

LEARNING TO WORK TOGETHER

Collaboration Between Authorities in Economic-Crime Investigation

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ABSTRACT

Collaboration between authorities is a necessity in economic-crime investigation because the necessary information and knowledge are distributed among them. What is the collaborative investigation of changing crimes like in practice, when the participating officers come from hierarchical organizations and have mainly individual work traditions?

The investigation of economic crime underwent a transitional period during the 1990s due to changes in society, resources, laws and technologies. These changes can be studied on three levels. First, *economic crime* has become more complex and laborious to solve as the perpetrators have improved their "expertise". Second, the *investigative strategies* have shifted from action-centered toward actor-centered, as well as from reactive to real-time and proactive. Third, this change in strategies has affected the *quality of collaboration* between authorities: the collaboration is moving away from sequential actions performed by individuals in various offices toward parallel collaboration involving surprise house searches as a central and visible investigative means.

This study focuses on how the authorities learn to collaborate in practice, in actual crime cases, given the pressure of the changes described above. The collaboration is often detached from the mundane crime investigations in the official documents and discourse, and is seen in terms of contracts between leaders, interorganizational projects or information exchange between authorities. The perspective of this research is the pre-trial investigation. Collaboration has mainly been seen as beneficial in the public discourse, and the potential problems have not been pondered on very much. Various authorities have divergent legal starting points, different tasks and goals, and differing organizational cultures and traditions, however. The starting point of the study was to view of collaboration as a learning process, not as an ideal model to strive for. In practice, its construction also involves problems as the required new tools, rules and guidelines are created simultaneously with the ongoing investigation.

The approach of this research is qualitative and longitudinal. It was carried out by following three crime-investigation cases in three different police departments dealing with economic crime in the capital region of Finland. The collaboration was studied from four perspectives: (1) on the micro level of interaction through an analysis of the discourse of a meeting between the police and the tax authority, (2) from a temporal perspective through studying the timing of the collaborative events and the conceptions of urgency, (3) by studying the tools used and developed and, finally, (4) on the temporal and socio-spatial level of expansion of the object as a challenge for reorganizing work.

Activity theory offers a theoretical framework for studying collaboration as a learning process. The results of the study indicate that expansion is not exclusively a positive phenomenon – the expansion of economic crime continuously poses new challenges for the authorities. This *potential* aspect of expansion gives the authorities the opportunity to *articulate* the expansion. It is this articulation in terms of qualitatively new kinds of actions by the authorities that gives the investigation new forms and practices, and eventually something changes. The change may be initiated by modest actions that are carried out in a new way for the first time.

The results also indicate that the management of both the object (the economic crime and its investigation) and the collaboration comprise learning challenges for the participants. These challenges are addressed in attempts to create new interactional practices and new collaborative tools. The innovations created in the cases followed remained local, however. At the moment, the development of collaboration between authorities is mainly based on personal relationships, training, interorganizational meetings and projects. It may also be necessary to systematically support the practical level in investigations by creating new collaborative tools, rules and interactional practices. This would form the zone of proximal development between authorities.

The study also painted a vision of the zone of distal development of collaboration – a development not visible in today's practice. This zone could consist of collaboration between authorities and firms. Companies that, according to the indicators are moving toward the illegal zone could be contacted and advised before they drift into serious and systematic misconduct. This is, at the moment, impossible given the legislation, the protection of information and, undoubtedly, existing attitudes. However, the fight against changing and expanding economic crime calls for new means and new, innovative visions from the authorities.

Key words: economic-crime investigation, collaboration, collaboration between authorities, change, tools, interaction, learning at work, expansion

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1. Introduction

1.1 Investigating economic crimes in collaboration

The investigation of economic crime is an intriguing object of research. The complexity of the crime challenges the investigators, the richness of the investigation process challenges the researcher. Economic criminality efficiently exploits the loopholes of the legislation and the new opportunities provided by the changes in the operational environment. Economic crime is an increasingly planned, professional activity, the forms of which constantly change. The work of the authorities in fighting it, in turn, is often seen as hierarchical, slow to change and tradition-bound. How is this tension between the changing object of work and traditional, hierarchical working procedures handled in practice and how to study it?

Finland is an internationally exceptional country in that the Council of State has passed decisions of principle including action plans to reduce economic crime (Finnish Government 1996, 1998 and 2001; see also Alvesalo and Tombs 2001a, Alvesalo 2003). Collaboration between authorities has been promoted in the action plans as well as in the projects funded by the Ministry of Finance. Despite all the programs and the efforts to combat economic crime more efficiently, central indicators show a downturn since 1999 in terms of the increased duration of investigations, the decreased amount of forfeited criminal gains, and growing case loads (Ministry of the Interior 2003).

Economic-crime investigation is part of the larger framework of the police and policing. The investigators have received police training, and have normally worked as patrol officers and detectives before specializing in economic crime. Police work and police culture have been a subject of intensive research, especially during the last decade (e.g., Skolnick 1975, Skolnick and Bayley 1986, Bayley 1994, Ericsson and Haggerty 1997, Kenney and McNamara 1999, Reiner 2000; in Finland e.g. Honkonen 2000, Luoma 2000, Kiehelä & Virta 2001).

Reiner (2001, 87-101) lists the core characteristics of police culture. The list includes features such as sense of mission, isolation, conservatism, machismo, racial prejudice and pragmatism. Some of these features present an interesting challenge for learning and innovation at work, as well as for collaboration between authorities. If the police are conservative and resist change, how do they meet the challenges of a changing environment? If they are pragmatic, does this not restrict their readiness for innovation, trial and error (Reiner 2000, 214)? If they are isolated and exhibit a "we-they" mentality that mistrusts working with outsiders (Skolnick and Bayley 1986, 211), how do they collaborate?

The main agencies working on issues connected with economic crime include institutional authorities such as the police, the tax authority, the enforcement authority and the prosecutor, all of which have long histories and divergent tasks defined in the legislation. Each authority has its goals that differ from the goals of other authorities. Increasing complexity and the need to share information between organizations have changed the investigation away from the hierarchical organization of work toward interorganizational, network-type collaboration. Thereby, another tension-laden challenge is to be faced: How can such a heterogeneous group work together and achieve a shared goal?

Collaboration between authorities is often taken for granted in strategy papers and public discussion. However, few studies have investigated what this is in practice. Collaboration is largely a concept in the air, without clear content. My empirical aim in this study is to find out how collaboration between authorities is constructed in the practice of economic-crime investigation, on the level at which the concrete results are achieved in terms of retrieved criminal gains and accomplished investigations. *My starting point is not to take collaboration between authorities as a fact or an ideal model to strive for, but rather to study it as a learning process with tensions and difficulties as well as insights and innovations.*

The purpose of this research is to gain insight into learning in collaboration in a multi-organizational setting. Another objective is to provide information for the authorities to be used in further developing forms of collaboration. How do the practitioners manage the object, economic crime, and the collaboration in a heterogeneous working group when the object is complex and frustrates the efforts of the authorities by continually appearing in new forms? What kinds of learning challenges are there? Thereby, the theoretical aspects of collaborative learning and the practical aspects of cooperation between the agencies in economic-crime investigation meet in this research.

The learning challenge in economic crime and its investigation concerns three aspects of change: the changing nature of *economic crime* as a complex, transforming object; the changing *investigation* required by the demanding object; and the qualitatively changing *collaboration* between authorities required by the new, collaborative methods of investigation. I will show the importance of these three themes of change in Chapter 2. I will also show how the general shift in economic-crime investigation is from sequential collaboration between authorities toward parallel collaboration on an on-going crime.

I am drawing on cultural-historical activity theory in which human activity is seen as object-oriented and mediated by cultural artifacts (Leont'ev 1978, Engeström 1987, Engeström, Miettinen & Punamäki 1999). The aim of this study is to shed light on how the described changes are mastered in the investigation practice. The theoretical and

methodological framework and the central concepts are elaborated in Chapters 3 and 4. The methodological framework is further elaborated in Chapter 5, which also describes the process of data collection and analysis applied in this research.

The learning challenge in the collaborative investigation of economic crime is manifold. How do individuals effectively work together across organizational boundaries? The object of the work and the motive of the activity cannot be taken for granted – they are not necessarily shared. Each participant in an investigation process has a specific, partial point of view. The participant organizations have different tasks, goals, working procedures and organizational cultures. It is equally risky to assume that learning automatically takes place in the investigation process. The activity-theoretical background leads me to see the disturbances, deficient communication, ruptures and mundane innovations as signals of underlying developmental tensions and possibilities in a collaborative investigation process, all of which call for qualitatively new kinds of collaboration, new ways of interaction, new tools and instruments of investigation. Conclusions on the empirical findings are drawn in Chapter 6. The findings of this research suggest that the changing object calls for a new way of looking at the investigation process and the collaboration between authorities. The intensified cooperation, the new tools required by it, and other changes in the environment bring along challenges, but they also offer opportunities for learning, and for new expertise to emerge in the community. My aim is to study this emerging learning and expertise.

1.2 Research questions

The change from traditional investigation relying on the hierarchical organization of work toward interorganizational collaboration between authorities appears simple on paper, and it has not been widely problematized in public discussion in Finland. Collaboration between authorities has been seen as a mainly beneficial and unproblematic way of working. Public comments mainly call for an increase in such collaboration. I have studied the *practice* by focusing on four empirical questions in the four articles to be introduced in more detail in Chapter 6. The questions are not exclusively article-specific in the sense that each of them may be touched on in the other three articles as well. The main questions posed in the articles in this study of collaboration from different perspectives are:

1. How are the object of economic-crime investigation and the collaboration constructed in the interaction between the police and the tax authority?
2. How does the object expand and how is the challenge for expansion met?

3. How do the practitioners manage the temporal aspect of the object and coordinate time in collaborative investigations across organizations?
4. What kinds of tools are used and developed to manage the object and the collaboration in the investigation process?

The core issues behind these questions are the object, collaboration and change, and how to manage them. I will return to the theoretically demanding concepts of the object, expansion, temporality and tools in Chapter 3. The more detailed research questions are introduced separately in the four articles that form the empirical corpus of this study. The research questions that extend over all four articles concern learning challenges, knowledge formation and learning in collaboration, and are theoretically grounded in Chapter 4. These research questions are:

5. What are the main learning challenges that practitioners face in the transition from sequential to parallel collaboration?
6. How do practitioners learn in collaborative economic-crime investigation?

I will present some examples from my data throughout this introductory essay to illustrate the issues I raise. These examples are illustrative, not results of systematic empirical analyses. The actual analyses of the data are presented in the empirical articles introduced in Chapter 6.

2. Charting the terrain for the study – an overview of economic-crime investigation and collaboration between authorities

There seems to be a social order for innovations in crime investigation. Studies on police efficiency have not been complimentary about the police and their capacity to tackle crime has been seriously questioned by researchers in recent decades (Bowling and Foster 2002, 981; for reviews, see also Eck 1999, Skolnick and Bayley 1986). Skolnick and Bayley studied police innovations and noted a growing conviction among the police that something new must be tried (Skolnick and Bayley 1986, 211). They end their research report in an optimistic manner; "To introduce and implement new police ideas is not easy, but it is possible" (Skolnick and Bayley 1986, 229). Hoover argues that, although a body of evidence shows that nothing the police do has an appreciable effect on crime rates, when we sort cases and analyze them, we find that detectives do make a difference (Hoover 1999, 293). He calls for experiments and innovative ideas from the field (ibid. 294).

Changes in the operational environment open up the opportunity for innovations. This chapter gives an overview of the changes in the terrain of economic-crime investigation based on previous studies. I will open three different perspectives on change: change regarding the *economic crime* itself, changes in the *investigation* the changes in crime call for, and finally, the qualitative changes in *collaboration* that are called for as a consequence. These three dimensions cannot be separated this clearly in practice: all three are more or less intertwined and there is constant interplay between them. I have made the distinction merely to facilitate understanding of the complexity of the field.

2.1. Changing crime - here is the perpetrator, but where is the crime?

Interest in economic crime as a phenomenon in criminology was aroused by Edwin Sutherland in 1939 (Geis, Meier & Salinger 1995, 2; Friedrichs 1995, 2-5). Economic crime in general has only slowly and unevenly become a recognized subject of scholarly study. It is largely an under-researched area of criminality (Simpson 2002, 161; Geis et al. 1995, 16; Benson and Cullen 1998, 5). There have been wide differences in the level of interest in studying white-collar crime at different times (Geis et al. 1995, 1). The fact that the perpetrators are often claimed to be in the same social class as the decision makers may have an impact on this level of interest (Alvesalo and Tombs 2001c).

Sutherland's definition of white-collar crime was largely restricted to the criminal acts committed by individual professionals in leading positions in society. He treated

economic crime mainly as cases involving individual acts. The field of economic criminality has since expanded: concepts such as occupational crime, corporate crime, environmental crime, organizational crime, business crime and elite crime all come under the title of economic crime. The line between a crime and normal business conduct is not always very clear; the criminal act is no different than any other business decision (Simpson 2002, 36). Moreover, definitions of economic crime have divergent contents, and the issues of illegality and immorality are intertwined. It is not at all clear when the line is crossed and a business transaction turns into a criminal act (e.g., Laitinen & Alvesalo 1994, 12-14; Friedrichs 1995, 5-7; Laitinen & Virta 1998, 11-14; Alvesalo 2002, 153). In this study, I chose to approach the concept from the perspective of practical police work. The following definition is used by the police to prepare comparable statistics on economic crime:

"A criminalized act or neglect which is committed in the framework of, or using a corporation or other organization. The act is committed with the aim of attaining unlawful direct or indirect benefit. A criminalized, systematic act that is analogous to entrepreneurship and has the aim of considerable benefit is also defined as economic crime" (Ministry of the Interior 1999; Alvesalo 2003, 22).

Change regarding economic crime may be viewed from at least three perspectives: (1) in comparison to conventional crimes, (2) deriving from the interpretability of the regulations as well as the real-life facts constituting economic crime, and (3) against changes in society and the operational environment of the criminal perpetrators.

What, then, makes economic crime different when compared with conventional crime, the type of crime the police are primarily trained to investigate? Contrasting the two is a common way of highlighting the special features of economic crime (e.g., Weisburd and Waring 2001; Geis et al 1995, 14; Alvesalo 2002, 158; Simpson 2002, 2-12). With traditional crimes such as theft or assault, it is often evident that a crime has been committed, but the offender is unknown. The purpose of the investigation is thus to find the offender. Economic-crime investigation has a different setting: the offender can often be detected by following the flow of money, but the purpose of the investigation is to find out whether a crime has been committed or not. Salminen (1998, 15-16) suggests that the investigation of economic crimes differs from the investigation of traditional crimes in how easy it is to distinguish a clear physical chain of events and a commonly accepted zone of criminality. Both are normally easy to distinguish in traditional crimes, whereas both vary in economic crimes.

According to Weisburd and Waring (2001, 9), the tools used in committing economic and conventional crime are totally different. Street criminals use knives and guns, whereas economic criminals rely on paper instruments and computers for their offences. Additionally, traditional crimes such as robbery and theft normally take place at a particular place and at a particular time, and there are identifiable victims and offenders. Economic crime, in turn, involves "massive amounts of money, time and geography" (Geis et al. 1995, 15). Nelken (2002, 854) points out the problems in classifying the date and location of these offenses. Conceptions of time and space constitute significant differences between economic crime and conventional crime: they are both much less clear in connection with economic crime. It is difficult to decide where the crime was committed, which leads to unclear situations regarding who should investigate and who should prosecute (Alvesalo 2002, 159).

The second perspective on changing crime concerns the interpretability of both the regulations and the reality of economic crime. Lack of clarity and obscurity allow for changes that are difficult to anticipate. Interpretations may change over time and across situations. Economic crime is a complex entity, which often consists of several separate actions. The entity of events and actions is difficult to grasp, and one case may involve dozens of separate crimes (Talvela 1998, 138). Whereas no separate act meets the criteria of a crime, the totality may well lead to an illegal end result (Salminen 1998, 18).

The legislation concerning economic crime has been left very open in order to guarantee that the law is able to include various criminal actions in various settings, and allow case by case consideration. This has led to a situation in which the legislation is very prone to interpretation, and at worst each authority has its own conception of what is criminal and what is not (Tolonen 2000, Benson and Cullen 1998, 185-189). Alvesalo points out that the broad definition that was originally intended to combat more serious forms of crime also gives the flexibility to limit the scope of investigation into minor events (Alvesalo 2002, 156). According to Simpson, even though enforcement agents may believe that a crime has been committed, the case may be dropped, or too complex to end up in a conviction (Simpson 2002, 50-51).

The real-life events that constitute economic crime are externally often nothing different from normal business transactions. The criminal purpose may only be seen in connection with other transactions or when viewed from a certain perspective (Tolonen 2000, 17). Instead of merely looking at separate actions, we should analyze the interconnected nature of these actions (Salminen 1998, 15). Alvesalo (2002, 151) claims that it is problematic for the police to construct cases that constitute white-collar crimes as crimes, albeit those acts are criminalized. She refers to the problematic relationship between contemporary criminal

law and the reality. The society has become so complex that the phenomenon cannot be described exhaustively with norms, and norms are known to be less than comprehensive (Tolonen 2000, 14). It is difficult to make decisions regarding economic crime because both the norms and the real-life facts are interpretable, and even contain conceptual inconsistencies (Tolonen 2000, 26; see also Mäkelä 2001, 235). The openness of the legislation as well as the richness of real-life events give room for the continuous construction of new types of crimes.

Geis et al. (1995, 17) remind us that white-collar crime illustrates changes in social and business life. This is the third perspective on changing crime. Economic crime is normally complex in nature, requires planning by the perpetrators, and takes a long time to carry out (Weisburd and Waring 2001, 43). The perpetrators know the legislation and its loopholes, and often use professional assistance. At least in Finland, the fact that the legislation regarding economic crime is dispersed under various headings has made it easier for the perpetrators to avoid detection and punishment. The perpetrators actively follow the concurrent interpretations of the authorities and change their actions accordingly. A good example was the decreased use of off-shore companies as a hiding place for criminal money when the Finnish authorities obtained better tools with which to trace these companies through reformed legislation and intensified cooperation with foreign authorities. When the authorities are able to intervene in one kind of criminal activity, the criminals invent better ways and thicker covers to hide it.

A recent report evaluating the state of crime investigation in Finland claimed that tax crime became systematic during the 1990s. Totally legal business structures enable tax evasion through chains of firms and false receipts. This leads to a situation in which the clearing of events, the investigation, and addressing criminal liability become more difficult (Ministry of the Interior 2003, 33). Because of the complexity of the phenomenon, only a minority of economic offenses are detected and recorded (Geis et al. 1995, 119). When a certain type of crime is recognized by the authorities, the perpetrators change their ways of working. The criminals learn: the prosecution of a high-profile case may lead the offenders to change their behavior as they become aware of the tactics and strategies of enforcement (Benson and Cullen 1998, 179). There is an “evolutionary spiral of response and counter response” between control agents and offenders (ibid.).

The changing nature of the crime is sometimes seen very concretely in the investigation. In one of the cases I followed, the entity of the crime consisted of suspected actions taken during 1995-2001 in connection with 12 companies. When the police investigated the dubious transactions, they found out that, in the light of the documents available at various authorities, tax evasion, salaries paid under the table and discrepancies in

the employer contributions were evident in the companies that had been operating during the first years under investigation. When the companies that were still operating when the investigation commenced were studied, it was very difficult to see whether the activity was criminal or not. The documents seemed to be plausible, even if the amounts of taxes and employer contributions were quite small. However, as the investigations continued and house searches and interrogations provided the police with new information, there was evidence of crime in the newer companies as well. It required major efforts from the police, the tax authority and the enforcement office to reach a conclusion. Moreover, the suspect told me that he was sure that when he came out of jail, his fellow entrepreneurs would offer him money to talk about his experiences of the enforcement agents – supposedly for learning purposes.

In the light of the changing object of work, economic-crime investigation appears to be a job that requires constant negotiation over what is criminal and what is not, what is sufficient evidence and what is irrelevant information, what should be investigated and what should be left out. There are only very general rules or 'investigation standards' to be followed. There are, however, local attempts to standardize the crime, the investigation process and the form of presenting the crime to the prosecutor. Often the reality is incompatible with the standards, however, and calls for modifications.

2.2 Changing investigation – from action-centered to actor-centered and onwards

Bowling and Foster argue that "change seems to be everywhere, manifested in shifting patterns of crime, rapidly advancing technologies, privatization, and globalization; yet on the other hand, the policing mandate to control crime, preserve public tranquillity, investigate reported offences, and go to the aid of those who call for help has changed little in the 170 years since the birth of the 'new police'" (Bowling and Foster 2002, 1020). Peak et al. (1999, 51) note that the hierarchical character of police organizations may inhibit change. According to them, the first-line-supervisors, or sergeants, in particular may see the reforms suggested by rank-and-file officers as threats. There have nevertheless been changes on the strategic as well as operational levels of policing, as will be described below.

The strategic changes have affected economic-crime investigation as well, but there is little research evidence of their impact in practice. If economic crime is an understudied subject of scholarly study, its investigation and enforcement practice have been even more neglected. Eck points out that there is little research on crime investigation on the whole (Eck 1999, 177; see also Bowling and Foster 2002, 989), and the investigation process of economic

crimes has not been studied much in Finland or elsewhere (but see Alvesalo 2002, 2003; Vuorinen 2002; Persson 1986, Ericsson and Haggerty 1997).

The purpose of crime investigation is to solve the crime and to establish the circumstances in which it was committed, who the parties concerned are, and other relevant matters in consideration of the charges (Pre-Trial Investigation Act 5:1, Niemi-Kiesiläinen 2000, Helminen, Lehtola & Virolainen 2002, 23). The investigation is most commonly initiated by an offense report. Sometimes the police initiate it on the basis of other information they have received (see Figure 2.1). Preliminary actions are taken to find out what the case is about and whether the threshold of investigation has been crossed. When there is reason to suspect a crime and the investigation is commenced, the standard investigative techniques include gathering pieces of evidence, interrogation and coercive means. When evidence of a crime is found, the investigation is completed in a pre-trial investigation protocol, which is then passed on to the prosecutor for the consideration of charges. The general flow of crime investigation is described in Figure 2.1.

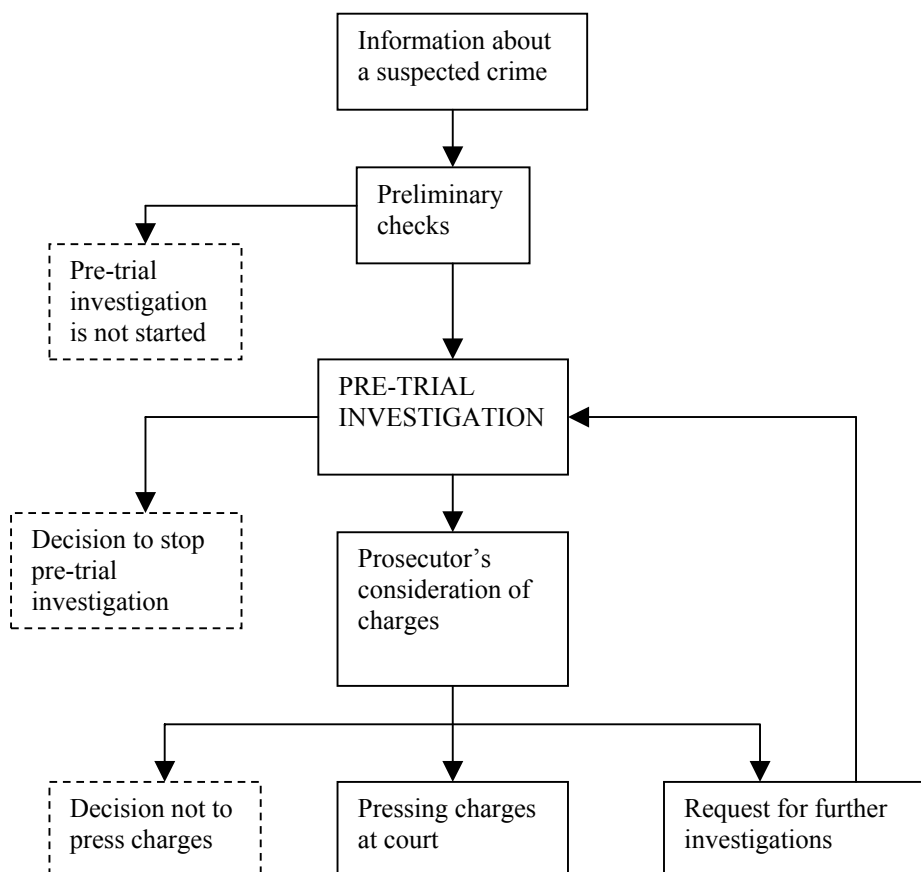


Figure 2.1: The general flow of crime investigation (Puonti 1999)

The general trend in crime investigation, as well as in many other work domains, is from individual work performance toward collaboration and networks (e.g., Ericsson and Haggerty 1997; Reiner 2000 199-206; Crawford 2000, 202; Bowling and Foster 2002, 999-1001; in Finland Kiehelä & Mälkiä 1999, 102).

The police in fiction have often been assigned individual heroic features. The same individual perspective is seen in historical accounts. Hietaniemi (1995, 29) cites a police officer reporting in the 1871 Annual Survey of the Criminal Investigation Division of the Helsinki District Police as follows:

"Every single day and hour, every single minute is precious to a conscientious, dutiful detective although he would not work in order to achieve a certain goal or in order to carry out a previously prepared plan right then: every moment he has to be ready to notice and to utilize all upcoming conditions, that can expose the underlying evil and reveal concealed crime in general, that extremely often shows itself as insignificant events for someone who has not entered into the matter carefully. These insignificant events can merely be collected by a policeman who is experienced in his profession, who understands these mysterious hints of destiny and fate."
(translation AP)

The author of this text describes the professional skills of a police officer based on his individual experience and intuitive skills. The detective sergeants and detective chief superintendents I interviewed described their work as individual toiling and reading of documents on the one hand, and as collaboration with colleagues on the other. The tension between the work done individually and cooperatively can be seen in the following interview excerpts¹:

Excerpt 1

"An awful lot of this work, really, is plodding on with the job alone, reading, finding out things. You face such matters all the time, you have to tramp around in libraries, you have to call people." (interview on April 22, 1999)

Excerpt 2:

"When you can talk about it [economic-crime investigation] happening and being carried out in some sort of an economic-crime-investigation unit, well, it's never

¹ The excerpts are presented to illustrate the point; they are not the result of systematic analysis.

plodding on with the job alone. And that is, it's clear already in regard to professional skills, it's a sort of supporting one another in the sense that although you'd be as clever as ever and able to do things by yourself and wouldn't need any help, but (...) it increases this feeling of security." (interview on April 16, 1999)

The change in economic-crime investigation can be viewed against conventional crime investigation. It is claimed that traditional policing techniques are designed for the investigation of conventional crime and do not penetrate the corporate setting normally present in economic crime (Simpson 2002, 46). The investigation of economic crime basically involves following a "paper trail" left by the offenders (Benson and Cullen 1998, 175). Nowadays, the trail is increasingly in computer records rather than on papers. The police have to show that what is in the documents does not correspond with the real events (ibid.). They are trained for conventional crime investigation and the necessary skills to trace the paper trail left by economic-crime perpetrators are lacking (Simpson 2002, 46). Indeed, Benson and Cullen found that mostly standard investigative techniques are used in corporate investigations (Benson and Cullen 1998, 70). They suggest that the same techniques do not apply to street and corporate crime, and call for new special strategies (ibid., 71).

Another perspective on change in economic-crime investigation concerns the strategies applied. Police work is claimed to be largely reactive. In the vast majority of crime cases, first someone complains and then the police react (Benson and Cullen 1998, 66-67). Research on reactive investigation has produced pessimistic results (Eck 1999, 76), largely because the investigation begins after the crime has happened and the evidence has to be gathered perhaps years later. Benson and Cullen claim that traditional means and a procedure that begins with the victim complaining are even less effective for economic crime than for other types of offences (Benson and Cullen 1998, 174).

Traditionally, crime investigation starts on the basis of an offense report. Offense reports are normally made of single, distinguishable acts. The investigation is thereby reactive and focused on a single, suspected criminal deed. This is not sufficient: at the worst, the same perpetrator may have continued other criminal activities besides the one under investigation. Moreover, the authorities have not been able to confiscate the criminal gains. During the past few years, the Finnish police have strongly directed their strategies from reactive to proactive crime control. For example, the action plan supported by the Finnish Government for the years 1999-2001 emphasized proactive strategies (Finnish Government 1998).

Thus, contemporary emphasis is on proactive crime control. The police have recently promoted a transition from an *action-centered* to an *actor-centered* approach (Ministry of

Finance 1999a, 10), with a view to being able to pinpoint the entire activity of professional criminals more efficiently. An actor-centered strategy enables the coordinated investigation of crimes committed by one person or a group of people. The target of the investigation shifts from a single crime to an entity of crimes. The logic of actor-centered investigation is in, 'the entity of criminal acts - real-time investigation - getting the money back – decision' chain whereas it follows the 'criminal act - investigation afterwards – decision' path in action-centered investigation.

The evaluation report of the state of affairs in crime investigation also identified three other strategies in addition to the action-centered and the actor-centered ones: concealment-centered, criminal-proceeds-centered and phenomenon-centered (Ministry of the Interior 2003, 58). The concealment-centered and the criminal-proceeds-centered strategies could be considered constituents of the actor-centered strategy, however, and I will not concentrate here on the details that might separate them. The phenomenon-centered strategy is introduced below (see target activity). The essential differences between the main strategies applied today, action-centered and actor-centered, are highlighted in Table 2.1 below.

Table 2.1: The essential features of action-centered and actor-centered strategies of economic-crime investigation

ACTION-CENTERED	ACTOR-CENTERED
Offense report as a starting point	May be started on the basis of criminal intelligence or other information received by the police
Reported crime as the target of investigation	Entity of crimes as the target of investigation
Interrogation as the main means of gathering information	Coercive means applied effectively in information gathering
Information exchange the main content of collaboration	Collaborative operations (raids) applied as a standard
Sequential collaboration between authorities	Parallel collaboration between authorities
Investigation after the crime has been committed	Real-time investigation of an ongoing crime
Reactive strategy	Proactive strategy

The action-centered strategy is, in fact, a description of traditional crime investigation that is largely based on interrogations as the central means of gathering information. Economic-crime investigators call it an “invitation to interrogation” method (in Finnish, “kutsusta kuulusteluun”). The actor-centered approach aims at real-time investigation. It has been recognized for a long time that the ability of the law-enforcement agencies to stop criminal activity is weak. Real-time investigation calls for the law enforcers to search for ongoing criminal activity. It also calls for new means: a shift from interrogation-centered investigation toward a more intensive and quicker method that could be described as coercive-means centered. This means that, after a preparative phase, a surprise house search, seizures and arrests are used to gather all of the relevant evidence. The actor-centered strategy also calls for closer collaboration between authorities, because the information needed is dispersed in various files at various agencies. Combined with the efficient tracing of criminal proceeds, this approach has achieved good results in terms of convictions as well as forfeited money. The strategy has been promoted for years, but a recent project found that its application is not widespread (Ministry of the Interior 2003, 15). Despite the good results achieved, a step backwards towards action-centered investigation has been taken in economic-crime investigation (*ibid.*, 61-62).

However, the limited resources and the ever-increasing caseload have led to the adaptation of a further strategy, the phenomenon-centered strategy (Ministry of the Interior 2003, 58). The form of investigation is called "target activity" (compare Eck 1999, 177-178). When the resources are scarce and all suspected crimes cannot be taken under investigation, and even the time lapse before the investigation of reported crimes starts is too long, national targets are negotiated between the authorities conducting the pre-trial investigations. National as well as regional targets are set collectively and resources are allocated in terms of people from different units and money from the Ministry of the Interior to cover traveling and the other extra expenses that a wide, collaborative investigation may incur. Thus, a collaborative operation to investigate the chosen target commences. This strategy could be seen as a surgical strike focusing on a specific target that is considered a threat, and is anticipated to have a wider general deterrent effect. Although it has been applied only in a few economic-crime cases thus far, I will return to it in Chapter 7 because it may be significant for the future development of investigative methods. Table 2.2 concludes this section on the strategies, types of investigation and the main methods applied in economic-crime investigation.

Table 2.2: Investigation types and main methods used to realize the strategies of economic-crime investigation

STRATEGY	TYPE OF INVESTIGATION	MAIN METHOD
Action-centered	Traditional investigation	Interrogations
Actor-centered	Real-time investigation	Collaborative house search
Phenomenon-centered	Investigation based on analyzing existing data and on collaboration between agencies	Surgical strike

2.3 Changing collaboration – from sequential to parallel

Ericson and Haggerty (1997) described how interagency connections have increased and the contact networks of police officers have expanded. The organizational boundaries between authorities are becoming weaker and weaker. They argue that, as a consequence of this, "the police are transformed – because they are driven by the knowledge requirements of other institutions that engage in compliance policy" (ibid., 49).

During the last two decades, it has been recognized that problems regarding crime include shared problems, and that solving them requires collaboration between agencies (Bowling and Foster 2002, 1001). Bowling and Foster sum up several studies showing that while collaboration across agencies is widely accepted, it tends to remain on the level of rhetoric rather than reality (ibid. 1001-1002). Crawford (2000, 202) notes that the new approach of "partners against crime" involves "a fundamental rearticulation of individual and group responsibilities and professional 'expertise'".

I have shown in Section 2.1 how the regulations and the real-life facts constituting an economic crime are interpretable. Moreover, the information concerning the suspected crime is dispersed in the files of numerous authorities. This makes collaboration across organizational boundaries a necessity in economic-crime investigation. Alvesalo claims that the investigation of economic crime is hardly possible without using the expertise and powers of other officials in addition to the police (Alvesalo 2002, 157).

2.3.1 The desire for and the agony of collaboration

Collaboration between authorities is not completely new in economic-crime investigation. The biggest cases in the 1950s were investigated by separately named investigation

committees, the members of which were gathered together from different police departments and agencies (Hietaniemi 1995, 327). Practices involving cooperation between agencies were already applied. In the 1970s, the tax authority had an active and efficient group fighting tax crimes, the so-called "Commando Group". It cooperated closely with the police (Ministry of Finance 1999a, 17). The activities of the Group started efficiently, but then faded out quite rapidly (Hietaniemi 1995). This was partly due to the fact that the Pre-Trial Investigation Act was revised, after which the tax inspectors were not able to hold police warrants to conduct interrogations.

Alvesalo claims that on the level of investigation, it is problematic for the police to build cases out of a plethora of incidents (Alvesalo 2002, 151). Collaboration across professional boundaries is a necessity. The dispersed and complex nature of the crime calls for various kinds of expertise and the group of participants in the investigation has enlarged (for example, Alvesalo 2003, 22-24; Ministry of Finance 1999b). Today, agencies engaged in the prevention, detection, investigation and surveillance of economic crimes may include the police, the tax authorities, the National Board of Customs, the employee-pensions system, the Ministries responsible for corporate subsidies, the National Pensions Institute, the State Audit Office, the Bankruptcy Ombudsman's Office, the inspection authorities for financing, and the Center for Product Supervision (Ministry of Finance 1999a).

Many of these authorities represent traditional, hierarchical bureaucracies. Now the general shift in economic-crime investigation seems to be toward interorganizational networks of heterogeneous actors. What makes this interesting is that the various authorities are, to a large extent, interdependent – the police, the prosecutor and the judge, for example, are dependent on each other's work outputs and interpretations (Benson and Cullen 1998, 166). As Benson and Cullen point out, networking is necessary for effective control (ibid., 195). They also remind us of the opportunity to learn from collaboration: improve the criminal process, avoid duplication and improve coordination. They refer to collaboration as "intellectual resource sharing" (ibid., 200-201).

Benson and Cullen claim that corporate crime calls for closer collaboration than traditional crime, especially between the police and the prosecutor. They also emphasize the active role of the prosecutor (Benson and Cullen 1998, 69). Pre-trial investigation forms part of a long process, all the way from the detection of the crime to court proceedings and the enforcement of the possible sentence. The Pre-Trial Investigation Act obliges the investigators and the prosecutor to engage in close cooperation. A prosecutor I interviewed described his connection to the pre-trial investigation in the following words:

Excerpt 3

"I am really the first user there (...) I'm the one who works with the pre-trial investigation then. If it's done well, it's always less work for me, if it's done poorly, that means that a lot still remains to be done." (Interview on February 24, 1999)

The complexity of economic crimes has led the investigation decisively toward cooperation between agencies. Different authorities possess dissimilar pieces of information and they are able to apply different types of action. Combining forces may be essential for the investigation. It is still coordinated by the police, but along with intensified horizontal and vertical cooperation between the authorities, the role of the police officer is changing from that of an individual fact finder to being a member of a network. Interorganizational collaboration also provides new tools for the investigation.

Economic-crime control involves a wide range of regulators working on the same issues without clear mutual coordination (Alvesalo 2002, 150). It is an overlapping system. Simpson notes that enforcement agencies in the United States are equally uncoordinated in their investigative efforts, and philosophies, goals and practices diverge (Simpson 2002, 46).

Divergent goals and strong boundaries between agencies have created tensions in cooperation, and it is not always easy to combine the interests of different authorities (Ministry of Finance 1999a). Collaboration is needed, but the collaboration itself is often problematic: synchronizing schedules, prioritizing cases and tasks and combining the different working procedures is difficult. There are different goals and different priorities (Benson and Cullen 1998, 95; *ibid.* 165). The integration of different perspectives is not easy. Benson and Cullen (1998, 216) also point to the risks of blurred boundaries between authorities. It is a question of the legal protection of the client: the authorities should stay in their own areas and not get too enthusiastic.

Benson and Cullen (1998, 210) remind us that there may also be tension between the desire to be cooperative and the desire to get credit for the solving of the case. The amounts of criminal proceeds retrieved are used as output measures in Finland today. This causes tensions between agencies that are supposed to collaborate. A sense of competition has also evolved— everybody wants to be credited with retrieving unlawfully obtained property. The benefits of cooperation as such have not been questioned, but the collaboration is tension-laden in its necessity.

2.3.2. Quantitative and qualitative change in collaboration

Despite the tensions involved, one clear change in the collaboration between Finnish authorities during the second half of the 1990s and at the beginning of the new century is quantitative: there are more contacts between officials from various agencies now than there were a decade ago (Alvesalo 2003, 22-24; Ministry of Finance 1999a). Boundary-crossing cooperation between agencies has increased: there are shared projects, shared operations and shared training sessions in addition to the personal-contact networks that are formed. The state-guided Action Plan provides a framework for collaboration between authorities: it has been actively promoted in order to find new means and new resources for the investigation (Alvesalo and Tombs 2001b, 37-38). It could be seen as a rational way to extend limited resources (Benson and Cullen 1998, 213). In concrete terms, the increase in collaboration is evident in the placement of tax inspectors and executive officers in the police departments, in the exchange of officials, in the collaborative operations (raids), and in the formation of a special tax-inspection unit in the capital region that concentrates on collaboration between authorities in the fight against tax crime.

Collaboration between the police and the prosecutor is seen as an essential factor in investigation efficiency (Vuorinen 2002, 98-100). Efforts are made to intensify it by arranging joint training courses for police officers and prosecutors, for example. Numerous working groups and projects have also been organized (see e.g., Ministry of Finance 1999b). However, collaboration practices have not yet been fully established and there are regional differences in quantity as well as in quality (Vuorinen 2002).

The final project report on developing collaboration between authorities (Ministry of Finance 1999b) distinguished three levels of collaboration on the basis of content (Table 2.3). At the *management level*, the task is to become fully informed of the situation concerning economic crime, to plan along general lines, to prepare training programs and to improve the competence of the authorities. At the *level of information exchange and planning*, it is to exchange information about the present phenomena and clients, and to find new targets for concrete actions. At the *operative level*, it concerns concrete actions directed towards certain clients or targets, for example simultaneous tax inspection, pre-trial investigation and enforcement (Ministry of Finance 1999b, 40).

Table 2.3 Levels of collaboration between authorities (based on Ministry of Finance 1999b)

LEVEL	PURPOSE	CONTENT	MEANS
Management level	Assessment of the situation Creating common guidelines Improving competence	Preparing training programs Planning	Meetings
Information exchange and planning level (Project level)	Finding targets for mutual concrete actions	Exchange of information about suspects, experiences and phenomena	Meetings Projects
Operative level	Investigating suspected crimes	Collaborative raids Simultaneous tax inspection, pre-trial investigation and enforcement actions	The powers of the authorities combined in collaborative operations

Paradoxically, the concrete means of facilitating collaboration between authorities described in the Final Project Report are few. Efforts have been made to enhance functional preparedness at the political, financial and general managerial levels. In practice, training has been the main means of improving collaboration at the information-exchange and operational levels. (Ministry of Finance 1999b, 90-98).

Toiviainen (2003) studied a network of industrial subcontractors. She found four levels of learning resembling the levels of collaboration defined in the report mentioned above. She distinguishes between the network-ideological level, the project level, the production level and the worker level. Her question is, what does networking have to offer on the production level? Similarly, I argue that the interorganizational collaboration between authorities has been concentrating on the management level and the project level, leaving the investigators and inspectors and other officials to construct the shop-floor level without clear rules or specific tools. Operational collaboration is not as simple in practice as it is on paper.

At the operational level, the traditional cooperation model between the authorities is to pass the case from one agency to another like a baton in a track relay race. When the tax office made an offense report when they suspected a crime in a case they had inspected, the police took over the case and continued without any more interaction between the two offices than necessary to deliver the case. When the tax office wanted the police to assist when they confiscated the accounting records from a company, they asked for executive assistance. Other authorities were seen as assistants, not equal partners. When the police asked for

assistance from the tax office in the form of tax-inspection reports, the material to be inspected was delivered to the tax office. Then the tax inspectors started to work on the material collected by the police according to their own schedules, and delivered the reports when they were finished. The collaboration was *sequential*, the next baton carrier started when the previous one stopped running (see Table 2.4).

Traditional methods have proved somewhat inefficient in economic-crime investigation, and new methods relying on cooperation between authorities have been engaged. One such method is a collaboratively performed operation, or raid, on a working site. The Commando Group mentioned earlier had carried out similar operations in the 1970s, but the practice faded. In this mode of action, the police and the tax inspectors conduct the house search together, and the tax inspectors assist the police to find all relevant material for the tax inspections. The police and the tax inspectors then negotiate over the case, and the tax-inspection reports are often drawn up in the police department in which the tax inspectors spend the critical days after the search. This gives the possibility to negotiate over the case and to discuss what each party expects, and even allows the tax inspectors to ask the police to go and find new documents if needed for the inspection. The collaboration is *parallel*, it takes place in real time and often simultaneously with an ongoing crime (see Table 2.4).

Table 2.4: Essential differences between sequential and parallel collaboration in economic-crime investigation

SEQUENTIAL COLLABORATION	PARALLEL COLLABORATION
Isolated, individual efforts to collaborate	Common social ideology as a basis for collaboration
Restricted information exchange only when necessary	Legislation modified to enable functional information exchange
Interaction between authorities only when needed	Liaisons with 'other' agencies to increase personal contacts, shared projects
Separate training for each authority provided by the respective administrative sectors	Shared training courses for authorities
Executive assistance as the standard form of collaboration	Collaborative operations (raids) and multiorganizational projects as standard forms of collaboration

Evidently, the shift from sequential to parallel collaboration is not merely structural-temporal: the contents of the collaboration are changing as well. In practice, collaboration between authorities seems to have developed from the mere exchange of necessary information in two directions: *project-oriented* collaboration and *operational*, investigative collaboration. The common feature in both is that they involve parallel rather than sequential collaboration.

Collaboration conducted at the operational level, within the individual investigation processes, has not been emphasized in the reports. However, it seems that it is actually in just this context that the change in content is the most radical and the most interesting, in terms of the distinction between sequential and parallel collaboration. Despite all the action plans, principles and declarations on paper, collaboration in the actual investigation processes seems to be somewhat neglected. The practitioners participating in the investigation are tackling the tensions of interorganizational collaboration every day, when they gather information from other authorities, when they conduct a collaborative house search, when they go through a warehouse full of documents together, when they negotiate the goals of the investigation across organizations. Specific rules and tools for collaborative, interorganizational investigation are virtually lacking at the operational level. Nevertheless, this is the level at which the most concrete results are derived, be it in terms of retrieved property, solved crimes or convictions.

The question of facilitating every-day collaboration in a complex, tension-laden environment has not been properly addressed. Training has been the main means of improving this kind of shop-floor collaboration. At the end of the 1990s, a government-funded project on developing collaboration between authorities led to the formation of a more stable project called VIRKE which was given a physical location as well as human resources. This project is making efforts to focus on needs at the operational level, although its main purpose has been to fill the gap at the information-exchange and planning level (the project level).

The shift from the isolated hierarchical organization of work to interorganizational collaboration between authorities is a challenge. It implies a step from sequential collaboration to parallel, simultaneous collaboration. What kinds of challenges does it bring to learning and expertise? When the collaboration was sequential, the papers may have traveled by post without people interacting personally. In parallel collaboration, people have to meet each other, not only to negotiate on schedules but also to agree priorities, goals and forms of

interaction. The complexity and interpretability of the crime calls for a shift from information exchange toward more profound methods of collaboration in constructing the crime and creating knowledge.

3. Conceptualizing multiorganizational collaboration

3.1 Methodological framework and main concepts

I will study collaboration in economic-crime investigation by analyzing the authorities participating in the investigation as *activity systems* (Engeström 1987) working on a partially shared *object*. The activity-system model makes it possible to study the activity from the point of view of a chosen *subject* or subgroup. It illustrates how the activity is carried out by the subject and the collaborative community working on a shared object with the help of mediating artefacts, rules and divisions of labor. The model is illustrated in Figure 3.1. I will further elaborate on the notion of the object in Section 3.2 and I will come back to the methodological framework of this research in Chapter 5.

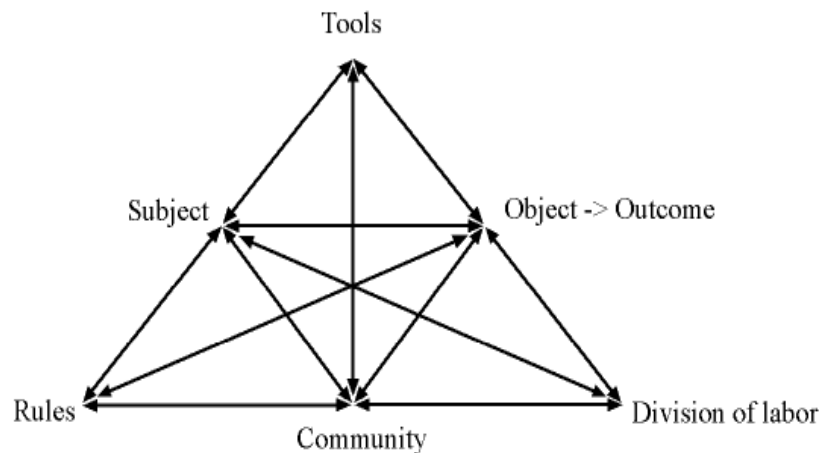


Figure 3.1: General model of the activity system (Engeström 1987, 78)

The above model represents the second generation of activity theory as defined by Engeström (2001b). The first generation was built around Vygotski's (1978) idea of the cultural mediation of individual actions. The individual focus of the first generation was supplanted by the second generation as it explicated the difference between individual *action* and collective *activity* (Leont'ev 1978) and graphically expanded Vygotski's model of individual actions (Engeström 1987; Figure 3.1). The second generation, however, sees the object as the object of a single activity system. This is inevitably insufficient when there is a network of activity systems working on a partially shared object, as in economic-crime investigation. This has evoked the third generation of activity theory. Multiple activity systems have recently been the object of research in several activity-theoretical studies (Engeström, Engeström and Kärkkäinen 1995, Engeström, Engeström and Vähäaho 1999,

Hasu 2002). A minimum model of multiple activity systems is presented in Figure 3.2. The fact that there are multiple activity systems involved also affects the definitions of the object. The object develops from an initial given state (object 1) toward a collectively meaningful entity in the context of the activity system (object 2). The potentially-shared object between activity systems (object 3) is constructed jointly in the process of collaboration (Engeström 2001b, 136).

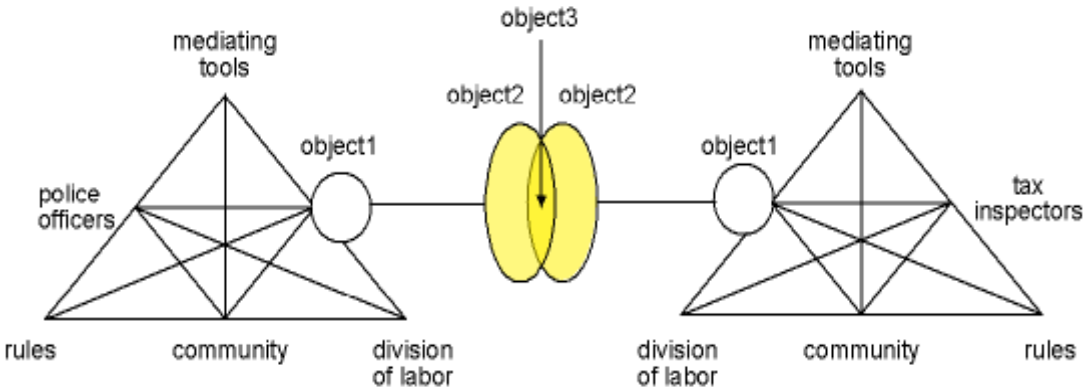


Figure 3.2: Two interacting activity systems in the context of economic-crime investigation representing a minimal model for the third generation of activity theory (according to Engeström 2001b)

I conceptualized the change in economic-crime investigation in Section 2.3 as a shift from *sequential* toward *parallel* collaboration. I will now illustrate the difference between the two with the help of simplified figures in which the authorities are represented as activity systems. Traditional sequential crime investigation resembles a relay race from activity system to activity system. Assistance is requested from other authorities in a successive order, each phase adding something to the process. Each activity system has its separate object (Figure 3.3).

In the emerging parallel model, organizations form a network of activity systems working on a shared case. They are working on the same object (the same crime), but they see it from divergent perspectives and have diverging goals to be accomplished in the process. In this sense, the object is never completely one and the same for all; it is partially shared. The model is illustrated as follows (Figure 3.4).

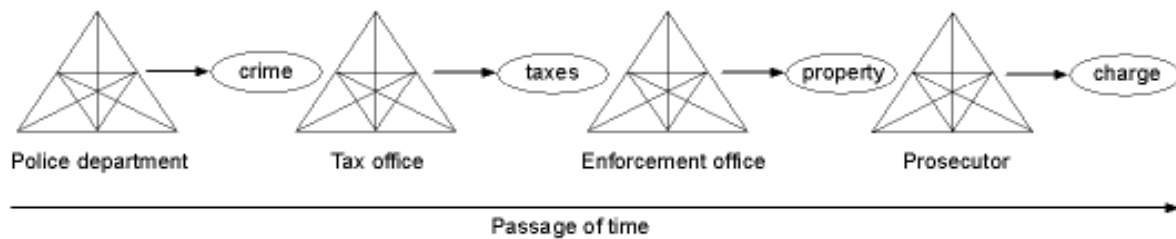


Figure 3.3: The sequential flow of investigation

The shift from sequential to parallel investigation resembles what Normann, in the context of organizational studies, describes as a change from value chains toward value stars (Wikström, Normann et al. 1994, 28) or value groups (Normann 2001, 135-140). The value chain is a process in which each of the phases adds value to the entity (ibid., 73-74). Normann suggests a reorganization of value creation into value stars or value groups: this is not merely a reorganization of previous actors, but involves a new, coordinated group of actors who aim at a new kind of product. This implies a new kind of production, co-construction or co-production (Normann 2001, 136, 142-159).

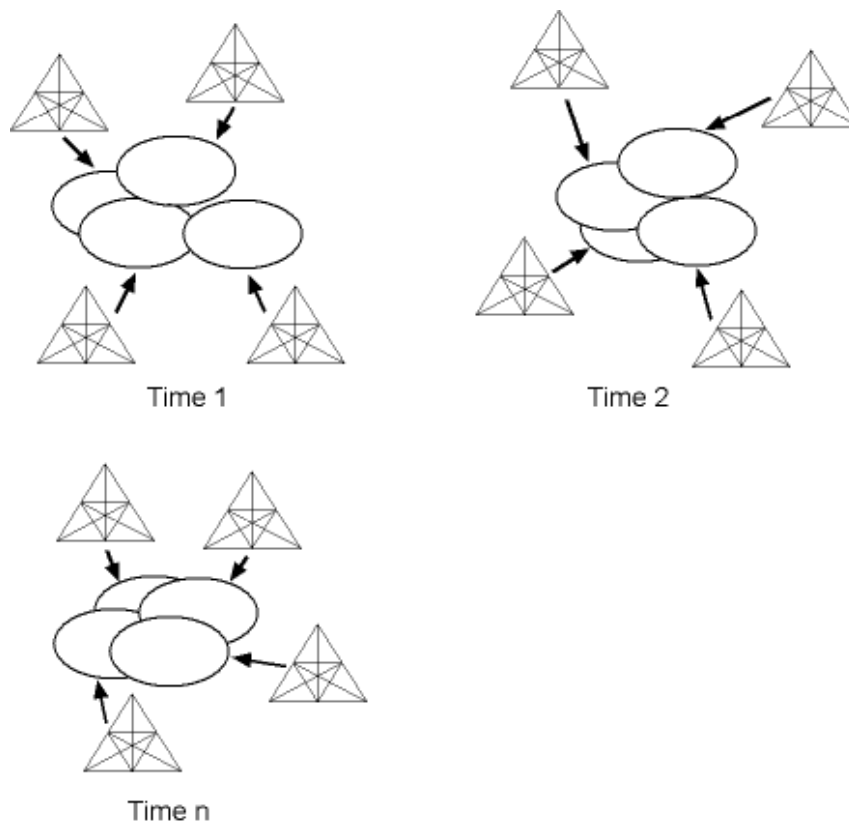


Figure 3.4: Activity systems working in parallel on a crime case

Figures 3.3 and 3.4 (derived from the changes described in Chapter 2) form the framework for the central concepts that I have used to study collaboration. The shift from sequential toward parallel collaboration is the basis for my interest in the *object*, *expansion*, *time* and *tools*. The concepts are elaborated in Sections 3.2 to 3.5, but I will first introduce them briefly to make the connection to Figures 3.3 and 3.4 clear. The changing role of the *object* is illustrated well by Figures 3.3 and 3.4: the change implies a shift from sequential, separate objects toward a shared object. This potentially means that the object is seen in a new way: the participants have the opportunity to *expand* their object when they work on it. Object construction in a heterogeneous group and the management of expanding objects is not simple, however, as will be shown in Articles 1 and 2. The change in how *time* is conceived and managed is also visible in the Figures above. The sequential model seems to be a longer process, and the parallel model implies simultaneous work that could result in a temporally compressed process of quick action. However, there is also an obvious need to shift from *intraorganizational* time management focusing on one sequence to *interorganizational* time management that extends over the entire process of investigation, implying a radical extension of time perspective. This is easier said than done, as will be shown in Article 3.

The role of *tools* is pivotal when processes change from being sequential to being parallel. Tools are needed to manage the shared object and the processes. The existing tools designed for intraorganizational use may not suffice, and shared tools are needed for managing both the object and the investigation process and collaboration. The tools used for both of these purposes are introduced in Article 4.

3.2 Constructing a shared object across organizations

The change of the crime, its investigation and collaboration described in Chapter 2 set challenges for collaboration, expertise and learning in investigating economic crime. I will approach these challenges through the notion of the object. This is a central concept in cultural-historical activity theory. The object is to be understood as a project under construction (Engeström 2000a, 156). An entity becomes an object when it meets a human need (Engeström 1999, 380). The object carries the collective motive of the activity, and the motive energizes the object-oriented activity. It determines the horizon of possible goals and actions (Engeström 1995). The distinction between goal-directed *action* and object-oriented *activity* is crucial. The object and the motive must not be confused with the goals of actions: you cannot see activity, but it is realized through observable actions to which achievable goals are attached. Actions are relatively independent but subordinate units of analysis that can be

understood only when interpreted in terms of the entire activity (Engeström 2000b, 961). The actions are situated, the activity is historically oriented.

The object is not a static part of the activity system (see Figure 3.1) as is sometimes mistakenly assumed. It is a moving target (Engeström 2001b, 136), constantly evolving and escaping and in principle uncatchable (Foot 2002, 132). The object of multiple activity systems may be more difficult to trace than the object of a single activity (e.g., Foot 2002). The third generation of activity theory described above calls for an elaborated conception of the object: it must necessarily be studied in a new way when there is the possibility of a shared object that evolves between multiple activity systems.

The notion of the object is useful in the study of collaboration. Collaboration may be studied and analyzed as *object formation* (Engeström 1987, Miettinen 1998, Kärkkäinen 1999, Foot 2002). Foot recently studied object formation in an international group of conflict monitors, and argued that the object can be identified through the varying perspectives of multiple participants (Foot 2002, 132). Miettinen studied the challenging object formation of a research community, and emphasized the significance of models and representations as tools of object construction. He found that the object was constantly being renewed and changed, and that the formation of a shared object was a major challenge for the research group. He proposed that future-oriented artifacts, so-called where-to tools, were important in the transformation of the object (Miettinen 1998, 426). Kärkkäinen found that the object of a teacher team was constructed through turning points that led to narrowing, widening, switching, or disintegration of the object (Kärkkäinen 1999, 110). When activity systems and their fields are transformed, the object is typically redefined and expanded (Engeström 2001a, 286).

Collaboration between authorities is easily understood as the interaction, relations and mutual interdependency involved in the shared field of economic-crime investigation. But without the notion of the object, the collaboration easily remains a loose and ambiguous concept. Such a notion enables us to grasp the multiorganizational field of divergent agencies by following who takes part in the object construction. Those involved in the same activity can be recognized by following the object.

However, there is not necessarily a shared understanding of the object, even though people are collaborating. Each participant has his or her own perspective on it, but the need for and possibility of a shared object must be taken into account. For example, economic crime concerns various authorities in different ways: the police investigate them, the prosecutor prosecutes, the tax authority is both a plaintiff who collects unpaid taxes and a specialist who participates in the crime investigation by providing the police with the figures

concerning amounts of unpaid taxes. The enforcement authority enforces the court decisions. The field is shared, but at the same time, each authority has its own definition of and perspective on the crime. This can be seen, for example, when the pre-trial investigation ends up with the prosecutor's decision not to prosecute. The police often see these decisions as surprising (Vuorinen 2002). The word 'shared' has a double meaning: it means both taking part in something that is common, and dividing or separating one's share from the entity. This is what makes the examination of economic-crime investigation intriguing from the point of view of the object: the object may be "shared" in the meaning of common, and "shared" in the meaning of divided.

The object of economic-crime investigation may be studied at several levels. Generally speaking, the crime under investigation may be seen as the object. However, it is very difficult to grasp the object in the course of the investigation: it is always a situationally constructed and partial, mixed instantiation of the generalized object (see Article 2). At the next level, economic crime as a societal phenomenon may be seen as the generalized object. In this study, it may be helpful to think about the object of economic-crime investigators in terms of what they themselves call "the case" (in Finnish "juttu"). I understand that "the case" in the way the practitioners talk about it includes both the crime and the actions conducted to solve it. The case is an embodiment of the object. It is what will potentially be formed as the shared object of those who participate in the investigation process. What makes the construction of shared objects complicated is that each participant, be it a police officer, a tax inspector, a prosecutor or an enforcement officer, is simultaneously taking part in several investigation processes in which some of the participants are the same people, and some are different. The interactional webs are complicated and intertwined. Naturally, the generalized object, the societal phenomenon of economic crime, is in the background all the time when the investigators work on a "case".

The notion of the object, although a demanding one, gives us a tool to understand collaboration in economic-crime investigation. However, the empirical practice sets challenges for the analysis of the object. *How* is it constructed in interorganizational collaboration? How is it even possible to share the object when all of the authorities have various goals and organizational tasks? Moreover, the complexity and interpretability of economic crime as described in Chapter 2 makes the formation of the object in this context even more complex. The law and the regulations concerning economic crime are open to interpretation, and so are the real-life facts; there are several ways of shaping them. One could even claim that the investigators are, in fact, part of the object they are constructing with their

actions: they are creating their own object with their interpretations, investigation lines and definitions.

As I see it, one of the reasons why the authorities began to intensify their mutual collaboration in economic-crime investigation was because of the changing object. It has become more difficult for a single organization to manage it. However, the diverse orientations of the collaborators and the diverging conceptions of the object can be seen as sources of disturbances, misunderstandings and disagreements, as well as mundane innovations in the actual investigation and in the interaction between the participants. These may be conceptualized as manifestations of underlying *contradictions*. Contradiction is another key activity-theoretical concept. In fact, it functions as an energy source of learning in the investigation process. In collaboration, the divergent perspectives may become a significant source of innovation: there is positive potential in conflicts and controversies. The positive potential of disagreement is taken up in Article 1 (see also De Dreu 1997, Putnam 1997, Tjosvold 1997, Van de Vliert 1997).

In economic-crime investigation, there is continuous negotiation over what is *sufficient* regarding the object. It is not a question of creating a finished outcome that can be compared to a standard, as there are no clear quality criteria to compare the outcome with. You never know for sure when the object is finished, you can work on it almost indefinitely. My first research question concerns the construction of the object in the practice of investigation. I address this question in Article 1.

QUESTION 1

How are the object of economic-crime investigation and the collaboration constructed in the interaction between the police and the tax authority?

3.3 Expansion of the shared object

When activity systems and the environment in which they are operating change, the object of the work is often redefined and expanded (Engeström 2000a, 151). The entire activity may thereafter be seen in a new way. In the following I consider the changes in economic-crime investigation described in Chapter 2 in terms of *dimensions of expansion*. Expansion means, above all, the expansion of the object. The potential for expansion creates a need and an opportunity for learning. Learning by expanding produces a reformulation of “what” and “why” for the actors, and of the collective relations (Kärkkäinen 1999, 108). Expansion,

thereby, offers an opportunity to change and develop the activity, but it is also a risk in that managing the expansion requires effort and toleration of uncertainty.

Engeström elaborated on the changing object of activity by introducing four dimensions of expansion: socio-spatial, temporal, moral-ideological and systemic-developmental (Engeström, Engeström and Vähäaho 1999, Engeström 2001a, Hasu 2002). I will use this framework to conceptualize the changes in the crime, its investigation and the quality of collaboration as expansion or expansive development. People do not merely adapt to changes, they actively try to find new solutions, new tools and new working practices to make sense of what is happening. There are opportunities to take expansive action. This is not merely a change in the practice in response to an order coming from the top. On the contrary, the expansion may emerge from below, starting from the daily practices of the people participating in the investigation. However, the change is not necessarily and not merely expansion. It is much more complex, and may involve contradictory attempts to cope with the changing object, the changing networks of partners and the changing working procedures. The four articles show the complexity of coping with change.

According to Engeström (2001a), *socio-spatial* expansion can be traced by asking “who else should be included?” For example who, other than the police officers, should be taken into the investigation group? Engeström sees socio-spatial expansion in health care in the way doctors come to see their patients not only as carriers of diseases, but also as members of their own social networks, including other caregivers involved with the patient. In the investigation of economic crime, such expansion might be the shift from investigating single criminal acts inside the police department to investigating complex entities of criminal acts and actors in a network of authorities, all of which have interests regarding the crime. Aspects connected to socio-spatial expansion are dealt with especially in Articles 1 and 2.

Temporal expansion may be traced by asking “what previous and forthcoming steps should be considered?” Engeström sees it in the patient's care trajectory: it is not a single visit, but rather the long-term illness and visits paid to a variety of doctors and caregivers that constitute the patient. Temporal expansion in economic-crime investigation may be traced through comparison to traditional crime: the crime is not committed at a certain point of time, but often over many years. The temporal unit often mentioned in offense reports is the accounting year, or several of them, not a date and estimated clock time as with robbery, for example. On the other hand, temporal expansion can also be seen in terms of collaboration between authorities: the object is not a partial sequence of the process (such as the pre-trial investigation closing with the protocol), but is rather an entity extending from the suspicion of

a crime to the final sentence given by the judge. The potential for temporal expansion is referred to especially in Articles 2 and 3.

The question that is relevant to *moral-ideological* expansion is “who is responsible and who decides?” Engeström sees this in how health-care practitioners are responsible not only for the care they give to the patient, but also for the patient's overall care trajectory. This causes tensions in the power relations: who determines the course of the care? Similar moral-ideological expansion occurs in economic-crime investigation. Each authority has its organizational goals, but collaboration means that the goals should be shared. If the police want to get the person convicted and the tax authority wants to collect the unpaid taxes, both authorities must acknowledge both goals. What is the primary goal if, in a certain situation, they compete? This problematic moral-ideological expansion of the object is raised especially on the basis of Article 1.

Systemic-developmental expansion may be traced by asking “how does this shape our future activity?” The actions taken in health-care practice are seen to shape the collective work practice and organization, and not only the patient in question. In the context of this study, new collaborative investigation may produce innovations and new practices that shape future investigations, and possibly accumulate in the storage of collaborative knowledge. Their effect may be wider than the effect on the case under investigation. The question of systemic-developmental expansion is raised especially in Articles 2 and 4.

In crime investigation, expansion seems to occur at two levels. First, there is the relatively independent expansion of the crime that is the result of the criminal actors' actions: the crime becomes increasingly complex. Second, the investigators working on the crime have the potential for expansion with their actions: they either make room for expansion or restrict the object and make an effort to stabilize it. If the crime investigators go for expansion, they have to learn new ways of collaborating, adopt new tools, and view the entire activity in a new way. It is also risky. It is often easier to stabilize the object, although the stabilization may not last and the self-movement of the object may soon cause tensions in the activity that call for new solutions. Expansion is an interactional process between the *self-movement of the object* and its actual *construction*, carried out by the people working on it. Without expansive construction, the expansion remains potential: the construction of the object makes the expansion real. However, without the potential expansion generated by the self-movement of the object, there can be no effective expansive construction of the object, and no successful articulated expansion. On the other hand, if there is the potential for expansion and it is not articulated, the tension between the self-movement of the object and the lack of tools to construct it will emerge as disturbances and isolated innovations to

overcome the tension. In crime investigation, self-movement is a property of the crime, and the construction takes place in the investigation. This interactional process is described in Figure 3.5.

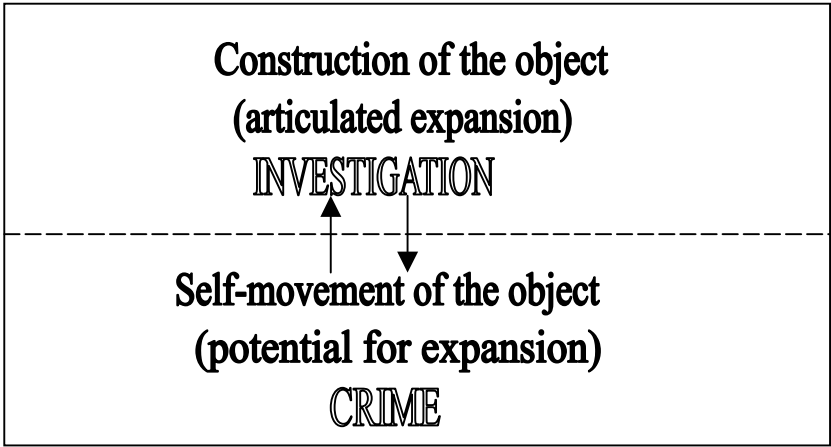


Figure 3.5. Articulated and potential expansion

The unavoidable question to be asked in connection with the expanding object concerns what the expansion means in terms of management. The fundamental direction of the movement of the object seems to be expansion, but the construction of the object and the practical handling of the expansion are difficult. Existing tools and practices are not sufficient when the object changes in unpredictable ways. Managing the object requires new investigation practices, new tools, and new forms of interaction between the authorities. Was the change described in Chapter 2 taken as a challenge for expansion in the economic-crime cases I followed? The research question covering this was formulated as follows, and is addressed in Article 2.

QUESTION 2 How does the object expand and how is the challenge for expansion met?

3.4 Synchronization as a challenge for collaboration

Time management is a significant aspect in collaboration, as suggested at the beginning of this chapter. Managing time in sequential collaboration is difficult, but in parallel collaboration it is even more difficult. The shift from sequential to parallel collaboration calls for a change in time management. An additional pressure comes from the Ministry of the Interior: the duration of crime investigation is one of the basic measures that the Ministry follows to quantify the productivity of its subordinate agencies. Temporal issues came up very

clearly in the empirical data. The duration of investigations has generally increased, and the whole process of crime investigation was said to be in a crisis because of the increasing duration and decreasing clearance rate (Ministry of the Interior 2003).

Time, in fact, has not yet been an issue in many activity-theoretical studies (but see Bardram, 2000) while it has recently been the subject of intensive research in organizational studies. Goodman et al. (2001, 507) point out that there is a lack of empirical research on time in general, and philosophical questions have dominated (for a review on temporal philosophy, see Hassard, 2000). Goodman et al. (2001, 509-510) point to several theoretical gaps in the research: how the context changes the meaning or role of time requires further study. They also call for studies on the interaction processes by which individual differences in time perceptions become group or organizational phenomena.

According to Hassard, time as a qualitative, collective experience has been a theme in French and American thought on the sociology of time. These traditions note the plurality of times (Hassard 2000, 12-13). However, time-management studies have emphasized the individual mastery of time (e.g., Hassard 1996, Waller et al. 2001, Blount & Janicik 2001). Some studies have shown how attempts at collective mastery have been made by implementing various rules to restrict communication and interaction and to safeguard the possibility of working without interruptions (e.g., Ancona et al 2001a, 2001b, Perlow 1999).

Time has become a commodity in today's working life. It is a resource that has the potential to be used for a variety of tasks. It has also become valuable because it is a limited good (Hassard 2000, 4-5, Bardram 2000, 209). The quantitative image of time is primarily a by-product of industrialism (Hassard, *ibid.*). Time-space coordination at intra- and interorganizational levels has become essential: the clock, the calendar, and various schedules have become the central features of planning (Hassard 2000, 6). Clock-time has two obvious strengths: it is visible and standardized. It can easily be used as an organizing framework to synchronize activities, but is it sufficient for interorganizational planning? Temporality is a particular and important aspect of collaboration. The challenge is to manage time collectively, and to synchronize actions that have different priorities as dictated by the core tasks of the divergent participants.

Activity and time are bound together. Interdependent actions realizing the activity have to be coordinated in time. Bardram (2000, 211) defined temporal coordination as “an activity within the objective to ensure that the distributed actions realizing a collaborative activity take place at an appropriate time, both in relation to the activity’s other actions and in relation to other relevant sets of neighbor activities. Temporal coordination is mediated by

temporal coordination artifacts and is shaped according to the temporal conditions of the collaborative activity and its surrounding socio-cultural context” (Bardram 2000, 216).

It is not only a question of a certain sequence of events, but also one of timing. This complicates the coordination of the totality of actions. McGrath and Kelly (1986) introduce three macro-temporal levels of collaborative work: synchronization, scheduling and allocation. Synchronization is aimed at ensuring that the action carried out by person A takes place in a certain relation to the action carried out by person B, according to the conditions of the collaborative activity. Scheduling means planning temporal goals and setting deadlines. Allocation divides the temporal resources and thereby reflects the priorities according to the motives of the collaborative work (ibid., 21). The allocation of resources is especially complex in crime investigation, and it sometimes takes place in an unplanned way. The timetables and diaries may be synchronized, but the allocation of resources may cause problems. All of the participants are members of several investigation groups, and the allocation is complex because of the sudden changes that may take place in any of the investigations. This, in turn, has consequences on the other investigations. As McGrath and Kelly (1986, 21) put it, there is an inherent trade-off between the static quality of the plans and schedules made, and the dynamic quality of ongoing collaboration.

The allocation problem is also connected to the organization of the investigation. Although the police are responsible for the pre-trial investigation and, thereby, for the process, the officer in charge has no power over the participants from other organizations. The situation resembles the type of work conceptualized as knotworking by Engeström et al. (1999): there is no stable center of coordination. The officer in charge does not have authority over the tax officials or the enforcement officials, whose work output nevertheless affects the work of the police. This may be a problem when the priorities of the authorities clash. This is illustrated in Article 1. It will be necessary to address this problem in the future, as parallel modes of collaboration increase.

Compression is a term that has recently invaded social and organizational theory (Hassard 2000, 13). Clock-time is replaced by instantaneous time: decisions have to be made instantly (Hassard 2000, 13). Everything becomes “temporary”, and the complexity of time-space-technology relations increases. Article 2 deals with the simultaneous compression and expansion that require both long-term planning and short-term reacting. The synchronization of events, both planned and improvised, is a necessity to ensure effective work. The prerequisites for synchronization change when the collaboration changes from sequential to parallel, from value chains to value groups (Normann 2001). The synchronization of the sequential steps without having empty buffer times between the phases is difficult, but with

parallel collaboration it becomes extremely complicated. The change of work pace implies both real-time working, improvising on a situational basis, and long-term planning. One culmination point at which these become visible is the house search. A suitable date for a group consisting of perhaps twenty participants from multiple organizations has to be found. The planning has to be thorough, the timetables fixed and the clocks synchronized, but at the same time, there has to be a readiness to improvise when the situation demands it. Moreover, the coordination of the particular day does not suffice: the information and material received in a house search have to be analyzed, and there should be resources available for that, too. This is analyzed in Article 3.

The police, the tax authority, the prosecutor, the enforcement office and other authorities involved in the investigation are all dependent on the quality and timeliness of the work of the others. The problem is in coordinating these parts of the process quickly. Rapidity is one of the guiding principles in the Pre-Trial Investigation Act (Helminen et al. 2002, 124-126). An easy way to conceptualize rapidity would be that if each party does its part quickly, the duration of the entire process will decrease. It is not this simple, however, and more basic changes in the system are needed. Huxham (1996) identified *collaborative inertia* as a side effect of collaboration that may add to the duration of the collective performance. Bardram, in turn, showed how the intertwinedness of actions between working groups affects the temporal arrangement across them. He found that the temporal scarcity of one hospital department added to the temporal scarcity of other departments because their work was heavily interwoven (Bardram 2000, 224). The same intertwinedness is to be seen in the work of authorities working on economic-crime investigation.

Bardram suggested that there was a need for a stable schedule that was applicable as a collective temporal coordination artifact, and flexible enough to adapt to the dynamics of the flow of work (Bardram 2000, 226). Activity theory helps in identifying the tangible, mediating temporal artifacts as well as the more intangible ones. It also helps us to focus on the need for continuous interplay between plans and the actions guided by them as a way of enhancing the collaboration, the synchronizing and the scheduling (Bardram 2000, 240). Mastering the temporal expansion is a particularly challenging task, as suggested in Article 3. The respective research question is:

QUESTION 3

How do the practitioners manage the temporal aspect of the object and coordinate time in collaborative investigations across organizations?

3.5 Tools in human activity

In the change from sequential to parallel collaboration in crime investigation, tools are needed to manage the shared object and the processes. The existing tools designed for intraorganizational use may not suffice, and new ones usable across organizations are needed. There is a need for both *vertical* and *horizontal* tools (see Article 4). Expanding objects call for and generate new instrumentality. What kinds of tools are used in economic-crime investigation? When I asked about tools during the interviews, it did not seem to be very clear to the practitioners what tools they actually used in crime investigation, except for the most commonly mentioned ones such as the telephone, the computer and the car. It is much more difficult to distinguish the intangible, conceptual and socially distributed tools. For example, some practitioners hesitantly named coercive means, such as arrest and house search, as tools.

The human mind is distributed among people, their representations and artifacts (Norman 1988, 1993, Hutchins 1995, Cole and Engeström 1993, Salomon 1997). Cole and Engeström propose that the activity-system model could be used as a conceptual map of the major loci among which human cognition is distributed. Expertise could be understood as a system of cognition, distributed as an activity system (Cole and Engeström 1993, 42). Knowledge is not merely “in the head”, but it is also “in the world” (Norman, 1988) and “between people” (Engeström, Engeström and Kärkkäinen 1995).

Tools are in a central position both in the construction of the object and in sharing knowledge and information. For example, collaboration involves the distribution of responsibilities and tasks that are sometimes not explicated clearly enough. Anonymity and discontinuity easily come to the surface. Certain rules are needed to make things work, but tools are needed to support and facilitate collaboration.

Tools are also an essential feature in learning. New tools are embodiments of new knowledge. Nardi and O’Day (1999, 96) emphasize the mixture of humans and tools as components of expertise. They claim that it is the technologies and the human resources together that make a working information ecology, “a system of people, practices, values and technologies in a particular local environment” (Nardi and O’Day 1999, 49). Hutchins’ (1995) studies on navigation are among the first and best-known ones that bring up the significance of artifacts in human activity. According to him, the artifacts (tools and instruments) used at work embody the cumulated knowledge of previous workers. Seeing cognition as distributed implies that it occurs both within and between individuals. Brown and Duguid (1992, 166) claim that tools reflect the community’s insight, and support learning about that insight. They

argue that new tools should be designed to support learning through use. Adler and Winogard (1992, 13) suggest that the usability of tools contributes to the design of the learning organization. Brown and Duguid (1992, 165) remind us that the introduction of new tools and processes places continual demands on the learning ability of the workers.

Keller and Keller (1999, 14-15) thoroughly considered a question that may at first sound trivial: how do people do things? They point out that thought cannot be investigated merely by examining speech or language, which is common in cognitive sciences. They put forward four major ideas about knowledge. (1) Knowledge is purposeful, (2) there is a dialectic between knowledge and practice, (3) imagery plays a critical role in reasoning, and (4) understanding of material culture is furthered by comprehension of the conceptual processes by which tangible artifacts are created and used (*ibid.*). Tools may be much more complex than they first seem. For example, using a checklist may provoke a set of subroutines and a complex set of mediations (Cole & Engeström 1993).

Norman (1988) drew attention to the usability of technological instruments and tools. Nardi and O'Day (1999, 28-29), however, point out how Norman focuses on individual interaction with material tools, and remind us that there is a social dimension as well. Similarly, Adler and Winogard (1992, 4) refer to how the usability of instruments has been studied from a mechanical or physical point of view, and emphasize that both cognitive and social aspects have to be kept in mind when equipment is designed. Tools serve as a communication medium, and the communication is embedded in every kind of artifact (Adler and Winogard 1992, 7). They distinguish between dialogue between users and artifacts, and dialogue among users, and remind us how technologies tend to link work across traditional organizational and physical boundaries (*ibid.*, 8).

Brown and Duguid (1992, 164) claim that the community of users that develops around successful work systems or processes is crucial to their successful use. They even claim that tools may enhance or prevent the formation of communities, and that designers should be aware of that potential (*ibid.*, 172). Adler and Winogard (1992, 8) argue that when interdependence is a central feature of organizational effectiveness, the design must take the collaborative aspect into account. Interestingly, they also point out that the design for usability must include coping with novelty, improvisation and adaptation (*ibid.*, 7). Design lies between the changing organization and the changing environment, provoking changes in both (Brown and Duguid 1992, 176).

Wartofsky (1979) suggests a three-level hierarchy of artifacts. Primary artifacts are normally tangible, and their use is automatic in the sense that the subject does not focus on the

tool when she uses it (like striking with a hammer). Secondary artifacts are those that transmit skills in the production and use of primary artifacts, such as flow charts and manuals. Tertiary artifacts are imaginative visions, works of art and scientific paradigms that give a perspective to collective activity formation (see also Engeström 1990, 173-174).

Engeström elaborated further on Wartofsky's hierarchy. He distinguished the artifacts according to their use: 'what' artifacts, 'how' artifacts, 'why' artifacts and 'where-to' artifacts (Engeström 1990, 1999). He calls primary artifacts 'what' artifacts to point to the evident connection between the tool and its use. He distinguishes two kinds of secondary tools, 'how' and 'why' tools. How-tools explain how something is done, diagnostic why-artifacts explain why. Tertiary artifacts are 'where-to' artifacts, referring to their future-oriented nature (Engeström 1990). Object construction employs a variety of tools, both those that are available and those that are created during the object-construction process. Miettinen found where-to tools to be particularly important in object construction when the activity system is in transition (Miettinen 1998).

Constant movement between external and internal use is typical of tools. It is therefore not necessary to make a distinction between external and internal tools, practical and cognitive tools. Tools are constantly transforming and in a state of flux. An internal representation becomes external in a sentence, or external processes are internalized (Engeström 1999, 381). It is not useful to split these processes, and it is better to focus on the ways in which the artifacts are used instead. Engeström claims that there is nothing fixed in an artifact that would determine that it could only be used for a certain purpose, say, as a where-to artifact (Engeström 1999, 382). Beguin (2003) makes a useful conceptual distinction between an artifact and an instrument: an artifact becomes an instrument only when it is used. In this research, I include the use of a tool in the notion of tool, and not only its artefactual properties.

Engeström proposes that we should analyze a whole system of instruments, or instrumentality, instead of single instruments. The concept of instrumentality implies a constantly evolving set-up of multiple cognitive artifacts, semiotic means and primary tools used in daily life, old tools being continually modified and new ones created (Engeström 2000a, 158). He argues that the complexity of instruments calls for new socio-cognitive processes and generates a new mentality.

The insufficiency of existing tools in economic-crime investigation came up several times during my research and in the subsequent analyses. There seems to be an imbalance between the transforming object, the new collaborative practice and the tools for managing

the object and the collaboration. Attempts to resolve these tensions are introduced particularly in Article 4. The research question addressed there is:

QUESTION 4

What kinds of tools are used and developed to manage the object and the collaboration in the investigation process?

4. Change, collaboration and learning

Chapter 3 gave the methodological frame and the central theoretical concepts on which the four research questions, addressed in the four articles respectively, are based. This chapter introduces the research questions that extend over and cut across all four articles. These questions concern the changing forms of investigation and collaboration in terms of knowledge creation and learning. The framework illustrated in Figures 3.3 and 3.4, the shift from sequential to parallel collaboration, forms the basis of these questions, too.

4.1 From information exchange to shared knowledge formation

Information is a central factor in collaboration: information held and acquired by various participants must be shared. However, information exchange is not sufficient to manage the transforming object: new *knowledge* has to be acquired on the basis of the information and mutual interaction. This implies *learning*. Learning is not restricted to mastering the substance of the case. The participants also have to learn to collaborate. Similarly, Toiviainen (2003) has distinguished between learning *in* networks and learning *to* network.

Today, society is said to be information-centered. As Thomas Stewart puts it: "Information and knowledge are the thermonuclear competitive weapons of our time. Knowledge is more valuable and more powerful than natural resources, big factories, or fat bankrolls." (Stewart 1999, xix). Knowledge and information have become the most valuable property for organizations. Public-sector organizations are not entirely comparable with business enterprises, but the significance of information and knowledge for successful and result-oriented work is no less than in private organizations. Reiner, for example, has claimed that the police have become "knowledge workers" (Reiner 2000, 115). Ericson and Haggerty, in turn, talk about "database policing" (Ericson and Haggerty 1997).

Wikström, Normann and their colleagues studied organizations as knowledge systems. They separate *four types of knowledge*: information (What? Where? Who? How many? When?), skill (How?), explanation (Why?) and understanding (What pattern? What motive?) (Wikström, Normann et al. 1994, 10-11). Information and knowledge are often used interchangeably, referring to the same issue. Brown and Duguid (2000, 119-120) list three generally accepted distinctions between *information* and *knowledge*. First, knowledge entails a knower, but information may be independent of persons. Second, knowledge is harder to detach and transfer than information. Third, knowledge requires assimilation, digesting, while

information can merely be held. The authors claim that a shift from process-based toward practice-based organizations includes a shift of emphasis from information to knowledge – knowledge held by people. People are the creators and carriers of knowledge, and organizations are forced to realize that knowledge lies in people, not in databases (Brown and Duguid 2000, 121). It is the people who have to be cultivated as well.

I will use Brown and Duguid's distinction between information and knowledge as it seems to fit particularly well in the context of changing economic-crime investigation. The traditional mode of collaboration between authorities has been based on information passing and exchange. Information has been delivered when legislation allows it and when specifically asked for a certain purpose. It has been passed on sequentially in the form of oral interaction or written documents. The information-delivery function was prevalent in the tools analyzed in Article 4. Gathering information is a pivotal process in crime investigation, which explains the emphasis on information in the tools and forms of collaboration. The following example illustrates the centrality of information gathering as well. One economic-crime investigator said that he had an expert network of individuals on whom he could call any time and ask for help. The network consisted not only of civil servants, but also included bank lawyers, university professors and stockbrokers. He said that he could handle things more quickly and more flexibly through this individual network than through cooperation between authorities.

Excerpt 4

Detective sergeant: Fortunately, over the years, I have developed such relations with people that I don't have to search for everything in books. With one phone call, for example, I can get 16 pages of fax messages here very quickly: I can get help, meaning that there has come into being a network like this. (...) There's a certain network available all the time. There are prosecutors, attorneys, there are even enforcement officers, bailiffs. I have come to know certain persons on the professor level, and so on. This means that I can call them just like that and ask their advice on this or that matter, what they think about this or that, or do they know any Supreme Court decisions, or another prejudicate of this, or something else, or what's really going on in this matter.

Interviewer: And you have created it by yourself then, during the course of your working career?

Detective sergeant: Well it's..., it has come along with the work, with this work. We're in contact on a weekly basis, economic crimes are of such a nature that there are many partners you have to cooperate with. (interview on April 20, 1999)

The detective sergeant used his personal network to gather information more quickly than would be possible through official routes. The new form of collaboration that includes collaborative house searches and document examination, however, calls for manipulating information collaboratively and creating new information and knowledge on the basis of it. The mere passing of information is not sufficient to master the changing object. When the object is expanding, shared knowledge creation is called for. The following example illustrates this. Another economic-crime investigator said that he always contacted the prosecutor at the starting phase of an investigation, after which they began to "sit the case" together. This investigator said he would not investigate a case without the participation of the prosecutor.

Excerpt 5

Detective sergeant: (...)I'll call (...) the prosecutor's office, and ask them to name a prosecutor, and then I get to know the name of the prosecutor, then I'll call her and we'll book a meeting and then we start to sit, sit the case preliminarily, meaning that we are starting to look at how it feels. And if we now think about the situation [of that case] (...) I can tell you, for example, this thing [points to a graphic illustration of a case on the wall], I dare say, that I have a case here that will take more than a year to investigate.

Interviewer: Well, at least judging by the complexity of the picture.

Detective sergeant: There are events here going back three years, and then there are very complex loan-, guarantee-, option loan arrangements, arrangements for covering the bank's credit losses, there is everything. So, you have to think about how you are going to begin to investigate the case. Do the police investigate alone or (...) is there any reason to meet in the very beginning phase, even before starting the investigation, to discuss matters with the prosecutor, or only after we have actually decided to investigate, (...) to discuss with the prosecutor what this [all] looks like. (interview on April 22, 1999)

This excerpt illustrates how the purpose of the interaction is not merely to gain information, and how the case is being studied in collaboration to find out what it is about. Officers from diverse organizations may learn from each other, but they potentially create something new together as well. This is a real challenge for officials who are used to hierarchical, individual work. Multiprofessionality could be seen as a property that enhances learning. It makes possible that the knowledge resources available are diverse. A divergent group of people possesses divergent information, which facilitates learning. However, to be able to utilize this, it has to be acknowledged that the diverse sources of information have value (Jalava et al. 1999, 19).

Nardi, Whittaker and Schwarz introduce an interesting type of networks, "intensional networks". They claim that new styles of working in cross-organizational collaboration have raised the importance of the personal social networks on which the workers draw and with which they collaborate to get the work done (Nardi et al. 2002). They see the importance of intensional networks as a significant source of labor and partners, and as a source of the information a company needs. Intensional networks are needed to enhance communication and information access across boundaries (ibid.). The ability to form such networks is, thereby, a part of expertise.

Excerpt 4 could be seen as a description of an intensional network of the officer. A personal network is one of the responses that economic-crime investigators have developed to meet the challenges set by the constantly changing nature of crimes. A personal network is still only an individual way of mastering the case. However useful it may be in information gathering, it is not sufficient to potentiate shared object construction. Excerpt 5, in turn, brings up the need for interorganizational collaboration between the police and the prosecutor. There is a need for ongoing negotiation between them. Moreover, the collaboration the interviewee refers to includes collaborative knowledge creation: he was not speaking about merely gaining information, but about constructing the case together.

The learning typically articulated in the crime-investigation context is based on courses arranged by the police administration. In the late 1990s, the Training Manual for the Police provided a starting point in that it defines the qualifications provided by the basic course in economic-crime investigation as follows: "The person who has taken the basic course successfully has the basic knowledge needed in economic-crime investigation. He or she is able to investigate large economic crimes independently and use different organizations, forms of cooperation and assistance from experts." (Ministry of the Interior 1998, 72). These objectives stress individual skills and knowledge. As far as cooperation is concerned, it is interesting to note that one of the aims assigned to the investigator is to learn

to *use* different organizations and experts. Thereby, other authorities are defined as assistants in the process, not equal partners. Excerpt 4 highlights this as well: personal contacts are used to gain information. An individual conception of knowledge formation persists in the context of crime investigation. There seems to be a tension between the prevailing conceptions of individual learning and expertise and the requirements of collaborative investigation.

4.2 Learning in practice

The emphasis on training courses arranged outside the work place has been widely criticized as providing a restricted view on learning to carry out work in today's working environment. Training often isolates people from their daily practices and activity systems, and focuses on information instead of on knowledge (Brown and Duguid 2000, 129). Nevertheless, it has been the main means of the authorities to implement new working procedures and new knowledge. Moreover, each authority has its own training system and courses within each administrative sector. In recent years, however, the authorities have arranged shared courses on economic-crime investigation.

The individual has traditionally been seen as the unit when people talk about learning. Today, however, groups and organizations are also seen as subjects of learning. This perspective is visibly presented in the framework of situated learning in which *communities of practice* are put forward as the locus in which learning takes place in a process of participation (Lave and Wenger 1991, Wenger 2000). Individual and collective learning processes are seen to complement each other. Virkkunen and Kuutti (2000, 296) criticize this approach for its failure to explain why and how such communities sometimes change or break up, as well as for the lack of creative dialogue between participants in a community of practice.

Collaboration is not merely information exchange or knowledge transfer, but it includes learning (Brown and Duguid 2000, 124). Learning is essentially transferring and creating knowledge. The creation of knowledge occurs simultaneously with learning, and these processes cannot be separated from each other (Wikström, Normann et al. 1994, 16). Turnbull (2000) studied knowledge formation by looking at how medieval cathedrals were built. In his interesting account, he suggests that knowledge was then, and is today, transmitted through talk, technique (templates), master-apprentice education and tradition. The construction sites of cathedrals formed "knowledge spaces" that converged theory and practice, and knowledge was always constructed in "local, messy practices". In his view,

knowledge is not about putting theory into practice but about the transmission and transformation of practices (Turnbull 2000, 76).

Learning in organizations and organizational learning have attracted attention among researchers during the last few years. Among the best-known studies is Nonaka and Takeuchi's (1995) model of organizational learning. They argue that the conversion of knowledge is the key process in organizational learning. Their model is based on the distinction between explicit and tacit knowledge, which cyclically transform from one to the other through internalization, socialization, externalization and combination (Nonaka & Takeuchi 1995, 72). The model has been criticized for emphasizing individual knowledge. Nonaka and his colleagues have recently expanded it by introducing the concept of 'ba', which includes shared space and time in which knowledge is created (Nonaka et al. 2001, 19). Beeby and Booth (2000) emphasize the processual nature of knowledge creation: it is not the static content of knowledge that is the issue, but the process of creating it, converting it from one form to another, and thereby transforming it. They argue that the mutually constitutive nature of knowing *what* and knowing *how* is not widely recognized (Beeby and Booth 2000, 13). This is central for the present study, too: the management of the self-moving, expanding object requires knowing what to do, and the management of the collaborative investigation process implies knowing how to do it.

Keller and Keller (1999, 15) note how everyday *routines* are a consolidation of past experience into patterns and traditions. Routines are, in fact, the consolidation of learning in a particular organization. It is generally agreed that routines represent a form of organizational learning (Cyert and March 1963, Levitt and March 1999/1988). They carry organizational memory. But the formation of routines as a form of learning does not offer a satisfactory explanation for learning in situations one has not experienced before. These issues are taken into account in Engeström's formulation of *expansive learning* (Engeström 1987). Engeström's model draws on Bateson's (1972) levels of learning. He suggests that what Bateson calls 'Learning III' is not merely a solution to a problem, but includes the recreation of the problem itself. It emphasizes the continuous creation of new instruments in human activity. New instruments change the structure of the entire activity system, and may produce new objects of the activity or expand the former objects. Moreover, the acquired instruments themselves also change (Engeström 1987, 158-159).

Historically accumulated tensions and contradictions may trigger a learning process in the current activity that grows into a new kind of activity around a new, expanded object. The concept of expansive learning is particularly apt in work settings in which people have to learn something that is not yet there, in tasks that are learned as they are being created and

carried out. Investigating economic crime that is continually finding new forms is an activity in which such situations are faced. Expansive learning is collaborative construction of new forms of activity, often initiated by individual deviating actions and modest innovations made in the course of work. Virkkunen and Kuutti (2000, 302) present an activity system as the unit of analysis in which organizational learning manifests itself as qualitative changes in the activity system, and takes place through expansion of the object of activity. These qualitative changes represent expansive learning.

As various networks have increased, interorganizational learning has gained attention among researchers as well (e.g., Beeby and Booth 2000, Powell, Koputt and Smith-Doerr 1996, Toiviainen 2003). Collaboration has been seen as a factor that enhances learning. Powell, Koputt and Smith-Doerr (1996, 117-118) separate two types of relationship between collaboration and learning: collaboration as a complementary strategic act to acquire resources that are lacking, and collaboration as a means of joint knowledge creation. They see networks as a locus for innovation and learning (ibid., 119). Brown and Duguid, on the other hand, claim that networks are not loci for generating new knowledge, they only share and distribute knowledge (Brown and Duguid 2000, 142).

It is interesting that there are contrasting views on whether networks are a locus for creating new knowledge or merely just junctures of information exchange. Both realizations are possible: if organizational boundaries are maintained and guarded, information exchange is all there can be. Interorganizational knowledge creation calls for *boundary crossings* (Engeström, Engeström and Kärkkäinen 1995, Wenger 2000, Kerosuo 2001) . Boundary crossings involve action and interaction across organizational boundaries, in the form of negotiated knotworking, for example (Engeström, Engeström and Vähäaho 1999). Boundary crossing represents interaction and possibly also learning in the middle ground between activity systems (Kerosuo and Engeström 2003, 6).

Learning and knowledge creation are constituents of expertise. Engeström and his colleagues claim that the prevailing approaches to expertise represent the *vertical* view (Engeström, Engeström and Kärkkäinen 1995, 1), and that the vertical notion assumes that the tasks in which expertise is needed are well defined and analyzable as well as stable and unchanging (ibid., 23). They argue for a broader, *horizontal* view of expertise according to which it is acquired by negotiating and combining cognitive tools, rules and patterns of social interaction from the multiple contexts in which the experts necessarily operate. They claim that vertical expertise is not sufficient as the demands for dialogical problem solving increase in contemporary work environments (Engeström, Engeström and Kärkkäinen 1995, 2). Engeström (in press) argues that expertise should be understood as an increasingly multi-

sited phenomenon, located in and distributed in fields of multiple interacting communities, and should be based on the radical transformations that are taking place at work and that often require collaboration across communities. Horizontal expertise implies that "the practitioners must move across boundaries to give and seek help, to find information and tools wherever they happen to be available" (Engeström, Engeström and Kärkkäinen 1995, 23).

Brown and Duguid separated process-based and practice-based views on organizations. While acknowledging that the process is important, they suggest that it is the practice, people working on various tasks, that brings the process to life (Brown & Duguid 2000, 96). The process-based view seems to be built from the top down, and practice-based from the bottom up. There is little room for improvisation and innovation in process-based organizations, and they may be seen as disturbances, at least if they challenge the coordination of the process (ibid., 98). Thus, process-oriented organizations seem primarily to call for vertical expertise. Horizontal expertise involving boundary crossing and innovation seems to fit better when organizations are viewed as practice-based entities. However, both the structure of the process and the spontaneity of practice are needed in order to maintain balance (Brown & Duguid 2000, 99; see also Nonaka and Takeuchi's (1995) notion of 'hypertext organizations').

Traditionally, knowledge has not been exchanged much in the work of institutional authorities, but it has been considered as a property residing within each office. Each authority represents diverse skills and diverse knowledge. The sequential model of collaboration between authorities mainly comprises the exchange of information when requested. The shift toward parallel collaboration brings with it an increased need to exchange of information, and presents a challenge for finding new ways to share knowledge and create it across organizations. The two questions raised in Chapter 4 and addressed in all four articles are:

QUESTION 5

What are the main learning challenges that the practitioners face in the transition from sequential to parallel collaboration?

QUESTION 6

How do the practitioners learn in collaborative economic-crime investigation?

5. Studying collaboration

5.1 Approaches and methods

In the previous chapters I have introduced the field of the study, the research questions as well as the theoretical and methodological framework and the central concepts of this research. The next question is *how* to conduct research on collaboration that includes participants from multiple organizations. Before going into the methods and data-gathering process in more detail, I will first elaborate on the methodological framework introduced in Chapter 3.

I have followed the methodological guidelines of cultural-historical activity theory in this study of multiorganizational collaboration. Accordingly, I have approached the crime-investigation activity in terms of the *activity system*, as described in Chapter 3. As the setting is multiorganizational, I am viewing this activity as a shared effort among multiple activity systems. An organizational *field* and a *network of activity systems* form the basic units of analysis of the research. A field is "a set of diverse organizations engaged in a similar function" (Scott 2001, 137). A network of activity systems is a more established system working on the same object. I am using these two concepts side by side as I am also studying the formation of the relationships between the activity systems. Goal-directed actions performed by individuals and groups are interpreted in the context of the entire field or network.

In terms of collaboration, I have focused on collaborative actions in situations in which the participants met, interacted and exchanged information, as well as on the tools that were used. Thereby, I have taken a perspective on collaboration that is not centered on strategy documents and negotiations between leaders, but that concerns mundane practice. It is evident that choosing the practice approach requires methods that go further than surveys or interviews hence the method of this study is *ethnographic*.

Where, then, is the ethnographic field² of research located when there are multiple activity systems involved? In classic ethnography, the field is a geographical place. However, this notion has been transformed in the world of networks and interorganizational relations and it is not so clear where the boundaries lie. Objects tend to expand, and the groups participating in the object construction grow accordingly.

In ethnomethodological terms, the field lies wherever the reality-constituting interaction takes place (Emerson 2001, 44). Marcus introduced the concept of multi-sited ethnography in 1995. He claims that interpretations of single-sited ethnography do not suffice

² The notion of field in ethnography is different from the notion of field in organizational theory. 'Field' in the ethnographic sense and 'site' are used as synonyms here.

in the postcolonial and postmodern world and that the object of study is ultimately mobile and multiply situated (Marcus 1995, 86). Burawoy, in turn, has called for global ethnography (Burawoy 2000). Workplace ethnography has followed similar paths in the complex world of networks and intertwined relations between organizations. For example, Newman questions place-based notions of an ethnographic site and calls for a more distributed and negotiated view of the site (Newman 1998, 236). Schofield (2000, 80) sees multi-site studies as a way of increasing the generalizability of qualitative work. The heterogeneity of the chosen sites is then essential.

The methods I employed in studying collaboration are similar to those used in organizational ethnography described by Schwartzman (1993), and in developmental ethnography described by Engeström (2000a). I chose to follow three crime-investigation cases instead of following just one. Each case involved a research field that included several organizations. However, I chose to take the police departments as my centers of fieldwork from which I operated because it is the police who are responsible for pre-trial investigation. Taking three crime cases instead of just one may have affected the preciseness and deepness of the data gathering, but it definitely gave substance in the interpretation of the results. Seeing three different police organizations and investigation networks helped me to conceive of what was different and what was similar in the three settings.

Before the data collection started, and even in the course of it, I was not able to see or forecast whether a shared object would emerge or whether the investigation would consist of successive junctures of isolated encounters and collaborative events conducted by the authorities. I chose to apply multi-sited ethnography, to follow the object(s) and to see where the collaboration would lead. I followed the objects of the practitioners - the cases - as thoroughly as I could. The challenge in terms of methodology was in how to observe, document and describe an attempt to create something new together, to study something that was emerging and not yet there as a clearly defined object.

When studying the mastery of change and the learning processes connected to it, it is essential to study the practice in detail. Ethnographic methodology provides us with the possibility to grasp phenomena that might otherwise drown in medians and averages or be deleted as statistical exceptions. The methods employed have to give a value to modest attempts to do things differently, and to isolated, small innovations and mundane efforts to change things. Some of the attempts fail, some of the innovations are forgotten, but some may start a new way of working or organizing daily work that is eventually transferred from a local setting to other work environments (Tuomi-Gröhn & Engeström 2001; see also Haavisto 2002).

The aim is to capture the interactive processes and mediating artefacts involved in the construction of the collaborative, multiorganizational investigation process. Boundary crossings become especially important in this context (Engeström et al. 1995). Nardi and O'Day claim that small-scale experiments may be valuable: local experimentation may provide guidance for planning on a larger scale (Nardi and O'Day 1999, 75).

5.2 Ethnography in crime-investigation settings

Conducting ethnographical research in police environments is not unproblematic. Gaining access to a field in which you receive information about suspects and the tactical methods employed by the police is a matter of delicacy. The data gathering may also cause ethical dilemmas, and may even have legal implications. Leo (2001) describes how he had to submit his field notes to the court by coercion. Establishing rapport in a setting that involves some secrecy and data-protection issues may be problematic. An additional flavor is added by the fact that the crime-investigation environment is strongly male dominated. Being a female researcher in that setting deserves reflection. Horn (1997) examined the position of women researching police officers and described how she had to negotiate an acceptable role both for herself and for the police officers, and how the researcher may even take advantage of the perceptions the researched have of him or her. I will address these issues in the following.

My initial idea was to study economic-crime investigation within one police organization. I had to change my plans when I faced unexpected problems with access. The highest management warmly supported my idea, but when I went to the middle management, the gate-keeper level, I faced problems. My research was questioned, the problems of data protection and my position as a civilian suddenly formed an obstacle for the research. I was even reminded that my actions may have legal implications and that I may eventually have to defend myself in court because of the problems the data gathering could cause. After I had waited for five months, there was still no sign of access to an actual case. I was frustrated because I knew the duration of one case could be years and I wanted to start the data collection as soon as possible – I only had a four-year leave of absence for the research and the reporting. At that point, I decided to progress on two fronts: I contacted the top management again to get support, and decided to introduce my research plans to other police departments.

Meanwhile, there was also some confusion within the police administration concerning the type of research permission I would need. The first police organization required a restricted police warrant granted by the Ministry of the Interior. The Ministry

initially supported the idea. I applied for one according to the advice I was given, but it was not granted: the Ministry informed me that there was no need for such a warrant and that I could conduct research with a permission from the specific organization I intended to study. This was connected to a reform in the law concerning publicity of the actions of the authorities. This complicated my access to the first organization because no one had applied for a research permission before to conduct participant observation in that specific organization, and there was no previous template for that. They naturally also wanted to study carefully the possible legal problems the research could cause.

In the second organization, which I contacted after facing problems in the first one, the officer in charge was very enthusiastic about my research plans. I met him on a Thursday, and he invited me to join an investigation that would start the following Monday. I was happy to finally start the data collection. He did not require any formal research permission and relied on the information about permissions given by the Ministry of the Interior. In addition, he ordered me not to give any information about the case under investigation to anyone, which he was allowed to do under the Pre-Trial Investigation Act.

I received the research permission in the first organization after 11 months of waiting. I started the data collection as soon as a suitable case was put forward by the organization, which took an additional three months. By that point, I had realized the richness in multiple fields and decided to start a third case involving the tax office that makes offense reports to various police departments. The tax office welcomed me (after several months of negotiations there as well) to join a case that was to start in a third police organization. I contacted the officer in charge and, according to his advice, the top management, and was granted access. This organization issued a formal research permission.

In hindsight, expanding the research to three different police departments was a lucky turn: I gained a richer picture of the field by engaging three sites instead of one. All the authorities and other parties involved in the investigation allowed me to participate as an observer throughout the research. However, I applied for and received a specific research permission from the tax authority because I obviously would receive information concerning the taxpayers connected to the investigation.

Finally, after 14 months, I had three cases to follow. I had three main sites in the police departments, and a number of additional sites as well. My presence in the crime investigation was probably not as problematic as it could have been as I had worked as a document examiner at the National Bureau of Investigation (NBI), from which I took a four-year leave of absence to write my dissertation. Hence I was very much seen as an "inside outsider", an academically qualified civilian working within the police forces (Horn 1997;

Brown 1995; see also Alvesalo 2003), when I tried to get access to the cases under investigation. This was evident, for example, when the police officers often referred to me as "Anne Puonti from the NBI", and not from the university, when they introduced me to their colleagues.

During the most intensive data-gathering period, I was given an office at two of the police departments and at the tax office. This made the data gathering and observation easier as I did not have to sit in the coffee room and walk around in the corridors for hours. At first, it felt awkward hanging around the police departments when many of the officers did not know who I was. The coffee rooms, however, were good places for meeting and getting to know people, and for telling them about my research.

Establishing rapport is another matter of delicacy. I was an "inside outsider" (Horn 1997), but had practically no previous knowledge about economic crime or its investigation. It was really difficult for me to understand what the investigators were talking about at first. This was, in some respects, an advantage: they noticed that I was not able to evaluate their work in terms of whether they were right or wrong, efficient or not (compare Horn using her ignorance as a means of obtaining information, and Haavisto, 2002, reporting on similar experiences). Towards the end of the data-collection process I had learned a lot about economic-crime investigation and was undoubtedly able to ask more intelligent questions. The investigators seemed to enjoy the fact that someone was interested in their job. Jokingly, it was even suggested that I would take a case of my own under investigation because I had been involved in their investigations for so long that I must have learned something. I did not face any situations in which information or comments were withheld from me: the officials were very open and cooperative. The trust between the officials and myself developed quickly.

Another interesting difficulty in this particular field concerned the interviews. Especially at first, I felt that I was the one telling the police officers everything I knew in an interview in which I was supposed to be the one who was getting the information. Police officers are qualified interviewers, and they were often very cautious with their own comments. The fact that most of the people I interviewed were professional interviewers bothered me on occasions. The police officers sometimes referred to my interviews with them as "interrogations". Most of the interviews were relaxed, especially those with the main investigators whom I met on a weekly basis during the most intensive period of the investigation. However, I found some interviews with experienced police officers, whom I met only once during the research process, confusing: I felt afterwards that I had been interrogated, and I did not get very much out of those interviewed. Fortunately, this happened

rarely, although conducting a fruitful interview sometimes required extra efforts. The means I often used was to make the interviews more like informal discussions. The recordings thus included informal chat, which made the transcription more laborious but was worthwhile in terms of gaining information and understanding the incidents in the field better.

According to Emerson (2001, 119), "Women fieldworkers routinely have to navigate their way through restrictive gender arrangements". This is especially true in a male-dominated crime-investigation setting. It was only after I had conducted most of the fieldwork that I found Horn's account and her references to Heidenson's and Hunt's studies of how male police officers categorize women very crudely (see Horn 1997). My strategy was to be just myself. I did not pretend to be anyone else, as Leo (2001) describes, for example. Nevertheless, I am sure that my access to certain discussions was restricted. For example, there was one incident at the very beginning of my fieldwork when I had lunch with four police officers for the first time. There was silence at the table until one of them said: "What can we talk about now when we can't talk about women or booze?"

I did not face any conflicts related to my gender. It was, however, confusing to go to the women's toilet and find that the lid was up – I was the only woman on that particular floor, so the women's toilets were used by the men. I was also tested by the investigators particularly at one of the sites. There were occasionally some dirty jokes and some comments about my femininity, but I did not react to them much. I smiled or laughed mildly at the jokes and tried to ignore the comments. I did not see how I could sustain relations with the people I had to meet and interview regularly if I reacted strongly. Similar tactics were described by Horn (1997).

5.3 Collecting the data

The unit of research in my study is a *case*. By unit of research I mean the real-life incident of which I am making observations. Each case comprised a relatively well definable *trajectory* of investigation that I followed and documented (on the notion of trajectory, see Strauss 1993). The method could be described as a "double-case" method as each of my cases was built upon a crime case investigated by the practitioners. Hammersley and Gomm (2000, 1) argue that the case-study method probably arose out of case-study approaches in other fields, such as law, detective work and medical work. Close links between case-study inquiry and occupational practice have sometimes been regarded as a weakness, but the growing suspicion toward "science" and the need for practically applicable research has made the methods widely accepted (Hammersley and Gomm 2000, 2).

Emerson maintains that doing fieldwork is not primarily a matter of techniques and methods, but rather a question of mixing with people and encountering moments, writing accounts of those moments and thinking about their meaning (Emerson 2001, ix-x). The ethnographer is the main research instrument (Emerson 2001, 113). Ethnographers do not employ pre-specified designs for data collection. Fieldworkers move constantly from observation and analysis to conceptual reframing and back in the search for new relevant data for their emerging theoretical concerns (Emerson 2001, 284). An example of this is the topic of Article 3, temporality. I had previously read and heard of the concerns about the long duration of economic-crime investigation. I had been pondering on the possible reasons, and one morning when I went to meet one of the investigators, he began to tell me about his frustration regarding the cases he was investigating. He was responsible for four cases but he could not proceed with any of them because he was waiting for the contribution of another stakeholder. I interviewed him, and immediately decided to interview all of the stakeholders and to find out what the situation was with the other three main investigators. I decided to compare the situations each of them was facing. The results are described in Article 3. Ethnographic data collection also allows for improvisation and seizing opportunities that arise during the process.

Burawoy (2000, 25) claims that there are general guidelines for conducting ethnography and collecting data, but there are few specific rules. I started my data collection with no former experience, and very little knowledge about ethnography. I was studying at the same time as I was collecting my data, but practice was my best trainer. As Burawoy says, "You learn ethnography through practice, and perhaps a little bit through apprenticeship" (Burawoy 2000, 25). I was given the advice to "follow the object" by my advisors, and at first I more or less collected and recorded and interviewed anything I could get hold of. It was only later that I was able to focus on specific issues. I was also lucky in having an experienced fellow researcher with whom I was able to plan the data collection and reflect upon the incidents I had observed in the field.

The data collection for this study started in February 1999 with the stakeholder interviews. In the beginning, when I did not yet have any cases to follow, I collected a body of data consisting of interviews with managers, investigators and significant actors in the field of economic-crime investigation. I did not use this material as primary data, but it gave me a good basis for my actual observation of the cases. The main body of data consists of three economic-crime cases that I followed from June 1999 to December 2002. The cases were selected by the organizations: two cases by police organizations, the third by the tax office.

The criterion I gave them was that I was interested in cases in which there were participants from several organizations and several authorities.

I had numerous sites to visit, but luckily the investigation processes progressed in varying paces and started at different points of time. Spring 2000 was a hectic time when I was trying to follow all the threads connected to three investigation processes. I participated in all the collective events of which I knew that took place during the investigations, including meetings, house searches and visits to offices, and my data includes observations documented as field reports, video- and audio-recordings as well as photographs of key events. I also collected written and graphic documents used and compiled by the investigators. During the most intensive period of investigation (when the house searches were being conducted), I spent 2 to 5 weeks at each site observing, participating and interviewing people. Interviews were conducted and tape-recorded to enrich the data and provide different perspectives on the events documented.

I always asked for permission to audio-tape or video-tape the events. Only once was this denied: a suspect of a case did not want me to record my interview with him. This was probably because he was afraid that it would be used by the police afterwards, although I assured him that this would not happen. In addition, in that specific case I was not allowed to interview the suspect alone, and a police officer was with me. The reason given to me was that the suspect was under arrest and the police had to guard him all the time.

Most of the recordings were transcribed, although some were only listened to. The main body of data was collected around the house searches because they are the most intensive part of the investigation. The data is presented in Table 5.1 with the exception of notes made of telephone conversations and numerous email messages through which information on certain incidents was passed on and meetings arranged. The preliminary interviews, which had no connection with the cases, are not included in the table either.

Because the police are responsible for pre-trial investigation and thus act as coordinators of the process, the investigation was viewed from their perspective. An effort was made to bring out the voices of the other participants representing different perspectives. I sought multiple viewpoints concerning the investigation process by interviewing all possible parties involved in the investigation, such as the tax authorities, the enforcement authorities, prosecutors, lawyers, and the suspects. The collection of the data focused on collaborative situations such as meetings and negotiations, and also on the collaborative operations conducted in the cases.

Table 5.1: The entity of the case data

	CASE 1	CASE 2	CASE 3
How long the pre-trial investigation was followed	43 months	5 months	18 months
Meetings	5 A, 2 A+V, 5 A+P	1 A, 3A+V	3 A
Other taped events (informal discussions, work situations)	1 V	1 A, 2 A+V	
House searches	1 P	1 P+A	2 V+P
Interviews	57 A (15 with the main investigator)	33 A (7 with the main investigator)	20 A (9 with the main investigator)
Field reports	40	22	12

A=audio recording, V=videotape, P=photograph)

Observations were carried out throughout the fieldwork. At first I found it very difficult just to observe in a natural way in a police department. Before I became familiar with the people, I attached my observations to the interviews. I went to the police department a good deal earlier, stayed there after the interviews, had lunch with the officers and so on. I also visited the tax office regularly, and the enforcement office as well as two different prosecutors' offices several times. There were also several interview visits to various other places, such as attorneys' offices. Later on, it became more natural just to spend time talking to people and sitting in the coffee rooms. I was present on both informal and formal occasions. At one of the sites, the coffee table was the place around which information on ongoing cases was exchanged, and the morning coffee break in particular was a semi-formal forum for such exchange. I had my tape recorder running during these coffee breaks while I was staying at that site, otherwise I did not tape-record informal situations. I did not make *field notes* in informal occasions, and normally wrote them afterwards, not during the discussions. The house searches and meetings were exceptions, and it seemed natural to carry a notebook and to make notes. I often wrote instant notes on pieces of paper, which I transferred afterwards to a computer file. Thus, one field report sometimes covered a couple of days. I also wrote a narrative of each house search in which I took part.

Regular meetings with the main investigator were an important source of data. The main investigators were my key informants, and we met regularly during the investigation process. Interviews were conducted about once a week during the intensive phase. When it was more quiet, we met about once a month, and in the long cases only when the main

investigator had taken some actions on the case. I audiotaped the discussions, and always had a list of issues to be taken up in these meetings. The list was based on the incidents I had observed as well as on my theoretical foci of interest (e.g. tools, time, object construction). I also wanted to hear about the future plans each time. These discussions were not formal interviews. It was more a question of my trying to make the investigator reflect on what was happening. The discussions were sometimes very confidential. One of the investigators told me that he enjoyed them because they were a rare opportunity to talk about his work with someone who was interested but was not a family member or a colleague. Another investigator called me "the researcher of my head". These investigators seemed to use the interviews as an opportunity to outline the case and to plan future actions – a rare opportunity to sit down and think aloud during the flow of events.

The interviews with the participants gave me the opportunity to make sense of the events I had been observing. They were an important form of interaction between me and the practitioners. According to Abolafia (1998), the ethnographic interview is a subtle form of strategic interaction. I used the classic semi-structured interview. I always prepared a template for each one separately according to the situation. I gathered reflections on what had happened, and tried to make the interviewees ponder on the next steps. After a collective event, such as a house search, I used the same template for everyone involved, but addressed some specific questions to each of them depending on their role. The order of questions varied according to the topics raised by the interviewees.

Interviews are interactional events. Knowledge is constructed in collaboration between the interviewer and the interviewee (Holstein and Gubrium 1995, 4). The role of the questions and the atmosphere are essential in providing for open and undistorted communication (ibid.). The interviewer should not be constrained by the procedures for conducting an interview "by the book". He or she should be an active maker of meaning, taking up issues raised by the interviewee, and making him or her interpret his or her experiences. The interview plot is based on topics, but it develops. The interview is spontaneous but structured (Holstein and Gubrium 1995, 17). This was the type of interview method I aimed at applying.

I used *audio* and *videotaping* to record the collective events and interviews. I always asked the participants for their permission to tape. When I started to videotape meetings, some questions were asked about the use of the recording, and some participants joked about their clothes or hair, but the longer it went on, the more the camera was apparently almost forgotten. One of the investigators often joked and tried to use the taping as a means for sending messages to the management: when he spoke about things that should be corrected,

he took the microphone and spoke very clearly into it. In the house-search situations, I asked the participants, including the suspects and the owners of the premises, for a permission to videotape or take photographs. Audiotapes were the main data: videotapes were used mainly in collective situations to establish who was speaking when the speaker was difficult to recognize by his or her voice. I also photographed both routine work situations and collaborative situations. Only one of the house searches was videotaped because I did not want to exacerbate the situation any more for the suspects by videorecording their home or their business location where there were clients and employees. In both cases, however, the owner gave permission to take photographs which later functioned as my memory aids.

The collection of written and graphic documents was also part of my data gathering. I copied the essential documents I saw being used by the practitioners as thought aids or for sharing, passing or gathering information. I did not collect the receipts or other documentary evidence the police and the other authorities collected from the suspects, only the documents produced by authorities.

5.4 Analyzing the data

The ethnographer translates experience into texts (Emerson 2001, 22). Emerson highlights the fact that any description made by the researcher is inevitably partial and selective. He also notes that theory is always inherent in ethnography: how a researcher selects and records from among the mass of events and observations comprises her theory. Hence, there is no sharp distinction between description and analysis: "Description is necessarily analytic" (Emerson 2001, 28). Further, "Fieldworkers move constantly from observation to analysis to conceptual refining and reframing and then back to seek new forms of data relevant to their emerging theoretical concerns and categories" (Emerson 2001, 284). The analysis moves back and forth between observation and theory. Denzin and Lincoln (2000, 3) compare qualitative research to a bricolage: the researcher, the bricoleur, makes a "pieced-together set of representations that are fitted to the specifics of a complex situation". Additionally, "The bricoleur understands that the research is an interpretative process shaped by his or her personal history, biography, gender, social class, race, and ethnicity, and by those of the people in the setting" (Denzin and Lincoln 2000, 6).

Transcriptions of talk are an essential part of my data. They were, in fact, the first step of the analysis. They were made partly by myself, and partly by research assistants. The relevant data (for example, meetings and key interviews) were transcribed in full, some interviews were partly transcribed and some only listened to. A transcript is never fully

equivalent to the original speech (Mishler 1984, 34). The transcriptions emphasized the contents of the speech, not the linguistic and informal aspects (see Haavisto 2002). The excerpts have surely lost something, but the content is more understandable to the reader when hesitations, repetitions and unfinished words are left out. The speech excerpts presented in the texts were translated into English, which inevitably means losing some of the nuances as well. The analyses were made on the Finnish transcriptions, and only the excerpts chosen to illustrate the analysis were translated.

Interpretation is the transformation of the findings into meaning. It is intimately connected to the methods and procedures of description and analysis (Mishler 1984, 48). Interpretation is subject to the assumptions the researcher has because they have already guided her in the selection of particular observations as relevant and in the form of analysis applied to them (ibid.) The interpretation is multilevel: the interviewees, for example, tell me their interpretations, which I further interpret. However, the selection of the particular pieces of data was not arbitrary: there was a theoretical starting point. For example, a *microlevel analysis of discourse* was applied in Article 1 on the basis of the theoretical framework of activity systems constructing a shared object that I hypothesized to manifest itself in the interaction as disagreements and attempts to find a shared view. The analysis was based on identifying episodes that were constructed around speech topics, examining the contents of the episodes, and identifying disagreements and attempts to find a shared view.

Article 3 includes a temporal analysis of events that was conducted on the basis of *timelines*. They were based on observations documented in the form of field notes. The timelines themselves were not included in the paper. Figure 5.1 below is an example of a timeline.

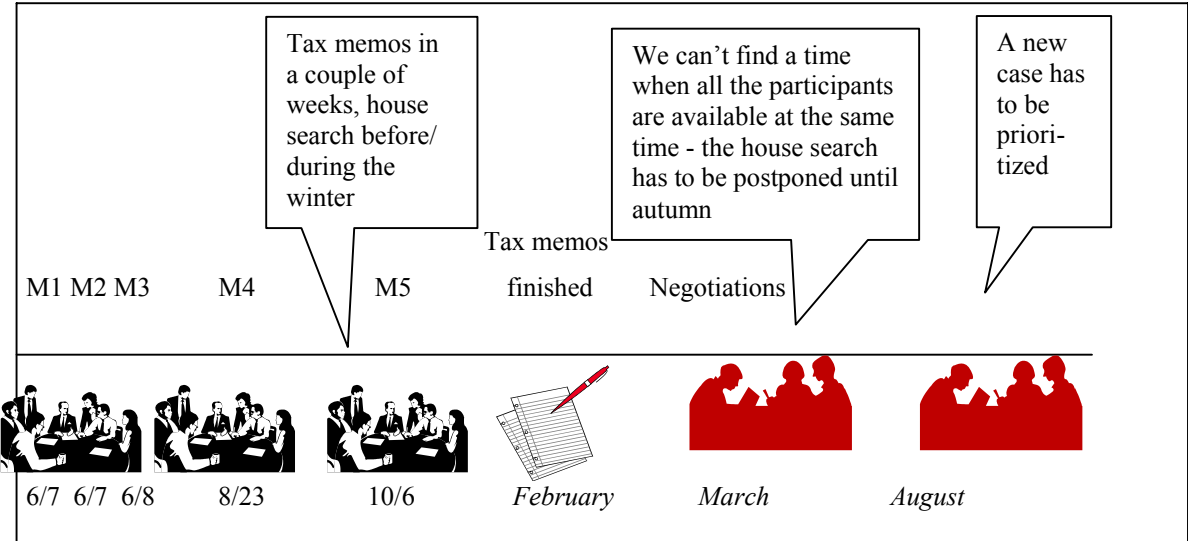


Figure 5.1: Timeline of the timing of a house search (M1-M5=meetings between the investigators, the tax inspectors and the enforcement officer).

The analysis of the documents used in the investigation was based on the observations. I also analyzed the contents of the house-search plans. The interviews were analyzed in both cases to support the interpretations. They were not used as the primary data because I was primarily interested in documenting the actions realized by means of mediating artifacts, language and tools.

The analysis was embedded in the fieldwork also in the sense that I allowed the practitioners to read the first versions of my texts and asked for their comments. I audiotaped some of the feedback discussions, and some of the practitioners gave feedback through e-mail or as notes added to my original text. Some called me back to give me their views. I never received feedback suggesting that some of the analysis might be entirely erroneous. (This naturally does not prove that the analyses were accurate.) The practitioners corrected some factual misunderstandings regarding their work (for example, that the expression "crime-based tax inspection report" I had used was not correct, it should be crime-related tax inspection or tax inspection assisting crime investigation. The limitations of member validation are referred to in Section 5.6. In any case, the comments made by the practitioners often led to slight modifications. In fact, this phase could be seen as a data-collection and data-analysis phase as much as a validation phase.

The process of data analysis is also deeply intertwined with the process of writing. Although I started writing on the basis of an analysis I had done, I continuously had to switch between analysis and writing, back and forth, before the text as such could be revised and finished. Denzin and Lincoln claim that writing is a method of inquiry. In the initial phase, fieldwork and writing merge (Denzin and Lincoln 2000, 17). The field reports constitute an initial phase of the analysis, just as the transcriptions do. Qualitative research is constant dialogue between the writing process and the data analysis.

5.5 The position of the researcher

The researcher becomes a part of the field that he or she is studying, and the research always affects those researched (Engeström, 2000a). Fieldwork is inherently social, and the researcher must hence be studied as a part of the reality being studied, and as a source of the results, not as a contaminant (Emerson 2001, 299). Engeström (2000a) called for a more active role for the researcher than merely collecting data, an interventionist role. I did not make any planned interventions, but I have taken into account the possibility that my presence might have been intervening in the activity. In fact, there were incidents in which I had an influence on the actions: in one site, the overhead projector and the minutes of the meetings

were used in meetings after I had merely noted that they were not used in the meeting I had analyzed. Moreover, my presence, together with a failure in the case I was documenting, triggered the launching of a new document, a project plan, that is described in articles 2,3 and 4. The researcher evidently has an effect on those researched, and this needs to be acknowledged.

Emerson (2001, ix-x) reminds us that ethnography always is produced in and through the relations formed by the ethnographer as an individual and a social actor. He argues that the ethnographer should be presented as a whole person with her preferences, commitments and personality. Ethnography is in the middle of "doing closeness" and "doing distance" (Emerson and Pollner 2001, 240-241). As Emerson and Pollner succinctly put it: "The fieldworker's recurrent problem is to achieve the distance necessary to observe while physically and socially present to those who are the objects of such observation" (ibid. 241). One of the paradoxes of fieldwork is that when you are out there, you cannot openly show criticism and you have to be empathetic and understanding. However, when you leave the field and enter the researcher's office, you have to forget empathy and assume the critical role.

My own position in the field in terms of distance and closeness deserves reflection because I came from a police organization and was studying the police, among others. The problem that I had to consider several times was whether I was seeing the research too much through the lenses of the police organization, neglecting the other stakeholders. I had to accept that the focus of the data gathering was in the police departments. I was not able to spend the same amount of time in each organization, but I had to stay where the center of the investigation was. I tried to collect the views of other stakeholders as well.

The background of the researcher may have an effect on the data collection and analysis. Prior experiences may influence how the fieldworker presents herself, and may provide a lens through which she interprets events on the field (Emerson 2001, 128). I had worked for the police for eight years, and there is a risk that my lens was favorable to them. On the other hand, being familiar with the police context, the terminology and the organization helped me to understand the setting more quickly. After all, my post there was a civilian post, a researcher at the crime laboratory, and I had no previous experience of crime investigation. All I could do was to reflect on this issue every now and then, both during the fieldwork and during the analysis. The switch of places helped in this: I could not have done the writing in a police department. The critical work community at the university helped me to put on my analytical spectacles after intensive field periods.

5.6 Generalizability and transferability of the results

As Silverman (1993, 3) points out, qualitative research aims at saying a lot about a little, not at saying a little about a lot. This principle has raised questions about the validity and reliability of the findings. The first comment I often receive from the practitioners I am telling about my research is, "How can you say this on the basis of just a couple of cases?". The positivist conceptions of science prevail. In the 1950s, many fieldworkers turned to criteria developed for quantitative research to evaluate qualitative research. Today, most qualitative researchers prefer to evaluate the generalizability or transferability of their results rather than traditional validity and reliability (Emerson 2001, 295-296). Silverman speaks about authenticity rather than reliability (Silverman 1993, 12).

"Member validation" is often used in ethnographic research (Emerson 2001, 296). Ethnographic description does not seek to reduce observations to pre-existing categories (Emerson 2001, 34). The descriptions are textual reductions, but the aim is to reduce the observations so that the practitioners themselves can understand them (*ibid.*, 35). In this research, member validation was used in terms of letting the researched read the analyses. Three of the articles (Articles 1, 3 and 4) were read by the main investigator or the officer in charge of the case that was the subject of the article. Article 2 is based on the data analyzed for articles 1, 3 and 4 and it was not read by the practitioners before its acceptance for publication. In addition, my advisory group, which included representatives of the relevant organizations, read and commented on different versions of the papers. They were invaluable in correcting factual errors and misunderstandings, but my interpretations were not questioned. The only thing that repeatedly attracted the attention of the subjects was the exact transcription of their speech I used to illustrate the analyses. One prosecutor, for example, advised me to tidy up the speech excerpt before publication "so that people won't think that there are language imbecils working in the criminal justice system". However, the limitations of member validation are obvious: as Emerson reminds us, positive member reaction may reveal little about the real "validity" of the results and findings, but may say more about what is significant and meaningful to the members (Emerson 2001, 296).

Bloor (2001) criticizes the two prevalent techniques of validation, triangulation and member validation, suggesting that neither can be treated as a test of research findings. He argues that there can be no tests of validity in qualitative research, but that triangulation and member validation, for example, may be helpful in the analysis as they allow the researcher to look at the first analyses from a new standpoint (*ibid.*). Emerson (2001, 300. s) also raises the

question of "validity-as-reflexive-accounting". He emphasizes the fact that the researcher should describe the whole research process, the procedures for collecting the data, the analysis, the processes and the decisions to enable evaluation of the key junctures of assembling and analyzing data.

The issues of reliability, validity and generality have a different content in an ethnographic, qualitative study than in a statistically oriented quantitative study. The key issue, according to Cronen (2001, 31), is *inclusiveness*. A percept or a hypothesis is not reliable if we have to change it after including more data. It is useful to test alternative hypotheses. Therefore, validity is constantly tested in practice in a qualitative study: we repeatedly test our understanding in action by discussing with people, in the interviews, and in the observations. Therefore, one key issue is the time spent in the field: a longitudinal study is required.

Emerson also emphasizes the fact that a researcher has to get a large, diverse body of data collected at different times and places using different procedures in order to maximize the reliability (Emerson 2001, 299). Sufficiency of evidence is a criterion for validation (*ibid.*, 298). It is a complex task to evaluate this, an interpretative process involving giving "good reasons for believing that something is true or false" (Hammersley 1998, 59; cited in Emerson 2001, 299). Longitudinal data collection is essential in studies of learning and development in particular (Easterby-Smith 1997, Kärkkäinen 1999). My data collection lasted from June 1999 until December 2002, for three and a half years. Despite the laborious and time-consuming method I chose to follow three cases. This meant that at times I was not able to follow all of them in equal detail but, on the other hand, the cases were very different and each of them helped me to focus on certain things that I probably would not have seen if I had followed only one case. Thereby, in principle, I received comparable data from the three cases, although cases are always different in nature (*cf.* Kärkkäinen 1999, 211).

Longitudinal case-type research has a different starting point than statistical research. The purpose is to provide detailed information from a restricted piece of data, and not to make statistical generalizations. Although the case-study method does not aspire to statistical generalization, it does aim at general phenomena by focusing on ordinary, everyday actions at the micro-level (Jokinen et al. 1999). The purpose is local explanation on the basis of the collected empirical data (Alasuutari 1999, 243). If the readers recognize the phenomenon, it is not generalizability but the plausibility of the explanation that becomes interesting (Alasuutari 1999, 235; see also Schofield 2000, 71). What is clearly a strength for this method is that fragile attempts to innovate and do things differently are noticed and valued as data.

Cronen compares the generalizability of case studies to the principle of case law: a legal principle is created in the adjudication of one, particular case and then applied to other cases, bearing in mind that every case is unique (Cronen 2001, 32). However, the specific features of new cases may modify and even discard the principles of law. Exactly the same thing happens in case inquiries. When applying the case-study method, it is not a question of evaluating whether the conclusions of similar cases described in the literature are “true”, but whether they are useful in working with the new case. The new case is reported if it has something new or different to say (Cronen 2001, 32). The same idea is put forward by Burawoy: “We do not worry about the uniqueness of our case since we are not as interested in its 'representativeness' as its contribution to 'reconstructing' theory” (Burawoy 1998, 16). Schofield (2000, 74) describes one approach to the issue of generalizability as "gaining generality through the synthesis of pre-existing qualitative studies". The problem of generalizability, thereby, is not at the methodological level, but in how the results are used. The results of a qualitative study are not seen as a context-independent facts, but as pieces of information provided by the interpretation of a specific set of data, the purpose of which is to make the readers react to the reported findings – perhaps to start something new among them.

Davydov (1990/1972, 275-301) has made a distinction between empirical and theoretical generalizations. An empirical generalization is made on the basis of observable phenomena. On the other hand, a theoretical generalization starts from the concrete empirical observations as well, but then dives under the surface, to the initial abstraction, a concrete, simple phenomenon that later proves to be important for the development of the studied phenomenon. This initial abstraction is a hypothesis which is tested by looking for its more developed forms. The theoretical generalization thus comes back to the concrete world of observations and maintains a connection between externally different phenomena with the help of the initial abstraction and its historical forms.

Are the results of case studies transferable to other contexts? Some argue that transferability is an issue of similarity between the research context and other contexts (Lincoln and Guba 2000). For example, police departments are similar in certain ways. However, Donmoyer points out that, when it comes to transferability, differences between contexts may be as illuminating as similarities (Donmoyer 2000). Another perspective on transferability is the more general level: the issues raised about shared expertise in a crime-investigation setting may be transferable to other multiorganizational settings as well. However, in qualitative research, it is not as much a question of replicability or generalization

over populations as a question of valid interpretation. Kvale (1996, 234) argues that it is up to the researcher to provide sufficient evidence for the generalizations he or she makes. Ideally, qualitative research is so powerful and convincing in its own right that it carries the validation with it (ibid., 252).

6. Conclusions

6.1 Summaries of the articles

In this section, I will give a brief summary of the four articles that constitute the empirical findings of this study. In Sections 6.2 and 6.3, I will draw the conclusions of all the four articles together to answer the six research questions I have posed. A summary of the key data, units of analysis and key concepts used in the research is given below in Table 6.1.

Table 6.1: Data, units of observation and key concepts of the articles

NAME OF THE ARTICLE	ARTICLE 1	ARTICLE 2	ARTICLE 3	ARTICLE 4
Research Problems	How are the object of economic-crime investigation and the collaboration constructed in the interaction between the police and the tax authority?	How does the object expand and how is the challenge for expansion met?	How do the practitioners manage the temporal aspect of the object and coordinate time in collaborative investigations across organizations?	What kinds of tools are used and developed to manage the object and the collaboration in the investigation process?
Data	Recorded meeting discourse Interviews	Work documents Field observations Interviews	Field observations House search data Interviews	Work documents Field observations House search data Recorded meeting discourse Interviews
Units of observation	Meeting divided in speech episodes	Manifestations of object expansion	Negotiations of temporal synchronization Caseload of the main investigators on a given day	Manifestations of tool use and design in managing the object and the collaboration
Key concepts	Object construction Disagreement Boundary crossing	Object Expansion Instrumentality	Synchronization Coordination Reflective communication	Vertical and horizontal tool Local construction Standardization

The units of observation refer to the real-life events of which the analysis was made. They included meetings, discussions and various manifestations of object expansion (such as discursive attempts to expand the object and boundary crossing deeds) and tool use (such as observed use of a tool or interview accounts of tool use).

ARTICLE (1)

Puonti, A. (2003) Collaboration as a Learning Challenge: Constructing Common Understanding Between Police Officers and Tax Inspectors in a Tax-Crime Case. *Police Practice and Research* 4 (3), pp. 131-147.

QUESTION 1

How are the object of economic-crime investigation and the collaboration constructed in the interaction between the police and the tax authority?

The change from sequential collaboration to parallel collaboration between authorities has set new challenges for collaboration across organizational boundaries. This article studies the construction of the object and the collaboration between organizations with divergent goals, tasks and orientations. Additionally, the object, the crime under investigation, is obscure and the information about the entity is incomplete. Constructing a common object from diverging perspectives is time-consuming and laborious. The paper focuses on a crucial point in the investigation process when the police try to engage the tax authority for a case. A micro-level analysis was made of the discourse in a meeting where the police officers and tax inspectors negotiated on the case. The data also includes separate interviews in which the participants in which reflect upon the meeting.

In the meeting, a variety of *discursive tools* were used to express diverging perspectives and to bring the views closer one another. The divergent perspectives, orientations and organizational tasks were brought up by using discursive tools such as disagreements and boundary consolidations (e.g., emphasizing the differences between the police and the tax office by making a difference between 'us' and 'them'). On the other hand, there were also attempts to cross the organizational boundary in the discourse by, for example, emphasizing the common goal.

The findings suggest that the discursive tools were not sufficient to cope with the complexity and obscurity of the case under investigation. A true consensus was not reached although after the meeting the participants emphasized that a shared understanding of what will be done was attained. As time passed, the things that were supposedly agreed upon in the meeting were not realized. There seemed to be an imaginary, temporary shared object which soon faded away. The same basic disagreements emerged repeatedly during the investigation – the objects did not merge.

At this phase of investigation, there was very little information about the crime available. The discursive tools used to negotiate on the case were not sufficient to create a

consensus on what the case was about: the participants were unable to take the object under shared consideration. The discursive tools remained too general; they were not closely enough connected to the object, the case under investigation. Neither did the tools enable taking the ways of collaboration under critical reflection. When the goals and ways of interaction are not negotiated explicitly, an ostensible consensus may be created, but things do not happen in the way the participants thought had been agreed upon. Investigation of economic crime is difficult, but the collaboration needed in the investigation seems to pose an additional learning challenge for the participants. The underlying tensions created by the divergence of the authorities, however, generate a potential for expansive learning. This calls for a change in working habits as well as for new kinds of tools, both discursive and tangible, that take the object and forms of collaboration into consideration.

ARTICLE (2)

Engeström, Y., Puonti, A. & Seppänen, L. (2003). Spatial and Temporal Expansion of the Object as a Challenge for Reorganizing Work. In D. Nicolini, S. Gherardi & D. Yanow (Eds), *Knowing as Practice*. Armonk: M. E. Sharpe, pp. 151-186

QUESTION 2

How does the object expand and how is the challenge for expansion met?
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This article describes how the self-movement of the object sets challenges for the organization of work and calls for new instrumentalities. In economic crime, the criminal acts are dispersed in time and space, the information needed in the investigation is spread into various files of various authorities, and the investigation process requires collaboration between authorities. The object is clearly in the process of temporal and socio-spatial expansion. Its mastery calls for expansive actions. However, given the different orientations and tasks of the authorities, the formation, mastery and maintenance of such a transforming object is difficult.

New, expanding objects call for new instrumentalities. The group participating in the investigation has grown together with the temporal and spatial self-movement of the object, and the actions of participants have to be synchronized. The socio-spatial expansion requires remediation of time and space. A tension can be seen between long-term planning and short-term improvisation. In economic-crime investigation, it often culminates in a house search where all participants must act in coordination, but also be prepared to improvise.

New instrumentality evolves together with expanding objects. In economic-crime investigation the graphic models of the suspected crime and plans made for house searches are such new instruments. In the beginning, these locally created tools are isolated attempts to manage the expansion. To make a difference, they need to be stabilized as parts of the entire instrumentality used in the investigation process. However, seemingly singular expansive actions conducted in each investigation process accumulate as trails left by the subjects, the actors. Trails once made may be followed again.

ARTICLE (3)

Puonti, A. (2003). Searching for Synchrony: Negotiating Schedules Across Organizations Involved in Investigating Economic Crime. Accepted for publication in *Public Management Review* Volume 6, 2004.

QUESTION 3

How do the practitioners manage the temporal aspect of the object and coordinate time in collaborative investigations across organizations?

This article focuses on an important aspect of collaboration - time - from the point of view of synchronizing actions across organizations. In practice, time management has proved to be a central problem in interorganizational crime investigation. A shift from hierarchical collaboration based on the sequential model toward parallel collaboration has increased the interdependency of organizations. How is it possible to synchronize events across organizations when there are several tasks and investigations going on simultaneously at the individual, group and organizational levels?

Individuals may face dramatically different problem situations, ranging from a *blockage*, when nothing can be done without the contribution of the other stakeholders, to a *crisis* in time management. Individual attempts to solve these challenges may suffice to a certain degree, but the basic structures cannot be changed solely by individual efforts. Individual efforts may even constrain collective time management. Another possible constraint for smooth collaboration may lie in the divergent assumptions the organizations hold on time and urgency: the prioritizations and conceptions of urgency have a historical background and these assumptions may be radically different and cause tensions if they are not taken into explicit consideration.

The synchronization of events proved to be very difficult in the cases I followed. Time for a collective house search was difficult to find, tax inspection reports were delayed in

the police's opinion, and deadlines were not met or postponed. A certain level of coordination was sometimes found, for example, an agreement to meet on a certain date, but the tasks agreed upon in the meeting were very difficult to carry out in the promised schedule because of other commitments.

Rules are often implemented as a means of synchronization. My findings indicate that new time management tools are needed as well. Moreover, the collaboration practice needs to be reformulated. *Coordination*, putting the events on a calendar alone is not enough. *Cooperation* and *reflective communication* are also called for. Cooperation includes focusing on a shared object, but the script of the interaction is not questioned and the marks on the calendar still easily guide the process. Reflective communication, in turn, implies that both the object and the script guiding the work are negotiated and critically reflected upon. Negotiations should not be restricted to rigid marking of calendars. They should include the goals, the object, and the forms of interaction between the various participants.

ARTICLE (4)

Puonti, A. (2003). Tools for Collaboration: Using and Developing Tools to Manage Interorganizational Economic-crime Investigation. Accepted for publication in *Mind, Culture and Activity* Volume 11, 2004.

QUESTION 4

What kinds of tools and instruments are used and developed to manage the object and the collaboration in the investigation process?

In this article, the tangible tools and instruments used in economic-crime investigation are scrutinized. I analyze how the new, parallel collaboration is managed by using and developing various tools. As my topic is collaboration, I focus on collaborative tools that manipulate and carry information between participants. I found that the information-gathering tools were quite efficient in economic-crime investigation, but that the planning tools and information-management tools were underdeveloped. For this reason, I focused on the latter two kinds of tools.

I propose a heuristic two-by-two matrix by distinguishing between vertical and horizontal tools as well as standardized and locally constructed tools. Vertical tools are typically designed for intraorganizational use, and they may, despite their good properties, be difficult to use across organizations. Horizontal tools were, in fact, developed in two of the followed cases to complement existing, mainly vertical tools. The second dimension, standard

tools vs. locally constructed tools, derives from the origination of the tools. Standardized, fixed tools are often given from above, while tools that are constructed locally for a specific use are innovations from below. I use the matrix formed by these two dimensions to analyze the tools used in the cases I followed.

The most interesting tools used in the investigation process included house search plans and graphic models of the crime under investigation. House search plans do not have a standardized form; they are constructed case by case according to the main investigator's ideas. They were locally constructed, and they were used both vertically (to give orders within an organization) and horizontally (as the agenda for an interorganizational planning meeting). Graphic models were used effectively as horizontal tools in one of the cases. They enabled a joint study and communication on the suspected crime. The emerging tools included an interesting, locally constructed document called a project plan which consisted of sections regarding the crime, goals, information exchange, and feedback. Another local innovation was the construction of a case database shared by all participants who had access to police files. These two designed tools were intended for horizontal use.

Tools carry a potential for change. Some tools represent local solutions to problems faced in practice. The tools developed in the cases followed were attempts to solve the tension between the vertical character of existing tools and the need for horizontal collaboration. The tools used and developed in the cases I followed were more or less locally constructed. This reflects the fact that parallel, network-type crime investigation is still in a formative stage and there are few standardized tools to support it. One of the tools I observed, the project plan, was adopted as a local standard. The problem, however, is the transfer of local innovations: Does everyone have to build his or her own tools? How to potentiate a shift from the local level to a nationally-used standardized tool without losing the flexibility and openness of the tool? How does one make a tool usable both in vertical and horizontal practice? The management of the shifts between these aspects, standardization and local construction, verticality and horizontality, is critical. My findings indicate that something new, local standardization, is emerging.

6.2 The learning challenges of object construction and collaboration

Section 6.1 summarized the answers to the four research questions article by article. I will now draw together the four articles by summarizing what kind of learning challenges the findings reveal for the investigation. This will give an answer to the fifth research question.

QUESTION 5

What are the main learning that challenges practitioners face in the transition from sequential to parallel collaboration?

The investigation of economic crimes takes a variety of forms at the moment. The forms of collaboration between authorities are being transformed as new investigation processes are commenced and conducted. It may be argued that collaboration is undergoing a transitional period between sequential and parallel collaboration. The change is slow. The traditional forms and methods of investigation and collaboration will not totally disappear. There are always several layers of working methods in use simultaneously. According to a recent report on the state of crime investigation in Finland, steps are also taken backwards, from the new collaborative methods to the traditional methods: real-time economic-crime investigation with extensive use of coercive means is exhausting, and the investigators get tired and return to traditional, less demanding methods (Ministry of the Interior 2003). Offense reports are made of a variety of crimes, some of which are best investigated using traditional methods of investigation.

The main challenges, in short, seem to be the management of the object and its expansion and the management of collaboration. These two challenges are dealt with in each of the four papers, from different angles. They also seem to be interconnected: collaboration cannot be developed without taking the object into account, and the object cannot be managed without collaboration. The construction of a shared object and shared understanding is slow and takes place in small steps. The management level and the project level of collaboration described in Section 2.3 are necessary, but according to my findings, the operational level in particular needs attention. The investigation groups working on actual crime cases are commonly left to tackle the construction of the collaborative investigation with few tools and rules specifically designed for collaboration across authorities. The practitioners deal with the challenges every day and they have to create their own tools and rules locally. This may lead to different solutions in different places, and resources are easily wasted when the wheel is being reinvented over and over again. A systematic way to share and develop the locally constructed tools and formulated rules is needed.

I have summarized the learning challenges on the basis of the articles in Table 6.2. I have distinguished between *initial* and *elaborated* learning challenges. The initial learning challenges are those recognized by the practitioners. Attempts to meet these initial challenges were made during the investigation process. I have elaborated the challenges a step further on the basis of the data to create a vision of future. These elaborated challenges present a meta-

level that was not articulated by the practitioners. These challenges were not yet resolved or met in the investigation. The zone of proximal development, "the distance between the present everyday actions of the individuals and a historically new form of the societal activity that can be collectively generated as a solution to the double bind potentially embedded in the everyday actions" (Engeström 1987, 174), comprises both these levels. I have formulated the zone of proximal development in Table 6.2 through the initial and elaborated learning challenges. These represent different phases or landmarks of learning in the zone of proximal development.

Table 6.2: Learning challenges in collaborative economic-crime investigation

ARTICLE	INITIAL LEARNING CHALLENGE ARTICULATED BY THE PRACTITIONERS	ELABORATED LEARNING CHALLENGE
1	A common goal is not found The different work styles are not understood across organizations	The object and the collaboration have to be taken under critical reflection during the investigation process -> Negotiated way of working
2	It is difficult to manage the investigation of a complex crime in terms of both information and collaboration	The potential expansion has to be taken systematically as a challenge or starting point for reorganizing work -> Expanding the object with the help of new instrumentality
3	Finding a common time for a house search is difficult Getting tax inspection reports in time is difficult Nobody can keep the schedules agreed-upon	Time management needs to be connected with the object Different conceptions of urgency need to be articulated -> Reflective communication/co-construction of the object and the ways of collaboration
4	The available tools are not sufficient to manage the information and the collaboration, new tools have to be created in the course of the investigation	Vertical tools need to be complemented with horizontal tools -> The process of tool development, tool creation and transfer should be coordinated and managed

To create mutual understanding between authorities, the object, the various perspectives on it, divergent goals, priorities and working procedures all need to be taken

under conscious analysis. This implies that each authority explicitly presents their perspectives to the others and the views are discussed. It seems that as collaboration has been promoted for some time and declared in the strategy papers so many times, much is *presumed* to be mutually accepted without discussion. Finally, the divergent views are seen as ruptures and disturbances afterwards, when things do not happen as participants expect. Collaboration should be *acknowledged* as a learning challenge along with the object, the crime itself. In the following subsections, I will ponder on the challenges by focusing first on those connected to the object, and then on those connected to the collaboration, although they are intertwined, as will be shown.

The challenge of the object

The challenge of the object is largely connected to the potential expansion: how can we articulate it? The potential has not been fully acknowledged in economic-crime investigation. The findings reported in the four articles, however, suggest that a new kind of investigation is emerging, along with the new instrumentality designed to articulate the expansion.

Expansion can only be achieved in everyday actions of decision making (Engeström 2001a, 299). I will enrich Figure 3.5 presented in Section 3.2 about potential and articulated expansion with the context of crime investigation in Figure 6.1. A case under investigation consists of a constant interplay of the crime and its investigation. The case, however, is never merely unique: the crime under investigation constitutes a part of economic crime in general, and the investigation is part of economic crime prevention. The interplay between the crime and its investigation can be viewed at two levels: at the specific case level and at the general level. Expansion is a twofold movement: the crime is expanded by the criminal perpetrators, and the investigators have the opportunity to expand the object in their investigation. The self-movement of the object generates the *potential for expansion*, but the efforts to expand the object of investigation have remained insufficient. There are isolated attempts towards expansion and isolated expansive actions as shown in the four articles. Expansion is a risk as well, as it changes the entire activity system – and thus the investigation of other economic crimes investigated by the same and other investigators.

Expansion is commonly understood as positive development. My empirical setting, however, shows the dark side of expansion as well. It may be seen as a shift of a contradictory phenomenon from one developmental phase to another. There is a constant battle between the criminals and the authorities: Which side is able to move first to the next phase of development? The investigation is not merely in the hands of the investigators, but the crime 'strikes back' and forces the investigators to adopt new ways of action.

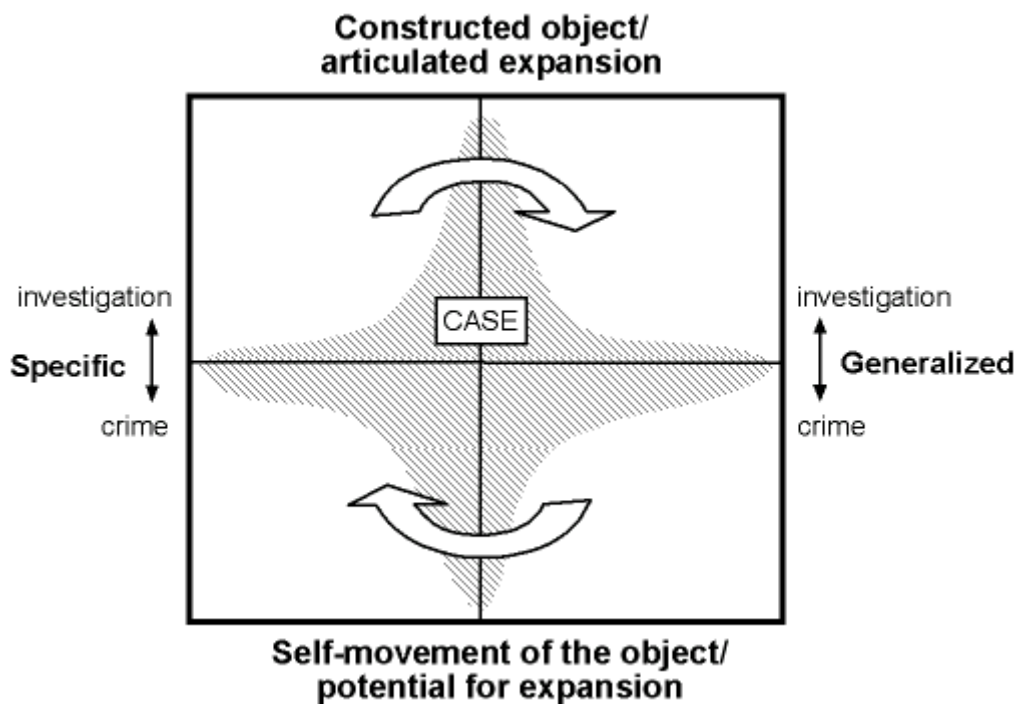


Figure 6.1: The construction of a case in economic-crime investigation

The potential for *socio-spatial* expansion in economic-crime investigation is evident because of the collaborative emphasis. It is the investigation group which through its actions either articulates the expansion or not. Particularly Articles 1, 2 and 4 show serious attempts to expand the object.

A practical problem caused by the socio-spatial expansion is the informal nature of the group organized around a suspected crime. The police are responsible for the investigation, and an officer-in-charge and a main investigator are named for the case. The necessary partners from other organizations are gathered on a fairly ad-hoc basis; they may even change during the investigation because of job changes or other urgencies. The officer in charge has no authority over the tax inspectors and the enforcement officers or other participants; he is the resource manager of his own officers only. The investigative organization is not an official one but more like a pulsating knot organized around a shared problem, even if it not does not pulsate very rapidly (Engeström et al.1999). The unofficial, undefined nature of the investigation group may cause problems with the prioritization and synchronization of events as indicated by my findings in Article 3.

Articles 2 and 3 suggest that the *temporal self-movement* of the object is also recognized by the practitioners. Especially the presence of the prosecutor may make visible the next steps of criminal proceedings and thereby make the temporal expansion clear to the participants (Puonti 2003). It is otherwise easy for the police officers to see a pile of papers as

his or her object of work, not the raw material to be worked on in the trial. The police rarely get any feedback of what happens to the protocol in the consideration of charges and in trial. As suggested by Leont'ev (1978), the object of the work carries the motive of the activity as well. The meaning and the motive of the pre-trial investigation may change as a result of temporal expansion as, to put it simply, the object expands from the pre-trial investigation protocol as an end itself to material upon which the court will decide guilt or innocence.

Regarding the *moral-ideological* dimension of expansion, the division of responsibility between authorities is quite explicit and seldom causes questions of interpretation. The moral-ideological issues come up more as issues of ideology. Whose ideology is it that wins? The tasks, goals and values of the police cannot be transferred as such to other authorities; neither can the tasks of other authorities be transferred to the police. The moral-ideological expansion of the object calls for negotiating the moral and ideological aspects of the object as well. What is the ultimate goal? The police search for evidence of a crime while the tax authority is interested in receiving the avoided taxes. What kinds of values does collaboration represent? Which is more important, getting back the criminal gains or punishing the perpetrator? Who wants to investigate crimes without any retrievable criminal gains when the results are measured in terms of money? The units have result-oriented goals, which may cause competition between units instead of collaboration. It is not merely a question of results, but one of creating a social impact through collaboration.

The moral-ideological dilemma can also be seen from another perspective. Too close collaboration may be seen as a problem: the legal protection of the client requires strict boundaries between various authorities so that the client's issue is regarded from separate perspectives and not dominated by one view. This dilemma has been considered most widely when talking about the collaboration between the police and the prosecutor during pre-trial investigation: the most extreme opinions see the prosecutor's participation in the investigation as a risk to the suspect.

The practitioners facing the problems of the expanding and transforming object do not stand helplessly in the field. They make local innovations to overcome the problems. Are the practitioners aware of the significance of their innovations? This is the *systemic-developmental* challenge of economic-crime investigation today. There is no system for transferring the promising tools and innovations to other settings. The seed for a system-wide change may be a modest, individual attempt to do things differently or try out a new action. As Engeström puts it, these attempts should not be underestimated: "If nobody acts, nothing will happen" (Engeström 2001a, 298).

The self-movement of the object generates potential for expansion, but expansive actions to articulate expansion and construct the object together have remained isolated efforts. As an illustrative example, expansive attempts were made in the meeting analyzed in Article 1, but the discursive tools used there were not strong enough to give room for expansion. In contrast, a powerful tool called a project plan was created in another case to articulate expansion and potentiate expansive actions, but the tool was not used in the case I was following (see Article 4). When I asked about its use afterwards, it seemed that its use has been scarce thereafter. It is paradoxical that efforts to expand the object were made in one case, but the tools were deficient; the tool was created in another case, but there was little effort to utilize the tool. This, again, raises the question of transfer: how to share knowledge and practices better across organizations? Tools seem to be crucial here because they are consolidations of skill and knowledge as indicated in Chapter 4.

The challenge of collaboration

The sequential crime-investigation model is based mainly upon information exchange rather than on shared knowledge creation. The distinction between information and knowledge is not well articulated in the investigation practice. The exchange of information from one person to another or across organizations is not sufficient for advanced collaboration, which implies constructing the object together. Collaboration calls for shared creation of knowledge in the heterogeneous investigation groups. The divergent perspectives and knowledge resources are an opportunity for the creation of something more than any single participant could invent alone. The myth of the investigator solving crimes with intuitive methods alone is outdated.

However, the challenge of collective knowledge creation seems to be large: members of hierarchical organizations based on rigidly defined top-down relationships should share their information and knowledge that have been carefully kept inside the organizations for a long time. Moreover, when the collaborative investigation is successful, it results in increasing amounts of information in the form of documents and knowledgeable personnel. Another important challenge evolves: the mastery of the gathered information. It is easier to pass it on than analyze it together. Managing vast amounts of paper, data and information, informal and documented, is a demanding task. Therefore, tools and techniques for distilling the essential from the masses to create new knowledge have become critical. Critical information must also be shared among the participants and this calls for collaboration management.

Knowledge creation in economic-crime investigation seems to take place mainly within organizations, not so much across them. However, crossing the organizational boundaries is a growing challenge to be met in the near future to ensure the effectiveness of crime fighting activity. Shared knowledge creation requires that the participants in an investigation are able to meet in the same place at the same time. One may ask how the negotiation-oriented approach fits into the hierarchical organization structure and the ordering system based on hierarchical relations between people. The challenge, at least, is obvious.

The questions about the object - what are we doing together - have value, but they are rarely raised in discussion even though they may have an impact on the collaboration. For example, in one of the cases I followed, the enforcement officer tried to negotiate the payment of the debts so that the perpetrator would continue his business and pay a certain amount of money back each month. Thereby, the tax authority and other debtors would probably get more money back than if the perpetrator would have to stop the businesses. The initial, frustrated comment of the police officer who investigated the case was: "I thought that the aim of the police is to stop criminal activity, not to ensure its continuity".

Time management across organizations is closely connected to object construction, which is often not acknowledged by the practitioners. The schedules cannot be fixed without taking into account the state of the case. The importance of articulating the object once again becomes crucial. The intertwinedness of the contents and forms of the collaboration, the object and the time management, has not been widely recognized. Schedules cannot be synchronized unless the object is taken into account as well. Article 3 indicates that the mere marking of calendars is not sufficient and that individual efforts to reconcile schedules are not enough. The shift from sequential to parallel collaboration requires a shift from individual time management towards shared time management and from in-house time conceptions toward interorganizational time conceptions.

It may be worth reflecting whether individual efforts to manage time in fact hamper the development of collective time management. Individual efforts normally include working harder and working overtime. Increasing the input of one participant in a collaborative project cannot be a permanent solution, and the more profound reflection on the forms and contents of collaboration is only postponed. Similarly, the criteria for prioritization should also be taken under collaborative reflection. My findings in article 3 show how divergent working cultures and work histories affect the prioritization and synchronization of events.

Individuals face confusing situations in collaborative practice. The practitioners participate in multiple collaborative processes simultaneously. A wish that was expressed during my fieldwork was: "If only I could investigate one case at a time, and when one case

was finished, only then would another start". This is an ideal situation that will probably never occur. Moreover, it would represent a return to craft-type construction of a case. Therefore, new resolutions for the time pressures and time management problem should be sought. The temporally- and spatially- fragmented object forces the authorities to try to synchronize their activities. Successful synchronization, in turn, requires an increase in negotiations across organizations.

Article 3 suggests that the authorities seem to set the coordination of events as their ultimate goal. Coordination as a type of interaction does not take the object sufficiently into account, although it may ensure the smooth realization of relatively well-scripted events such as house searches. Therefore, moving toward co-operation and reflective communication or co-construction types of interaction is a future challenge.

Article 4 suggests that tools are central both in object construction and successful collaboration. The object and the collaboration are intertwined, and the tools used for managing the object and the collaboration cannot be separated from one another. When the object is seen as a separate entity detached from collaboration, the coordination does not succeed as indicated in Article 3. There is a need to see the crime not as an entity in and for itself, but as an entity continuously constructed by the multiple investigative agencies. There is also a need for more powerful tools that help take the object under critical reflection, as well as the interaction between participants and the forms of collaboration.

Certain kinds of tools may permit the expansion of the object and even promote it: the project plan developed in one of the cases can potentially be such a tool, but I was not able to follow how it was actually used after the design phase. Moreover, a single tool, however powerful, is not enough to transform the work practice. The entire instrumentality should be evaluated and fit together. When implementing a qualitatively new kind of collaboration between authorities, tools to promote collaboration and visualization of the object in a new way are essential. As Virkkunen has shown, a new tool can change the forms of interaction as well (Virkkunen 1995, Virkkunen and Kuutti 2000, 314). This has been an underdeveloped area in economic-crime investigation as is shown in my analysis in Article 4.

The development of collaborative tools in police work has not been considered an important issue. Tools to gather information are paid attention to as information gathering is the core issue in crime investigation. Emphasis has also been placed on the tools which record actions and compile the statistics of the investigation. These are given from the top. The development of tools for collaborative work and mastering the object has been left to the practitioners themselves.

Management seems to be more interested in measuring what the results are than in creating tools that would improve the results. This is paradoxical. When the practitioners have to investigate as well as develop tools, tool development is considered as an extra task. No one has the time for it, and it is no one's responsibility. The findings show the centrality of tools in both the exchange of information and in the shared knowledge creation. The challenge in economic crime investigation, however, is to acknowledge this: the development and transfer of tools should be supported from the top. The efforts from below are not powerful enough to spread across agencies very quickly and systematically.

6.3 Learning to manage the object and the collaboration in practice

In the previous sections, I described the learning challenges revealed by the analyses made in the four articles. The articles also illustrate efforts to meet the challenges, to learn in the course of investigation and collaboration. I will now summarize these efforts. The question posed was:

QUESTION 6

How do the practitioners learn in collaborative economic-crime investigation?

This question bothered me throughout this research. Does something permanent that extends beyond the individuals working on the case develop in the collaborative investigation process? Sometimes it felt like the people start from the beginning in each collaborative investigation. How do the practitioners actually learn? Where is this knowledge stored? The question is particularly interesting because the investigators themselves referred to each economic-crime investigation as "a learning process" because of its complexity. Despite this, the experiences regarding investigation are not systematically shared afterwards. It seems that a vast resource for learning is scarcely utilized in economic-crime investigation. Each investigation includes a large amount of information and knowledge formation; people learn from their mistakes and successes, but feedback and reflection is not very common. A session including the reflection on each participants actions as well as feedback to participants across organizations constructs the basis for substantial learning about the crime as well as the future collaboration between authorities. These feedback sessions are arranged occasionally but not systematically. Supporting and systematizing such reflective, interorganizational feedback

sessions is of utmost importance for collaborative learning. These sessions may combine the object and the collaboration in a unique way.

Where is the knowledge of past investigations accumulated? The formation of routines may be seen as a form of organizational learning (Nelson & Winter 1982, Cyert & March 1963, Levitt & March 1999; for activity-theoretical discussion see Virkkunen and Kuutti 2000, Kerosuo and Engeström 2003). Routines have formed a basis for the work of the authorities as well. In the cases I followed the word "routine" often came up in connection to house searches. Information and knowledge is preserved and transferred to new individuals through routines, but they also easily constrain the activity with rigid, unchangeable procedures. The dynamics of learning is not easily visible in routines, and there may be little room for creating new knowledge.

Despite the fact that a house search is a routine procedure for the police, it may not be so for the other authorities. In fact, the participation of other authorities makes a house search a new situation for the police, too. The turning of a collaborative house search into a routine is a collective learning process. In the cases I followed, everyone seemed to rely on routines to the extent that they assumed something would happen without the participants having to explicate what should be done. This was also expressed in the interviews, for example, in connection with the house searches.

Excerpt 6

Researcher: You did not plan the house search much together, then.

Tax inspector 4: No, you get a routine for this. The people are used to the routine. Let's say that when there is someone for the first time, and he or she is alone, then you have to plan the actions forward in more detail.

In two of the followed cases routines partly had to be trusted – the people from diverse organizations met with each other for the first time. The plans of action, the routines, were the only way to transfer previous knowledge to the current case. Negotiations were scarce, and misunderstandings occurred. Routines were not, after all, strong enough to prevent them. Something more tangible and explicit is needed.

Discursive tools were used in the meeting analyzed in Article 1. Discursive tools are speech instruments that aim at a certain goal, such as disagreeing to make other discussants rethink their viewpoint, explaining the working procedures of an organization to make other participants adjust to them, or emphasizing the organizational boundaries to make a

distinction between the police and the tax authority. One of them, *disagreement*, was a particularly powerful tool. I maintain that a wisely-used disagreement is an instrument which can push learning forward and make those disagreeing reconsider their stances. The results were very frail in this case, but in the interviews the participants emphasized the significance of being able to say what they felt and wanted. The collaboration in the analyzed case was at such an advanced level that strong disagreements took place without endangering the collaboration.

It seems, however, that the complexity of the object requires powerful, *tangible tools*, typically textual and graphic documents and representations. In the beginning phase of an investigation it is not always possible to make tangible models, but even a modest outline on paper would help. The more complex the object, the more difficult it is to work on it without anything tangible. The graphic models and house search plans are both crystallizations of the information there already is about the case; they are the documents which guide future actions. The project plan developed in one of the cases was an accumulation of the knowledge gained about collaboration between authorities and an attempt to overcome problems in future investigations. The most powerful tools seem to be those that are able to combine the object of the work and the collaborative practice.

The project plan also included an aspect that brought the authorities from various organizations together to plan the investigation and undertake it together. Thereby, the tool facilitated *boundary crossing*. Boundary crossing "represents the interaction appearing in the middle-ground between the activity systems" (Kerosuo and Engeström 2003, 6). Boundary crossings are needed in interorganizational learning. They were attempted in the case discussed in Article 1, but there they remained isolated attempts. A clear need for boundary crossing appeared in Article 3 as well, when the temporal boundaries remained and collective object construction was restricted. Tools may sometimes cross boundaries more easily than people: a powerful tool may travel through the criminal proceedings from pre-trial investigation to court proceedings and carry with it condensed knowledge of what the case is about. Such a graphic depiction is described in Article 4. Graphic descriptions include condensed information about the crime, the relations between firms and the flow of money. They compress perhaps hundreds of pages of documents and receipts in a one-page graph.

My findings indicate that boundary crossing may be easier when the participants work in physical proximity. In fact, the placement of an official into the locations of another authority (such as putting a tax inspector to work at a police department) *is* boundary crossing. Article 1 showed the positive potential of such interorganizational collaboration for

object construction. The learning challenges and the ways of meeting them in practice are summarized in Table 6.3

Table 6.3: Learning challenges and ways of meeting them

ARTICLE	LEARNING CHALLENGE	HOW IT WAS MET IN PRACTICE
1	The object and the collaboration have to be taken under critical reflection during the investigation process -> Negotiated way of working	Discursive tools were used in the negotiations -disagreements were expressed - common goal was emphasized to coordinate actions -organizational working procedures were explained to integrate work styles -discursive boundary crossings were made -boundaries were consolidated
2	The potential expansion has to be taken systematically as a challenge or starting point for reorganizing work -> Expanding the object with the help of new instrumentality	Tools to manage expansion were created: project plan to manage the investigation process, graphic models of the crime
3	Time management needs to be connected with the object Different conceptions of urgency need to be articulated -> Reflective communication/co-construction of the object and the ways of collaboration	Individual attempts to manage time were tried Tools that included time management aspect were used and developed: house search plans, project plan
4	Vertical tools need to be complemented with horizontal tools -> The process of tool development, tool creation and transfer should be coordinated and managed	Horizontal tools were created: project plan, shared database

The investigation of economic crime is in transition from sequential to parallel collaboration. The object, economic crime, is in transition, too, and calls for expansive actions

to master it. Expansive attempts are carried out intermittently, individually, and sometimes even collectively as the findings indicate. Several new tools were created and modified during the investigation – the challenge was met by new instrumentality. New instrumentality may have the potential of expanding the object by opening up the horizontal interactions and making the parties aware of the construction process of the object (Engeström 2000a, 164). However, it is evident that the creation of a shared, expanded object to ensure expansive learning remains a major challenge in the future. The object in the followed cases was only partially shared, if shared at all.

The official creation of relationships between agencies in various working groups and projects is only one aspect of collaboration between authorities. Another feature is the mundane work on actual cases of investigating crime together. The forms of collaboration develop gradually; each connection and effort leaves a trail and as the trails accumulate, a terrain of collaboration emerges (Article 2, Cussins 1992). Engeström has introduced the idea of the “undergrowth” of change as an accumulation of cognitive trails (originally introduced by Cussins) which gradually make a fertile texture beneath articulated innovations (Engeström 2001c; see also Haavisto 2002). Even the most fragile trails, once acknowledged in the discourse, may be more lasting than they look. Such trails may form a ground for the creation of more explicit and shared instruments (Engeström 2001c). A terrain of collaboration between authorities has to be created by making new relationships between things and people.

Engeström and Ahonen (2002, 10-13) have emphasized the material dimension of social capital. At least three kinds of infrastructure are needed in this: (1) distribution infrastructure by service networks, (2) exchange infrastructure by rule collections, and (3) production infrastructure by tool constellations. These should also be maintained. My findings show that the investigators working on economic crime are not helpless, but support from the top would probably enhance learning. At the moment, personal relationships across organizations seem to be the main support for collaboration, but personal relationships, as important as they are, are a fragile way of keeping collaboration working. Ways of accumulating the "collaboration capital" by establishing distribution networks, tool constellations and rule collections, for example, should be developed.

Finally, one of the underlying questions in my study is the question of ownership. Who owns collaboration between authorities? Whose responsibility is it to support the collaboration? It is easy to say that everyone participating in collaboration is responsible, but as we know, when everyone is responsible, sometimes no one is. When the promotion and maintenance of collaboration is distributed to all authorities, common training, meetings and

projects seem to be the main ways of promoting collaboration and learning together. The concrete level of everyday collaboration has not received much emphasis thus far.

I started this section by referring to an investigation process as a learning process. Learning based on cases that have been investigated is not sufficient learning at work. Training based on past knowledge, on crimes already committed and solved is insufficient because the crime and the environment in which the police operate is continuously changing. Training courses, be them courses arranged for the representatives of one authority or shared courses for all authorities, are necessary but not sufficient to guarantee learning. According to my findings, learning to work together in economic-crime investigation is not merely a question of transmitting information from those who know more to those who know less, neither in training courses nor in master-novice pairing in the everyday work. It is rather a question of creating new knowledge together while working. Training in the actual work environment has become an essential part of police basic training, but after that, the professional further-training system still relies heavily on courses that are detached from the normal workplace, at Police College or Police School (e.g., Oksanen 1999). Oksanen stresses the fact that police professional skills are difficult to outline, they are situationally bound, and the biggest problems in police training include the gap between the skills it provides and the competencies required at work (Oksanen 1999, 61-64). Developing methods, skills and conditions for learning at work sites presents a challenge to police trainers and management

Therefore, the message in this research is to emphasize the importance of learning initiated by the changing and expanding object, the learning that takes place at work sites. The learning challenge provided by the expanding object is one that police officers have to learn to master while working. The support provided by management in the form of an environment that supports learning at work is crucial (on the importance of the working environment and the role of management in police work, see e.g., Honkonen 2000, Skolnick and Bayley 1986). The environment should be one in which the roles and responsibilities are clear, information and knowledge distribution networks are established, and development resources are available. Honkonen (2000, 32) reminds us, however, that learning at work may be more conservative than learning on training courses. According to him, it is not very easy to learn to be critical at the work site, nor it is easy to create new work procedures or new conceptual tools. In this respect, the units I studied proved to be open-minded and innovative.

6.4 The zone of distal development in economic-crime investigation

Classically, activity-theoretical studies have outlined the zone of proximal development for the studied activity. In Section 6.1, I painted the zone of proximal development in the form of learning challenges based on the four empirical articles. I will conclude by contemplating the future possibilities for economic-crime investigation, not directly on the basis of the analyses, but on the basis of the seeds I collected during the study both from the field and from the literature. In this case, the zone I have outlined might not be very proximal but a possible future vision. Therefore, I call the vision a zone of *distal* development.

The general reputation of the police is good in Finland, and people trust the police. However, a recent report revealed numerous flaws in crime investigation: the quality of police work varies a lot from department to department, the management is inadequate, the organizational structure is rigid, the planning of the activity is poor, and coercive means are applied unevenly between departments. Paradoxically, the report also notes that, despite the government-guided effort to speed up economic-crime investigation in Finland by giving extra resources, investigation has been retarded during the project during the second half of the 1990s. Investigation time has increased and the number of open cases has increased. It is very difficult to recruit new economic-crime investigators: the domain does not attract police officers, the salary is poor, and the status of the officer in charge does not interest police officers (Ministry of the Interior 2003).

In economic crime, the criminal and the ethical are more closely intertwined than in other types of crime: the line between them is thin, and the financial damage for the society may be severe even for very delicate offences that cross the thin line. When I started to work at the police in the beginning of 1990s, I remember seeing a slogan on the wall of the economic-crime investigation office: "Where is the moral? It's in the name of my wife". That was the time when bankruptcy crime was a very common target of investigation. Today, it is no longer the individual perpetrators who are able to transfer their property to their wives but entire organizations who act criminally, as the cases of Andersen Consulting, Enron, or the Finnish case of Sonera have shown us. The leading Finnish newspaper, *Helsingin Sanomat*, ran a headline on December 31, 2002 : "*The moral of leaders drifting into bankruptcy.*" It is not a question of personal morals but one of business morals.

I introduced the strategies and investigation models used in economic-crime investigation in Chapter 2 and promised to return to them at the end of this essay. I have put the investigation types in Figure 6.2, in which I visualize the zone of distal development

suggested by my interpretations of the field. I formulated a matrix that places the strategies in relation to the reactivity-proactivity axis and the axis focusing on the individual perpetrator versus the effect on the community. The dimensions were inspired by Kovero and Launis's matrix on the zone of proximal development of expertise in health care (Kovero and Launis 1999).

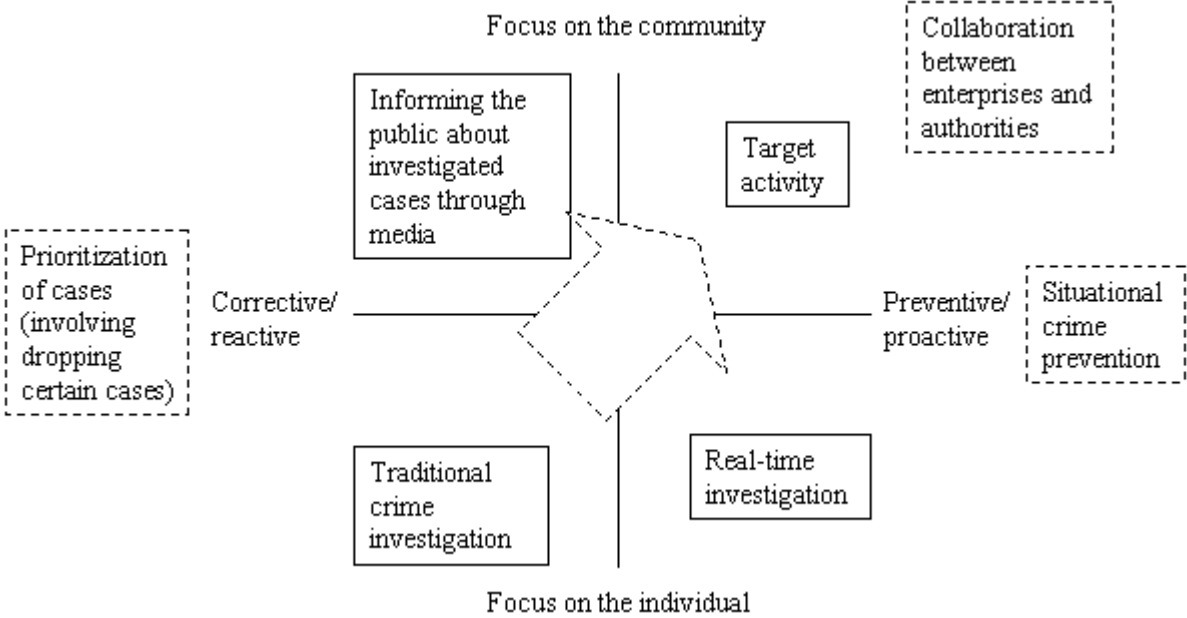


Figure 6.2: The zone of proximal / distal development of economic-crime investigation

Traditional crime investigation is reactive and the effect is more on the individual, although a general deterrence effect is expected by the legislation and punishment system. Real-time investigation strives for proactive crime control, but the emphasis is still on the individual perpetrator although the effect on the community is similar to traditional crime investigation.

A form of reactive crime prevention with an effect on the community may be seen in the way authorities inform the media of on-going and finished crime investigations. A model that is being adopted as a new way of investigation is target activity (see Section 2.3). It is aimed at having a proactive effect on the community, the community being a certain domain of economic activity and associated criminality, for example, restaurants, timber trade, etc.). As mentioned earlier, target activity has not been carried out much on economic crime, but it is promoted today as a new way of crime investigation and prevention.

The strategies illustrated by a dotted line in the figure are possibilities that are not systematically realized in Finland. However, in informal discussions the issue of prioritizing cases and thereby dropping the investigation of certain cases because of insufficient resources is raised occasionally. The Finnish version of situational crime prevention was introduced by

Lehtola and Paksula in 1997. The core of situational crime prevention lies in the idea that crime could be prevented by targeting the opportunity for crime in a systematic way by increasing the difficulty of performing criminal acts, increasing risks and reducing the anticipated rewards. They argue that thus far, little attention has been paid in Finland to seeking and implementing preventive measures: the police as the investigative authority have had a central role in the prevention of economic crime as well (Lehtonen & Paksula 1997, 318). They maintain that the authorities working closely with business enterprises have seen their duty to lie in ensuring the operational basis of business activity. Thereby, preventive measures that may make normal business activity more difficult have been used scarcely (ibid.).

However, Jokinen et al. (2002, 12) claim that the existence of government-guided action plans questions the conceptions that economic-crime prevention is contradictory to the interests of business enterprises. Indeed, one theme of the third action plan is developing collaboration between authorities and business enterprises. A group to follow and develop this collaboration has already been set up (Jokinen et al. 2002, 13). Despite that Jokinen et al. found in their study that although collaboration between firms and authorities, especially the police, was rare, they concluded that opportunities for developing such collaboration exist.

Situational crime prevention has not reached an established position in economic-crime prevention. Simpson (2002) suggests an interesting collaborative crime-control methodology that may be seen as a further elaboration of situational economic-crime prevention. Simpson (2002, 79) reminds us that "the goal of regulations is not punishment per se, but rather to produce business behavior that adheres to rules and standards". She maintains that corporate compliance will best be achieved through a strategy of *cooperation* rather than adversarial relations (ibid., 99). She argues that managers tend not to fear formal legal threats but threats to significant relationships, feelings of guilt and responsibility for tarnishing the good name of their firm (ibid., 151). Simpson's data offers evidence that "a compliance process that builds on a foundation of self-regulation and cooperation (persuasion) has merit" (ibid., 161). The means of this collaboration strategy include, for example, enforced self-regulation, which incorporates the formulation of rules or standards for each firm collaboratively with the authorities (ibid., 100-101).

Reiner supports Ericson and Haggerty in suggesting that popular and political notions of the police as crime-fighters cannot be sustained. He maintains that a substantial body of evidence suggests that the police cannot accomplish its primary task, crime control, effectively (Reiner 2000, 115). Innovative collaboration is needed. Eck suggests that the goal of crime control through law enforcement should be replaced by the goal of crime prevention

(Eck 1999, 180). According to him, detectives should be doing more than tracking down and arresting offenders, but then they would have to interact with communities, and collaborate within the police force and other public and private groups to achieve the objectives. He reminds us that change is not easy but suggests that even modest improvements would be welcome (Eck 1999, 184).

The collaboration model suggested by Simpson and other researchers sounds tempting especially when in Finland, as in the United States, "reactive enforcement, small budgets and staff, agency capture, few punitive options, and so forth mitigate the likelihood that firm illegality will be discovered and harshly sanctioned" (Simpson 2002, 97). Collaborative preventive measures would also be economically profitable in terms of both preventing the losses and saving on the resources and costs involved in the investigation and criminal proceedings. Moreover, a collaboration model would be possible because today authorities can follow the key indicators of economic and financial performance of the enterprises. When they seem to be alarming, the administrative authorities could contact the company for serious discussion. A tool for surveillance is already available for the project on collaboration between authorities (VIRKE), but the information has not been used for collaborative efforts between firms and authorities. Furthermore, ways of using the information for collaborative purposes are very restricted because of the current legislation.

The possible zone for development is outlined as a drawing in Figure 6.2 above. Collaboration between the authorities and the enterprises may open new views for economic-crime prevention. This includes a reconsideration and a reformulation of the role of the police and the notion of economic-crime investigation. Thus far, the relationship between private enterprises and public authorities in general has largely been based on public authorities imitating and following the modes of action of the private sector. The collaborative approach introduced here has the potential for a new kind of critical dialogue between the private and the public. This kind of activity has been conceptualized as *co-configuration* by Victor and Boynton (1998; see also Engeström et al. 1999).

According to the results reported in this research, expertise presupposes interaction *between the subjects and their activity systems*, and learning experiences that emerge in this interaction. Expanding the activity system of the police by increasing communication between authorities and private enterprises would be a new, formidable learning challenge. Hankilanoja (2001) has taken a step toward such collaboration by making a survey at Vantaa police district on the conceptions of economic crime and the expectations of safety in economic-crime control among enterprises located in Vantaa. The collaboration will not be easy; mutual suspicion may hamper it. Collaboration produces moral questions as well: is it

right to collaborate with a potential crime suspect? On the other hand, is it right to let a crime happen when the authorities clearly see that a certain business activity is moving toward the grey or the illegal zone?

All this may call for a rethinking of organizational relationships. Instead of seeing the investigation process as a series of successive phases with responsible actors from various authorities, the investigation process might be seen as a fluid entity comprised of input from various authorities working an object which has been explicated and is at least partly shared between the participants. At a societal level, a shared view of the combined task of the authorities to fight economic crime calls for a discussion of the values and objectives across authorities.

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ARTICLE (4)

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