

# Making sense in proactive police work

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**Abstract.** Swedish police has changed from a mainly reactive approach to a more proactive. Information technology has been developed to aid police in strategic decision making. However, IT have not yet been applied in an operational police practice to increase the ability of the police officers possibility to make sense of situations they are confronted with. The purpose of this paper is first to investigate how sensemaking theory can conceptualise and describe the characteristics of police practice, secondly to contribute with knowledge of how police officers make sense in proactive police work. The paper is based on a four-year period of studying operational police practice. Four candidate categories of police officers sensemaking have been identified: 1. Action, without action no sensemaking occurs. 2. Information, police officers search and retrieve information to gain knowledge. 3. Experience, the police officers experience together with their retrieved information help the officers to make sense of situations. 4. Collaboration, in collaboration with colleagues', police officers together try to make sense of different situations. Sensemaking theory have based upon collected empirical data indicated to be an applicable theory to describe the variations and complexity in police practice.

**Keywords:** Operational police work, Proactive policing, Sensemaking

## Introduction

The interest in computer technology in the policing domain has been on the agenda for long time. Fifty years ago it became increasingly clear that computers

would enable the storage and retrieval of large amounts of data contained in various criminal records and files (Benson, 1993). Computers in police work have been suggested to have the potential to aid law enforcement activities through rapid communication of accurate and complete information, and perhaps also support the decision-making (Colton, 1979). However, as noted many years ago, “it should be remembered that the field of computer technology is still in its infancy” (Colton, 1979).

The use of computers in the police domain has since then been researched from a vast number perspectives. A strong strand of research concerns the use of computers and information systems (IS) as a tool for measuring organizational performance and enhancing management control (Benson, 1993), for instance the use of balanced scorecard (Carmona & Grönlund, 2003). There are also extensive researches on pattern of crimes and various IT applications based on geographic information systems (GIS) to visualize and analyze crime (c.f. Brahan, Lam, Chan, & Leung, 1998; Chen et al., 2002; Chen, Zeng, Atabakhsh, Wyzga, & Schroeder, 2003; Goldsmith, McGuire, Mollenkopf, & Ross, 2000). And as a reaction to the advanced use of technology it is claimed that there is a risk in handling data in police systems in terms of integrity and privacy for ordinary people (Schellenberg, 1997). However, others suggests that we may have to let go of a few liberties to get the effect of information technologies (IT) used by the police (Stephens, 2005).

Swedish police work have changed radically the last years. From being foremost reactive i.e. to act after something has happened, the trend is now toward a more proactive police work, i.e. to act before something happens. This has been a necessary process to stop the increased rate of committed crimes. Modern police work should instead prevent crimes before they happen. The proactive era in Swedish police work begun with problem oriented policing, and today intelligence led policing is the current proactive method for police work. From above mentioned research litterature the interest for proactive police work is limited, and less research about IT in proactive police work is possible to find.

In litterature about IT in the police domain, the police officer are often treated rather uniform (Nuldén & Borglund, 2006). In this paper we argue that there is a need to describe and understand police work less uniformly if IT should be able to be designed supporting a proactive police work. Previously a set of different theoretical lenses have been used to conceptualize police work and police practice with a goal to make police practiced described less uniformly. Temporal structures and personas (Nuldén & Borglund, 2006), temporal rhythms (E. A. M. Borglund, 2008), and ‘Soft System Methodology’ (E. Borglund, 2004) are examples of different theories and approaches used to increase understanding of police practice and to describe the complexity of the police practice. Following a sound Scandinavian IS research tradition, this research conforms to the following definition of informatics: ”design oriented study of information technology use,

an artificial science with the intertwined complex of people and information technology as its subject matter. "(Dahlbom, 1996, p. 29), which implies a rich understanding of the context where technology is supposed to be used.

Police work is dependent on accurate and reliable information, and police officers make operational and tactical decisions based upon the information at hand, information retrieved from external information sources and the dispatch central (E. Borglund, 2004, 2005; E. Borglund & Nuldén, 2006; Nuldén & Borglund, 2006). Police work is knowledge intensive, time critical and sufficient availability of information is necessary for achieving high quality in police work (Chen *et al.*, 2002). In a proactive police work the whole idea is that police officers react before something happens. In other words they must make sense of a situation and react on that. In research on fire and rescue service, sensemaking theory (Weick, 1988, 1995; Weick, Sutcliffe, & Obstfeld, 2005) has been applied with a purpose to identify design implications (Landgren, 2006, 2007; Landgren & Nuldén, 2007).

The purpose of this paper is two folded. First, to investigate how sensemaking theory can conceptualize and describe the characteristics of police practice. Secondly, to contribute the knowledge on how police officers make sense in proactive police work.

The reminder of this paper is organized as follows. First the research method is presented, together with a description of the analytical lens applied. This is followed by a brief review of current theory on proactive police work. These sections are followed by the results and a discussion of the results. The paper ends with concluding remarks.

## Method

The data collections and analysis are a joint effort of two researchers. One practicing police officer and one visitor who investigated the police practice through extensive observations in the field.

The practicing police officer has more than 17 years of experiences within the police domain, from various areas of the police: patrol duty in a large and a small Swedish city, and operational work at the national SWAT unit. For the last four years the practitioner has been doing full time research, and only minor police work, and during that period the police practice has been observed with a mixture of a practitioner's perspective and a researcher's perspective. It has not introduced any problems or doubts of being a police officer returning to practice as a full participant and observer. The dual role, officer and researcher, has been that of a reflective practitioner (Schön, 1983). Research notes have been taken parallel to police notes during shifts. Reflective informal minutes have been compiled after most of the shifts. From anthropology the term "going native" has been borrowed to describe data collection in an environment that can be the

researcher's back yard (Kanuha, 2000). Research within one's own practice has been performed in various areas, for example: in teaching (Richardson, 1994), in social work (Kanuha, 2000; Monti, 1993), and in police work practice (Ekman, 1999; Holgersson, 2001, 2005). In this research the benefits of being able to access data from the police have been valued more highly than the risk that "going native" brings. Following the principles of a sound hermeneutic approach, it is important to be honest about the pre-understanding of the researcher (Wallén, 1996), which is one the purpose of this section.

The visitor has more than four years knowledge and experience of the police domain, gained through participatory observation. The time spent in the field is equivalent to 26 weeks of full time first hand observations following an ethnographical approach (Agar, 1996; Ferrell & Hamm, 1998; Hammersly & Atkinson, 1995; Orr, 1996). The field studies, and the participatory observations have been mainly as "third" person in a two-officers patrol, with a small group of detectives, and as observer in several dispatch centers. In Sweden, most officers work in pairs so when referring to a patrol we mean two officers (usually in uniform) in a (marked) police car. Sometimes a greater degree of participation than anticipated has been necessary (such as driving police vehicles, searching people for drugs, guarding arrested suspects, etc.) Notes have been taken during observations when possible. Informal conversational interviews with officers during patrol have been conducted. Observations of operators, and listening to the conversations, both with caller and with the patrols, have been performed at several different dispatcher centrals.

The notes from the observations and interviews have then been analyzed and categorized, and re-categorized. The vast amount of data collected during this research is to a large extent embedded in the experience of the researchers, and mainly in the experience of the practitioner. The analysis process is therefore not completely visible as participant observation is both a data collection and an analytic tool.

## Analytical lens

In this paper the theory of sensemaking has been adopted as theoretical lens in the work to contribute knowledge on how police officers make sense in proactive police work. Sensemaking is a process to making something sensible, but it is not about interpretation (Weick, 1995), and the main issue in sensemaking is to understand what is going on (Weick, 1988; Weick et al., 2005). "Sensemaking is about the interplay of action and interpretation rather than the influence of evaluation on choice"(Weick et al., 2005, p. 409). Sensemaking is dependent upon the individual; sensemaking is based upon retrospective experience; when people act they are part of the environment they make sense of i.e. -enactment- ; sensemaking is a social process; sensemaking is ongoing; sensemaking is driven by plausibility (Weick, 1995). Sensemaking theory has been adopted as

theoretical lens in crisis management (Weick, 1988). According to Weick (1988) sensemaking in crisis is difficult. Individuals cannot make sense of a situation without action, and action makes them part of the crisis.

Sensemaking is not a new theoretical perspective used to analyze and understand time critical response work, which police work is possible to define as. Landgren (2006; 2007; 2007) has used sensemaking as the theoretical lens in a long field study on emergency response work. Landgren differs from other IS researchers in the way sensemaking theory is applied. Sensemaking has most often in IS research been applied as a theory that contribute to how IT has been adopted in organizations, i.e. how people make sense of IT (see e.g. Orlikowski & Gash, 1994). Landgren (2006; 2007; 2007) on the other hand apply sensemaking theory to increase knowledge on how fire crew makes sense of different emergency crisis. Landgren emphasize on how information technology could improve the fire crew to make sense of different crisis situations. The notion of sensemaking or making sense have also been applied on Swedish emergency dispatch centrals (Normark, 2002), where the focal interest was on the dispatchers sensemaking process.

## Research setting

This research has been carried out in one of the 21 police authorities in Sweden. The National Police Board, the National Security Service, the National Criminal Investigation Department, the National Laboratory of Forensic Science, and 21 police authorities forms the Swedish police service. The main task for police work is to prevent and investigate crimes. The police is a part of the legal system and is responsible for making pretrial investigations and deliver them to the district attorney for decision whether to prosecute or not. Information management in pretrial investigation is complex and involves many people and is supported by many different information systems, which cannot fully cooperate.

Since mid 1990's the Swedish police has been aiming to be more proactive. Swedish police has developed the methodology PUM (Swedish abbreviation for Police Intelligence Methodology). PUM together with PNU (Swedish abbreviation for Police National Investigation routine) are the central component in the fight against "every day crimes" and aims to increase the rate of solved crimes. PUM is developed from the fundamental ideas found in Intelligence-led policing (e.g. Ratcliffe, 2002, 2003). Police intelligence is managed by criminal intelligence services. PUM aims to be a method supporting analyzes of bits and pieces of information. Briefly PUM is a methodology, which state that operational police work should be based on intelligence, i.e. analyzed information.

## Results

In this research the operational police work is mainly performed by two police officers working together in a police vehicle or patrol car. Police work can be categorized in different temporal structures (E. A. M. Borglund, 2008; Sørensen & Pica, 2005). In this paper the aim has been to present how police officers make sense in proactive police work. In this paper three common environment settings, to present the results, for police work influenced by the temporal categorizations from Sørensen & Pica (2005): waiting, traveling, and engaging. *Waiting* will be represented by work at the police station. Driving in the patrol car or walking only observing the surrounding environments and people will represent the phase *traveling*. *Engaging* is when the police officers engage in some situation or interact with a situation. The three temporal phases are complemented with a fourth phase: debriefing, when police officers document their actions. The underlying meaning by the three categories differs from the work by Sørensen & Pica (2005).

In this result section, small excerpts from the field study are used to highlight different actions or activities performed by police officers. The excerpts also aim to make the collected empirical data more vivid.

### Waiting

At the police station several information sources are available for police officers to use. Most information can be found in the several police information systems. Police officers are dependent upon reliable information to perform their work, and therefore much of the time spent waiting at the police station is used to retrieve information.

When starting a shift, a normal work procedure is:

- Read out-printed documentation of the last 24 hours police activities with an aim to inform themselves what have happened and what can affect their work. The out-printed documentations include records over arrests, temporary custodies, police reports, and different local and national alarms.
- Read information attached to notice boards.
- Collect information from the Intranet (named IntraPolis).
- Read the latest criminal intelligence reports using the police intelligence unit's web-based service.
- Accessing the web version of the command and control system (STORM) to get a picture of ongoing police activities in the county.
- Reading the latest made police reports.
- Talking to other police officers that either leave their shifts or enter their shifts.

Figure 1 is an example of how out-printed documents are stored, and how important information is attached on a notice board. Figure 2, is an example of how police officers collaborate in writing police reports.



Figure 1. Examples of how important documents are temporarily stored and possible to access



Figure 2. Two officers collaborating, writing a police report

*Sara has arrived 15 minutes before schedule start of her shift at 1500, and brought a cup of coffee into "Hill Street" (nick name of the workroom for police officers on duty). She starts to read her mail, intelligence reports and check if there are anything new concerning the criminal gang FFL (Fucked For Life). After that she start to talk to her colleague, John, which just arrived at work. John had worked the night shift and starts to tell Sara about a car chase of a stolen vehicle that ended up with two arrested persons. The car was stolen and after 10km of car chase the stolen vehicle drove into a tree. The driver was suspected to be under influence of drugs, and they got a search warrant to search for drugs in the car. They found 137gram of white powder packed in small plastic bags. The quick test indicated that the powder was amphetamine. When John is telling this story he is standing beside the shelf where all documentations are stored, and browse through the documentation while telling Sara the story.*

Police officers try to collect as much information about ongoing activities and past activities in their regional area of responsibility, as possible. The excerpt above describes that Sara search for new information about a criminal gang. There is a huge individual range of variation about what kind of information that different police officers look for. Sara, in the excerpt above, is interested in activities that can be related to the criminal gang. Other police officers have an interest in drugs or traffic related crimes. Sometimes the information search behavior can be related to interest but mostly the behavior has a relationship with areas of responsibilities police officers have. Many police officers have an area of responsibility. It can be drugs, traffic, young criminals, etc.

There is also a huge variation between how police officers treat the information they access. In this research some police officers just read the information and do nothing active with the information, when others write down notes in a small book that they carry with them. Some officers do printouts of the information, for example an updated list of stolen vehicles is usually printed out and placed under the sunshield in the police vehicle.

At small police stations only 1-2 police units are on duty at the same time. At those stations you do not normally have a traditional roll call except in the mornings. At a roll call a superior police officer inform the employees about the latest news that have been assessed to be important. The roll call is on the other hand a common occurrence at larger police stations with many police officers on duty at the same time. During roll call it is common that the presented information is discussed amongst the officers. The discussion can for example include both problem solving matters, operational decisions, and strategic planning. Police officers working at police stations without roll calls tend to be more active in their own information search behavior compared with those that have roll calls.

In this research examples of police officers, that never searched for any kind of information have been met, but also police officers that are extremely active in their information search behavior. The results presented above represent the huge

majority of police officers and not any of the two extremes of either low-motivated police officers or those that can be defined as over-ambitious police officers.

## Traveling

When police officers are traveling they are either in the police care driving, walking or using other transportations as bicycle, snowmobile, boat, horse, or helicopter. In this research the studied police practices have only been driving in a police car or have been walking.

When traveling, two typical behaviors are found amongst police officers: active traveling and passive traveling. Active is a when the police officers have a certain goal. By being active the police officers use already collected information, gained knowledge or their experience as a guide where they are driving or walking. They search for vehicles, persons, and check addresses. An active traveling can be triggered by observations. Passive traveling on the other hand is a traveling with no pre-defined goal.

*It is Friday night, and Hans and Thomas drive around, down town. They observe a group of persons standing outside a nightclub. Hans says: "Look, there's Jim and John. I wonder if they will be fighting tonight?" Thomas replies: "Yes probably, with their hatred of foreigners there is nothing more to be expected. Have you seen any of the persons they usually fight?" Hans and Thomas change their rather randomized way to drive around, and they are now focusing on finding a couple of persons that Jim and John at least two times before have been fighting. There is on highest priority to minimize the race related crimes in the city. Jim and John have been active in proclaiming hate against foreigners, and they have never yet backed away from a fight.*

In the above excerpt two police officers used the knowledge of criminal behaviors of the two persons to change their way to work. From being only driving around they become active in searching, with an aim to prevent a crime.

It is very common that observation from others can change level of action/engaging in the traveling phase.

*-2914 from 2174*

*-2914 listening*

*- We saw John and Jim outside Metropol, they were drunk as usual, but their combatants were not there. We are looking for them now, have you seen them anywhere?*

*- No but we saw the BMW that you could read about in the latest intelligence report.*

*- Ok, it seems to be a night with heavy workload even if it only is Friday. We continue to search for our combatants, over.*

*- We contact you if we find them, over and out from 2914*

Important observations very often are shared with other police units, a sharing that also can change other police units to be more active instead of passive. The police radio, telephone or live meetings between police units are how such information is shared.

## Engaging

Engaging in a proactive way differs from the reactive work. In a proactive approach police officers interact with situations to prevent a situation to escalate into an uncontrolled and fulfilled criminal activity. Active traveling sometimes precedes the engaging but often situations happen in front of the police officers forcing them to engage.

*Unit 2914 with Dennis and Katrin observed a known drug addict leaving an address and was heading towards a car. They know that he does not have a driving license and that he often is under the influence of drugs. They saw him open the door to the car, and they managed to confront him before he started the car and drove away. They confiscated the car keys and took the person to the police station, when he shows obvious signs to be under the influence of drugs, and they forced him to provide a specimen of urine for analysis.*

To be proactive can also result in disclosure of other criminality that can be difficult to prevent. Use of drugs is such typical crime that proactive operational police work has problems to prevent. On the contrary, knowledge of where drug users live, meet, and sell drugs to each others are important if the police should be able to disturb drug users in their activities.

*Dennis and Katrin later stopped a car that had a broken headlight. It was raining so the stop is a routine job. When Dennis talked to the driver he notice that the driver had some small tics, and that he seemed to be very dry on his lips, because he kept licking his lips more than normal. Dennis experience indicated that the driver probably had been using amphetamine recently. The driver was forced to follow Dennis and Katrin to the station for a test. The quick test on the driver's urine gave Dennis right, the driver had amphetamine in his body, but if it was enough to be convicted was to early to say.*

Experienced police officers have their knowledge that they have gained by working active for many years, and that help them to make sense of situations and make right decisions.

When police officers engage their sensory impression together with already collected information, gained knowledge and/or their experience that serve as basis for decisions that often are time critical and must be made very quick.

- 2914 from 20, there is an ongoing burglary at Kanal street 8. The neighbor made the call and say that someone is breaking her neighbors door.
- 20 from 2914, we are almost there what's the entry code?
- 3233, over.
- Over and out, we leave the car now.

*Sara and Erik entered the house and walked the six stories to the top floor. They picked up their police batons, and walked slowly, listened for any noise. When they came up to the top level, they walked really careful, and made small peeks to make sure no one was standing outside the actual apartment. The door was broken, and they listened for noises, but heard nothing. Erik picked his gun and flashlight, and slowly opened the door, and Sara maintained her police baton in her hand. The apartment was a mess. They heard some noises from the further part of the apartment. They decided to act offensive, and moved quickly into the apartment, shouting: "POLICE, COME OUT WITH YOUR HANDS VISUAL". Two persons came from one of the doorways with their hands in the air. They were ordered to lie down, and*

*then they were cuffed. After that the rest of the flat was searched and secured.*

*- 20 from 2914, two persons caught in the act of burglary*

*- 2914 from 20, good work, need some help?*

*- No we manage it.*

The above excerpt is not representing a proactive work, but shows how small sensory impressions can shift tactical decisions from rather defensive to offensive within milliseconds. Experience and police training are factors that affect operational and tactical decisions.

Police officers cannot always explain why they responded upon things they observed. For example one single police officer can stop three cars during one night shift, and all drivers were under influence of alcohol. The officer's colleague could not find anything strange with how these three drivers drove their cars compared with the other 4-500 vehicles they met during the night. Something did capture the officer's interest.

## Discussion

In this paper, sensemaking have been used as analytical lens upon the empirical material and upon the results.

### Characteristics of sensemaking in operational police work

From this research it is possible to derive four categories that characterize how police officers make sense in proactive police work. The order of their presentation does not indicate any order or internal ranking.

- Action
- Information
- Experience
- Collaboration

Police officers cannot make sense without any form of action. What kind of action differs between the three different environment settings used in this paper. In *waiting* the action is about searching and retrieving information from different sources, it is also about interacting with colleagues and others. In *traveling, and engaging* the action is more physical by acting into situations.

Information is crucial for police officers if they should be able to make sense of different situations that they act upon. Information is often actively retrieved and together with contextual relationship the information can be transformed to knowledge. One can say that police officers collect information to gain new knowledge, which in certain situations become an important component on how to act, and how to make sense in that action. Information increases the possibility for police officers to understand "what is going on." Police officers experience affect how they make sense of different situations, and when they act they

becomes involved in the situation and how to make sense of the situation. Experience is by many researchers defined as tacit knowledge (e.g. Blair, 2002; Nunes, Annansingh, Eaglestone, & Wakefield, 2006; Wilson, 2002). One difference between experience (tacit knowledge) and explicit knowledge is that it is difficult to formalize. Police experience is difficult to formalize. In action the knowledge and gained experience affect how the police officers act in different situations. The experience is very individual and gives them possibility to detect anomalies, which they can react upon. Information that the police officers have collected and retrieved puts observed situations in a context, which forms knowledge, and serve as basis for decisions. One officer very seldom has the experience, the knowledge, or the information to fully make sense of a situation. Police officers have different experiences and have not always retrieved the same information or gained the same knowledge. Collaboration is therefore assumed for successful sensemaking in police work.

In proactive police work, it is important for officers to make sense of situations that they are confronted with. The process described in the result section about information retrieving is the foremost important factor for a successful proactive work, initiated by police officers. The information retrieval process is in relation to knowledge, experience, and collaboration representing fresh input of how to make sense, and it is also possible to interpret as action to solve a situation, which implicitly makes it a component in the sensemaking process.

## Concluding remarks

The purpose of this paper was two folded. First, to investigate how sensemaking theory can conceptualize and describe the characteristics of police practice. Secondly, to contribute with knowledge on how police officers make sense in proactive police work.

The paper has shown that police officers make sense in their work and that it is a continuously process. Officers collect information from various sources while at the police station. They then use the information as knowledge when they are on patrol. The experience an officer has is important to detect anomalies together with the collected information. Another important component in sensemaking is the collaboration with colleagues, colleagues that not necessary has the same experience or has collected the same kind of information. In a police patrol, with two officers, the whole is therefore larger than its parts.

The above categories are indications that sensemaking is fruitful to describe and understand the complexity of proactive operational police work. In the seven properties of sensemaking (Weick, 1995) the four categories listed above are embedded. This paper has presented individual as well as collaborative sensemaking. Moreover, it has been shown that police officers sensemaking is based upon retrospective experience, police officers interactions are part of their

sensemaking, i.e. the action. We also have presented that sensemaking is a continuously activity involving social activities. This research should be verified through empirical studies where sensemaking is operationalized with a purpose to identify design implications for proactive police work.

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