow a thought through plan to affect availability (Holgersson, 2007).

Another crucial assumption of the management policy is questioned in a publication from a governmental committee (SOU, 2007). A main supposition is that the stated measured goals indicate fulfillment of the ultimate goal found on a higher level. Thus, there is an underlying idea of a casual chain where the measured activity indicates that the chain is cut off, which means that the phenomenon in question would be prevented from occurring. One goal for the police has e.g. been to increase deliverance of investigated and cleared up cases. In its turn this is supposed to give rise to crime preventive effects. Do we really know it to be a fact, that there is a reasonable strong relationship between cleared up crimes and preventive effects? Does the clearance rate really inform to what extent goals of crime clearance are fulfilled? Does it for instance convey information about the risk of getting caught? Studies conducted decades ago indicate that a) the clearance rate is a measure hard to interpret and that it certainly not gives the straight forward information many believe it does, and b) that variations in clearance rate over time and between districts have complex explanations where some have to do with how investigations are carried out and how resources are used and allocated (Knutsson, 1983a; b; Ahlberg & Knutsson, 1986; 1990; 1994). All these studies were conducted on behalf of the National Police Board. If the information from this research had been properly understood and utilized by the Department of Justice and the National Police Board, it is questionable if the extreme focus on the goal to deliver cleared up cases could have been formulated and defended. Actually, there seems to be a strong lack of institutional memory in the administrative bodies of the police.

Conclusion

There is a belief that police administration can be in control of and influence performance of the individual officers that form the organization by formulating and stating written documents in the form of instructions, rules and goals, and that the administration can improve control by making more detailed prescriptions. However, it is futile to expect that the desired effects will come about because police are more directed by conversations and chats in between colleagues than by written documents (Ekman, 1999). It seems to us that a practicable way to solve this dilemma is to increase the officers' insights of the phenomenon the police are dealing with, and foremost to make sure that they feel to be appreciated parts of processes and schemes that are brought into action.

The type of police service the studied officers performs is fundamental for policing, as well as being a demanding and difficult undertaking to perform. Much of the initial and out reaching police work is carried out by uniformed officers and it is with this category of officers that the citizens most often interact. In order to improve policing, the motivation and competence must be increased, stimulating the officers to take more initiatives to intervene on their own and to work in a problem solving fashion. Means that would make another 10% labor in this manner would give stronger effects than employing new officers, among who if things do not change, in a few years time only a small fraction will develop into full blown professional police officers conducting first rate police craft. The present challenge for police management and the police is to turn this situation.

References

- Ahlberg, J. & Knutsson, J. (1986). *Varför varierar uppklaringsprocenten?* Brottsförebyggande rådet. Brå forskning 1987:1. Stockholm: Liber förlag.
- Ahlberg, J. & Knutsson, J. (1990). The Risk of Detection. *Journal of Quantitative Criminology*. 6 (1): 117-130.
- Ahlberg, J. & Knutsson, J. (1994). More Crimes While Police Resources Remain Constant – What Will Happen with the Clearance Rate in the Future? *Studies on Crime and Crime Prevention*. 3: 132-145.
- Bayley, D.H. (1998). *What Works in Policing*. New York: Oxford University Press.
- Brown, M. (1988). *Working the streets. Police Discretion and the Dilemmas of Reform*. New York: Russel Sage Foundation,
- Bruzelius, L.-H. & Skärvad, P.-H. (1989). *Integrerad organisationslära*. Lund: Studentlitteratur.
- Clarke, R.V.G. (2002). Problem-Oriented Policing, Case Studies. <http://www.popcenter.org/Library/RecommendedReadings/POP-SCP-Clarke.pdf>
- Denzin, N.K. & Lincoln, Y.S. (1994). Entering the Field of Qualitative Research. N.K. Denzin & Y.S. Lincoln (Eds.). *Handbook of Qualitative Research*. Washington DC: Sage Publications Inc.
- Eck, J. & Spelman, W. (1987). *Problem Solving. Problem-Oriented Policing in Newport News*. Police. Washington DC: Police Executive Research Forum. NIJ. U.S. Department of Justice.
- Finstad, L. (2000). *Politiblikket*. Oslo: Pax Förlag A/S.
- Goldstein, H. (1979). Improving Policing: A Problem-Oriented Approach. *Crime and Delinquency*, 25 (2): 234–58.
- Goldstein, H. (1990). *Problem-Oriented Policing*. New York: McGraw Hill.
- Goldstein, H. (2003). On Further Developing Problem-oriented Policing: The Most Critical Need, The Major Impediments and a Proposal. J. Knutsson (Ed.). *Problem-oriented Policing: From Innovation to Mainstream*. Crime Prevention Studies, Vol. 15, Monsey, NY and Cullompton, Devon, UK: Criminal Justice Press and Willan Publishing.
- Holgersson, S. (2005). *Yrke: POLIS*. Dissertation, Institutionen för datavetenskap, Linköpings universitet.
- Holgersson, S. (2006). *Police Officers Professional Knowledge*. Report 2006:2. Sörentorp: The Swedish National Police Academy.
- Holgersson, S. (2007). *Kartläggning av svenska polisens narkotikabekämpning*. Rapport 23, Mobilisering mot narkotika, Socialdepartementet.
- Johansson, R. (1992). *Vid byråkratins gränser. Om handlingsfrihetens organisatoriska begränsningar i klientrelaterat arbete*. Doktorsavhandling, Lunds universitet.
- Knutsson, J. (1983a). *Problemen med uppklaringsprocenten*. Brottsförebyggande rådet. Rapport 1982:4. Stockholm: Liber förlag.
- Knutsson, J. (1983b). Polisen och brottsuppklaringen. *Nordisk tidskrift för Kriminalvetenskap*. Häfte 5, 1983. pp. 300-312.
- Knutsson, J. (Ed). (2003). *Problem Oriented Policing: From Innovation to Mainstream*. Crime Prevention Studies, Vol 15, Monsey, NY and Cullompton, Devon, UK: Criminal Justice Press and Willan Publishing.

- Knutsson, J. (2009). Standard of Evaluations in Problem-Oriented Policing-Projects. Good Enough? J. Knutsson & N. Tilley (Eds.). *Evaluating Crime Prevention Initiatives*, Vol. 24, Monsey, NY and Cullompton, Devon, UK: Criminal Justice Press and Willan Publishing.
- Marx, G. (1981). Ironies of Social Control: Authorities as Contributors to Deviance Through Escalation, Nonenforcement and Covert Facilitation. *Social Problems*, 28 (3): 221-246.
- McGregor, D. (1966). *Företagen och människan*. Stockholm: Beckmans.
- Merton, R. (1968). *Social Theory and Social Structure*. New York: Free Press.
- Miller, G. (1996). *Hierarkins Ekonomi: Att Styra Effektiva Organisationer*. Stockholm: SNS förlag.
- Patton, M.Q. (1990). *Qualitative Evaluation and Research Methods*. Newbury Park: Sage Publications.
- Reiner, R. (1998). Process or Product? Problems of Assessing Individual Police Performance. J.-P. Brodeur (Ed.). *How to recognize good policing. Problems and Issues*, Washington DC: Sage.
- Robinette, H. (1982). The Police Problem Employee. *FBI Law Enforcement Bulletin*, July 1982.
- Seddon, J. (2003). *Freedom from Command & Control. A better way to make the work work*. England: Vanguard Education Ltd.
- Sherman, L., Shaw, J.W. & Rogan, D.P. (1995). *The Kansas City Gun Experiment*. Washington DC: National Institute of Justice.
- SOU 2007:75 (2007). *Att styra staten – regeringens styrning av sin förvaltning*. Betänkande av Styretredningen. Stockholm: Edita Sverige AB.
- Woxblom, C.; Holgersson, S. & Dolmén, L. (2008). *Polisens sätt att genomföra och redovisa LAU-tester. En explorativ studie av polisens trafiksäkerhetsarbete*. Rikspolisstyrelsen 2008.
- Zhao, J. & Thurman, Q. (2004). Sources of Job Satisfaction Among Police Officers. A Test of Demographic and Work Environment Models. J. Zhao & Q. Thurman (Eds.). *Contemporary Policing. Controversies, Challenges and Solutions*. Los Angeles, CA: Roxbury Publishing Company.

About the authors

Stefan Holgersson is both a police officer and a researcher. He works in a crime investigation unit and functions as a negotiator connected to the SWAT team in Stockholm County Police. Before he became a police officer he took a degree at Linköping University and worked with information system development. He received his PhD in 2005, defending the thesis *Yrke: POLIS* (Occupation: Police Officer).

Johannes Knutsson is Professor of Police Research at Norwegian Police University College. He also holds a part time position at the Swedish Police Academy. He has conducted research for the police since mid 1970s. A recurring theme is crime prevention, where he during the last few years has been focusing on problem-oriented policing. Another theme is police use of firearms. Together with Nick Tilley he has recently edited the book *Evaluating Crime Reduction Initiatives*.