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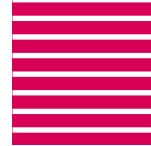
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REVIEW OF ARTICLES

Articles submitted to the Bulletin are subject to internal and external peer-review processes. CEPOL and the Editorial Board are grateful to the following persons for their services in the review period 2015/16: Abi Dymond (University of Exeter, United Kingdom); Ana Assis (Scientific Police Laboratory, Portugal); André Konze (Police North Rhine-Westphalia, Germany); Annika Talmar-Pere (Estonian Permanent Representation in Brussels, Estonia); Carol Vigurs (University College London, United Kingdom); Caroline Goemans-Dorny (INTERPOL); Celine Weyermann (UNIL, United Kingdom); Christian Mouhanna (CESDIP, France); Claudia Kestermann (University of Applied Sciences of the Public Administration Bremen, Germany); Gerd Thielmann (Police Hesse, Germany); Gorazd Meško (University of Maribor, Slovenia); Hans Ditrich (SIAG, Austria); Hans-Gerd Jaschke (Berlin School of Economics and Law, Germany); Joachim Kersten (German Police University, Germany); Joseph Cannataci (University of Groningen, Netherlands); Ksenija Butorac (Police College, Croatia); Michele Riccardi (Università Cattolica del Sacro Cuore, Italy); Monica Den Boer (SeQure R&C, Netherlands); Rafael Behr (Police Academy Hamburg, Germany); Rolf Ritsert (German Police University, Germany); Thomas Görden (German Police University, Germany); Vesa Muttillainen (Police College, Finland); Wolfgang Kokoska (German Police University, Germany); Wolfgang Schulte (German Police University, Germany).

ABSTRACTS

INTERPOL'S EVOLVING APPROACH TO INNOVATION AND RESEARCH-BASED POLICING

Andrés Eduardo Buenaventura

This paper aims to provide a broad overview of INTERPOL's activities in the realms of innovation and research, and provides detailed descriptions of the Organisation's efforts to adapt its activities and strategic priorities to a constantly changing global environment. After a brief discussion introducing INTERPOL and its activities, the article is broken down into four main themes: INTERPOL's new emphasis on 'future-oriented' thinking, its promotion of innovation in police training, research initiatives in which INTERPOL is engaged and innovative tools and technical solutions under development by INTERPOL to support its member countries. The activities undertaken by INTERPOL in these areas aim to

guide the Organisation and reinforce its role in enhancing global security against crime threats of the 21st century.

FINDINGS OF THE CODISP PROJECT — CONCEPT AND TOOLS FOR THE DEVELOPMENT OF INTELLIGENCE-LED POLICING

Thierry Delpuech and Jacqueline E. Ross

CODISP (Concepts et Outils pour le Développement de l'Intelligence en Sécurité Publique) is a cultural and social science project on recent forms of knowledge management work in law enforcement organisations. The aim is to analyse the way knowledge management in law enforcement (its methods and forms, as well as the means and degree of knowledge sharing), on the one hand, and the knowledge-based law enforcement work (in regard to social environments and types of



tort), on the other hand, interact. CODISP provides an opportunity to take time to reflect, exchange ideas, come up with critical thoughts and learn. Overall, CODISP extends the repertoire of the day-to-day work of law enforcement personnel. We seek to promote democratic, integrated law enforcement governance structures that are sensitive to social environments.

MANAGEMENT TOOL USAGE AND PERCEIVED BENEFITS: INSIGHTS FROM GERMANY'S POLICE FORCES

Rolf Ritser, Robert Rickards and Michael Evers

The purpose of this paper is to highlight the degree to which Germany's police forces have implemented selected Public Management instruments. The authors conducted 154 partially structured interviews about these instruments with key managers in Germany's police forces and then analysed the responses using parametric and non-parametric methods. A principal finding of the analysis is that controlling tools and management by objectives have relatively higher degrees of implementation than product-related tools (e.g. product-related budgeting, product-related cost accounting) and outsourcing. The study therefore concludes that the strategy-and-goal-oriented dimension has a larger impact on the management system of Germany's police forces than the financial dimension does. A literature review shows that these relationships are not peculiar to Germany's police forces.

TRANSFORMATIONAL, TRANSACTIONAL AND COOPERATIVE POLICE LEADERSHIP IN THEORY AND PRACTICE

Faye Barth-Farkas and Antonio Vera

The following article presents empirical results gained from police leaders' self-report questionnaires on leadership styles, and compares the cooperative leadership system, prescribed as the leadership model in the German police forces, to the internationally validated leadership literature. The aim of this analysis is to open up the leadership practices of the German police to a wider international audience, as well as critically evaluate police leadership in a more contemporary manner. Police leaders of today are found to endorse transformational, transactional and

cooperative leadership behaviours, thus moving beyond traditional notions of the authoritarian, task-focused leader.

COUNTERFEIT PLANT PROTECTION PRODUCTS: A MIXED-METHODS STUDY OF AN EMERGING CRIME THREAT TO THE AGRICULTURAL INDUSTRY

Christopher I. Sambrook

The proliferation of counterfeit plant protection products (pesticides) across Europe has been well documented by both industry and popular media sources wherein the economic, environmental, and human costs are graphically described. However, this narrative is largely based on industry derived information. A recent UK Intellectual Property Office (IPO) assessment of such industry generated reports was sceptical of the data they contain and questioned their usefulness as the basis for response. The aim of this study was to produce data such that the extent of the threat posed to the UK agricultural industry by this crime could be ascertained. This was achieved by taking a blended approach, a strategy endorsed by the IPO as a means of more accurately capturing the true nature of a counterfeiting problem. The study was convergent parallel mixed method in design. The results of the study suggest that the industry and media narrative is a reasonable reflection of the UK counterfeit pesticide problem, at least to the extent that it recognises the typical modus operandi. However, the study also highlighted a number of characteristics of UK rural policing which essentially exclude this emerging crime from the rural policing agenda. Primary amongst these was an actuarial influence giving rise to a propensity to respond to risk as portrayed by those engaged in insuring against loss. This has significantly narrowed the rural policing focus. The study continues, drawing upon the results to develop strategies to mitigate the threat it poses to the UK agricultural industry.

TRUST IN PSYCHOLOGISTS AND IN PEERS IN LAW ENFORCEMENT ORGANISATIONS

Tatyana Grishkina

This article summarises the main findings of a CEPOL pre-course survey (CEPOL course No 50/2015/ European Medical and Psychological Experts' Network for Law Enforcement). The



main purpose of the survey was to increase awareness of factors facilitating trustful professional relationships between police officers and providers of psychological support in law enforcement organisations. Twenty-five countries participated in the survey: Austria, Belgium, Bulgaria, Croatia, Cyprus, The Czech Republic, Denmark, France, Germany, Greece, Hungary, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Switzerland and Turkey. Factors like confidentiality, availability, empathy and information were identified as important ones for trustful relations between police officers and providers of psychological support in law enforcement organisations.

THE FACTORS CONTRIBUTING TO POLICE VEHICLE DAMAGE IN FINLAND

Suvi-Tuuli Mansikkamäki

This article presents the findings in the project From Surveying Police Vehicle Damage towards Improving the Driver Education and Training, and discusses the factors that increase the risk of a crash. Based on the police vehicle damage forms that were filed in 2013 it is easy to pinpoint the most common places and types of accidents that occur to police vehicles. These results can help determine how to improve driver education during police training.

ATTACK AGAINST HUNGARIAN STATE TELEVISION HEADQUARTERS — THE REALITIES OF THE POLICE OFFICERS

Mihály Fogarasi

This study presents the results of group-representations of police officers who participated in the 18 September 2006 attack against the Hungarian State Television headquarters. The results of this research highlight the common sense of the police officers involved in the incident. These common senses were created by social construction. Semi-structured interviews were conducted with the purpose of comparing the social representation of police officers who took an active role in the protection of the HQ with reserve officers who had not been involved in the situation. The texts were analysed using the

sequential-transformative-model. There were both similarities and differences between the social representation components of the two groups concerning the incident.

TURNING A SOCIAL PROBLEM INTO A CULTURAL OPPORTUNITY: THE CRIME PREVENTION PROJECT 'SOS AZULEJO'

Leonor Maria de Amorim e Sá

Artistic and historic 'azulejos' — as Portuguese ceramic tiles are designated even outside Portugal — do have an enormously important cultural role in Portuguese cities. In fact Portuguese historic and artistic 'azulejos' stand out in the world cultural heritage for their invaluable richness in quality, quantity, style, materials and techniques. Although this relevance is recognised by art historians, scientists, artists, antique dealers — and burglars — it is not generally acknowledged, favouring the massive plunder it has been inflicted to in the last twenty years. In fact, these 'azulejos' have been so present in Portuguese cities in all kinds of sceneries and for so many centuries that — paradoxically — the average Portuguese citizen no longer notices them: an endless quantity of urban 'azulejos' constructions needs conservation measures badly and the not-protected tiles are easily removed and stolen. Because the Judiciary Police (PJ) has the exclusive competence for crimes related to cultural heritage in Portugal, the PJ Museum decided to implement a crime prevention project against theft, traffic and vandalism of Portuguese historic and artistic tiles which is simultaneously a campaign for the conservation of this cultural heritage. The name of the Project: 'SOS AZULEJO'. With the help of various public Partners (including other Portuguese police forces — PSP and GNR) and Partners coming from different thematic areas, this interdisciplinary project has reached measurable positive results such as a very impressive reduction of registered 'azulejos' thefts.

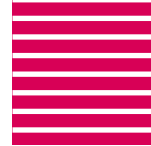


THE ROLE OF DRAWING IN THE CONTEXT OF CRIMINAL INVESTIGATION

Marina Vale Guedes, Carlos Farinha and Carlos Gregório

This article addresses the importance of graphic representation in the field of criminal investigation. In fact through the mechanisms and the act of drawing, processed in its majority by software, it is intended to unveil all the capabilities of this tool in the illustration and understanding of a particular crime. Throughout this study we searched to define the role played by the drawing as part of the investigation, highlighting its potential in the process of solving a crime. Assuming that drawing, as part of the Criminalistics, is permeable to scientific investigation, and considering that drawing, as such, has only been scientifically treated in a very superficial way (up to this moment), there is a

need to analyse the story and the silver linings of the image created from a particular crime — the image that studies, explains and reveals (and unveils) the crime. Taking into consideration the internship developed at Lisbon's Laboratory of Scientific Police (LPC — Laboratório de Polícia Científica de Lisboa) a reflection organised under analytical and methodological objectives that seeks to understand the concerns of drawing in criminal context is propounded. The first group of objectives aims towards understanding the presence of drawing in the department of 'criminalistic image' by analysing and decomposing the processes of representation used in the criminal field. As to the methodological objectives, it is proposed to highlight the procedures used when drawing is applied in criminal investigations, thus following a case study that makes it possible to understand how drawing contributes to the analysis of a particular crime.



FROM THE EDITORS: CONTRIBUTING TO THE ADVANCEMENT OF POLICE SCIENCE AND RESEARCH IN EUROPE



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The science, theory or study of police and policing is gaining its own and deserved place in the scientific *academia*. The first formulations of 'police science' emerged during the 18th century (Del Barrio Romero et al., 2009) and several police and policing theories developed since that period are accepted today as *valid* or, at least, as not entirely *false* (Popper, 1959). Scientific theories supporting well-known police and policing models are more or less familiar to most contemporary police officers – that is, models like 'high visibility patrolling', 'hotspot policing', 'event-oriented policing', 'targeted preventive arrest', 'professional policing', 'problem-oriented policing', 'community policing', 'zero-tolerance policing', 'intelligence-led policing', 'evidence-based policing', 'cost-benefit policing', 'diversity policing', 'pulling-levers policing', 'context-oriented policing' and 'predictive policing'. The same can be said to most scientific theories supporting what is today's forensics, or criminalistics.

Besides the building up and the accumulation of experience-based knowledge, the last decades have witnessed a remarkable advancement in police research based on systematic observation, measurement and experiment, and the formulation, testing and modification of hypothesis. The Global Police database has documented more than 7000 controlled design studies and there are many more qualitative and ethnographic studies. Police scientists, researchers and practitioners moved away

from prescriptive-ideological *theories* – on what police and policing *should be*, for example – and become increasingly interested in evidence on what police and policing models work or don't work, and *why*, across Europe and other continents.

Assuming there are several possible *democratic* police and policing theories and models, the empirical testing of such theories and models has become more and more frequent in countries in Europe and outside Europe. On the one hand the 'what works or evidence-based policing' movement (Stanko & Dawson, 2016) has focused on the operational impacts of policing, on the other hand, others have posed the question 'what really matters in policing?' (Van Dijk, Hoogewoning & Punch, 2015). Taking these two approaches together, "does it really work and matter under any condition and in any context?" is a question for which scientists, researchers and practitioners are increasingly requiring an answer.

However, further advances are being restrained by the inherent complexity of societies and of police and policing. Theories unable to state that a police or policing model will *only* work if specific variables or sets of variables, including contextual or *national* ones, are active are undoubtedly still *weak* theories. The same applies to theories that are unable to predict how the absence of a given variable, or of a set of variables, will affect a model's performance. Such theories are not



necessarily, as they often are coined, *false* – but, for police practitioners, such theories certainly are *weak* and probably still *useless* ones. What makes a theory *robust* and *attractive* to police practitioners is the ability to provide the most probable, verifiable and valid explanation for how and why something happened – and also the ability to predict what will most probably occur when and if a given variable or a set of variables is present and active.

Systematic testing, at national, regional and local levels, is one of the solutions for overcoming one of the major weaknesses of police science and research. Police and policing models rarely can be designed in order to be scientifically tested before being fully implemented. A number of European countries have national legal frameworks and law enforcement systems where ‘experiments’, involving testing a treatment in a randomised experiment are difficult to implement. As a result, innovations may only be scientifically tested (evaluated) *post facto* and without an adequate control group.

Isolating, from what happened along an implementation process, which variables or sets of variables were necessary and sufficient for the observed results demands quality and time-consuming research methods and instruments – as well as comparisons of what happened in contexts where the *stimulus*, the police or policing model, was absent. That is, and most of the times, in other (similar) countries. Cross-national comparisons for controlling purposes are therefore crucial – but yet not enough.

Testing a police or policing model in different countries, with different legal frameworks and different law enforcement systems and organizations is a second and necessary validation step. Without this step, the *why* a model did or didn’t work will remain an unanswered question. Accumulated cross-national evidence on *which* variables or set of variables are necessary and sufficient for a police or policing model to produce a given result is what allows stating how *robust*, or *false*, is a given theory.

Bayley(1992)stated,attheendofthe20thcentury, that insufficient cross-national comparative research was one of the major weaknesses of police science. This is still very much the case, but there has been some progress in testing US based strategies such as hotspot policing in other jurisdictions. Police science and research needs cross-national evidence because most existing theories and models have not yet been sufficiently tested outside the countries in which they were initially developed. We would suggest that the future of police science and research will be increasingly linked to cross-national research and to the ability to demonstrate that a theory or model is valid regardless of contextual variables – namely, but not exclusively, national legal frameworks and law enforcement systems and organizations.

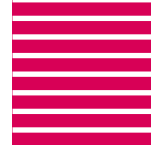
Scientific knowledge on which police and policing models *matter* and *work* only when specific variables or sets of variables are present and active, is crucial for European police and policing. Possible future European-shared police and policing models will be able to be built from ‘what *matters* and *works*’ irrespective of specific national variables or sets of variables – and the ‘what doesn’t’ will be able to be categorized, by police practitioners, not as useless or ‘junk’ theories or models, as they usually still are, but as ones that, although not entirely *false*, simply will never work in some countries.

Cross-national research evidence will help European policy-makers and police practitioners to decide on what models or parts of models can be implemented instead of instinctively rejecting theories or models that *seem not to work* everywhere. The European Police Science and Research Bulletin will keep trying to contribute, through its current editors and in the scope of the Bulletin’s modest capacities and possibilities, for the dissemination of cross-national research findings. The Bulletin’s new permanent board of scientific reviewers, whose names are identified in this issue, will certainly be an asset and added value for future contributors – namely by suggesting on how to improve the reliability and validity of the submitted research designs and findings.



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INTERPOL'S EVOLVING APPROACH TO INNOVATION AND RESEARCH-BASED POLICING ⁽¹⁾



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Abstract: This paper aims to provide a broad overview of INTERPOL's activities in the realms of innovation and research, and provides detailed descriptions of the Organisation's efforts to adapt its activities and strategic priorities to a constantly changing global environment. After a brief discussion introducing INTERPOL and its activities, the article is broken down into four main themes: INTERPOL's new emphasis on 'future-oriented' thinking, its promotion of innovation in police training, research initiatives in which INTERPOL is engaged and innovative tools and technical solutions under development by INTERPOL to support its member countries. The activities undertaken by INTERPOL in these areas aim to guide the Organisation and reinforce its role in enhancing global security against crime threats of the 21st century.

Keywords: INTERPOL; police innovation; international police cooperation; INTERPOL research; police training research.

BACKGROUND ON INTERPOL

INTERPOL is the world's largest international police organisation, with 190 member countries around the globe. Its role is to enable police around the world to work together to enhance global security. INTERPOL's daily work is carried out by staff at the General Secretariat headquarters in Lyon, France, the INTERPOL Global Complex for Innovation (IGCI) in Singapore, seven Regional Bureaus in the Americas, Africa and Asia, and Special Representatives Offices at the United Nations in New York, European Union in Brussels and soon at the African Union in Addis Ababa. INTERPOL's diverse personnel represent more than 100 nationalities.

The Organisation strives to help police across the world to meet the growing challenges of transnational crime in the 21st century by

providing its member countries a high-tech infrastructure of technical and operational support and an international platform for the exchange of knowledge in law enforcement good practices. Because of its global position, INTERPOL's contribution to international security concentrates on the facilitation of international police cooperation. This work can take a myriad of forms, as members countries' needs are naturally quite diverse and gradually becoming more complex due to the increasingly transnational nature of crime. The main services that INTERPOL offers its member countries include its international criminal databases, a secure police communication system, capacity building and training programs for a variety of types of crime, and operational support for international criminal investigations.

⁽¹⁾ This article uses a broad definition of innovation as described by O'Sullivan and Dooley: 'Innovation is the process of making changes, large and small, radical and incremental, to products, processes, and services that results in the introduction of something new for the organisation that adds value to customers and contributes to the knowledge store of the organisation' (Dooley and O'Sullivan, 2009, p. 5). Our understanding of research is more aligned to applied research as described by the OECD: 'Applied research is also original investigation undertaken in order to acquire new knowledge. It is, however, directed primarily toward a specific practical aim or objective' (OECD, 2002, p. 30).



NEW FOCUS: THE FUTURE OF POLICING

When he began his mandate as the Head of INTERPOL in November 2015, Secretary General Jürgen Stock's vision statement cited research and innovation as critical future endeavours for the Organisation. INTERPOL has since introduced several forward-looking initiatives which aim to ensure the Organisation's long-term relevance and utility for the global law enforcement community. The official opening of the IGCI in April 2015 was a key indicator of this organisational shift. Activities at the IGCI focus on the development of innovative and practical tools and training methodologies to help law enforcement agencies in INTERPOL's member countries deal with emerging criminal threats, such as technology-enabled crime and cybercrime. Its location in Singapore will also help the IGCI to form new partnerships with law enforcement agencies, private sector companies and research institutions present in Southeast Asia, and to serve as a hub for the coordination of INTERPOL operations against transnational criminal networks active within in the region.

cooperation, through the working group focused on technology and innovation matters.

INTERPOL member countries also endorsed a General Assembly resolution in Kigali that expressed support for future resource investments by INTERPOL into law enforcement research projects on topics such as the identification of future security threats, cybersecurity and the adaptation of law enforcement to emerging technologies (INTERPOL, 2015h). In addition, the 2015 General Assembly agenda included a panel dedicated explicitly to innovation and the future of policing. Taking into account the fact that the INTERPOL General Assembly is the Organisation's supreme governing body, the passage of these resolutions, inclusion of an future-oriented panel on the agenda and the subsequent creation of an international law enforcement working group on technology and innovation exemplify the degree to which INTERPOL and its member countries will prioritise research and innovation in the coming years.

STRATEGIC ANALYSIS OF EMERGING THREATS AND ENVIRONMENTAL SCANNING

THE INTERPOL 2020 INITIATIVE

INTERPOL's shift to future-oriented thinking is taking place within the framework of an organisation-wide transitional and strategic realignment process called INTERPOL 2020, which was officially endorsed by member countries in November 2015 through a resolution adopted at the 84th INTERPOL General Assembly in Kigali, Rwanda (INTERPOL, 2015f).

The INTERPOL 2020 strategy provides a roadmap for the Organisation to realign its activities and objectives with the emerging needs identified by its member countries. One component of this roadmap is the creation of consultative working groups in partnership with representatives from member countries. Among several strategic topics these working groups will consider is how INTERPOL can develop cutting-edge tools and services to reinforce international police

The assessment of emerging criminal threats is a critical task for INTERPOL, and the Organisation has taken steps to leverage its international law enforcement network to gain insights into emerging trends from experts in member countries who specialise in strategic foresight, threat assessments and policy implementation. For example, in December 2015 INTERPOL began organizing high-level environmental scanning (Lapin, 2004) ⁽²⁾ workshops to discuss emerging threats on a global scale. In addition, the Organisation has also distributed threat surveys to law enforcement agencies worldwide, giving member countries the opportunity to provide insights on trends (not exclusively criminal, but also social and/or technological, for example) which they foresee will directly or indirectly impact law enforcement. The general aim of these environmental scanning exercises is to develop INTERPOL as an expert-level

⁽²⁾ Lapin defines environmental scanning as 'An exercise in analyzing and predicting future trends in the areas relevant to an organization which can, and does, reduce some uncertainty in organizational planning and allows an organization to reduce its vulnerability to undetected change' (Lapin, 2004, p. 105).



forum for the international exchange of ideas and projections related to the major drivers of change and emerging criminal threats which will likely impact law enforcement in the future.

Internally, the Organisation has begun several initiatives to foster future-oriented thinking amongst its personnel. As a first step, INTERPOL engaged one of its member countries to assist in the production of a news feed on emerging security, sociological and technological trends which is reviewed by IGCI staff and shared with the Organisation on a daily basis. INTERPOL also invites academics and senior officials working in technological research and development to present their views on the future implications of technological development on law enforcement and promote open discussions on how police might need to adapt to the rapid and increasingly widespread adoption of technology.

Further strengthening its activities related to future threat analysis, in 2015 INTERPOL established a new analytical unit dedicated to the development of strategic analysis products designed to provide internal decision-makers and external law enforcement stakeholders with detailed projections and analytical information on current and emerging crime threats and trends. Some of the foreseen initiatives for this new unit include producing emerging threat reports, forging partnerships amongst global stakeholders and developing new methodologies which facilitate the drafting of both ad hoc and regularly planned threat assessments and reports. These analytical products might focus, for example, on a specific criminal phenomenon, a trend in a particular geographic region or both. In this regard, INTERPOL has already commenced work on a joint strategic report with Europol to better understand the involvement of organised crime in migrant smuggling operations which facilitate irregular immigration into European Union Member States. INTERPOL is also laying the foundation for the production of regional criminal threat assessments which will incorporate insights provided by member countries during INTERPOL Regional Conferences to be held in 2016 in Asia, Africa and the Americas.

INNOVATION IN POLICE TRAINING

Since the first International Criminal Police Congress was held in Monaco in 1914, INTERPOL and its statutory events such as the General Assembly, Regional Conferences or the annual Heads of National Central Bureaus (NCBs) meeting ⁽³⁾ have served as platforms for law enforcement authorities worldwide to discuss relevant experiences, share good practices and develop common strategies to meet the future challenges of policing. As part of its wider mandate to support law enforcement agencies and cross-border police cooperation on a global level, INTERPOL regularly organises training events and conferences designed to promote information sharing on the latest developments and research in police training.

INTERPOL POLICE TRAINING SYMPOSIUM

The leading INTERPOL conference on law enforcement training is the INTERPOL Police Training Symposium, which most recently occurred in December 2014 in Addis Ababa, Ethiopia (INTERPOL, 2014). The training symposium is a biennial event that brings together executive-level officials from national police training academies and colleges, representatives from other law enforcement agencies — such as customs or immigrations authorities — and international organisations, and academic institutions. INTERPOL aims to give member countries and academic organisations the opportunity to showcase their latest developments in training methodology and the findings of their training research projects to an international audience of senior law enforcement training officials. This event provides a common forum for open, active discussions and information sharing. This year, the 20th INTERPOL Training Symposium will take place in Singapore in June.

⁽³⁾ An INTERPOL National Central Bureau (NCB) refers to a division in a member country's national policing agency that serves as the contact point for all INTERPOL activities taking place within that country. The annual Heads of NCB Conference is a forum which allows the chiefs of these NCBs to build working relationships with each other as well as with the INTERPOL General Secretariat.



DIGITAL CRIME TRAINING COURSES USING SIMULATED DARKNETS

INTERPOL has invested in the development of law enforcement training courses on emerging crime areas using novel methodologies. In 2015, cybercrime researchers at INTERPOL, in partnership with the Netherlands Organisation for Applied Scientific Research (TNO), developed a specialised training course on policing the Darknet, which was constructed as a simulation-based Darknet and virtual currencies training game (INTERPOL, 2015b). The 5-day course benefitted from a fully hands-on, tool-supported curriculum that gave participants practical experience in the basic functionality and structure of the Darknet and illicit virtual marketplaces. It aimed to familiarise participants with the procedures necessary to dismantle a Darknet market and perform the required forensic analyses. As part of this training course — the first of its kind — INTERPOL created its own private Darknet network, a private cryptocurrency and a simulated marketplace which mimicked the virtual ‘underground’ environments used by criminals to avoid detection on the Internet and sell their criminal services. Participants were given the opportunity to role play as vendors, buyers and administrators and take part in a simulated takedown of the entire virtual environment. The first Darknet training course took place at the IGCI in July 2015, and a second course was held in Brussels in November 2015. INTERPOL will continue developing and delivering this training course throughout 2016.

the Organisation has repeatedly sought such advice through the establishment of specialised working groups on law enforcement capacity building and training research. The INTERPOL Group of Experts on Police Training (IGEPT), created in 2009 (INTERPOL, 2009), served as the Organisation’s first dedicated working group for the exchange of best practices in the fields of police training and research. The IGEPT helped INTERPOL drive the successful completion of several initiatives, including the creation of a research publication portal within the online e-learning platform called the INTERPOL Global Learning Center (IGLC) ⁽⁴⁾, the publication of five issues of an international police training e-journal ⁽⁵⁾ and the successful organisation, in partnership with the US Federal Law Enforcement Training Center (FLETC), of a police training conference in December 2010. The INTERPOL/FLETC Technology and Research Exercise (INTERPOL, 2010) brought together more than 80 managers and experts in police training and highlighted the latest research findings on human performance in high-stress situations often faced by law enforcement officers; the use of simulations for law enforcement training; the efficacy of e-learning and multimedia in police training; and other training-related themes.

Although the activities of the IGEPT have been put on hold, INTERPOL intends to reformulate the group into a permanent advisory body on law enforcement capacity building and training research. This proposal will likely be further elaborated during the INTERPOL Police Training Symposium in June 2016.

WORKING GROUPS ON POLICE TRAINING AND RESEARCH — PAST AND PRESENT

INTERPOL’s objective to support the global law enforcement community with world-class, specialised training courses cannot be met without guidance from member countries’ training specialists. Consequently,

RESEARCH ACTIVITIES AT INTERPOL

A diverse range of specialized units and officers undertake research initiatives at INTERPOL. These initiatives address topics such as emerging threats in cyberspace, methodologies for the identification of fraudulent travel documents, supply chain security, the illicit trade in electronic waste and natural resources, and data protection

⁽⁴⁾ This page is visible to the public at <http://www.interpol.int/INTERPOL-expertise/Training-and-capacity-building/IGLC2/Welcome-to-the-INTERPOL-Global-Learning-Centre-IGLC/Research-publications/Reference,-Research-and-Publications/Research-papers>.

⁽⁵⁾ The e-journal issues are available in PDF format at <http://www.interpol.int/INTERPOL-expertise/Training-and-capacity-building>.



considerations. The findings of these initiatives are critical for the Organisation because INTERPOL training programs can be tailored to account for the new knowledge derived from the research. Research findings can also lead to the creation of new training courses and projects, and the production of new distance learning content for the global law enforcement community.

DIGITAL CRIME RESEARCH

Through the IGCI, INTERPOL is conducting several research initiatives related to cybercrime and technologically enabled crime. These activities aim to identify emerging threats that arise through the ubiquitous and accelerating adoption of technology by citizens worldwide. One such initiative is the regular publication of intelligence products called CyberFeeds. These are short research documents which review significant cybersecurity events or provide threat assessments addressing a specific phenomenon occurring within cyberspace. The CyberFeeds describe particular *modi operandi* or highlight emerging threats derived from the exploitation of currently existing technologies. These reports are disseminated both internally and throughout INTERPOL's law enforcement network.

In addition, in March 2015 INTERPOL cyberthreat researchers, in partnership with Kaspersky Labs, identified a malware threat to the blockchain⁽⁶⁾ technology that underpins virtual currency transactions (INTERPOL, 2015a), which could result in the transactions themselves being embedded with malware or other illegal data. The research team discovered that — depending on the type of cryptocurrencies involved and their respective protocols — there is a fixed open space on the blockchain where data can be stored, referenced or hosted within encrypted transactions and their records. The design of the blockchain technology exposes it to the possibility of malware being injected and permanently hosted within the blockchain, with no methods currently available to remove this data. This has clear negative implications for the overall 'cyber hygiene' of certain virtual currency transactions as well as the sharing of illicit data, such as child sexual abuse images, where the blockchain could become a safe haven for the

hosting of such data. For INTERPOL, this is an excellent example of how an active partnership with a private sector partner led to the discovery of valuable new knowledge.

SUPPLY CHAIN SECURITY — THE CORE PROJECT

The security of the global supply chain is the focus of the CORE (Consistently Optimized Resilient Secure Global Supply Chains) Project. CORE is the world's largest supply chain security project and looks to determine how better to secure the flow of goods moving through the global supply chain. A consortium of 70 partners from 17 countries carries out this project's activities, with INTERPOL representing one of the two international organisations (along with the World Customs Organisation) which are contributing members.

INTERPOL's aim within the project is to contribute to the identification of feasible ways to deter criminal networks from gaining illicit profits through their intrusion into existing supply chains, without disrupting legitimate commercial activities. During the course of the project, key INTERPOL activities have thus far included the launch of supply chain security stakeholder surveys, reviews of standards and policies, and the publication of a conference paper concerning the identification and evaluation of training needs for law enforcement within the scope of supply chain security (Ahokas, Hintsa, Gallagher and Männistö, 2015).

COUNTERING ILLICIT TRADE IN ELECTRONIC WASTE

INTERPOL played a coordinating role within a consortium working on a research project funded by the European Union which studied the patterns of illicit trade of waste electrical and electronic equipment (WEEE), also known as e-waste, taking place within the European Union (INTERPOL, 2015c). Electronic materials classified as WEEE often contain hazardous components

⁽⁶⁾ The term 'blockchain' refers to the technology on which the Bitcoin virtual currency relies. In simple terms, a blockchain can be described as a shared public ledger of the confirmed transactions conducted using a particular virtual currency.



or materials, so improper disposal or handling of such waste can lead to environmental degradation and adversely affect public health. The initiative, called the Countering WEEE Illegal Trade (CWIT) project, concluded in August 2015, and its summary report revealed that approximately 4.65 million tonnes of e-waste is either 'wrongfully mismanaged or illegally traded within Europe itself' (Compliance and Risks Ltd. et al, 2015, p. 6). Approximately 10 per cent of that amount of e-waste is illegally exported to countries in regions such as Africa, Asia and the Middle East. Furthermore, waste processors in Europe who comply with regulations incur annual losses valued at between EUR 800 million and 1.7 billion due to the theft of valuable metals and components from waste electronics. The CWIT summary report also included a series of recommendations to mitigate the legislative and operational vulnerabilities which facilitate this type of crime.

FINANCIAL FLOWS OF THE ILLICIT CHARCOAL TRADE IN EAST AFRICA

INTERPOL is producing an analytical report on the financial flows related to the illicit trade of charcoal in East Africa. The objective of this report is to assess and more clearly depict the financial flows within East Africa and the Arab Gulf states derived from these activities. INTERPOL ultimately aims to raise awareness with policy-makers and law enforcement agencies in East Africa and Arab Gulf states regarding the negative environmental, social and financial impacts of the uncontrolled production and trade of illicitly produced charcoal. Such impacts include, for example, large-scale deforestation and forest degradation, which over time can lead to desertification. In order to collect sufficient data to produce a comprehensive report, INTERPOL analysts have requested information from seven East African countries (Djibouti, Ethiopia, Kenya, Somalia, South Sudan, Tanzania and Uganda) concerning the movement of illegal charcoal; companies, traders and other beneficiaries involved; and related financial information regarding the production, consumption, import and export of charcoal. The extent to which the illicit trade contributes to the financing of terrorist organisations will also be examined.

PHYSICAL-CHEMISTRY STUDY OF LINE CROSSINGS

Although one of the most frequently requested forensic document examinations to assist in fraud or forgery investigations is to date when a particular line of ink (for example, a signature) was placed onto a piece of paper, there are currently no reliable techniques for doing so. To solve this challenge, INTERPOL officials specialised in counterfeit security documents have been working with the International Academy for Handwriting and Documents to find a solution to this challenge.

The 'Physical-Chemistry Study of Line Crossings' project seeks to develop a method to accurately identify when a signature or another type of writing was made. This could be possible through a complex chemical analysis of the inks, the paper and other factors. Another objective of the project is to establish a methodology to support forensic experts and investigators around the world in conducting forensic document examinations at a globally-accepted standard. The project has been presented to nearly 50 forensic document examiners from 30 INTERPOL member countries who regularly attend the related working group meetings. The project's proof of concept, which was established following a year-long forensic analysis of the protocol carried out by laboratories in 13 countries, will now be tested in the field with the aim of training forensic document examiners.

LEGAL RESEARCH ON DATA PROTECTION AND PRIVACY

As criminals innovate, so too must law enforcement. Police must make an effort to keep pace with criminal groups on the technological front. However, this requires appropriate legislation. In order to ensure that emerging police technologies are implemented in a lawful manner, the technologies should be considered within an appropriate legal framework based on the principles of the rule of law and respect for fundamental human rights.

In an effort to facilitate the process of adopting innovative tools and technology by law



enforcement, INTERPOL is participating in a series of European Union-funded research initiatives which address the use of emerging technologies and data protection. These initiatives aim to strengthen security while minimizing possible infringements of fundamental rights, such as the right to privacy, and to encourage dialogue and partnerships among law enforcement, academia, the private sector and civil society. More specifically, the projects address the development of surveillance technologies and the parallel efforts by legislators to quickly develop adequate legal frameworks (Smart Project); the legal bases for the monitoring and tracking of CCTV systems, social networking sites and financial movements (Respect Project); the development of voice recognition and speaker identification systems which account for privacy and data protection laws (Speaker Identification Integrated Project, or SIIP); the provision — and analysis of possible legal implications — of a roadmap to create common frameworks for the use of new technologies in the collection, exchange and use of evidence (Evidence Project); the evolution and impact of cybercrime using economic and legal perspectives (E-CRIME Project); and the economic social, legal and ethical facets of recent developments on the Internet in an increasingly digital society with an emphasis on governance, human rights and intellectual property (MAPPING Project).

INNOVATIVE TOOLS AND TECHNICAL SOLUTIONS

INTERPOL is working to pilot innovative systems and tools within our member countries to determine the extent to which they may help inhibit criminal activities. But even the most advanced tool holds little value in untrained hands. Therefore, the creation of any new service, tool or technical solution invariably required that INTERPOL modernise its training programs in order to deliver the technical skills needed to fully utilise the latest technological solutions. This will ensure that member countries can maximise the efficacy of such innovations over the long

term. Several examples of these new tools and technical solutions are listed below.

THE I-CHECKIT PROJECT

I-Checkit is a border management platform intended to work in parallel to existing national border security systems. It allows trusted private sector partners (currently within the airline industry) to play a role in national border security, with the aim to help prevent the use of stolen travel documents to cross borders and conduct illicit activities under falsified identities. Through I-Checkit, participating airlines can send passenger passport data to be screened against INTERPOL's Stolen and Lost Travel Documents (SLTD) database to help detect potential abuse. This solution was endorsed in a formal resolution at the INTERPOL General Assembly in November 2015 (INTERPOL, 2015e) following a 16-month pilot project with AirAsia that proved to be a successful proof-of-concept for the identity fraud prevention tool. The General Assembly resolution called on INTERPOL member countries to support the continued development of the tool, systematically provide stolen travel document information to INTERPOL's databases, and ensure that all data reported in the databases are current, accurate, maintained and removed in accordance with INTERPOL's rules and standard operation procedures.

THE SILVER NOTICE

During the 2015 General Assembly, INTERPOL member countries also endorsed a resolution which called for the development of a new instrument devoted to the tracing and recovery of criminal assets (INTERPOL, 2015d). When launched, this tool will enhance the utility and scope of the organisation's well-known, color-coded international notices system ⁽⁷⁾. The resolution also called for member countries to participate and support the pilot phase for this new tool by discussing with INTERPOL their observations, suggestions and challenges faced

(7) INTERPOL's notices system is a collection of international alerts and requests for cooperation which allow police in its member countries to share crime-related information in an efficient, secure manner. Currently there are eight different types of notices (Red, Blue, Yellow, Black, Green, Orange, Purple, and the INTERPOL-United Nations Security Council Special Notice) each of which is published for its own unique purpose. For more information on INTERPOL notices, see <http://www.interpol.int/INTERPOL-expertise/Notices>.



during the creation and implementation of the new notice. This demonstrates INTERPOL's willingness to continue refining and developing its already existing tools to better meet the needs of member countries.

THE BASELINE PROJECT

INTERPOL member countries at the General Assembly in 2015 took a notable step towards curbing the growth of online child sexual exploitation by adopting a resolution which calls for the implementation of the Baseline Project (INTERPOL, 2015g). This initiative aims to empower public and private entities to contribute to the prevention of child abuse by enabling them to identify, report and remove child abuse materials (CAM) from their platforms and networks. Through the 'Baseline list' ⁽⁸⁾ which the system uses to identify CAM by comparing the file signatures of uploaded images and videos to the data contained in the INTERPOL's International Child Sexual Exploitation (ICSE) database, private entities can more easily determine the extent to which their computer networks are used to disseminate abuse materials. Further examination of the origins of the CAM files within a network can assist investigations to prevent child exploitation and rescue victims of abuse. As such, INTERPOL now possesses an instrument to help private entities ensure that their computer networks do not store or propagate CAM internally or on the Internet, contributing to its efforts against child sexual exploitation in the cyber realm.

DISCUSSION

INTERPOL's endeavours in research and innovation are diverse, yet they will undoubtedly evolve over time as new security threats emerge and create new challenges for law enforcement worldwide. Bearing that in mind, INTERPOL's notices system — created in 1946 and still in widespread use by member countries today — is an empirical example that the Organisation

has the capability to develop new, sustainable tools and services that withstand the test of time and remain relevant even under ever-changing international contexts.

It is undeniable that the effectiveness of INTERPOL is entirely contingent on the willingness of its member countries to share data, expertise and even personnel with the organisation. The Organisation also relies on its member countries to promote the systematic use of its policing capabilities; without such support, these products lose their effectiveness and overall value.

INTERPOL's future plans for research and innovation are being formulated on the assumption that law enforcement agencies around the world face similar challenges in combating transnational crime when it comes to international collaboration, despite regional differences in infrastructures and the types of organized crime and security threats. These challenges may include differences in organisational cultures, political contexts, judicial/legal incompatibilities, willingness to share sensitive criminal information with other national agencies, or competitive inter-agency dynamics (Gerspacher, 2010), in addition to practical impediments such as language barriers.

INTERPOL's contributions to the policing world are humble in comparison to the daily work of the national law enforcement agencies in its member countries, and the operational experience and expertise put to use every day by frontline police officers in the fight against transnational crime. However, INTERPOL takes pride in its role of facilitating the sharing of expert-level law enforcement knowledge at the international level to promote joint learning and discovery. Through its global position as a platform for the international exchange of law enforcement expertise that can help integrate geographically and thematically diverse experts to work together and learn from each other, INTERPOL seeks to innovate for the benefit of all police worldwide.

⁽⁸⁾ The Baseline list refers to a list of hash codes of images and videos which have been previously identified as child abuse material and are stored in the International Child Sexual Exploitation (ICSE) database. The data stored in this list does not include the original images or video content.



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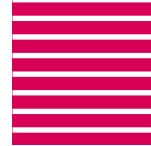
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FINDINGS OF THE CODISP PROJECT — CONCEPT AND TOOLS FOR THE DEVELOPMENT OF INTELLIGENCE-LED POLICING ⁽¹⁾



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Abstract: CODISP was a research project which aimed at developing tools and concepts designed to implement intelligence-led policing in France. We conducted an in-depth qualitative study of what skills and tools the police possess to make sense of their environment and how these can be improved to address security concerns more effectively. We carried out numerous site visits in police and gendarmerie services of 11 French departments, along with about 500 interviews with personnel engaged in intelligence collection, transmission and analysis, as well as with middle- and high-ranking police officials who use raw information and intelligence products to take tactical or strategic decisions.

Keywords: intelligence-led policing; knowledge-based management work; law enforcement governance; European research project.

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INTRODUCTION

Since 2011, we have conducted research aimed at developing tools and concepts designed to implement intelligence-led policing in France. We have done this in partnership with the research centers of the Ecole Nationale Supérieure de la Police and of the Ecole des Officiers de la Gendarmerie Nationale, through the research project CODISP (“Concepts et Outils pour le Développement de l’Intelligence en Sécurité Publique”) that has been financed by the French Agence Nationale de Recherche.

Jerry Ratcliffe defines intelligence-led policing as an analysis-driven approach to decision-making, with an emphasis on proactive problem-solving

in lieu of a purely reactive management of incoming case flows.

CODISP aimed to promote this proactive and evidence-based approach to intelligence by investigating the way intelligence is collected, analyzed, and used. We tackle this as a problem in the sociology of knowledge and the sociology of organizations. We ask what skills and tools the police possess to make sense of their environment and how these can be improved to address security concerns more effectively. Our aim, in particular, was to pursue ways in which intelligence can be used as an aid to strategic, tactical, and operational decision-making at all stages of the intelligence cycle, from collection, transmission, and analysis to its use as a decision-making tool. We identify what police do well





already and how they do it; we also seek to understand how unused intelligence potential can be optimized for strategic advantage in decision-making.

Though France has been the main focus of our research, we have also conducted research in the United States and Germany. In France, we made site visits to the Directions Départementales de la Sécurité Publique (Police Nationale) and to Groupements de Gendarmerie Départementaux in eleven *départements*, where we conducted about 500 interviews with personnel engaged in intelligence collections, transmission, and analysis, as well as with middle- and high-ranking members of the command hierarchy who use intelligence analyses to make tactical and strategic decisions.

Much has been written in English-speaking countries about the relationships between intelligence led policing and the development of new policing strategies. In France, there is no equivalent of the expanding police science literature that aims to improve strategic thinking and criminal intelligence analysis in many English-speaking countries. Of course, our approach integrates the contributions of this literature, but far from merely translating British know-how for French audiences, we seek to build on practices that already exist in France, among innovative units of the French National Police and National Gendarmerie, with the aim of making these sophisticated decision-making practices known outside the localities that developed them. Our approach also seeks to bring out the co-existence of different *métiers* of intelligence—different intelligence regimes—within police organizations, which are each characterized by distinct ways of seeing and thinking about public safety problems.

Our results are organized around several dimensions of intelligence work. These include four ways in which intelligence is open to improvement, which are in turn applicable to four stages in the intelligence cycle (namely the development of an intelligence plan; the collection of intelligence; its transmission; and, finally, its analysis and use as an aid to decision-making); five axes for implementing potential reforms; and five regimes of intelligence which coalesce around fundamentally different ways of collecting, analyzing, and using intelligence. Addressing the dissimilarities between very distinct and competing intelligence regimes

within the police is a key factor in the success of new intelligence-led policing initiatives and in the success of efforts to coordinate enforcement strategies of different units within the police. Accordingly, our work focuses, in particular on the role of partnership, information-sharing, and analysis in strategic decision-making. We have noted that intelligence co-produced by local security partnerships sometimes makes it possible for participants in security networks to go beyond the exchange of information about particular individuals or particular events or crimes and to favor instead a more systemic deliberation about the social context of different security problems and the causes and dynamics that drive them.

FOUR DIMENSIONS OF IMPROVEMENT

1. PROVIDING INPUTS TO STRATEGIC DECISION-MAKING

Intelligence capacities must be used in a way that helps police decision-makers to understand public safety issues in their territory; to select enforcement priorities; and to develop problem-solving strategies. Intelligence must also help commanders to select the most promising problem-solving approaches, in order to ensure an efficient use of limited law enforcement resources.

Improved intelligence collection can counter the tendency of many law enforcement agencies to allocate resources reactively, in response to the most pressing emergencies, instead of preserving certain resources strategically for the pursuit of a longer-term enforcement strategy.

2. IMPROVING OPERATIONAL EFFICIENCY OF SECURITY PARTNERSHIPS

Intelligence-led policing seeks to improve information-sharing and working relationships between police and institutional counterparts in housing, municipal services, schools, transportation, healthcare, sanitation, and other services that work together with the police in local security partnerships. These collaborations improve public safety in a number of respects: they bring a multi-disciplinary perspective to



the joint analysis of public safety problems; they help establish information channels that provide the police with reliable and regular access to intelligence from institutional partners; they allow the police to transmit their vision of crime problems to institutional partners and to convey their own enforcement priorities, while taking into account the concerns of their partners; and they permit the police to better coordinate their efforts with those of their partners and to develop new mixes of approaches to crime problems.

In particular, our research has identified a number of ways in which partnership specialists within the police have leveraged their expertise in situational crime prevention, or in educating young people about addiction, to enlist institutional partners in joint enforcement efforts. Partnerships also play an important role in creating buffers or institutional intermediaries between police and residents in areas where tensions run high. Many non-police actors can help the police to understand the concerns and the problems of local residents, allowing the police in turn to adapt national policies to local needs. Institutional partners can also help partnership officials to improve their own local knowledge of crime problems at a time when resource constraints have made it harder for the police to anchor patrol units locally, particularly in the absence of a strong community policing tradition.

3. CASTING A WIDER NET

The police must extend their collection efforts to encompass intelligence from both closed and open sources. Widening the range of information available to the police provides the police with additional perspectives and expertise on security issues, so that they can consider a wider range of options for addressing such problems.

Our research has identified a range of underused intelligence sources. In particular, we have observed that police officers have difficulties seizing opportunities to capture information when they perform a task whose primary objective is not intelligence-gathering. For example, officers answering calls for service focus on their dispatch role, which requires them to manage available patrol units, so that they tend not to take into account certain important information mentioned during the conversation by the person calling for service.

We also found that the police tend to overvalue case-specific information and undervalue systemic information related to the causes and mechanisms of public safety problems. That's why intelligence that comes from school resource officers or police youth crime prevention units is systematically underutilized. For the same reason, studies and diagnostic reports prepared by policy analysts outside the police—often under contract to local municipalities—are rarely read or appreciated by decision-makers inside the police.

4. IMPROVING COORDINATION ACROSS SERVICES

The implementation of problems-solving strategies generally requires the involvement and collaboration of various law enforcement units and services, since concerns about street crime, for example, may need to be addressed jointly by detective units, patrol units, rapid intervention and emergency response teams, and intelligence units that identify crime patterns or prolific offenders.

According, intelligence-led policing initiatives must integrate and coordinate the intelligence capacities and needs of all units concerned with the targeted problem within the organization. For example, the intelligence plan accompanying a broader crime-fighting strategy often suggests ways to improve information exchanges, knowledge sharing, joint analysis, and an evaluation of outcome. An intelligence plan accompanying problem-solving initiatives also has an important role to play in diffusing a unified vision of the problem and in building a consensus on the chosen solution. Intelligence analysts can orient ground-level actors in other units to intelligence to which they should be attentive, to privileged sources of information at the local level, and to effective ways of working with these sources to maximize the intake of intelligence.

FIVE AXES FOR IMPLEMENTING INTELLIGENCE REFORMS

We identified five ways of implementing intelligence reforms.



1. BY CRIME PROBLEM

Intelligence improvements can centre on a particular crime problem or security concern. Efforts to build intelligence capacities can seek to increase what the police know about particular crime problems and to multiply sources of information and types of expertise.

2. BY POLICY INITIATIVES

Intelligence reforms can also target the implementation of particular programs or policy initiatives such as the designation of priority zones for the deployment of public resources, or the design of local security partnerships.

3. BY UNIT

Intelligence reforms can instead target particular units within the police, e.g. by reorganizing or reinforcing intelligence units responsible for predicting riots or monitoring protest, or by making improved analytical resources available to organized crime units to link seemingly disparate phenomena, or to general staff analysts who must identify emerging crime trends.

4. BY TYPE OF ASSIGNMENT OR TASK

Intelligence reforms often target particular tasks or assignments, for example by improving the way ground-level personnel interview crime victims and witnesses; the way patrol units interact with the public; or the way analysts process information about isolated incidents in order to detect links between them.

5. BY TECHNOLOGICAL TOOLS AND KNOW-HOW

Intelligence reforms often invest in technologies, skills, or know-how that can help the police use intelligence more effectively. Thus reforms often target the ways in which police design or use software to compile and analyze data or to share and disseminate intelligence, as well as the ways in which police and their institutional partners format and process incident reports.

FIVE REGIMES OF INTELLIGENCE

In order to improve intelligence operations, the command hierarchy must recognize the fundamental differences between five branches or regimes of law enforcement intelligence. Each of these five intelligence regimes has its virtues and its blind spots. Our project sought to identify them and to investigate the conditions under which they operate at cross-purposes to each other and the ways they can be coordinated to complement each other, once intelligence priorities and the relevant branches of intelligence have been selected.

Our examples of best practices for the most part have to do with the synergies created by new ways of coordinating different intelligence regimes, both within the police, and in partnership with outside actors.

1. PUBLIC ORDER INTELLIGENCE

This intelligence regime targets information about protest movements, terrorism, riots, or other forms of violence (such as gang warfare) that may call into question the ability of the police to maintain order in the public realm.

The main intelligence objectives include identifying and monitoring potential threats in public areas; preventing violence; predicting how large a police presence will be necessary to maintain or restore order; as well as disrupting terrorist plots and preventing terrorist attacks.

The time horizon of this intelligence regime is oriented towards the future and its emphasis is on prediction and prevention, requiring close cooperation between intelligence units and rapid intervention teams.

2. CRIMINAL INTELLIGENCE

This intelligence regime targets crime and tracks those who have committed crimes in the past, or who may be committing crimes on an ongoing basis. The purpose of collecting such intelligence is primarily to gather evidence and build cases against suspects in order to bring offenders to justice and facilitate their criminal prosecution, and, eventually, their punishment.



The favored time horizon emphasizes proof of past offenses over prediction of future ones, and proof rather than prevention, along with close cooperation between prosecutors and detective units.

3. PUBLIC TRANQUILLITY INTELLIGENCE

This is primarily the purview of ground-level actors inside and outside the police, including patrol officers, emergency response units, mediators, social workers, transportation and housing officials, as well as members of the public. Their primary concern is with petty crime, public nuisances, quality of life issues, protection of housing stock and property, and the “feeling of insecurity” of residents in high-crime neighborhoods. Patrol units may be called to respond to serious crimes, but detective units quickly take over investigation of more serious crimes.

Unlike the public order regime, public tranquility efforts are organized around responding to calls for service and intervening reactively to those crimes and security problems that most affect residents’ daily lives. The main values associated with this regime are the ability to respond quickly and effectively to ongoing emergencies; to remove or mitigate hot spots of criminal activity; and to restore public confidence in the police.

The time horizon emphasizes the present, and the aim is primarily to deal with emergencies requiring an immediate response. Intelligence tends to be collected and use for decision-making by ground-level actors, with relatively little time or opportunity check or contextualize raw data.

4. PARTNERSHIP INTELLIGENCE

Local security partnerships also share and analyze information. The partners enact their own intelligence regime, since partnerships function as their own kind of knowledge community. The peculiar characteristics of this intelligence regime emerge from contrast with the others.

This mode of developing intelligence emphasizes consensus, collective deliberation, and participation by heterogeneous actors from inside and outside the police. Deliberations about phenomena of common interest are uniquely collective, open, and multilateral,

involving outsiders not only as sources but as fellow diagnosticians of a wide variety of intelligence. In other intelligence regimes, by contrast, police interactions with outsiders are secret, confidential, and bilateral; no one source will know what other sources have been telling the police, nor will privileged partners be in a position to debate other sources directly.

The objectives for which information is gathered, shared, and analyzed are negotiated by the participants. The police cannot dictate the problems around which partnership initiatives coalesce. The police must yield considerable sway to their partners in defining the matters of concern to local security partnerships and in deciding the way a particular security issue should be characterized, if they are to convince other institutional partners to assume some of the burden of addressing it.

By contrast to internal knowledge communities within the police, the aim of partnership deliberations is to arrive at collective decisions that transcend the individual institutional interests of the participants; to divide the tasks among partners; to set priorities and elaborate coordinated approaches by diverse institutional actors; to enlarge the repertoire of interventions; and to pool resources, create synergies, and lend reciprocal support in ways that enhance the legitimacy of each partner’s approach to a problem.

There is no pre-established protocol for how to deal with certain problems, since cross-cutting problems that can be viewed through multiple interpretive lenses can call upon a wide range of responses from diverse sets of actors. Time horizons are variable and are determined by the partners.

5. MANAGERIAL/STRATEGIC INTELLIGENCE

Strategic or managerial intelligence is produced by analysts to assist the command hierarchy of the police in allocating resources, monitoring crime trends, evaluating the performance of police units, and keeping track of police outputs such as arrests and response times in handling calls for service. The prime value associated with this intelligence regime is its usefulness in identifying enforcement priorities and in assuring the most efficient use of police resources.





This is the domain of intelligence-led policing, understood as an effort to introduce evidence-based policing making into police operations, in order to assist decision-makers in developing efficient and scientifically tested approaches to the wide range of problems and phenomena that the police are called upon to manage. The time horizon might be termed longitudinal and comparative, in that the command hierarchy tracks developments over time, projects them into the future, and compares data about the present to comparable statistics from selected time-slices in the past (e.g. juxtaposing the number of cars burned in the immediately preceding week with the number of cars burned at the same time the previous year.)

The primary audience of this type of intelligence is the command-hierarchy itself, i.e. the decision-makers and managers who control the allocation of resources and the definition of enforcement priorities. These decision-makers can include higher-level governmental authorities as well as the police. The primary producers of this sort of intelligence are trained analysts, consultants, and outside experts.

Intelligence-led policing aspires to supply other intelligence regimes with theoretical and practical guidance and to frame the performance indicators by which the actors in these other regimes are judged. Accordingly, the managerial intelligence regime has sometimes been mobilized to coordinate the activities and resources of other intelligence communities, in order to improve their effectiveness and to create synergies between them. Coordination between branches can mitigate conflicts and rivalries among different units that belong to distinct intelligence regimes.

At the same time, we identified risks of poorly linking different intelligence branches in ways that force them to operate at cross-purposes to each other. This was the case in one town in which the public order intelligence unit was forced to do surveillance of drug corners and to send their reports to the drug unit. The drug unit had its own priority locations and organizational agenda and therefore saw the intelligence information as one more demand on the time of their investigators, and one which would have required them to redo the intelligence unit's surveillance operations, since intelligence reports are not recognized as evidence under the French Code of Criminal Procedure. Meanwhile the

intelligence unit had no time to do its own long-term analysis of evolving crime trends, because it was busy building cases that had no follow-up and never resulted in criminal prosecutions.

HOW THE FIVE INTELLIGENCE REGIMES CAN BE COORDINATED SUCCESSFULLY: THE EXAMPLE OF CENON

Cenon, in the western suburbs of Bordeaux, is a high crime area that has been designated as a priority security zone in 2012. It provides a good example of successful reforms along multiple dimensions of the matrix for improving police intelligence, and along multiple axes of the matrix for implementing intelligence reforms, as the reforms were implemented by crime problem (drug dealing and extortion); by policy initiative (improving public safety in priority security zones); by unit (rapid response teams); and by task (revising dormant partnerships between police and other institutional actors in Cenon).

First, Cenon illustrates the strategic use of an intelligence plan to multiply information sources, improve analysis, and link that analysis to an action plan that could help the police establish control over an area that had been taken over by drug-dealers. The plan was developed and implemented by the police commissioner in charge of this sector, in close collaboration with his personnel manager; a captain in charge of rapid intervention teams in the area; and a retired police officer who served in the newly established position of delegate for cohesion between police and residents.

Together, they put together a system for identifying and suppressing shifting hot spots. They built a network of local merchants, housing officials, security guards, heads of tenants associations, and municipal mediators, as well as residents who had signed petitions complaining about the drug dealers who had taken over public space. The command hierarchy consulted their sources every morning and used the intelligence about shifting hot spots to put together an operational plan for the afternoon of the same day, to catch local dealers red-handed. A system of incident reports in standardized formats allowed public housing officials and other partners to keep the police apprised of vandalism,



graffiti and violence, which can indicate shifts in patterns of offending, and local officials used these inputs to prepare regular analyses that were archived to preserve institutional memory of sources and intelligence, making it possible to track long-term trends and changes in membership of drug distribution networks, while allowing criminal investigators to assemble criminal cases against particular priority targets identified as ringleaders by the intelligence unit, based on its long-term review of crime trends and changes in the membership of distribution networks. In this way, the command hierarchy coordinated the partnership regime, public tranquility intelligence, and criminal intelligence as part of an overarching strategy that coalesced around the new national policy initiative (high crime security zones) as well as a local problem with the takeover of public spaces by open-air drug markets.

The charts below illustrate the matrices that track the ways in which intelligence work can be improved, implemented, and distinguished across professional cultures within the police:

This matrix can be used as a checklist to be consulted by police leadership in putting together a strategic intelligence place for addressing particular problems of concern to the leadership. The first box of the matrix concerns organizational resources. It asks the command hierarchy to select a strategic objective or priority. The rest of the box prompts the decision-maker to take inventory of the full range of units that could supply relevant intelligence concerning the selected crime problem or security concern, as well as the specialized professional skills available for deployment, and the relevant tools, databases and methods that the leadership may employ.

The second box ensures that the command hierarchy plan for every stage of the intelligence cycle, with relevant units and tasks identified for each stage, from the process of orienting the search or intelligence and making ground level units aware of the information they are meant to seek, to the actual process of collecting, transmitting and analyzing intelligence.

Matrix for building intelligence capacity

1. Organisational components of the strategy

- 1.1 Crime problem
- 1.2 Policy Initiative
- 1.3 Available units
- 1.4 Specialised professional skills
- 1.5 Tools and methods

2. Stages of the intelligence cycle

- 2.1 Building the network and orienting the search
- 2.2 Information collection
- 2.3 Transmission
- 2.4 Analysis and aid to decision making

3. Dimensions of improvement

- 3.1 Strategic planning
- 3.2 Associating partners
- 3.3 Expanding the network of sources
- 3.4 Managing information flows

4. Intelligence regimes

- 4.1 Public order intelligence
- 4.2 Criminal intelligence
- 4.3 Public tranquility intelligence
- 4.4 Partnership intelligence
- 4.5 Managerial intelligence

1



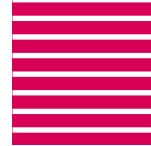


Box Three lists the axes for improvement of any intelligence plan, that is to say, the key considerations for decision makers to take into account in their intelligence strategy: these include formulating clearly defined objectives and identifying the individuals who will be assigned responsibility for planning and implementation of the strategy. In addition, all relevant partners must be considered and engaged in the planning process and assigned a well-defined role in the overall plan. The network of informational sources must be expanded. And there must be a system for organizing, managing, and searching the incoming information flows.

Finally, consideration of the five intelligence branches requires the command hierarchy to select the appropriate units and to decide how to divide up intelligence tasks and how to best coordinate different regimes. For this it is essential to recognize their very different ways of making sense of reality—and their different action repertoires. Understanding the coexistence of fundamentally different métiers within the police is essential to employing them effectively, with a keen appreciation of the risks of placing them at cross-purposes with each other as well as the benefits of using them in complementary ways that can allow each to compensate for the blind-spots and biases of the others.

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MANAGEMENT TOOL USAGE AND PERCEIVED BENEFITS: INSIGHTS FROM GERMANY'S POLICE FORCES



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Abstract: The purpose of this paper is to highlight the degree to which Germany's police forces have implemented selected Public Management instruments. The authors conducted 154 partially structured interviews about these instruments with key managers in Germany's police forces and then analysed the responses using parametric and non-parametric methods. A principal finding of the analysis is that controlling tools and management by objectives have relatively higher degrees of implementation than product-related tools (e.g. product-related budgeting, product-related cost accounting) and outsourcing. The study therefore concludes that the strategy-and-goal-oriented dimension has a larger impact on the management system of Germany's police forces than the financial dimension does. A literature review shows that these relationships are not peculiar to Germany's police forces.

Keywords: police management; public management reforms; management accounting tools; organisational change; Germany.

INTRODUCTION

Since the mid-1980s, Public Management has become one of the dominant paradigms in administrative science (Pollitt and Bouckaert, 2004). Its main focus is on transferring applied management principles and concepts to the governmental sector in order to improve the efficiency and effectiveness of public administration (Hood, 1991). Public Management, however, does not represent a clearly defined program, but rather a loose, multifaceted concept embodying a 'shopping basket' of various instruments and tools (Christensen and Lægreid, 2001). Most of these tools, though, share a common origin and emphasise business values such as rational decision-making, cost-effectiveness, performance and productivity (Halachmi and Bouckaert, 1996).

In the 1990s, the Public Management paradigm began making significant inroads into a unique

organisation within the public sector: the police. Subsequently, police forces in many countries have incorporated it into their managerial practices (McLaughlin and Muncie, 1994; McLaughlin and Murji, 2001; Vickers and Kouzmin, 2001; Promberger et al., 2006; Cockcroft and Beattie, 2009).

Although Germany's sixteen state and two federal police forces have pursued varying approaches, one can classify their adoption of Public Management into three rough phases (Ritsert, 2005). In the first, or 'pioneering', phase (1995-1998), reformers relied dogmatically on the theoretical *Neues Steuerungsmodell* (new management control model) as their sole standard. Not infrequently, their enthusiasm for this model led to unrealistically high expectations about the benefits to be gained by implementing it.



The practical problems encountered by police forces trying to employ the model generated great disillusionment. These problems prompted a sober reassessment of the underlying reform model during the second, or 'modification', phase (1999-2002). Accordingly, efforts then focussed on putting only selected elements of the new management control model or models used in the private sector (e.g. total quality management, balanced scorecards, and so forth) into effect. Yet implementation of even these reforms remained a 'Sisyphean task', causing considerable irritation among police personnel with operational responsibilities. As a result, interest in creating a new, comprehensive management system for the state and federal police forces declined further.

Since 2002, therefore, higher authorities have found themselves in an 'integration' phase. They have concentrated on introducing modern management methods more pragmatically, employing them in selected subunits for narrower purposes rather than more broadly in entire police forces. Thus, the Public-Management-toolkit, albeit with varying contents, has found its way into Germany's police forces (Lange and Schenck, 2004; Promberger et al., 2006; Ritsert and Pekar, 2009).

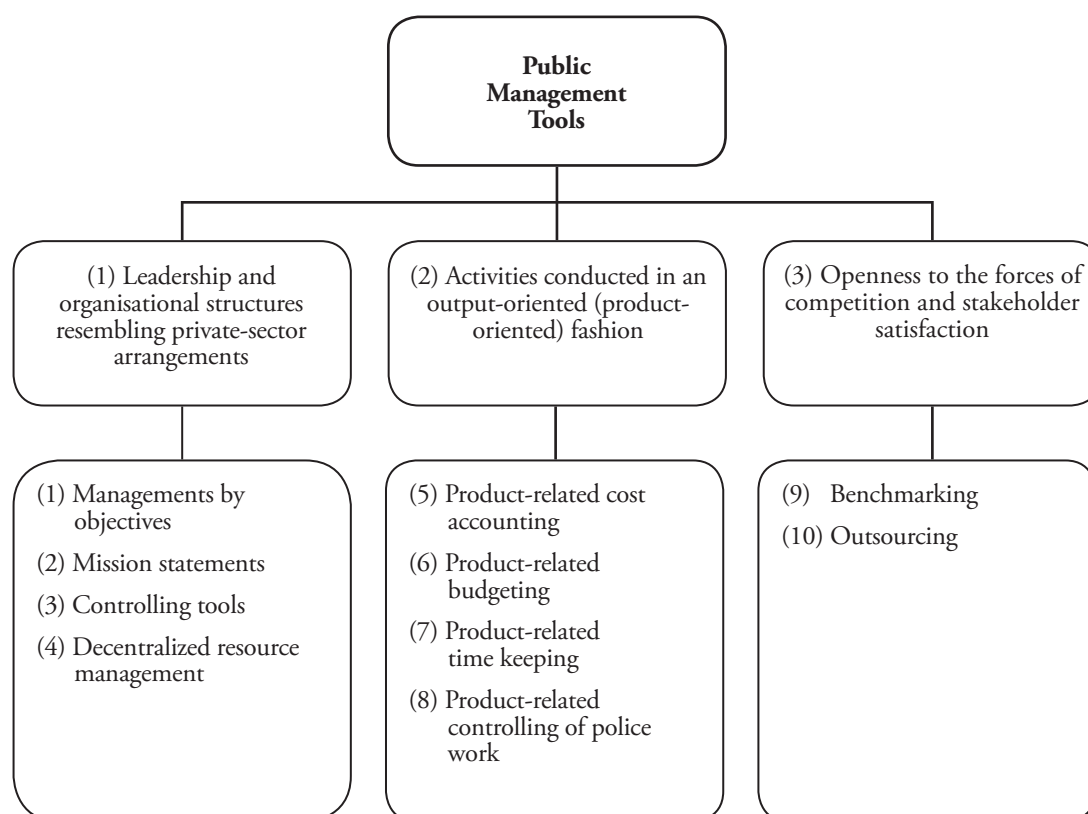
In view of this history, the following key questions arise: Which management instruments do Germany's police forces mainly use? What do police managers perceive to be those tools' benefits?

To answer these questions, we first present a methodological framework. Next, we identify significant instruments which Germany's police forces have incorporated into their operations in the context of Public Management reforms. We then describe selected impacts associated with these innovations. Finally, we discuss insights into the police managers' perceptions of the benefits gained.

METHODOLOGICAL FRAMEWORK

The new management control model, an early variant of the New Public Management Model, initially served as the dominant reference concept for reforming Germany's police forces. Hence, this model constitutes the framework for analysing the management approaches studied. As depicted in Figure 1, it consists of three elements, encompassing a total of ten instruments (Jann, 2005).

Figure 1. New Management Control Model — Tool-Kit ⁽¹⁾



⁽¹⁾ Taken from Jann (2005).



After discussions with the participating ministries confirmed these instruments' importance for the reform process, we fielded a survey. The research design involved our questioning a sample of experts from Germany's sixteen state and two federal police forces. We used partially structured telephone interviews because even experts often have quite different understandings of Public Management terms. The resultant interactive inquiry allowed us to clarify this terminology with the respondents to ensure collection of truly comparable data. In addition, we assured the experts' anonymity by omitting their names and police force affiliation from data collection.

The questionnaire administered during the interviews had four main parts, three of which are relevant for the research reported here. The first section contained nine questions about the interviewee's position and qualifications. The second part consisted of 22 items pertaining to the degree of implementation and perceived importance of selected Public Management tools. The third section comprised 30 items asking about the interplay between Public Management reforms and their impact on organisational change.

Overall, we intended to select between 10 and 12 experts from each state and federal police force for interviewing. Given the three-tiered administrative structure common to German police forces, we chose those experts as follows:

- **Group 1** (Experts from top-level federal or state institutions, such as interior ministries or their equivalents): from each institution, we chose one or two individuals who had major responsibilities in the area of Public Management reforms.
- **Group 2** (Experts from intermediate federal or state authorities): we selected five or six officials from each agency whose job descriptions indicated their responsibilities lay predominantly in the area of Public Management reforms.
- **Group 3** (Experts from lower-level federal or state agencies): we identified five or six staff members per agency whose current responsibilities largely concerned Public Management reforms and who had at least one year of job experience in that area.

When more people met the criteria than envisioned for a contingent's size, we randomly selected the requisite number. With the exception of the Hessian state police, all German police forces participated in the study. Because some police forces did not have a sufficient number of experts meeting the selection criteria, though, not every contingent contained 10-12 experts. In the end, 154 experts participated. From September 2009 to January 2010, telephone interviews averaging 25 minutes apiece took place with all the experts. Accordingly, both the participation rate and the interview completion rate were 100 %.

SELECTED RESULTS OF THE STUDY ACCORDING TO TOPIC

DEGREE OF IMPLEMENTATION AND THE IMPORTANCE OF PUBLIC MANAGEMENT TOOLS

Experts assessed the degree of implementation of the ten instruments in their respective police forces on the following scale: (1) not operative; (2) planned, but not yet in force; (3) piloted in individual areas; (4) established throughout the entire police force; and (5) routine — with constant evaluation and improvement. 'Don't know' responses were excluded from the analysis.

In this connection, the authors identified three groupings with regard to the degree of implementation. Category 1 (mean value > 4.0) consists of controlling tools (4.1, n=152) and management by objectives (4.1, n = 150). Decentralised resource management (3.4, n=146) mission statements (3.3, n=145) and benchmarking (3.0, n=146) comprise Category 2 (3.0 ≤ mean value ≤ 4.0). Category 3 (mean value < 3.0) encompasses the product-oriented instruments and outsourcing (2.4, n=135).

In addition, the experts were asked to give their opinion with regard to the importance of the selected management tools. For the assessment of the tools' relevance, the following scale values were available: (1) unimportant, (2) rather unimportant, (3) indifferent, (4) rather important, (5) important, or 'don't know'. Based on the resulting assessments by the respondents, the authors identified three groupings with regard to the importance of selected management



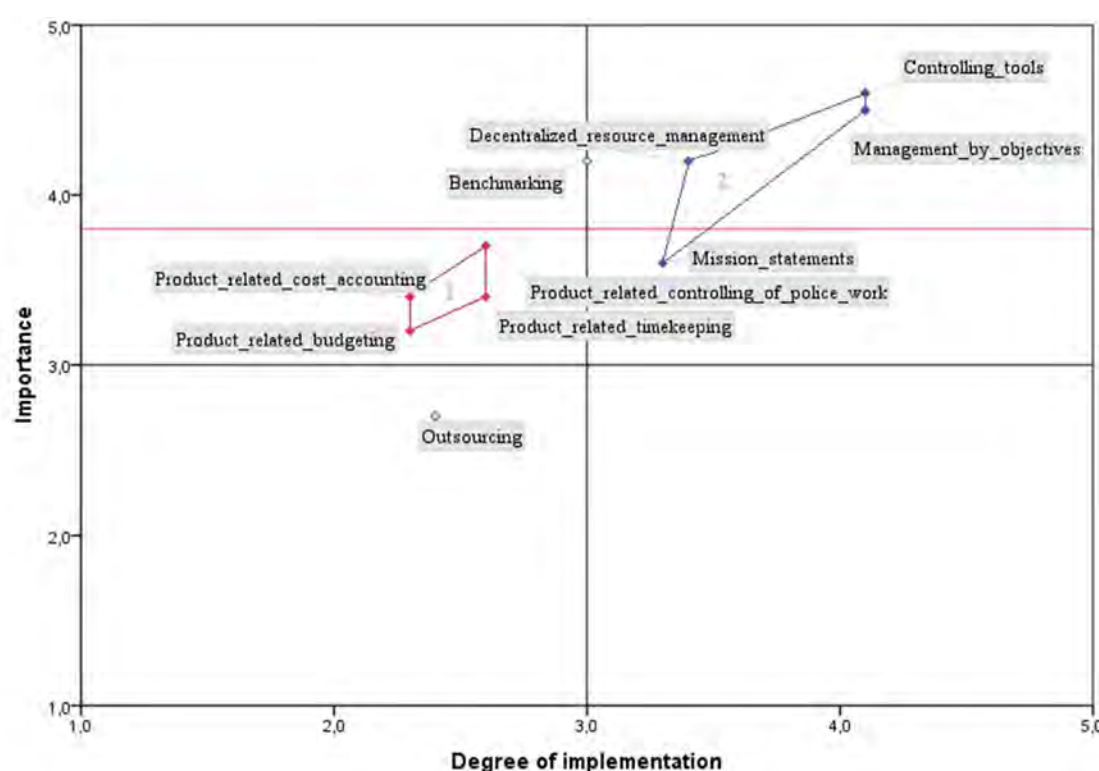
tools. Category 1 (mean value > 4.0) contains controlling tools (4.6, n=152), management by objectives (4.5, n=154), decentralised resource management (4.2, n=152) and benchmarking (4.2, n=153). Product-oriented instruments and mission statements (3.6, n=152) comprise Category 2 (3.0 ≤ mean value ≤ 4.00). Category 3 (mean value < 3.0) encompasses outsourcing (2.7, n=145).

We present these findings on a four-field diagram to illustrate the development potential of selected Public Management tools (Figure 2). Defining the location of a given Public Management tool

within the four quadrants are the corresponding values of its degree of implementation and its importance.

Due to the fact that experts probably assess the selected management tools more positively than would other comparison groups within the police forces, we redefined the axial cross. The horizontal position of the new axial cross stems from calculation of the mean for all values with regard to the degree of implementation. The same applies to the vertical position in relation to importance. Accordingly, the axial cross now is at (3.0/3.8).

Figure 2. Importance and degree of implementation of the selected Public Management tools.



Box 1 contains Group 2's management tools (numbered 5-8 in Figure 1). These instruments are not well regarded, being characterised by both a low degree of implementation and low perceived importance. In this context, two interpretations are plausible: (a) the low importance is a consequence of the low degree of implementation; (b) the low degree of implementation is a consequence of the low importance. In the first case, an investment strategy would be logical if boosting the degree of implementation would lead to greater benefits and, hence, higher perceived importance. In the second case, a divestment strategy would be

logical, due to the tools' perceived unimportance and, thus, weak expectations for their beneficial employment.

Box 2 holds Group 1's management tools (numbered 1-4 in Figure 1). High degrees of both implementation and importance characterise these instruments. In combination, the two characteristics indicate good suitability and most likely ought to lead to additional investment to promote further enhancements, refinements and innovations regarding them. Only the mission statement tool potentially faces decreasing implementation on account of its lower



perceived importance. In its case, consolidation or divestment strategies would be logical.

Outsourcing and benchmarking (Group 3 in Figure 1, the toolkit of 'openness to the forces of competition and stakeholder satisfaction') lie outside the two boxes. In terms of outsourcing, the low importance or low degree of implementation most likely will lead to divestment strategies, too. In the case of benchmarking with its high importance, growth strategies seem appropriate in order to increase its degree of implementation. Nonetheless, benchmarking also appears to hold only a moderate potential for reforms or innovations.

IMPACT OF PUBLIC MANAGEMENT TOOLKIT USAGE

To analyse the effects of Public Management toolkit usage in police force management, the questionnaire operationalised police management along selected dimensions such as strategy-and-goal-oriented or finance-oriented. The respondents' agreement with items indicated the reform toolkit's overall impact on a given dimension. Values on the agreement scale were: 1 = strongly disagree; 2 = disagree; 3 = agree; and 4 = strongly agree.

The results show respondents believe the strategy-and-goal-oriented dimension has the largest impact on police forces' management systems with an overall arithmetic mean of 3.15. By favouring this dimension, respondents also indicated their support for the public management instruments composing it, namely a long-term orientation on strategic objectives, setting measurable goals, and developing methods for measuring and managing performance.

With regard to the financial dimension (arithmetic mean of 2.54), we discovered a surprising lack of influence. Public institutions generally have faced economic pressure due to increasingly constrained budgetary resources. Hence, financial goals such as efficiency and effectiveness have become crucial elements of public management concepts. In contrast, the study's results show that the associated reforms have had only a moderate impact on the financial dimension. This finding stems from respondents' assessment of the degree to which public management instruments facilitated:

an orientation on financial and budgetary transparency as well as on strategic goals; delegation of responsibility for the efficient and purposeful use of monetary resources; heightened cost awareness; and creation of greater room for manoeuvre in resource allocation decision-making. With a mean of 3.45, only decentralised resource management has attained a moderate degree of implementation.

To analyse whether the observed differences among the selected dimensions were significant, we employed several statistical tests. First, we ran a Kolmogorov-Smirnov test. The results showed the data for the financial dimension to be normally distributed ($p > 0.05$).

Because the data for the strategy-and-goal oriented dimension were not distributed normally, though, we then used the Friedman test for non-parametric location as well as Wilcoxon signed-rank tests with a Bonferroni correction (at $p < 0.003$). These tests demonstrated that the financial dimension was significantly different from the strategy-and-goal-oriented dimension.

In addition, the study used an analysis of internal consistency to test the impact of Public Management toolkit usage on the organisational management system of Germany's police forces. For the purpose of measuring the internal consistency of items within the selected dimensions, a Cronbach's α value of 0.70 generally is an acceptable threshold for reliability (Nunnally and Bernstein, 1994). For both dimensions, values of the test statistic exceeded 0.75.

In summary, it is noteworthy that:

1. Instruments 1-4 (Group 1) serve to introduce private-sector leadership and organisational principles and thus lend a goal-and-result orientation to police management. Their high degree of implementation and perceived high importance are consistent with the experts' belief that these instruments' effects are greatest in the area of strategy and goal orientation.
2. Given that tools 5-8 (Group 2) enjoy less perceived importance and a lower degree of implementation, these results also are consistent the experts' opinion that the financial dimension (cost transparency, efficient resource usage) has relatively little influence on police management.



DISCUSSION

At first glance, it may seem surprising that financial aspects have had only small observable effects on Public Management within Germany's police forces. After all, the demands for higher efficiency were, and still are, a core concern of the administrative reforms (e.g. Drummond et al., 2000; Brunetto and Farr-Wharton, 2005). On the other hand, it is worth remembering that a special feature of administrative organisations is the dominance task-related goals enjoy over efficiency goals. This dominance is especially evident in agencies, which are responsible for exercising a state's sovereign safety and security functions. For example, product-specific costing has been unable to establish itself in practice. Indeed, some police forces (e.g. the Federal Criminal Police Office, the Federal Police and North Rhine-Westphalia's police) have abandoned their attempts to create product definitions for a variety of police service outputs and outcomes.

Because decentralised budgeting achieved good results in pilot agencies, it persists in some of them (e.g. in Baden-Württemberg). Still, although initially successful elsewhere, the general experience with decentralised budgeting developed differently, too. When police agencies had to transfer their budget savings partly or entirely to the state or federal governments, their interest in managing more efficiently declined markedly. In summary, it seems that police authorities loosely couple some of their proclaimed formal financial practices with their actual behaviour in order to gain legitimacy with influential stakeholders. Collier pointed out that the introduction of management accounting change in a police force (West Mercia Constabularies) can, through loose coupling and a devolved budget, lead to a shift in power (Collier, 2001).

The large influence strategy, goal and controlling instruments have also can be explained partly by police work's high reliance on a division of labour. Police forces favour them because these instruments are helpful in coordinating their manifold activities. Moreover, previous reforms of Germany's police organisations had flattened their hierarchies and thinned out middle management. Hence, higher level authorities found it harder to manage subordinates through personal directives. As tools facilitating indirect administration, strategy, goal and controlling instruments have partially compensated for the elimination of middle management personnel. This effect explains why

strategy, goal and controlling procedures tend to be employed most often by the police forces of larger states (North Rhine-Westphalia, Lower Saxony, Bavaria and Baden-Württemberg).

A review of specialised literature shows these relationships are not peculiar to Germany's police forces. Other countries' police forces display similar patterns of toolkit usage. For example, in the Netherlands studies endeavour 'result-based agreements', a management by objectives approach, containing contracts between the ministry of the interior and subordinated police authorities (Hoogenboezm and Hoogenboezem, 2005; van Sluis et al., 2008; Terpsta and Trommel, 2009). In addition, police forces in England and Wales relied heavily on performance related management concepts (e.g. Police Performance Assessment Framework and Assessment of Policing and Community Safety) to compare police forces' efficiency and performance (Drake and Simper, 2003; Loveday, 2006; Barton and Beyon, 2011). Strategic management concepts, such as the balanced primary, attracted attention in several European police authorities, in particular in Germany (Baden-Württemberg and Lower Saxony), Scotland (Wisniewski and Dickson, 2001), and Sweden (Carmona and Grönlund, 2003) but meanwhile face, at least in Germany, decreasing interest.

CONCLUSION

The frequently made demand that Germany's police forces introduce the Public Management concept as a holistic model and adjust their control systems accordingly has not been met in many places. All the same, the understanding of 'leadership' has changed somewhat, especially with respect to the adoption of a more strategic, output/output orientation for administrative actions. The experiences of many European police forces are broadly similar. That is a particularly important development because it surely would be a huge challenge to develop the classic instruments of intra-organisational coordination sufficiently to be useful for inter-organisational coordination. Yet such coordination among agencies similarly charged with safety and security responsibilities is crucial for protecting Europe's external borders, combatting internationally organised crime and defeating both domestic and international terrorism as well as attaining other objectives.



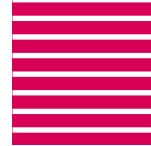
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TRANSFORMATIONAL, TRANSACTIONAL AND COOPERATIVE POLICE LEADERSHIP IN THEORY AND PRACTICE



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Abstract: The following article presents empirical results gained from police leaders' self-report questionnaires on leadership styles, and compares the cooperative leadership system, prescribed as the leadership model in the German police forces, to the internationally validated leadership literature. The aim of this analysis is to open up the leadership practices of the German police to a wider international audience, as well as critically evaluate police leadership in a more contemporary manner. Police leaders of today are found to endorse transformational, transactional and cooperative leadership behaviours, thus moving beyond traditional notions of the authoritarian, task-focused leader.

Keywords: Police leadership; police management; transformational leadership; transactional leadership; factor analysis.

COOPERATIVE LEADERSHIP IN THE GERMAN POLICE

The current predominant police leadership model in Germany emerged out of practical experience instead of theory and has been the object of little research (Weibler and Thielmann, 2014). This model, the so-called 'cooperative leadership system' ('Kooperatives Führungssystem' or 'KFS'), is prescribed as obligatory leadership behaviour in the German police regulations and has been the more or less dominant form of leadership in the German police forces since 1982. Its tentative theoretical foundation was laid by Wunderer and Grunwald (1980), and further developed by Altmann and Berndt (1992). The cooperative leadership system is based on three basic principles — *positive idea of man, trust and communication* — and on the following six elements of ideal leadership behaviour:

- *Delegation:* Police leaders are required to delegate tasks depending on the rank necessary to fulfil it satisfactorily. Whilst responsibility for carrying out the task is also

passed on, leadership responsibility is not delegated.

- *Participation:* This element of the cooperative leadership system describes the consultation of followers and their subsequent participation in setting goals.
- *Transparency:* This element refers to the police leader's actions, which should be openly communicated and put in relation to the organisation's decisions and aspired goals.
- *Representation:* This is important for all members of the police organisation, but leaders are especially asked to perform their official duties in representing their area of work and acting as role models.
- *Control:* This element of the cooperative leadership system is often discussed as the most controversial, but rather than demonstrating power, it includes the leader's responsibility to ensure that organisational goals are reached.





- *Performance measurement:* Finally, the cooperative leadership system calls for an objective, reliable and valid evaluation of employee performance.

If the above-mentioned principles and elements are internalised by police leaders, the resulting leadership style should, in contrast to authoritarian leadership, encourage teamwork and self-organisation, create scope and trust, and inspire and motivate police officers. The cooperative leadership system is considered appropriate leadership behaviour in the police throughout Germany and is widely accepted. The six elements as described above can be easily taught and learnt, which is advantageous to the training of future police leaders and explains the nationwide success of the model (Weibler and Thielmann, 2010). Difficulties arise when surveying the theoretical foundation of the cooperative leadership system (Weibler and Thielmann, 2014); not only is there an understandable lack of international research but Weibler and Thielmann (2010) also criticise the one-dimensional understanding of the model in Germany. Further still, the uncritical 'canon-like' adoption of the cooperative leadership system is feared to hinder the integration of new, practically-gained experience and discourage or hinder the extent to which it is furthered by research (Barthel, 2012). A leadership model, so influential to the daily police work in Germany, should be embedded into the rich leadership theory developed over the last 30 years and be the object of continuous deductive scrutiny under consideration of appropriate research.

THE CASE FOR TRANSFORMATIONAL LEADERSHIP

How should a successful leader act towards his followers, tackle problems and delegate responsibilities? The cooperative leadership system's answers lie within the six previously outlined elements to leadership behaviour, developed over years of condensed practical knowledge of the German police forces. And indeed, in order to recommend a course of action for a leader of any organisation, we initially need to describe and evaluate the leadership styles available to us. In order to make assumptions about future situations and varying

contexts, we should however strive towards the formulation of a valid leadership theory. The full range of leadership, as described by the multifactor leadership questionnaire (Avolio and Bass, 1995), encompasses the wide array of possible leadership styles an individual may represent. An individual's leadership style is seen as an amalgamation of transactional and transformational leadership.

Transactional leadership may lead to success in certain 'strong situations', and denotes a relationship between leaders and followers based on exchanges and interactions focused on serving one's self-interest. The sub-dimensions 'contingent reward' and 'active management-by-exception' indicate ways in which the transactional leader may influence and direct his employees. A leader who guides his followers' behaviour by contingent rewards clearly states the desired goals, and rewards actions and steps taken to achieve them. The transactional leader who engages in active management by exception will supervise the employees' work but will interfere only if employee actions are in danger of jeopardising the organisation's standard (Bass, 1999).

Transformational leadership is a style of leadership in which the leader creates a vision to manage an organisation through inspiration, and emphasises intrinsic motivation and the positive development of followers, thereby increasing their organisational commitment. It is described by four dimensions in Bass and Avolio's (1995) *Multifactor Leadership Questionnaire* (MLQ), developed to measure the full range of leadership styles. (1) Idealised influence encompasses two components: behavioural idealised influence and attributed idealised influence. The former paints the picture of a charismatic leader, who clearly communicates his values and beliefs, emphasises the collective nature of the task at hand, and acknowledges the ethical implications of his decisions. The latter emphasises the followers' view of their leader and whether or not he/she is seen as charismatic, powerful and generally someone they would want to be associated with (Aydogdu and Asikgil, 2011). A transformational leader high in (2) inspirational motivation succeeds in exciting followers for his plans and his vision of the future. By appealing both to personal and organisational goals, employees are challenged and their effort is subsequently heightened (Bass, 1990). (3) Intellectual stimulation is achieved by linking rationality



and problem solving with an encouragement to think creatively and challenge the status quo. (4) Individual consideration describes a leader who coaches, advises and supports his employees. This dimension is developmental in nature, as the leader who scores high on individual consideration focuses on finding learning opportunities suited to the respective employee's needs, concentrates on promoting continuous growth and subsequently believes in the empowerment of his followers (Avolio and Bass, 1995).

Whilst the authors of the full range leadership theory are careful to not condemn transactional leadership, transformational leadership is nevertheless seen as the superior, more effective and therefore the recommended way to lead.

ADAPTATION FROM THE PRIVATE SECTOR TO THE PUBLIC SECTOR TO THE POLICE?

In their critique of transformational leadership, Currie and Lockett (2007) are sceptical of endorsing transformational leadership, a model developed for the private sector, in the public sector. The sample of interest in their study was made up of teachers from different UK schools, and yet the doubts seem worth considering in other public sectors, too. The bureaucratic nature of the public sector and policies governing work life in a top-down manner, the authors argue, directly oppose liberties that a truly transformational leader would require. Additional qualities, such as strict hierarchies and a lack of equal communication, may further limit the necessary antecedents to the emergence of transformational leadership in the public sector (Wright and Pandey, 2009). In this case, despite transformational leadership perhaps being the most beneficial leadership style, its satisfactory implementation cannot be achieved. Whilst acknowledging the difficulties of directly applying theories developed in the private sector to the public sector, it is worth pointing out that it would be a loss to ignore the extensive research in this field, and on the whole the public sector could profit by paying more attention to modern leadership models (Currie and Lockett, 2007; Wright and Pandey, 2009).

The police work environment is seen as special in the public sector. It is said to be characterized by paramilitary structures (Bruns and Shuman, 1988) and traditionally bureaucratic in nature (Coleman, 2008). According to Vera and Koelling (2013, p. 68), the organisational culture of the police 'follow(s) an authoritarian organizational model, which requires unquestioning obedience, embraces superior/subordinate relationships and fosters conformity and "groupthink"'. Hence, police culture 'puts a lot of emphasis on rank structures and promotes the assertive and strong leader' (Barth-Farkas and Vera, 2014, p. 224). However, this cultural orientation has been increasingly challenged in the last decades not least by the general trend towards community policing. Although the traditionally established structures run the risk of undermining new approaches to leadership (Chappell and Lanza-Kaduce, 2010) and new management tools and concepts such as strategic management need to be adopted by the police forces in order to guarantee successful community policing (Coleman, 2008), transformational leadership may not be unreachable and may potentially bear solutions for an ever-changing police force.

In fact, studies find that a shift from leadership styles more indicative of transactional to transformational leadership has already occurred in many police organisations. For example, Norwegian police managers' attitudes to different leadership styles were studied in 2012 and they were shown to identify less with the role of the so-called resource allocator in favour of the personnel leader, illustrating a move from more exchange-based (transactional) to interpersonal (transformational) leadership styles (Gottschalk and Glomseth, 2012). Other studies support this notion of a less authoritarian police force in favour of more democratic and shared leadership (Sarver and Miller, 2014). Schafer (2010) reviews the research on police leadership and also finds a preference for more supportive and participatory leadership styles going beyond traditional, autocratic approaches. He interprets these findings as evidence for a more open-minded police force when it comes to modernising traditional systems.

In a time when empowering individuals is found to be current practice in police organisations (Vito, Higgins and Denney, 2014) the 'incestuous culture that has been identified as a major impediment to change' (Butterfield, Edwards, and Woodall, 2004, p. 399) may now be an outdated



and negative view on modern police culture. The bilateral relationship between transformational leadership and change makes it so suitable for the police context. In a dynamic environment, effective police leadership becomes necessary and staying adaptive is paramount to any leadership style under consideration (Pearson-Goff and Herrington, 2014). Especially during times of change, transformational leadership is viewed as the best leadership style for police work (Silvestri, 2007).

Not only are police organisations having to react to major changes in our society but the work environment and different situational factors will also influence police leadership (Krimmel and Lindenmuth, 2001). In today's police organisations, leaders need to balance management and leadership roles (Kingshott, 2006) depending on what the situation calls for. Seeing as both performance and satisfaction (employee happiness) are benchmarks against which German police leadership is evaluated, task and person orientation are equally important (Weibler and Thielmann, 2010, 2014) and a balanced leader will have to succeed in utilising both orientations depending on what the situation calls for. Sarver and Miller (2014) view the highly situational nature of police leadership as the main reason for transformational leadership being the most effective leadership style in their study of police chiefs in Texas.

The cooperative leadership system of the German police forces is also thought of as situationally rooted and the somewhat vague description of its six elements enables necessary flexibility (Weibler and Thielmann, 2010, 2014). Weibler and Thielmann (2014) compared the cooperative leadership system to transactional leadership and recommended extending it to include both transactional and transformational leadership behaviours resulting in what they call transformational cooperation. Still, the relationship between cooperative leadership on the one hand and transformational as well as transactional leadership on the other hand remains ambiguous and nebulous, in particular with regards to the application of these leadership styles in day-to-day police work. The present paper aims to clarify these issues by explaining how the cooperative leadership system compares to the full range leadership model as measured by Bass and Avolio's (1995) *Multifactor Leadership Questionnaire* (MLQ).

METHODOLOGY

DATA

Data were collected from February to March 2014 using an online questionnaire that was made available to all 120 master students at the German Police University. These students were mid-career police officers in the German police forces with several years of mid-level leadership experience. Participation in the survey was voluntary and anonymous. 62 questionnaires were completed leading to a return quota of 51.66 %.

LEADERSHIP MEASUREMENT

A German version of the leader form of Bass and Avolio's (1995) Multifactor Leadership Questionnaire (MLQ) was administered to measure the participants' leadership style. The 45 items in the MLQ measure how often the participants exhibit specific leadership behaviours (e.g. 'I articulate a compelling vision of the future') on a 5-point Likert-type scale (0=not at all; 4=frequently) and allow the calculation of the participants' scores on the five sub-dimensions of transformational leadership (attributed idealised influence, behavioural idealised influence, inspirational motivation, intellectual stimulation, individualised consideration), the two sub-dimensions of transactional leadership (contingent reward, active management-by-exception), two passive-avoidant leadership styles (passive management-by-exception, laissez-faire) and three outcomes of leadership (effectiveness, satisfaction, extra effort). According to Avolio and Bass (2004), Cronbach's Alpha reliability scores for this widely-used instrument range between 0.60 and 0.76.

ANALYSES

The MLQ was, however, not developed to measure cooperative leadership in general or the cooperative leadership model used by the German police forces in particular. Therefore, we applied exploratory factor analysis to the data to identify underlying dimensions that might drive common sets of measured items. As all participants were experienced German police leaders who had studied the cooperative leadership system and had been encouraged to



apply it in their work, we expected to find the cooperative leadership system roughly reflected in the factor structure.

The Kaiser-Meyer-Olkin measure of sampling adequacy was at 0.64 and thus meets the minimum requirement for conducting a factor analysis. Bartlett's test of sphericity was significant ($\chi^2(990) = 1342.31, p < 0.001$), allowing us to proceed with our factor analysis. Hence, we conducted a principal components analysis with varimax-rotation on all 45 questions of the administered MLQ questionnaire, resulting in twelve factors being initially extracted, due to their eigenvalues lying above 1.00. Considering the initial eigenvalues, the first factor explained 17 % of the variance, factor two explained 7 % of the variance, factors three, four, and five each explained just over 6 % of the variance, and factors six through twelve explained approximately 4 % respectively.

In favour of an easier interpretation, considering the scree plot, and the research goal of bringing together the theoretical underpinnings of the full range leadership model and the cooperative leadership model, a six factor solution was chosen, which accounts for nearly 60 % of the total response variation. Items that did not load clearly into the six defined factors, e.g. due to low factor loadings or significant cross-loadings, were eliminated. The factor loadings of the remaining items are shown in Table 1.

OMITTED VARIABLES

Our online questionnaire also included a number of variables that we expected to be associated with differences in leadership style, e.g. age, gender, family status, which have been used in another empirical study (Barth-Farkas and Vera, 2014). In the present study, however, they were superfluous and consequently not included in the statistical analyses.

RESULTS

FULL RANGE LEADERSHIP MODEL

As Figure 1 shows, the investigated police leaders on average scored highest on the *transformational leadership* dimension of the MLQ. The mean score for *transactional leadership* was only slightly lower. Average scores for *laissez-faire leadership* and *passive management-by-objectives* were clearly lower. Overall, German police leaders seem to practice a leadership style that represents an amalgamation of transactional and transformational leadership as recommended by the better part of the literature on leadership, whereas the passive or avoidant leadership styles only play a minor role.

Figure 1. Leadership styles of German police leaders.

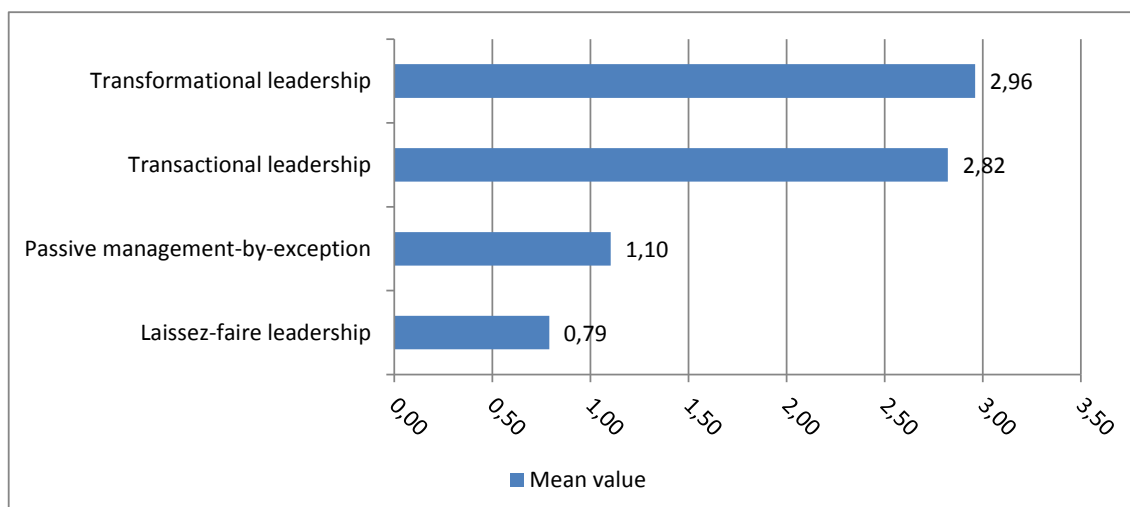




Table 1. Results of factor analysis.

Items	Factor 1: Transformational communication	Factor 2: Proactive leadership	Factor 3: Follower motivation	Factor 4: Follower trust	Factor 5: Leader effectiveness	Factor 6: Individual control
I consider the moral and ethical consequences of decisions.	0,80	0,09	0,14	0,00	0,15	-0,15
I seek differing perspectives when solving problems.	0,75	0,03	-0,03	0,02	-0,04	0,18
I talk about my most important values and beliefs.	0,70	0,17	-0,05	0,18	0,00	-0,12
I emphasize the importance of having a collective sense of mission.	0,70	0,39	0,28	0,05	0,20	-0,17
I specify the importance of having a strong sense of purpose.	0,70	0,20	-0,03	0,25	0,21	-0,22
I articulate a compelling vision of the future.	0,69	0,23	0,20	0,43	0,13	-0,02
I am effective in meeting others' job-related needs.	0,58	0,07	0,27	0,36	0,18	0,15
I am absent when needed.	-0,55	-0,30	-0,14	0,17	-0,02	-0,27
I consider an individual as having different needs, abilities, and aspirations from others.	0,54	0,40	0,30	0,26	-0,25	0,20
I avoid making decisions.	-0,05	-0,80	0,01	-0,18	-0,11	-0,02
I delay responding to urgent questions.	-0,28	-0,67	-0,06	-0,24	-0,09	-0,19
I express satisfaction when others meet expectations.	0,34	0,56	0,23	0,19	-0,09	0,01
I provide others with assistance in exchange for their efforts.	0,13	0,52	0,39	-0,20	0,20	-0,13
I use methods of leadership that are satisfying.	0,07	-0,07	0,78	0,17	0,05	-0,06
I act in ways that build others' respect for me.	-0,17	0,00	0,71	-0,06	0,05	-0,01
I get others to do more than they expected to do.	0,39	0,21	0,66	0,27	0,22	-0,08
I heighten others' desire to succeed.	0,40	0,30	0,55	0,19	0,36	-0,04
I display a sense of power and confidence.	-0,17	-0,11	0,09	0,75	0,17	0,03
I express confidence that goals will be achieved.	0,36	0,48	0,11	0,64	0,23	-0,07
I am effective in representing others to higher authority.	0,16	0,33	0,22	0,47	-0,10	0,11
I keep track of all mistakes.	-0,26	0,05	0,08	0,04	0,70	0,07
I instill pride in others for being associated with me.	0,14	0,06	0,05	0,22	0,68	-0,10
I am effective in meeting organizational requirements.	0,08	-0,14	0,15	0,11	0,58	0,31
I direct my attention toward failures to meet standards.	0,07	0,05	0,24	-0,33	0,48	0,22
I concentrate my full attention on dealing with mistakes, complaints, and failures.	-0,33	0,19	0,13	-0,20	0,18	0,65
I focus attention on irregularities, mistakes, exceptions, and deviations from standards.	-0,04	0,17	-0,37	-0,09	0,16	0,60
I discuss in specific terms who is responsible for achieving performance targets.	0,31	-0,10	0,09	0,21	0,29	0,50



EXTRACTED LEADERSHIP DIMENSIONS

As already mentioned above, the results of the principal components analysis suggested a six factor solution (see Table 1). It is important to note, however, that the interpretation of the results of factor analyses is necessarily a subjective process, and that other researchers may attribute very different meanings to the factor structure illustrated in Table 1. This is all the more the case with a topic as intangible and vague as leadership behaviour. Nevertheless, after examination and interpretation of the items underlying the six factors we allocated the following dimensions of leadership to them.

- *Transformational communication*: This factor combines transformational leadership elements, with a strong emphasis on items measuring idealised influence (e.g. 'I consider the moral and ethical consequences of decisions'). Leadership behaviours focusing on verbalising and acting in accordance with the organisation's mission and values ('I emphasise the importance of having a collective sense of mission') are characteristic for a transformational leader. In the cooperative leadership system of the German police, this behaviour is outlined in the basic principles *positive idea of man* and *communication* as well as in its elements *participation*, *transparency* and *representation*.
- *Proactive leadership*: The negative factor loadings of laissez-faire items (e.g. 'I avoid making decisions') combined with a positive attitude towards appreciating and supporting followers (e.g. 'I provide others with assistance in exchange for their efforts') result in a factor capturing the proactive, transactional police leader emerging from the element *representation* of the cooperative leadership model..
- *Follower motivation*: The third factor represents the importance of teamwork and follower satisfaction (e.g. 'I use methods of leadership that are satisfying'), but also the ability of the police leader to incite followers' motivation and dedication (e.g. 'I heighten others' desire to succeed'). Such behaviour is outlined in the cooperative leadership system's basic principle *positive idea of man* and in its element *control*.
- *Follower trust*: This dimension also speaks towards a positive transformational style of leading. Items such as 'I display a sense of power and confidence' emphasise a self-confident leader who leads by example. Trust in the police leader is not only a basic principle of the cooperative leadership system, but also an important prerequisite for successful follower *participation*.
- *Leader effectiveness*: This factor includes items that combine measuring the leader's effort and performance (e.g. 'I am effective in meeting organisational requirements') with his ability to act as role model (e.g. 'I instil pride in others for being associated with me') as found in the elements *representation*, *control* and *performance measurement* of the cooperative leadership system.
- *Individual control*: The remaining factor encompasses leadership behaviours associated with the cooperative leadership system's elements *delegation* (e.g. 'I discuss in specific terms who is responsible for achieving performance targets.'), but also *control* and *performance measurement* (e.g. 'I focus attention on irregularities, mistakes, exceptions, and deviations from standards'). The corresponding items illustrate that control does not necessarily imply an excessive display of power but rather important screening and problem prevention.

EXTRACTED LEADERSHIP MODEL

Finally, we combined the items loading on the same factor to define six new variables that correspond to the above-mentioned six leadership dimensions. As Figure 2 shows, the investigated police leaders on average scored highest on the *proactive leadership* dimension of our extracted leadership model. The mean scores for *transformational communication* and *follower trust* were also quite high, whereas the average scores for *follower motivation* and *individual control* were clearly lower. The lowest mean score corresponded to the *leader effectiveness* dimension. Overall, these results are consistent with the measurement of leadership styles illustrated in Figure 1. The extracted leadership dimensions that include transactional and transformational leadership elements play a dominant role. With regards to the cooperative leadership system used by the German police forces our analyses show that

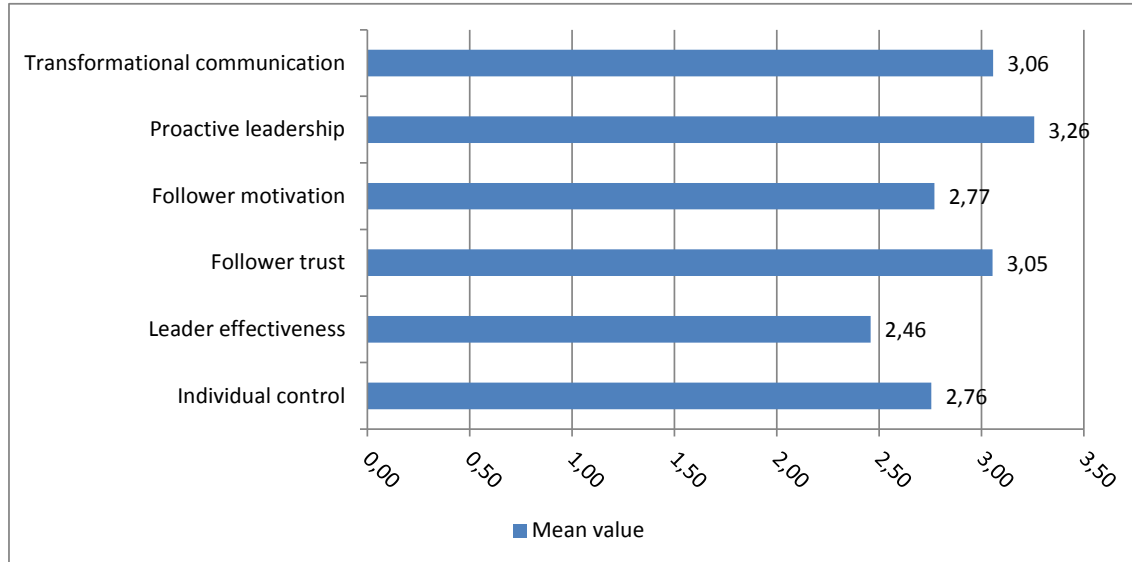




leadership dimensions related to the elements *performance measurement* and *control* achieve the lowest scores. Hence, these aspects of the

cooperative leadership system seem to play a minor role in the leadership practices of German police leaders.

Figure 2. Extracted leadership model of German police leaders.



DISCUSSION

Responding to the paucity of empirical research on police leadership, this study extends prior research in several ways. First of all, it contributes to a better informed and more balanced view of the leadership styles used in police organisations. Our results support neither Silvestri's (2007, p. 38) conclusion that 'police organization continues to cling firmly to a style characterized more by transaction than transformation' nor Densten's (1999) empirical finding that police officers used significantly less transformational leadership than the norm. And of course, they do not support Weibler and Thielmann's (2014) hypothesis that Germany's prescribed police leadership can be seen as transactional in nature. Study participants adopted both transactional and transformational leadership styles, supporting the recommendation that police leadership may most effectively borrow from different leadership styles depending on the situation (Vito et al., 2014).

Our results seem quite plausible as they are in line with recent empirical work. Research has consistently shown higher levels of education to be associated with higher scores on positive leadership indicators in general (Krimmel and Lindenmuth, 2001) and specifically higher levels of transformational leadership (Sarver and Miller, 2014). Furthermore, a study set in the

Spanish police indicates that positive and active leadership behaviours such as transactional and transformational leadership are most characteristic at high leadership rank (Álvarez, Lila, Tomás and Castillo, 2014). The results of our study, which is based on a sample of mid-career police officers with several years of mid-level leadership experience currently enrolled in a graduate degree that prepares them for future top-level leadership positions, support these empirical results. Our graduate student sample also highlights the potential of the two worlds of policing and academia working together (Steinheider and Wuestewald, 2008). Just as our study participants are influenced both by work practice and theoretical education, the cooperative leadership system is both applied in 'real life' and taught in lecture halls.

Overall, our results confirm that the cooperative leadership system used by the German police forces has had a notable impact on the leadership style of its leaders. The six leadership dimensions uncovered by the factor analysis are of course not identical with the basic principles and elements of the cooperative leadership system, but they certainly reflect its central ideas and characteristics. In practice, the leadership behaviour of police leaders does not conform to theoretical models or leadership regulations, but rather to the situational requirements and challenges of day-to-day police



work. Accordingly, it is not surprising that our factor analysis identifies leadership dimensions that combine transformational, transactional, cooperative and other aspects.

Whilst the six factors derived from the factor analysis included all basic principles and elements stipulated in the cooperative leadership system used by the German police forces, control and performance measurement seem to be of minor importance in the day-to-day work of German police leaders. This may be due to the different nature of police management on the one hand and police leadership on the other hand. The cooperative leadership system attempts to marry these two concepts, making it suitable for practical everyday police work. Research from Germany however argues that managerial thinking is at odds with the predominant organisational identity of police officers (Jacobs, Christe-Zeyse, Keegan and Pólos, 2008) and Butterfield et al. (2004) confirm that police sergeants need to learn to also identify with a management role, not only with stereotypical police culture. Our results support the notion that this liaison is difficult and that management aspects may be perceived by police leaders as foreign body in the context of a leadership model. Human resource development activities may therefore benefit from operationalising the differing concepts of leadership and management, emphasising the factor of personality in leadership

but not in management concepts (Kingshott, 2006). Especially as multiple studies are beginning to point towards shortcomings in police management (Butterfield et al., 2004; Coleman, 2008) a clear understanding of the differing leadership requirements in police work may be necessary to counterbalance these shortcomings and support leadership development.

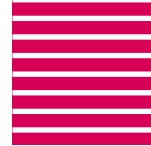
Finally, we would like to mention that this paper contains obvious limitations that should be recognised. Factor analysis on the MLQ answers of only 62 participants leads to difficulties in the analysis of the results. Multiple items loaded on more than one factor, hindering our research endeavour to theoretically combine transformational and transactional leadership with the cooperative leadership model. Future studies may also choose to draw from a more diverse population, in order to describe, for example, the effects of education level on leadership, especially as Kimmel and Lindenmuth (2001) point out that transformational leadership not only calls for an educated leader but also requires educated followers. And, of course, the question remains, whether the results of this study based on German data can be applied to other European police organisations. These limitations cannot be corrected within the scope of the present study but may serve as suggestions for follow-up studies, which should lead to interesting findings in this largely neglected field of research

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COUNTERFEIT PLANT PROTECTION PRODUCTS: A MIXED-METHODS STUDY OF AN EMERGING CRIME THREAT TO THE AGRICULTURAL INDUSTRY



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Abstract: The proliferation of counterfeit plant protection products (pesticides) across Europe has been well documented by both industry and popular media sources wherein the economic, environmental, and human costs are graphically described. However, this narrative is largely based on industry derived information. A recent UK Intellectual Property Office (IPO) assessment of such industry generated reports was sceptical of the data they contain and questioned their usefulness as the basis for response. The aim of this study was to produce data such that the extent of the threat posed to the UK agricultural industry by this crime could be ascertained. This was achieved by taking a blended approach, a strategy endorsed by the IPO as a means of more accurately capturing the true nature of a counterfeiting problem. The study was convergent parallel mixed method in design. The results of the study suggest that the industry and media narrative is a reasonable reflection of the UK counterfeit pesticide problem, at least to the extent that it recognises the typical *modus operandi*. However, the study also highlighted a number of characteristics of UK rural policing which essentially exclude this emerging crime from the rural policing agenda. Primary amongst these was an actuarial influence giving rise to a propensity to respond to risk as portrayed by those engaged in insuring against loss. This has significantly narrowed the rural policing focus. The study continues, drawing upon the results to develop strategies to mitigate the threat it poses to the UK agricultural industry.

Keywords: actuarialism; counterfeiting; organised crime; pesticides; United Kingdom.

INTRODUCTION

The worldwide trade in counterfeit goods has grown exponentially in recent years with strategic analysis suggesting that there is unlikely to be a reduction in this pattern in the foreseeable future (National Crime Agency, 2014). In considering what lies behind this rapid expansion the early part of the twenty-first century has seen the convergence of a number of factors which have collectively served to create a comparatively benign operating environment for those behind this trade. Firstly rapidly evolving manufacturing technologies have enabled them to reverse engineer and subsequently to mass produce convincing copies of genuine items (Endeshaw, 2005; Minagawa et al., 2007). Secondly the now ubiquitous nature of digital mobile communication and

the internet has brought together, at least in a virtual sense, illicit manufacturer, distributor and buyer and provided a variety of means by which the proceeds of the consequential crime can be legitimised (International Institute of Research Against Counterfeit Medicines, 2013; Levi, 2008, WIPO, 2009; Robbins, 2013; United Nations Office on Drugs and Crime, 2013). Finally the ease with which goods can be transported across national borders, especially within the European Union, means that the movement of counterfeit items is not constrained to anything like the extent it once was (Vithlani, 1998). However, whilst these are undoubtedly important influences it has been suggested that the growth in counterfeiting as a worldwide crime problem has been driven more by the activities of Organised Crime Groups (OCGs) than any other factor (Stumpf et al., 2011).



On all but the smallest of scales counterfeiting is the domain of complex crime organisations which base their operations on an implicit risk/return calculation (Staake et al., 2009). A rational actor view of counterfeiting operations would see these groups as constantly seeking to maximise profit and therefore consciously electing to engage in counterfeiting in preference to other illicit activity (Williams and Godson, 2002; Cabinet Office Strategy Unit, 2009). The return element of the equation is largely self-evident; these groups are trading high volume and often high value goods, this to the extent that some have suggested that this activity is now as profitable to them as illegal drug trafficking (FTI Consulting, 2013). At the same time the risk of being caught let alone prosecuted is perceived as being very low, largely the consequence of there being demonstrably poor rates of incidence reporting to the police or other enforcement agencies (Tilley and Hopkins, 2008). As a result counterfeiting is seen by OCGs as a 'soft crime' (National Crime Agency, 2014), that is to say one where they can exploit the unregulated gaps in enforcement with relative impunity and, as Coyne & Bell (2011: 71) describe, 'move quickly to take advantage of opportunities and avoid unnecessary risk'. It would seem then that OCGs have recognised that 'humdrum' crime is safer (The Economist, 2014).

COUNTERFEIT PLANT PROTECTION PRODUCTS (PESTICIDES)

The physical risks associated with untested pesticides being deployed on crops destined for human consumption is probably self-evident. This is an important consideration, for in simple economic terms fake pesticides constitute a relatively small part of the overall counterfeiting problem. That said it is not insignificant; a recent European Parliament library briefing estimated the market value of pesticides within the European Union to be in the order of EUR 8 billion per year (Erbach, 2012). The European Crop Protection Association estimates that in Europe somewhere between 7 % and 10 % of the crop protection products in the open market are illegal (Drury, 2014) and it is likely that the consequential cost to manufacturers in terms of lost business is to be in excess of EUR 0.5 billion a year.

Given the obvious economic and potential environmental and human costs of this counterfeit problem it is surprising that there is a near absence of associated criminological or criminal justice research. Less surprising is that, in the absence of academic support, the response has been based upon industry generated reporting of the problem. This is a common anti-counterfeiting practice, and one that has been criticised by the Intellectual Property Office (IPO), an executive agency sponsored by the UK Department for Business, Innovation & Skills (Collopy et al., 2014). The IPO concluded that industry derived studies are generally ad hoc in design, that unsubstantiated opinions are often treated as facts, and that such studies and the data contained therein are an unreliable basis for policy formulation.

Mindful of these criticisms, the aim of this study was to determine if counterfeit pesticides pose a substantive threat to the UK agricultural industry. This to be achieved by addressing the following consecutive objectives:

- i. To find if there is evidence of counterfeit pesticides being prevalent in the UK agricultural marketplace;
- ii. Assuming there is evidence of a counterfeit pesticide problem to ascertain if this is being addressed through police engagement;
- iii. If the police are not engaged with the problem to further consider why this might be the case.

A fourth and final study objective was contingent upon it being found that, in light of the first three objectives, there was sufficient evidence to conclude that there is a substantive threat. This was to make recommendations to reduce the risk posed to the UK agricultural industry by counterfeit pesticides. This final recommendation reflected the overall ethos of this study; that it should be a pragmatic rather than a purely theoretical consideration of a potentially significant crime problem.

METHODOLOGY

The IPO investigation into the efficacy of counterfeiting research may have been critical of contemporary counterfeiting research but



it was not entirely negative for it proffered an alternative methodology based upon a more eclectic attitude toward evidence gathering. It suggested that taking a broader approach to data gathering can produce a more reliable picture of the problem, at least when compared to that which may be achieved by a single-strand study (Collopy et al., 2014). However, whilst endorsing this more encompassing approach to counterfeiting research the report also concluded that there is no formulaic 'one size fits all' set of methods for assessing the counterfeit threat across all business sectors. That said it did propose a general framework for research which included cross-referencing data across and beyond the core manufacturing industry. The IPO described this as a 'blended approach', suggesting that drawing upon multiple sources was more likely to capture the true nature of a counterfeiting problem than industry generated occurrence data alone (¹). In research terms this is most closely akin to a mixed methods enquiry.

Mixed methods research has been variously described but, for the purposes of this study, the definition 'those that include at least one quantitative method (designed to collect numbers) and one qualitative method (designed to collect words), where neither type of method is inherently linked to any particular enquiry paradigm' was adopted (Creswell and Clark, 2011, p. 2). As Creswell and Clark (2011, p. 8) suggest this is an appropriate approach to research when 'one data source may be insufficient'. Moreover whilst qualitative and quantitative studies each have their own limitations, the drawbacks of quantitative research in this context being widely acknowledged (see for example Fink et al., 2010), in combination they can 'provide a more complete understanding of the research problem than either approach by itself' (Creswell and Clark, 2011, p. 8). Essentially each offsets the weaknesses inherent to the other. These features very neatly reflect the IPO study findings, however, opting for a mixed methods approach is not a singular decision for it is a term that embraces

a broad typology of research design, as recognised and described by Creswell et al. (2003).

Creswell and Clark (2011, pp. 63-68) suggest that there are four key decisions to be made when deciding which mixed methods design is appropriate for any given study:

- i. *Determining the level of interaction between the quantitative and qualitative strands* — the extent to which quantitative and qualitative strands of the study are kept independent or interact with each other. In this study the strands were mutually supportive and therefore interactive;
- ii. *The priority of quantitative and qualitative strands* — requiring an implicit or explicit decision about the relative importance of each strand within the study design. Here the 'newness' of the subject was relevant for it could not be anticipated from which research strand significant findings would emerge. The study therefore afforded equal priority to each strand;
- iii. *Determining the timing of the quantitative and qualitative strands* — the temporal relationship between the two in terms of data collection. In this study concurrent timing was appropriate because this enhanced the likelihood of early cross-fertilisation across strands thus prompting further research;
- iv. *Determining where and how to mix the quantitative and qualitative strands* — the point in the research process when the interactive relationship between the two strands is implemented. The study made use of SPSS Statistics software for the analysis of quantitative data and NVivo QDA software for the analysis of qualitative data. Given that these software packages do not facilitate the real-time merger of the data they produce pragmatically this had to occur after separate analysis but before overall interpretation of the results.

(¹) In recommending a blended approach to research the IPO also advocated what might be described as quality assurance framework suggesting that:

- Research should be carried out by trusted third parties who are independent of vested interest;
- Research should be based on transparent and comparable methodologies;
- Any quantitative methods utilised must be designed to ensure validity and reliability by allowing for replicability;
- Any study should disclose who commissioned the research;
- That the research be repeated on a regular basis to overcome issues of random uncertainty and to maintain statistical independence.

This study adhered to the first four of these criteria but the final one remained an aspiration being essentially beyond the scope of a stand-alone study.



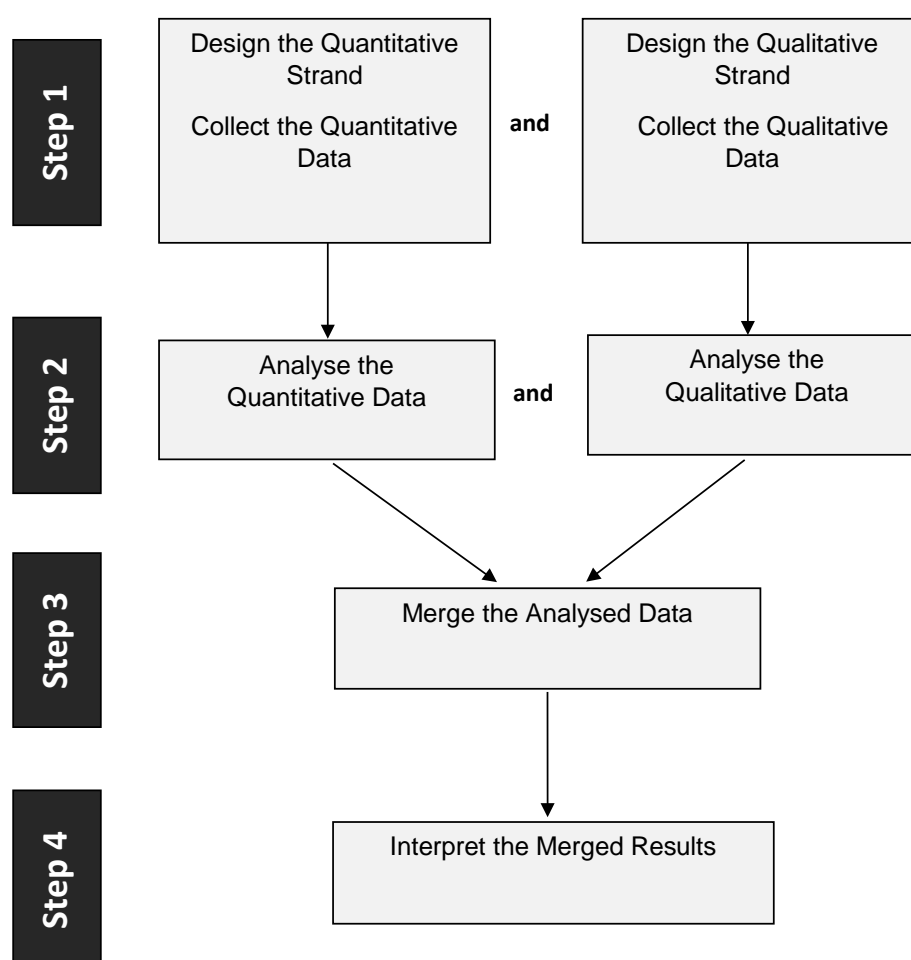
On overlaying these key decisions onto the six common mixed method study designs described by Creswell and Clark (2011, pp. 69-72) the one that best reflected the interaction, priority, timing and mixing requirements of this study was a Convergent Parallel Design. This design follows a distinct four-step process, as shown in Figure 1, which involves the concurrent collection of quantitative and qualitative data with the two sets of results then being independently analysed before being merged into an overall interpretation. The primary purpose of this approach is to obtain different but complementary data on the same topic and by synthesising the results 'to develop a more complete understanding of the phenomenon' (Creswell and Clark, 2011, p. 77). As a design it is recognised as having a number of advantages, most notably that it is efficient. That

data is collected during a single phase of study makes intuitive sense when considering a rapidly evolving crime problem.

In designing an approach to the research based on the prototypical convergent parallel method described above foremost in mind was that the research should span the subject categories that the IPO report would suggest are significant stakeholders in the UK counterfeit pesticide problem ⁽²⁾:

- i. Manufacturing industry victims;
- ii. Consumers and other businesses and organisations operating within the market;
- iii. Enforcement agencies.

Figure 1: Flowchart showing the procedural steps in implementing a convergent parallel research design. Adapted from Creswell and Clark (2011, p. 79).



⁽²⁾ These subject categories were intended to reflect, so far as was possible within the context of this particular counterfeiting problem, the IPO recommendation that evidence should be gathered from victims, consumers and relevant government departments.



The data collection methods employed took account of the knowledge and concerns of these three stakeholder groups and may be summarised as follows:

- In the qualitative strand a series of stakeholder in-depth interviews and Freedom of Information Act (FOIA) requests to police forces sought to understand firstly the nature of the crime and how it manifests itself in the UK setting and secondly if rural policing strategies/policies address this particular crime problem. A case study of an incident involving a counterfeit pesticide was also included in this strand and was subsequently used to illustrate the interpretative step in the convergent parallel design;
- The quantitative strand made use of a large scale closed-question survey of police staff, pesticide users, and members of the public and a word frequency analysis of national and local online reporting of rural crime over a 12-month period. Together they demonstrated the relative levels of subject awareness amongst police officers in areas with a significant farming community and, having shown that this was no better than a control sample drawn from the general public with no knowledge of the commercial use of pesticides, to ascertain where rural policing is actually focused. In addition, and by way of a quantitative FOIA request, this strand also considered if, in the data held by public bodies with an enforcement interest in the problem, there is indication of patterns or trends in the occurrence of counterfeit pesticides in the UK.

When merged, the data derived from these various strands of research produced a richer picture of the counterfeiting problem than the IPO blended approach suggested was possible.

RESULTS

From the outset this study had one overarching concern: to determine if counterfeit pesticides pose a substantive threat to the UK agricultural industry. A review of the literature sought evidence of this question having been previously

addressed and it would be fair to say that the review found that it had, at least so far as industry generated material and associated media coverage described the *mechanics* of the crime. This grey literature recognised China as being the primary source of counterfeit pesticides, that the trade is dominated by the activities of OCGs and is intrinsically associated with an abuse of parallel trading rules, and that the problem is at its most serious at the eastern periphery of Europe. These characteristics of the problem were further evidenced by the research, however, what was also shown was that whilst the literature captures the mechanics it fails to appreciate the *dynamics* of the problem and specifically the three distinct sources of influence which collectively shape the UK counterfeit pesticide problem:

- The diverse profile of the UK pesticide marketplace. There is an underlying baseline market for counterfeit pesticides that resides in a comparatively poorly regulated market outside of the core agricultural industry;
- The response of the legitimate manufacturing industry, not least a pervading emphasis on the need for regulatory change as a means of tackling the problem;
- The narrow focus of rural policing, the results of the study suggesting that this is the consequence of an actuarial influence ⁽³⁾.

Whilst these three sources of influence were deemed to be of equal importance in the overall shaping process it is the final one that is the concern of the remainder of this paper.

The priorities and concerns of the insurance industry have, by virtue of their inherent measurability, also become the priorities and concerns of those policing in the rural environment. The research data shows this influence very clearly, both in the setting of rural policing policy/strategy and where this is put into practice. Within the police force that was the primary subject of the study there was an open acknowledgement that there already was, and would be an increasing tendency toward, aligning measures of rural policing success to crime data produced by a leading UK farm insurer. Moreover, across the other UK police forces with a

⁽³⁾ Actuarialism, in this context, may be regarded as being the use of statistical rather than clinical methods to predict criminal behaviour and to administer a criminal justice outcome.



significant rural policing responsibility the results of the FOIA requests demonstrated a marked strategic emphasis on the management of theft from farms over and above any other form of rural offending. These results were supported by data gathered from the word frequency analysis which showed that, over a 12-month period, online reporting of rural policing had a similar emphasis on tackling theft from farms. This narrow focus may well be the defining feature of contemporary rural policing, at least in terms of understanding the police response to OCG-sponsored, technology-based crimes such as the counterfeiting of pesticides. It was at this point that the study turned to the theorising of Bernard E. Harcourt as a means of interpreting what the consequences of this policing focus might be.

DISCUSSION

In his wide ranging criticism of the use of predictive methods in policing, Harcourt proposes three reasons why we should be sceptical of the value of actuarial practices in the criminal justice setting (Harcourt, 2006). Two of his criticisms, namely that any reliance on probabilistic methods produces a distortion in the carceral population and that the proliferation of actuarial methods is beginning to distort our understanding of just punishment, were of limited interest and relevance to this study. Harcourt acknowledges that not all of his criticisms will be persuasive in every context, however, a third criticism was highly pertinent for here he contends that an increasing reliance on predictive methods may well increase the overall amount of crime rather than reduce it.

Important to understanding the significance of Harcourt's theorising is the concept of a relative elasticity of offending, that is to say the degree to which changes in policing strategy and practice will affect crime patterns. The relevance of the concept is that if, as Harcourt suggests is perfectly possible, those offenders targeted by the police through actuarially driven situational crime prevention practices are less responsive to the initiative than the non-targeted group then the overall amount of crime will likely increase (Harcourt, 2006, p. 23). In the context of this study this hypothesis gives rise to a relatively simple notion; if the police focus their attention and resources on those responsible for theft from farms, and this

group do not respond as anticipated, then not only will this crime not be reduced but they will inadvertently create opportunity for those who deal in counterfeit pesticides to engage in their chosen form of criminality relatively unhindered. As a consequence overall rural crime may well increase. This of course renders Harcourt's criticism of actuarial practice highly pertinent in the context of this study if, within any given policing area, OCGs are cognisant of the opportunities presented by the counterfeit pesticide market and further recognise that this is a crime that falls outside of the prevailing rural crime focus.

Harcourt qualifies his own theorising by acknowledging that it is bound to be problematic in the absence of a reliable means of measuring relative elasticity of offending. However, whilst an absolute measure may be elusive it is significant that the literature indicates that large scale counterfeiting is almost exclusively the domain of organised criminality, and that OCGs are characterised by their opportunistic and entrepreneurial nature. It might therefore be a reasonable assumption that the relative elasticity for this particular group is high, if only by virtue of their innate ability to recognise a low risk, high return opportunity.

Harcourt's paradigm would also presume that the criminals behind the counterfeit pesticide problem are not the same ones who are responsible for stealing high value items from farms, and indeed the results of the research would suggest that this is the case. The study found that the trade in illicit pesticides is concentrated on a relatively small group of highly specialised criminals and it seems unlikely that the ostensibly legitimate companies under the guise of which they operate would be sufficiently diverse to also be involved in stealing plants and machinery. On the other hand whilst it is conceivably possible that those responsible for theft from farms are also involved in the trade in counterfeit pesticides this also seems unlikely given the highly technical nature of the crime.

Central to the paradigm is that there is a difference in the relative elasticity of offending between these two groups; that is to say that one group is relatively less responsive to policing crime reduction initiatives than the other. Having determined that the elasticity of OCG counterfeiting groups is probably high, data published by a leading farm insurer would suggest that the response of those that steal from farms



to the sustained police focus on their activities is not what might have been anticipated. The NFU Rural Crime Survey (NFU Mutual, 2015) indicated that theft of some farm items, notably machinery and quad bikes, had remained static over the preceding 12-month period whilst other theft, including tractors and trailers, had actually slightly increased. It seems then that this group, at least on the evidence provided by NFU Mutual, have a relatively low elasticity of offending.

Of course in practice determining the relative elasticity of offending between these two groups is bound to be an inexact science, not least because finding or producing robust data on pesticide counterfeiting activity is, as with all counterfeiting problems, inherently problematic. Nonetheless some assumptions have been made based on what was found both in the literature review and the results of the research. The literature suggests that counterfeiting OCGs are entrepreneurial in nature and quick to recognise and respond to a profit making opportunity if they can do so at low risk of being caught. The results of this research indicate that this is certainly the case with regard to the UK pesticide market. This would suggest a relatively high elasticity of offending, at least when compared to those upon whom the current rural policing focus falls.

The implications of this are perhaps obvious, but nonetheless of considerable consequence if those that steal from farms have not been deterred by targeted police activity but at the same time those that deal in counterfeit pesticides have recognised the opportunity presented as a result of the police rural crime focus being other than

on them and their illicit activity. If this proves to be the case then Harcourt's paradigm would suggest then that the predominance of theft from farms in rural policing policy and practice may, as a consequence, have unduly exposed the UK farming industry to the threat posed by counterfeit pesticides.

CONCLUSION

Taking the results of the research as a whole the data indicated that counterfeit products are a chronic feature of the UK pesticide marketplace, albeit the extent to which they are present at any point in time is, and is likely to remain, a matter of conjecture. Whether this should be considered to be a substantive threat to the agricultural industry, that is to say something that can exploit vulnerability and, in doing so, cause harm, is probably more certain. That the police, the primary agency responsible for tackling OCG criminal activity, have failed to engage with this crime at a local level exposes the industry to the repeated incursion of counterfeit products. Moreover the current dominant actuarial influence over rural policing strategy and practice means that the problem is unlikely to become a local police priority in the foreseeable future and so that threat will persist.

The study continues by addressing the fourth and final objective, drawing upon the results of the research to develop evidence-based strategies which may disrupt the market dynamic thus mitigating the threat posed to the UK agricultural industry by counterfeit pesticides.

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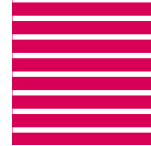
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TRUST IN PSYCHOLOGISTS AND IN PEERS IN LAW ENFORCEMENT ORGANISATIONS



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Abstract: This article summarises the main findings of a CEPOL pre-course survey (CEPOL course No 50/2015/ *European Medical and Psychological Experts' Network for Law Enforcement*). The main purpose of the survey was to increase awareness of factors facilitating trustful professional relationships between police officers and providers of psychological support in law enforcement organisations. Twenty-five countries participated in the survey: Austria, Belgium, Bulgaria, Croatia, Cyprus, The Czech Republic, Denmark, France, Germany, Greece, Hungary, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Switzerland and Turkey. Factors like confidentiality, availability, empathy and information were identified as important ones for trustful relations between police officers and providers of psychological support in law enforcement organisations.

Keywords: trustful relationships; psychological support; peer support; law enforcement.

INTRODUCTION

Police work is highly demanding as police officers are often exposed to extremely stressful, traumatic situations. Police officers around the world acknowledge that their work is challenging (Andersen et al., 2015). But police officers are often resistant to traditional psychotherapy and have idea that 'mental help' implies weakness and lack of ability to do the job (Miller, 1995). Trust is crucial element in providing effective psychotherapy to police officers (Silva, 1991, as mentioned in Miller, 1995). In psychotherapy there is general agreement that the relationship quality between therapist and client strongly correlates with clients' improvements; it is a key factor in determining the effectiveness of the therapeutic work (Beutler et al., 2004, as mentioned in Mearns and Cooper, 2010). Meanwhile police officers have a strong sense of self-sufficiency and usually insist on solving their problems by themselves, which is why there are large difficulties with trust (Miller, 1995).

Trust means that one partner (*trustor*) is willing to rely on the actions of another (trustee). The *trustor* abandons the control over actions and can be uncertain about the outcome. The

uncertainty involves the risk of failure or harm to the *trustor* if the trustee will not behave as desired (Mayer, Davis and Schoorman, 1995). But the therapeutic relationship does not reflect the same trust as a child has to a parent — both client and therapist are engaged in an adult relationship and express themselves under the care of both (Mearns and Cooper, 2010). During the therapy, if certain relational depth is gained, the client trusts the therapist and is the therapist has deeper empathy and congruence with the client, when the therapist understands how it feels to be a client (Mearns and Cooper, 2010). Meeting at relational depth, when all safety screens go down and the client is expressing his real feelings and needs to the therapist, requires two people: the presence of the therapist, but also some form of responsiveness from the client. Sometimes trust will be achieved immediately, but clients vary and some of them have systems of self-protection and feel danger when exposing themselves to the judgment of others and demand that the therapist 'earn the right' to encounter those feelings (Mearns and Cooper, 2010). Trust also characterises relationships between social groups (Hardin, 2002) and with regard to in-group favouritism, people generally expect better treatment from in-group members





in comparison to out-group members (Tanis and Postmes, 2005; Burger, 2012). That is why peer support programs emerged as standard practice for supporting law enforcement organisations' staff (Levenson and Dwyer, 2003, as mentioned in Creamer et al., 2012; Burger, 2012). In some EU countries (such as Austria, Slovenia, and Finland) police officers who wish to provide help and emotional support to other police officers, are selected and educated by psychologists and work with police staff under the supervision of psychologists.

Peer support programs help to overcome multiple standard care barriers, including stigma, poor access to providers, fear and lack of trust (Creamer et al., 2012). The main goals of peer support are to provide empathic listening, identify peers who may be at risk, lower rates of isolation, increase support and professional help seeking, and increase resilience in different ways (Davidson et al., 1999 as mentioned in Creamer et al., 2012). Psychological support guidelines for uniformed workers recommend using peer support in law enforcement organisations, but also emphasise paying attention to situations where a uniformed worker should contact professional help (psychotherapists, clinical psychologists or other specialists), for example, when such symptoms such as disturbing memories and dreams about traumatic events, mood swings, concentration problems, anxiety, avoidance behaviour and other stress reactions become severe or act simultaneously (Burger, 2012).

So, psychological support — both peer support and professional support — for uniformed workers is rather complicated phenomena, and the main difficulties are around the problem of trust and group stereotypes about weakness and self-sufficiency.

This survey was conducted in order to identify potentially problematic aspects in relationships with professionals, which will help every professional (psychologist, peer supporter, police officer) to analyse mutual collaboration and maybe to find new ways to meet each other in professional relationships. Our research question was focused mainly on trust in professional relationships: which factors help police officers (and other law enforcement staff) to trust mental health specialists (psychologists and peer supporters)?

This question was asked to both groups — a police officers' group and a psychologists and peer supporters group. The results of the survey were presented and discussed during the EMPEN (European Medical and Psychological Experts' Network for law enforcement) annual meeting in Latvia (Riga, 9-12 June 2015). We hope that it indicates important factors that should be taken into account when organising peer support systems or psychological help in law enforcement organisations.

METHODS

This research was explorative and content analysis was used for the answers. Two questionnaires with open-ended questions were designed for this research. One questionnaire was designed for police psychologists and peer supporters, where recipients were asked to identify which factors, in their opinion, help and which factors interfere with the ability of police officers to trust them. Another questionnaire asked police officers to identify which factors help and interfere with their ability to trust psychologists and peer supporters and which factors help and interfere with the ability of others to trust them as police officers. Survey questionnaires were sent to 30 country member experts who were enrolled to participate in EMPEN (European Medical and Psychological Experts' Network for law enforcement) annual meeting in Latvia (Riga, 9-12 June 2015). They were asked to translate the questionnaire into their national language (if necessary), and distribute it to one law enforcement organisation (mostly police) psychologist or peer-supporter and to three police officers. Twenty five countries sent their answers back: Austria, Belgium, Bulgaria, Croatia, Cyprus, The Czech Republic, Denmark, France, Germany, Greece, Hungary, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Switzerland and Turkey.

SAMPLE

The sample consisted of two groups:

1. Psychologists (34 persons) and peer supporters (2 persons) — altogether 36 specialists. The average length of service in police organisations is 10 years.



2. Police officers (55 persons). The average length of service is 16 years.

PROCEDURE

Answers to the open-ended questions were categorised in clusters. Using content analysis, the answers were grouped according to the similar meaning and then the groups were named. For example, answers such as 'anonymity, confidentiality, secrecy' were grouped together under the group name 'confidentiality'.

FINDINGS

Approximately 38 % of survey participants from the police officers group point out that they have had consultations with psychologists or peer supporters and approximately half of respondent police-officers (47 %) answered that they have never consulted one because they 'have no problems' or do not trust them.

According to the police officers and other law enforcement personnel, the main factors which help them trust psychologists are confidentiality, professionalism and a respectful, interested attitude. Regarding police officers' trust in peer supporters, the main factors are professional experiences to share, professionalism and confidentiality. So confidentiality and professionalism are the main factors which help law enforcement personnel to trust both psychologists and peer supporters, but among other popular factors there are a respectful attitude in the relationship with psychologists and experiences to share in contact with peer supporters.

Psychologists and peer supporters themselves note that factors such as confidentiality, availability (and personal knowledge), explanations, and empathic attitudes help them gain trust from police officers. The confidentiality factor is repeatedly noted as very important by both police officers and psychological support specialists.

Police officers, analysing their own work, note that empathic (helpful) attitudes, professionalism (experience) and openness (honesty, lawful action) helps people to trust them.

Police officers note fear that others will know (and fear of negative consequences) and a formal approach among those factors that interfere with their trust in psychologists. Analysing the relationship with peer supporters, fears about confidentiality and doubts about specialists' insufficient education were noted by police officers as interfering factors. Regarding themselves, police officers note negative images about police (especially widespread by media) and cases of aggressive, unprofessional approaches which are generalised by the society to all police work are interfering in creating trustful relationships with people.

Psychologists and peer supporters say that among the main factors that interfere with trust in them are police officers' fear of being unfit for their duty, stereotypes (mainly about psychological service) and multiple roles (especially when psycho-diagnostics, personnel selection goes together with psychological support). Psychologists and peer supporters note that acceptance and emotional warmth in attitude towards clients, more information and explanations about psychological processes and a respectful position towards clients' decisions, views and actions help to increase trust in their relationship with police officers.

Unfortunately there are still some strong stereotypes and negative attitudes towards psychological service providers among police officers, and there is no sufficient information in many countries about peer support systems.

DISCUSSION

This survey gives some view on the relationship aspects between psychological help providers and police officers or other law enforcement organisation staff. Approximately half of the police officers who participated in the research answer that they have no problems, and that is why they do not use psychological services. Sometimes people cope with their life problems on their own; as research shows, police officers deal with both routine and exceptional stresses by a variety of situational adaptive coping and defense mechanisms, such as repression, displacement, isolation of feelings, and humour, but they are exposed to special kinds of traumatic events and daily pressures that sometimes overwhelm defences and result in maladaptive



behaviour (Miller, 1995). Maybe law enforcement professionals are not always well informed about the risk signs which they should take into account in order to check their psychological condition and about situations when they need to take care of themselves and ask for support otherwise their situation could become more critical. Apparently there are still some stereotypes and negative attitudes towards psychological service providers, although police officers by themselves also suffer from the stereotypes in society about their profession. Other researchers also point to the fact that many believe that seeking mental help implies weakness, that they fear stigmatisation and possible alienation from co-workers (Miller, 1995). Maybe comparing psychology in police with sport psychology could be an argument for police officers which decreases existing stereotypes about mental help, because as it is known that athletes use psychology for better results, not because they are mentally ill.

It is probable that the answer 'I have no problem' also shows barriers in trust and points to worries about confidentiality, which was the main aspect in this survey's answers. These results go together with other researchers' views that says that difficulty with trust appears to be an occupational hazard for workers in public safety, because they insist on solving problems on their own (Miller, 1995). That is why it is very important to provide the law enforcement organisations' staff with more detailed information about psychological services, their work principles, aims and role. Clarifications are important, because, as other researchers explain, later police officers will begin to feel more at ease with the therapist and find comfort and a sense of predictability from the psychotherapy session (Miller, 1995). For law enforcement organisations' chiefs and other officials who are responsible for psychological support services it is important to take into account clients' fears of confidentiality and, for example, not to connect psychological support service with psycho-diagnostics, and to avoid involving specialists in other multiple roles. Also police chiefs and other high law enforcement staff can help to transform organisational culture, which still has a lot of stereotypes about support, emotions, psychology and weaknesses.

It is important to continue to analyse which factors make trustful relationships. Sometimes psychologists, wishing to establish trust during consultation, can exaggerate their willingness to be useful for the client (police officer) and

jump into the trap of providing an overly friendly atmosphere (where professional frames can disappear) or having a hurrying manner towards results and giving advice. Other researchers also point to possible risk factors of premature false familiarity, phony 'bonding', patronising or 'playing cop' from the psychologist's side (Miller, 1995). This behaviour is an attempt to break into police sub-culture, but still should be avoided. Researchers show that police officers develop a closed society, 'cop culture', which for many becomes their life and crowds out other activities and relationships (Blau, 1994, as mentioned in Miller, 1995). For police officers it may be therapeutically helpful to show that a person can be different, not always strong or joyful, but still an understanding connection can be created between them. It could help them to come out of their sub-culture and find understanding among other people who are not police officers. Psychologists could show them special kinds of relationships and the psychotherapy room could be the first place they could experience a different kind of mutual trust.

On the whole, scientific research on psychotherapy show that effects are not so much about methods and results as about a special kind of relationship (Mearns and Cooper, 2010). Therapy is more like a process, and psychological consultation also needs time. Sometimes this is difficult to accept, because in police work police officers should be not only effective, but also quick. But quick results in psychotherapy are not always stable and qualitative. If this is not explained correctly to psychological service consumers, specialists can experience underestimation, which sometimes can be rather aggressive. There is some kind of dilemma — how much can psychology specialists adapt to police sub-culture and where is some boundary where the psychologist will lose his/her identity or professional position and it will be unconstructive for both psychologist and police officer? In our modern culture where a consumer philosophy is widespread, it can be difficult for a specialist (psychologist, police officer or any other) to be helpful for clients and not be used by them. For psychology specialists it can be very helpful to get professional supervision for clarifying and saving their professional work frames and identity.

On the whole, when analysing their own work, psychology specialists, and also police officers, pay attention to the role of respectful, interested,



empathic relationships with people, who have turned to them and need their help.

The findings of this research are consistent with other researchers' results, which show that accurate empathy (understanding of the client), genuineness (therapist as spontaneous, tactful, not defensive), availability (available, whenever needed), respect (therapist preserves client's sense of autonomy, control, self-respect) and concreteness (with a problem-solving focus) as well as attentive listening and reassurance are important for building trustful therapeutic relationships with police officers (Miller, 1995).

But the survey shows that very often there is not sufficient information in many countries about peer support systems. For example, police officers note that it is important to share similar working experiences with peer supporters, although the main role of a peer supporter is not supervision, but emotional help, and police officers do not understand the aim of peer support systems correctly. In many countries

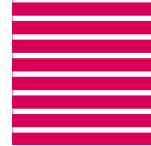
there is no peer support system, and that is why the survey participants' understanding about it can be incomplete.

RESEARCH LIMITATIONS

Among the main limitations are possible language problems which can appear in cross-cultural research (more precise results would be possible if all participants answer first in their national language and only then translate to English and send their answers to the survey authors). It is possible that not all participants understood correctly what peer support is — some answers could be more about their relationship with colleagues or friends. And a third limitation is the possible subjectivity of the survey author, who grouped answers in the clusters, because answers can be analysed in different ways and some other answers were too general for making more precise interpretations.

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THE FACTORS CONTRIBUTING TO POLICE VEHICLE DAMAGE IN FINLAND



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Abstract: This article presents the findings in the project *From Surveying Police Vehicle Damage towards Improving the Driver Education and Training*, and discusses the factors that increase the risk of a crash. Based on the police vehicle damage forms that were filed in 2013 it is easy to pinpoint the most common places and types of accidents that occur to police vehicles. These results can help determine how to improve driver education during police training.

Keywords: police vehicle; police training; accident; driver inattention; driver education.

INTRODUCTION

The project, *From Surveying Police Vehicle Damage towards Improving Driver Education and Training*, funded by the Ministry of the Interior in Finland and carried out by the Police University College in 2015. This paper discusses some of the key findings regarding the incidents that have caused damage to police vehicles, and based on other studies, suggests which factors could be the most crucial when trying to prevent the accidents.

Traffic safety in Finland is on a good level in general. The road fatality rate was slightly lower than the EU average in 2014 (European Commission, 2015). Fatal road accidents in Finland have decreased since the 1970s but the numbers have been fluctuating in recent years. All road traffic accidents recorded by the police peaked later than the fatal accidents, but have also seen a long downward trend that has now slowed down. The accidents for which claims have been paid by traffic insurance, however, have increased in recent years. (Central Organization for Traffic Safety in Finland, 2014)

In 2013 damage to police vehicles in Finland cost a little over 300 000 euros according to the police vehicle fleet management system (). The numbers, however, do not include the vehicles that have been totalled or the damages that have

been repaired during regular maintenance. In addition, the time the vehicle is out of use and the possible injuries sustained by people involved come with a cost of their own. Therefore it is difficult to estimate the full cost of these types of damages. There are multiple factors that account for accidents involving police vehicles and understanding them is the first step towards preventing them.

METHOD

This is the first study in Finland that gathers data from all accidents involving police vehicles that have been reported using the vehicle damage form. It does not take into account any possible injuries sustained in the crash, but instead focuses solely on the damage to the police vehicles. This will also include any mischief a passer-by or a non-officer travelling inside may have caused to the vehicle as well. Therefore, as not all cases can be referred to as accidents, they will all be referred to as incidents from here on.

A quantitative method was used in this study. All of Finland's Police units were asked to deliver all the vehicle damage forms for police cars, motorcycles and scooters from 2013 to the Police University College. Out of the 14 units, 11 of them contributed to the study. The number of forms



that were received in total was 693. In addition to the general vehicle and driver information as well as the time and location, the following details were enquired in the form: the incident type, the weather conditions, engagement, place of incident, a description of the incident, a description of the damages and finally, counter side, which refers to any object or being that has damaged the vehicle. All this information was collected into tables for further analysis.

The forms had mostly the same structure in every unit. The only difference was with 'engagement' which is the type of driving activity the vehicle was involved in at the time of the incident. Some units had forms that only included two options which were 'Routine patrol/en route to' and 'parked'. The first option therefore covered all possible engagements in which the car was moving, which means that option might have a slightly higher percentage than it should.

RESULTS

The most common places where police vehicles were damaged were streets and roads as shown in Table 1. However, it should be noted that the parking garages and parking areas together made up almost half (46 per cent) of all places of incident.

Table 1. The type of place where the vehicle was damaged.

Place of incident	Number	%
Street/road	224	32.3
Parking area/yard	189	27.3
Parking garage	130	18.8
Walk/cycle path	47	6.8
Junction	30	4.3
Gravel road	11	1.6
Terrain	8	1.2
Other	7	1.0
Unknown	47	6.8
Total	693	100.0

The incident types as collected from the forms are shown in Table 2. In some cases more than one option was applicable but only one was option from each form was chosen for the study. The choice was made based on which type had the most to do with causing the incident. The

most common type of incident was reversing (25 per cent) followed by collision with a fixed or a moving object (21 per cent). This included other vehicles but left out animals as that was a separate option.

Table 2. The type of incident during which the damage occurred.

Incident type	Number	%
Reversing	173	25.0
Collision with a fixed or a moving object	147	21.2
Mischief	69	10.0
Turning	63	9.1
Tactical stop manoeuvre	42	6.1
Rear-end collision	23	3.3
Animal collision	22	3.2
Derailing from the road	19	2.7
Changing lanes	3	0.4
Other	92	13.3
Unknown	40	5.8
Total	693	100.0

Table 3 summarises the weather conditions during the incidents. The weather was mostly dry (39 per cent) and if the incidents that happened indoors (18 per cent) are added up, the conditions in which the surface was dry make up 57 per cent of the incidents. In 17 per cent of the cases the conditions were unknown.

Table 3. The weather conditions at the time of the incident.

Weather conditions	Number	%
Dry	268	38.7
Indoors	127	18.3
Wet	62	9.0
Snow	56	8.1
Ice	54	7.8
Slush	9	1.3
Unknown	117	16.9
Total	693	100.0

As previously mentioned, the proportion of incidents that happened during routine patrol (63 per cent) might be slightly higher than it should be due to the different forms that were used in some units. The incidents that happened while the vehicle was parked (12 per cent) were



mostly cases of mischief that were not witnessed by the driver when they occurred. The cases where the siren was on made up 14 per cent of all incidents, as shown in Table 4.

Table 4. The engagement type that the vehicle was involved in at the time of the incident.

Engagement	Number	%
Routine patrol/en route to	437	63.1
Parked	84	12.1
Responding to an emergency call (lights/siren)	52	7.5
Pursuit (lights/siren)	47	6.8
Routine patrol/en route to (lights)	15	2.2
Following a suspicious person/vehicle	9	1.3
Training	1	0.1
Unknown	48	6.9
Total	693	100.0

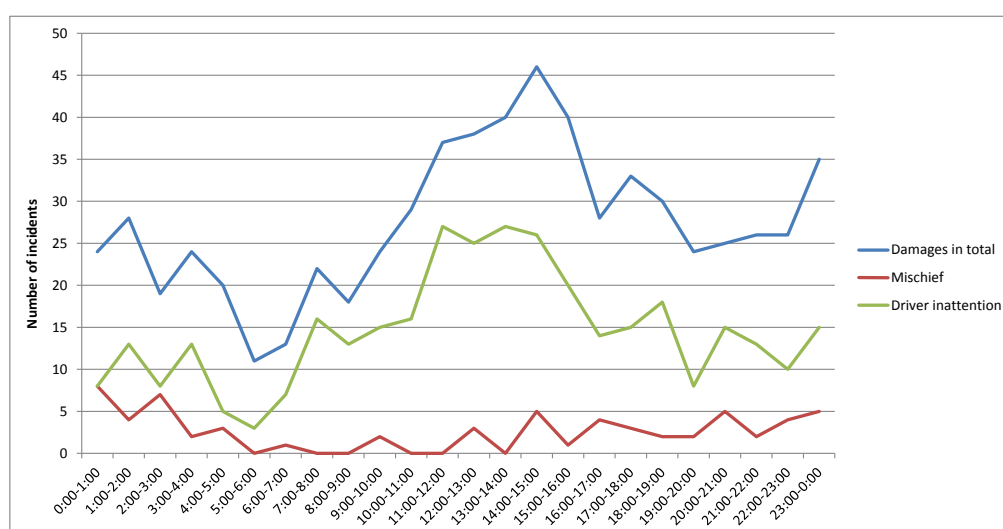
The most common counter side was another vehicle (25 per cent) as shown in Table 5. Almost one in five (19 per cent) of the incidents were collisions with a tall object such as a traffic sign, tree or a pole. Indoor structure was not an option on the form but as there were several cases where police vehicles collided with the structures in garages; the cases were sorted into that separate category during the study.

Table 5. The counter side is the object or a being that damaged the vehicle by itself or by having the vehicle crash into them.

Counter side	Number	%
Other vehicle	171	24.7
Traffic sign/tree/pole	134	19.3
Paving/snow bank, etc.	88	12.7
Indoor structure	84	12.1
No counter side (!)	41	5.9
Other street user	38	5.5
Suspect in vehicle	32	4.6
Police vehicle	20	2.9
Animal (other than elk)	19	2.7
Elk	4	0.6
Other	16	2.3
Unknown	46	6.6
Total	693	100.0

The time of the incident was mentioned in 660 cases. The following graph in Figure 1 shows how the number of incidents varies depending on the time of the day. There is no data on how many vehicles are being used at any given time and therefore no crash/ number of vehicles ratio can be calculated. It can however be seen that the number of incidents starts to grow rapidly between 8:00 and 9:00 in the morning, leading to a peak between 14:00 and 15:00 in the afternoon.

Figure 1. Graphs depicting the 660 incidents that have caused police vehicle damages, sorted by the hour of the day they occurred.



(!) No counter side is considered to exist when the officer or another person in possession of the vehicle damages it themselves during situations other than driving, such as during maintenance or simply by breaking something by hand.



The two lower graphs present the number of incidents that were due to mischief by non-officers and those that were due to driver inattention in the damaged police vehicle. While mischief is the cause of 1 in 10 police vehicle damages, it takes place mostly at night. During daytime driver inattention is a much more significant factor.

DISCUSSION

Based on the results, police vehicles mostly get damaged in low-stress situations and since almost half of the incidents took place in parking areas or garages, it is likely the speeds were low. A study focusing on officer-involved collisions in California shows that out of over 35 000 vehicle collisions over 80 per cent took place during clear weather and in almost 90 per cent of the cases the road surface conditions were dry (Wolfe et al., 2015). In Tom LaTourrette's (2015) study in the United States over a period of 1 year, driver distraction was mentioned as the main cause for law enforcement officer vehicle crashes where the officer was at fault. However, in lights and siren crashes driver distraction was less often the cause. In this study the lights and siren crashes made up only 14 per cent of all incidents as well, while the number of incidents in low-stress situations was much higher.

This study did not take into consideration how many people there were in the vehicle at the time of incident but according to LaTourrette in 83 per cent of the cases there was only one officer in the vehicle at the time. In Finland the policing strategy is focused on fast response to emergencies and not on visible police presence (Police of Finland, 2015). Therefore there are usually two officers in the car because an officer cannot respond to emergencies on their own due to safety reasons. It is mentioned that having two officers in the vehicle would reduce the risk of crash as the other person could operate the mobile data terminal and watch the passenger in case there is one. This kind of co-driving where the other officer supports the driver by handling the other details is something that could be taught during driver training. Special attention could be focused on how the risks differ when one person is driving as opposed to having two officers in the vehicle.

The risk factor in general is something that should be paid special attention to during training as the incidents show that the vehicles often get damaged in situations where accidents are not expected. The damages that happen in parking areas and garages and the number of crashes involving reversing do not necessarily mean that the driver is inexperienced in handling the vehicle. It could simply mean that they are not completely aware of the risks. The higher number of daytime crashes could indicate that there are more police vehicles at work during that time, hence increasing the risk of a crash. However, there is a decrease in the incidents after 15:00 when the afternoon traffic congestion usually begins, indicating that more traffic does not necessarily mean more crashes in this case.

A report from Klauer et al. (2006) analysed general driver inattention immediately prior to a crash and near-crash and the results indicated that there is a significant difference between different types of inattention to the forward roadway. Eye glances off the road that lasted longer than two seconds increased the crash/near-crash risk while those that were shorter than two seconds made no difference regarding the crash risk. Meanwhile driver-related inattention to the forward roadway, which means the driver was scanning the driving environment, increased safety as long as the eyes returned to the forward roadway in less than two seconds.

It was also found with urban drivers that while driver drowsiness, which includes eye closures, minimal movement of the body or eyes or repeated yawning, increases the risk of being involved in a crash or near-crash four to six times as opposed to attentive driving, the drowsiness levels vary greatly depending on the time and place. Drowsiness increased during darkness as opposed to daylight but also in less-demanding traffic situations such as free-flowing traffic or areas with no roadway junctions (Klauer et al., 2006).

CONCLUSIONS

Since damages tend to occur to police vehicles in low-stress situations, it is possible to prevent them by tackling the causes that lead to driver inattention. The key might not be in increasing the number of driving lessons but instead by focusing on issues that cause the inattention.



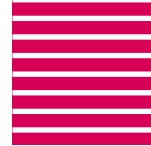
As mentioned previously, the time of the day, the traffic environment and the stress level all influence the driver alertness in different ways, and when it comes to the police profession that involves demanding situations, these factors could all have a slightly different effect on an officer as opposed to drivers in general.

Due to lack of driver information in this study it was difficult to determine the quintessential causes that led to the incident. More information on the driver is required in order to fully determine the causal factors for the incidents. Work experience, the type of driver education the person has received, work and sleep schedule among other things reveal something about the

driver's level of experience and alertness, but also more details are needed about the specific time of the incident: if the person was on their way to lunch, leaving the scene or just starting their shift, if the traffic was free-flowing or if the garage was full or half-empty. All these small factors can help determine the risk for a specific type of an incident. This information can then be applied to training in different ways. The students can be asked to self-evaluate their solutions in different driving situations or the teacher can bring up particular risks during classes. There are unique aspects to the police work and that also reflects in the type of accidents they might get into. Therefore the society could benefit from a very detailed research on police vehicle crashes.

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ATTACK AGAINST HUNGARIAN STATE TELEVISION HEADQUARTERS — THE REALITIES OF THE POLICE OFFICERS



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Abstract: This study presents the results of group-representations of police officers who participated in the 18 September 2006 attack against the Hungarian State Television headquarters. The results of this research highlight the common sense of the police officers involved in the incident. These common senses were created by social construction. Semi-structured interviews were conducted with the purpose of comparing the social representation of police officers who took an active role in the protection of the HQ with reserve officers who had not been involved in the situation. The texts were analysed using the sequential-transformative-model. There were both similarities and differences between the social representation components of the two groups concerning the incident.

Keywords: riots; social representations; law enforcement.

INTRODUCTION

In 2006, a politically motivated mass demonstration happened with police intervention, whose multiple effects, one might say, can still be detected nowadays. The 18 September 2006 event at the HQ of Hungarian State Television and the 23 October 2006 event in the inner part of Budapest caused a great, imminent interest in the whole Hungarian society. In the present study, the incidents at the HQ of the Hungarian State Television were examined from the perspective of police officers who had been commanded to control and desensitise the situation. There were several interpretations and explanations of the incident (e.g. Papp. et al., 2007; Csepeli et al., 2007; Gaudi-Nagy and Horváth, 2007). These reports and the subsequent attitudes follow the logical, paradigmatic form of human thinking based on the relation of cause and effect (Bruner, 1986).

The present study however, took a different approach to examine the incident as it is based on the analysis of the common sense — more particularly, the interviewed persons' perspective

of the events in a manner that Bruner called the method of a narrative way of thinking.

The study presents the *social representations* (e.g. Moscovici, 1984) of the police officers involved in the incidents at the HQ of Hungarian State Television. By examining their representations regarding the aforementioned incident, one can recognise the different explanations of the realities that some examined groups have by exploring the social representations as outputs that exist among the given groups. When the goal of a study is to identify social representations, the different internal and external processes (including memory-related processes) contributing to the development of the issues are deemed irrelevant. Therefore, in a study of social representations like this, the aim of the researcher is not to explore how exactly the subjects can remember the 'real events', but to identify *what their realities are* on a social level and essentially, what kind of the realities constitute their worlds. As the study applied this unique approach in this topic, the results cannot be compared to any other ones stemming from earlier studies.



METHOD

SAMPLE

The sample consisted of 22 police officers, selected through snowball sampling. 14 subjects participated in the 18 September 2006 event (Active group), and 8 subjects were reserve officers who were not actually commanded to the incident (Inactive group). All participants were recruited from the Baranya County Public Order Unit and Traffic Control Officer Corps. Participants were recruited using the snowball method. Because most members of these police units had already known each other, the application of the 'more starting points-method' would have been irrelevant. The subjects in the Active Group and the Inactive Group were recruited from the Baranya County public order unit and traffic control officer corps. All of the subjects were young males.

DESIGN AND PROCEDURE

Semi-structured interview techniques were conducted with the participants. The interview guide was as follows: what happened and why, the self-reflection of the participants, their reflections on the situations, and their reflections on the other participants.

The body of text collected from the research were analysed by the so called sequential-transformative-model (Ehmann, 2002), using thematic analysis techniques (Ehmann, 2002, p. 49) ⁽¹⁾. It means that every textual element having a recognisable content can be identified by a code referring to the very meaning. After coding the thematic units in every interview, non-frequency-analysing techniques (Holsti, 1969) were used to calculate the frequency of those variables. Where it was possible, the partial logical relationships were also coded. Marking allowed the thematic units to be integrated into hierarchical meaning-compositions. Within the transcripts and more specifically within the coded contents, the partial, concept-like hierarchical connections were also coded. In these cases from the lowest, *basic level of codes* through the more abstract, wider groups of elements (groups of codes) there is the level named by *main-codes* — this method represents

symbolically the hierarchy between the identified meanings. So the codes on the top of a *group of codes* representing the whole of a very domain of meaning will be named by main-codes. As a result of this process, it is possible that a given code has significance (it has meaning on social level) on all levels of analysis, or on the contrary, has importance on just two levels or on just one level of them. E.g. a code can be calculated to be important on the code-level, but, at the same time, it is neither a component of a group of codes or of a main-code. It can also happen that a mass of coded meanings is not part of any group of codes but marks directly the borders of a domain of meaning named by a main-code. To discover and analyse as much information as possible from the interviews, attempts were made to find the finest differences between the meanings. This way, plenty of separated content and codes were defined. The method has the risk that when a specified content in the text — and the adopted code, which is basically a 'hypothetic, qualitative data' (Ehmann 2002, p. 48) — appears only in the case of only a few people (so it does not reflect the common opinion in the examined group), then the very hypothesis needs to be rejected. In this case the content represents the individual's mental representation and not the commonly owned element of the reality-construct (so it is not an element of a social representation).

The significance of the codes was identified using mathematical-statistical calculations, by comparing them both to all codes that pertain to a group and to their own groups of codes. The mathematical-statistical data processing of the nominal variables at the different levels of analysis is based on the McNemar test (the relevant level of significance is $p < 0.05 < 0.01$).

RESULTS

Both the elements of the social representations of the Active and Inactive groups of police officers on duty at the HQ of Hungarian State Television and the results comparing the two groups are presented in Table 1 in the appendix (comparisons between groups were made by using chi-squared probe and Fisher exact probe) ⁽²⁾.

⁽¹⁾ The interviews of the Active and Inactive groups were recorded by Szedlák Péter.

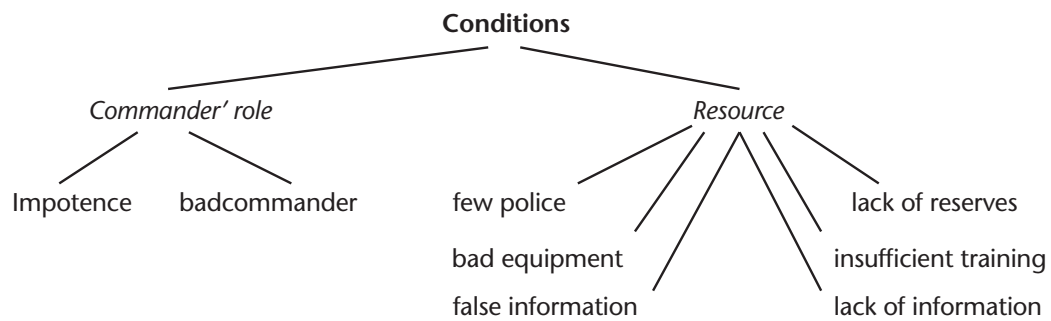
⁽²⁾ The results presented are only smaller parts of a larger study that aimed to process the social representations of the clashes in autumn 2006, in the centre of Budapest. The database was completed in 2012.



The following figures show in a more informative way how different kinds of social representations could be identified pertaining to the groups.

Figure 1. Active and Inactive groups' elements of social representation and its hierarchy on 'Conditions'.

ACTIVE



INACTIVE

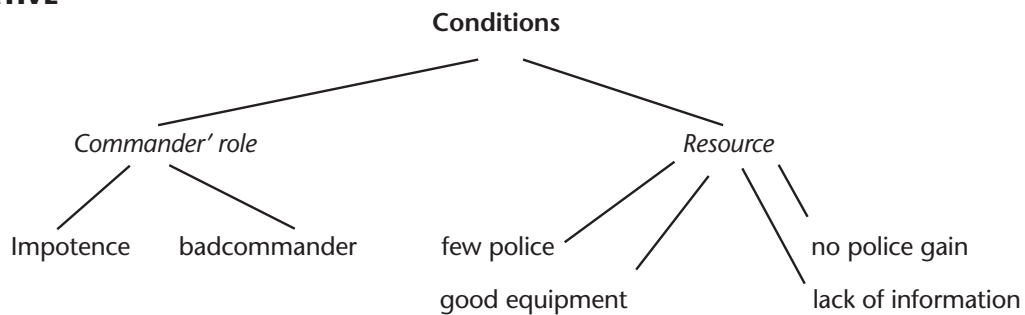
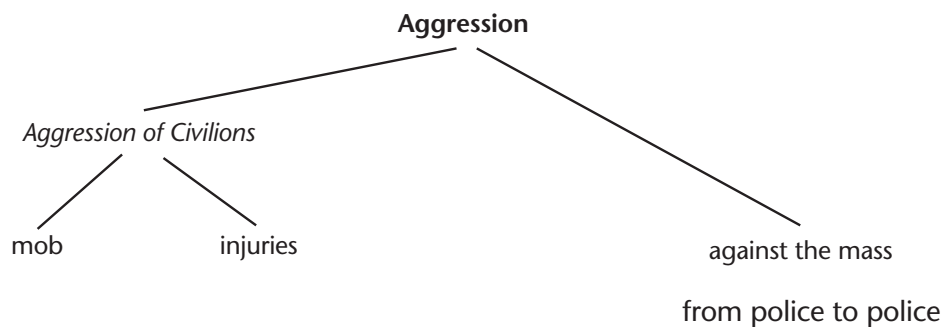


Figure 2. Active and Inactive groups' elements of social representation and its hierarchy on 'Aggression'.

ACTIVE



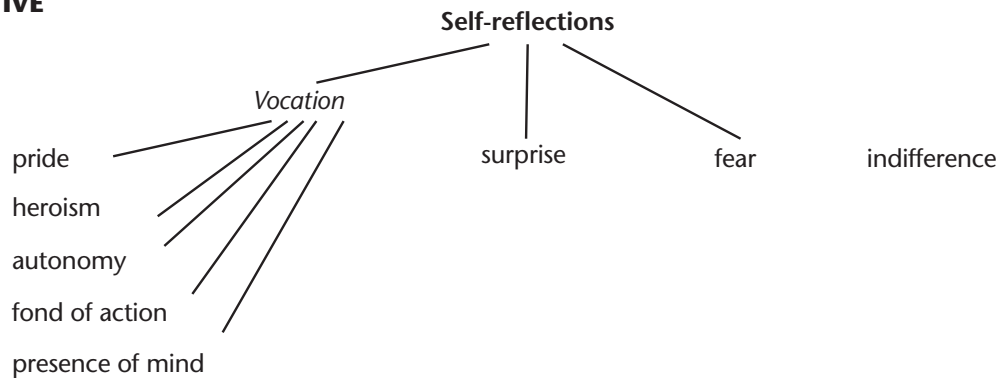
INACTIVE

mob injuries



Figure 3. Active and Inactive groups' elements of social representation and its hierarchy on 'Self-reflections'.

ACTIVE



INACTIVE

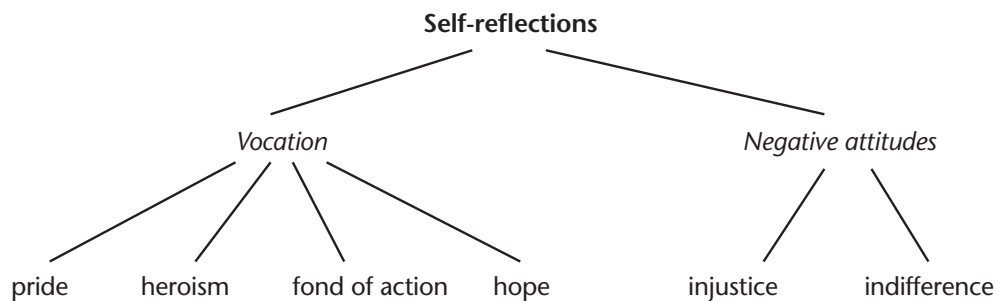
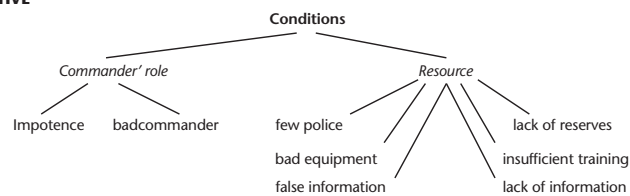
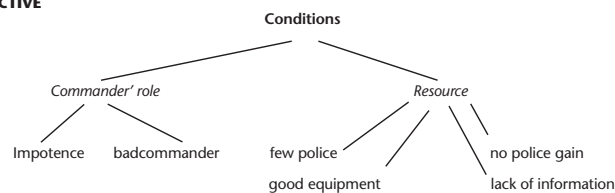


Figure 4. Active and Inactive groups' elements of social representation and its hierarchy on 'Solidarity'.

ACTIVE



INACTIVE





DISCUSSION

The elements of social representations were generated by the previously experienced, situational phases. It can be argued, that — partially due to the exposure to an emotionally traumatic experience — a shared and unified interpretation of the underlying processes of the incident did not emerge in either of the groups. From the (police) professional point of view the events were analysed by them alongside the dimensions of stress, its management, the emotions and the self-reflections. The factors that bear importance to them are the attributes of handling the situation and not the reason of the situation. It can be argued that it is the professional way of thinking of a policeman serving in a unit.

Nevertheless, some common broad scopes of the meanings having been identified can be found in both groups. Namely: the elements of the social representations on *conditions* (for doing policing at the scene), on *aggressiveness*, on *solidarity* and finally on *self-reflections*. According to the members of the Active group all the conditions to protect the HQ were missing or were inefficient. In contrast, the Inactive group have constructed exclusively positive beliefs about their equipment.

All members of the Active group represent their own aggression toward the civilians who attacked them. Similarly, they all hold a construct about the wounded police officers as a consequence of the fighting. The members of the Inactive group have no representations at all concerning the aggressive behaviour of their colleagues pertaining to the Active groups.

The theme of solidarity is represented in an ambivalent way among the Active group. On the one hand members of that group have a shared construction about the supportive attitude and behaviour that was expressed toward each other. On the other hand, in sharp contrast with the earlier one the earlier one, they think that they were failed by the Police as an institution during the critical incident.

It is really important to emphasise that despite hostile circumstances, among the subjects of the Active group not all of the civilians who took part in the clashes were regarded as enemies. A significant part of that group has a belief about civilians who helped and supported them,

expressing their feeling of solidarity towards the police. This unexpected fact definitely refutes suggestions that police officers around the world would regard all civilians as enemies, guilty or at least, possibly guilty (Hahn, 1971; Klockars, 1991; Krémer, 1998; Toch, 1973).

Both groups have constructed social representations related to vocation. It is interesting to realise how similar meanings are involved in that social construction. However, there is a significant exception as well: as a component of the representation of their vocation, the Inactive group reflects itself as the depositor of hope to help their colleagues who got in trouble. Unfortunately, they had to remain in their passive, waiting situation throughout the entire action. It could be a likely reason why the members of the Inactive group have constructed a common representation regarding the happenings as unjust.

Comparing the groups to one another is important, but at the same time an understandable difference also comes up: as a component of the social representations on self-reflections the feeling of intense fear can be exclusively found among the members of the Active group.

CONCLUSION

As was apparent from the results, two groups have constructed some different representations that constitute their interpretations relating to what happened around the HQ of Hungarian State Television, how and why. Finally, that shared constructs constitute the partly different realities to the members of both groups. The existence of those realities lines out a definitive aspect of the process of social construction, namely, it basically depends on what kind of social relations the actors are situated in, which in turn, through the perspectives taken, influences the process of giving different meanings and explanations to the events that just seem to be the same (László, 1999).

It is quite interesting to realise how this examined incident influenced the later practice of the Hungarian police officers and the Police when their task was handling another violent mass demonstration. The results will also be presented in relation with that clash occurred later, in a further issue of Bulletin.



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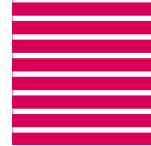
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APPENDIX

Table 1. Comparisons between groups.

significance (p < ; p =)	Main code/groups of codes/codes	Frequencies Group Active %	Frequencies Group Inactive %
-	Conditions	100	100
-	<i>Commander's role</i>	100	100
-	impotence	100	100
-	bad commander	86	87,5
	good commander	21	
-	<i>Resources</i>	100	100
	bad equipment	100	
	good equipment		100
	false information	100	
	no police reinforcement		100
not signif.	few police	93	63
not signif.	lack of information	86	100
	lack of reserves	57	
	insufficient training	43	
-	Aggression	100	100
	<i>Aggression of Civilians</i>	100	-
-	mob	100	100
0,01; 0.0096	injuries	100	50
	against the mass	100	
	from police toward police	36	
	Solidarity	100	-
	<i>Solidarity of police officers</i>	100	
	no help by the Police	86	
	<i>Help exists</i>	100	
	help physically	64	
	help psychologically	57	
	civilians' help toward police	36	
	Self-reflections	100	100
	fear	100	
	surprise	43	
	<i>Vocation</i>	93	100
0.01; 0.0201	pride	50	100
	presence of mind	50	
no signif.	heroism	43	63
	autonomy	29	
0.01; 0.01119	fond of action	29	88
	<i>Negative attitudes</i>		100
<i>0.0721</i>	indifference	21	63
-	injustice		75



TURNING A SOCIAL PROBLEM INTO A CULTURAL OPPORTUNITY: THE CRIME PREVENTION PROJECT 'SOS AZULEJO'



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Abstract: Artistic and historic 'azulejos' — as Portuguese ceramic tiles are designated even outside Portugal — do have an enormously important cultural role in Portuguese cities. In fact Portuguese historic and artistic 'azulejos' stand out in the world cultural heritage for their invaluable richness in quality, quantity, style, materials and techniques. Although this relevance is recognised by art historians, scientists, artists, antique dealers — and burglars — it is not generally acknowledged, favouring the massive plunder it has been inflicted to in the last twenty years. In fact, these 'azulejos' have been so present in Portuguese cities in all kinds of sceneries and for so many centuries that — paradoxically — the average Portuguese citizen no longer notices them: an endless quantity of urban 'azulejos' constructions needs conservation measures badly and the not-protected tiles are easily removed and stolen. Because the Judiciary Police (PJ) has the exclusive competence for crimes related to cultural heritage in Portugal, the PJ Museum decided to implement a crime prevention project against theft, traffic and vandalism of Portuguese historic and artistic tiles which is simultaneously a campaign for the conservation of this cultural heritage. The name of the Project: 'SOS AZULEJO'. With the help of various public Partners (including other Portuguese police forces — PSP and GNR) and Partners coming from different thematic areas, this interdisciplinary project has reached measurable positive results such as a very impressive reduction of registered 'azulejos' thefts.

Keywords: crime prevention; Portuguese cultural tile heritage (azulejos); theft and lack of conservation; project 'SOS Azulejo'.

INTRODUCTION

This paper does not pretend to present a theoretical work nor a totally independent research. Within an interdisciplinary effort concerning the study and protection of Portuguese historic and artistic tiles — or 'azulejos', according to their Iberian designation — the goal of this article consists on presenting a practical case study as objectively as possible, although with specific limitations, as the author of this text and the mentor of the studied case are one and the same person.

Having said that, which clarifies the used perspective, we will go on presenting what we defend as an innovative, interdisciplinary, horizontal and in many ways efficient project and approach to a specific Portuguese cultural heritage problem. The project is called 'SOS Azulejo', its mentor is the Portuguese Judiciary

Police Museum and its target consists of the effective protection of Portuguese historic and artistic 'azulejos'.

MAIN REASONS WHICH MOTIVATED 'PROJECT SOS AZULEJO': TURNING A SOCIAL PROBLEM INTO A CULTURAL OPPORTUNITY

Portuguese historic and artistic ceramic tiles stand out in the world cultural heritage for their invaluable richness in quality, quantity, style, materials, uses and techniques. Portuguese architecture is known worldwide for its 'azulejos', which cover the exterior and interior walls of



hundreds of thousands of Portuguese buildings, from churches to hospitals, from palaces to railway stations, from monuments to schools, from all sorts of public buildings to entire ancient urban housing blocks.

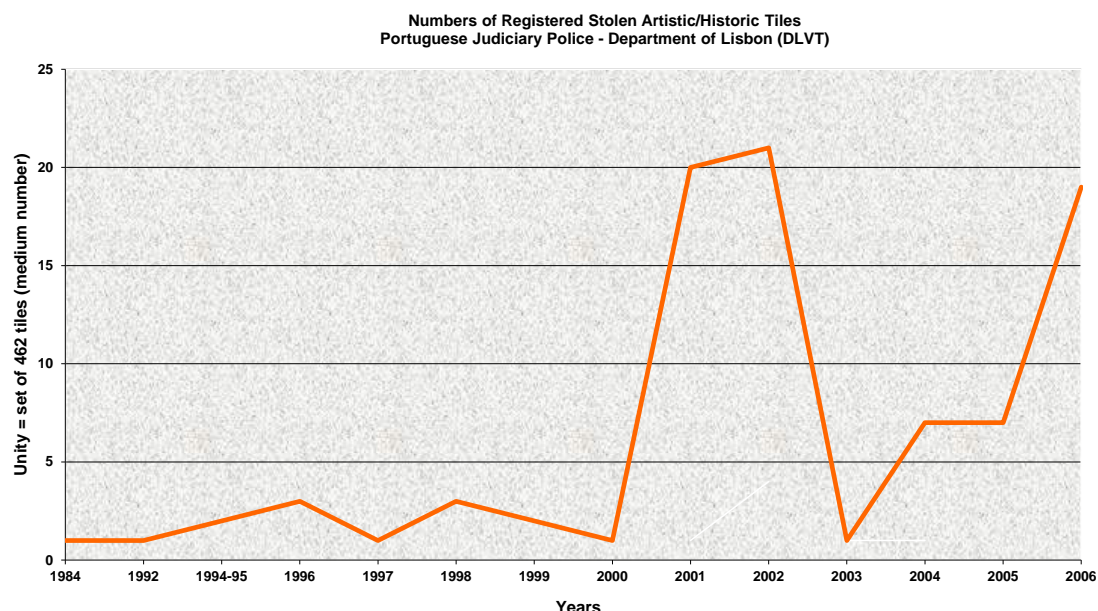
Introduced by the Arabs in the Iberian peninsula in the 14th century and specifically in Portugal in the 16th century through the importation of tiles and ceramists from Flanders — notwithstanding influences from other Iberian producing centres in Andalusia or Valencia — ceramic tiles demonstrate a rich and unique expansion and development in Portuguese soil in the following periods (Meco, 1985 and 1989). They have accompanied and illustrated Portuguese history and behaviours in all its levels and approaches, representing all kinds of themes — from eloquent religious scenes and great historical events to simple stylish decoration, advertising or cartoons. As a result of this systematic use in all kinds of buildings, for all sorts of purposes — with the consequent imprint in architecture, art and atmosphere — Portuguese ‘azulejos’ gained a proper status at an international level.

The first scholar who thoroughly studied and published in Portugal and abroad about

Portuguese ‘azulejos’ was João Miguel Santos Simões (1997; 1990), who was linked to the foundation of the ‘National Museum of Azulejo’. Although today more and more academics and institutions are dedicating their work to this subject and although it is generally accepted that the brilliant colours, glaze, variety of patterns, physical characteristics and different uses of ‘azulejos’ are unique and mark a specific Portuguese architectural, artistic and cultural identity, we defend that this potential is not yet sufficiently and globally recognised and sustained by Portuguese institutions ⁽¹⁾. As a consequence of this lack of global strategy and focus concerning historic and artistic ‘azulejos’, a number of negative facts occur, putting ‘azulejos’ heritage at risk, as we will see in the following paragraphs.

Indeed, because ‘azulejos’ are increasingly valued by art experts, historians and national and international antique dealers, they are getting more and more tempting for art and antiques burglary and trafficking — and the number of thefts rose accordingly, from the late 1990s on, especially in the area of Lisbon, as we can see in Figure 1.

Figure 1. Statistical data concerning registered stolen artistic/historic tiles in the area of Lisbon within the period 1984-2006.



⁽¹⁾ E.g. the National Strategic Plan for Tourism (Plano Estratégico Nacional de Turismo — PENT, 2007) elaborated by the Ministry of Economy and Innovation enumerates and focuses on various differentiating and ‘identitary’ Portuguese characteristics which should be taken advantage of in this context. Portuguese ceramic tiles’ cultural heritage is not mentioned among them. See: <http://www.turismodeportugal.pt/Portugu%C3%AAs/conhecimento/planoestrategiconacionaldoturismo/Anexos/PENT%20OVER%20INGLES.pdf>.



The figure shows us the number of registered stolen historic and artistic tiles rose significantly in (and around) Lisbon since the late 1990s to 2006. These statistical data show us the registered theft of thousands of 'azulejos' in this geographical area, but empiric evidence shows many other 'azulejos' have been stolen without any information provided to the police ⁽²⁾ or other institutions whatsoever. Curiously enough — and paradoxically — apart from some important referred exceptions, artistic urban 'azulejos' seem not to be much valued by common Portuguese people and institutions. These tiles have been so permanently present in Portuguese everyday life for so many centuries that the average Portuguese citizen no longer especially notices or cares much about them. The result is neglect, needless tile-removing from walls, demolitions of tile-covered buildings, vandalism and an endless quantity of constructions with 'azulejos' which need conservation measures badly ⁽³⁾. In fact, although this ceramic material is amazingly resistant, eventually it also deteriorates and needs some conservation care. Furthermore, the deteriorated tiles are easily removable, favouring the massive plunder it has been inflicted to in the last twenty years (Sá, 2013, 2014a, 2014b).

As we will see, the 'SOS Azulejo Project' was created in order to contribute to what we defend

should be a global approach and a strategic line to protect Portuguese 'azulejos' and its tradition in the present and in the future.

THE EMERGENCE OF 'SOS AZULEJO'

In 2002 the Portuguese Judiciary Police Museum (from now on referred to as PJ Museum) started mentoring the idea of 'SOS Azulejo' for the abovementioned general reasons and also motivated by the following institutional and practical circumstances: first of all, the Portuguese Judiciary Police (PJ) is the law enforcement agency in Portugal with the exclusive competence for crimes related to works of art and cultural heritage ⁽⁴⁾; secondly, the PJ Museum — which belongs to the 'Escola de Polícia Judiciária' (EPJ) — possesses a collection of stolen historic tiles which have been recovered by the police but not returned to their owners because their origin remains unknown up to this day. This situation is not completely unexpected in the context of the above mentioned neglect. These 'azulejos' have been exhibited on several occasions by this museum for educational purposes (Figures 2 and 3).

Figures 2 and 3. Exhibition of collection of stolen historic tiles by the PJ Museum.



⁽²⁾ The Directorate of the Judiciary Police from Porto did not register a single complaint for theft of historical and artistic 'azulejos'. Direct testimony from local municipal authorities however denies there are no thefts. A simple tour through the city is also elucidative about this matter.

⁽³⁾ Apart 'SOS Azulejo', artist Eduardo Nery and investigators Margarida Almeida Bastos and Fernando Lopes are among the few authors who explicitly mention these problems concerning theft and neglect of 'azulejos' (Nery, 2007, pp. 101-105; Bastos and Lopes, 2007).

⁽⁴⁾ Article 7, Law 49/2008 of 27 August 2008.



Linked to these educational purposes is the fact that from its very beginning in 1993 the PJ Museum decided to choose 'Crime Prevention' as its 'Social Function' ⁽⁵⁾. In fact and as already mentioned, crime prevention constitutes one of the explicit competences of the Judiciary Police, although taking a secondary role in PJ's priorities (which concern crime investigation). In this context, the PJ Museum pretends to play a dynamic and complementary role in crime prevention through informative and educational exhibitions, projects and programmes which can be of direct interest and service to the community. As the PJ Museum does not have permanent exhibition rooms yet, its actions have been limited and scoped by this fact and have consisted up to now on 'out of the walls' museological actions (Malraux, 1954).

In this sequence, the PJ Museum decided to create a 'crime prevention project' to protect Portuguese 'azulejos' cultural heritage from growing theft, traffic and vandalism. Because of its museological perspective and functions however, this institution considered 'preventive conservation' as a major factor which could not — or at least should not — be discarded when approaching cultural heritage, and so this 'conservation' perspective was included in the project. Furthermore, the PJ Museum considered most important to add a third perspective — raising people's awareness to the problem — so that the project could be more truly effective.

This global perspective meant absolute need of partnerships which would enable the project to proceed in the various necessary directions. (Sá, 2013, 2014a, 2014b). After some time, the PJ Museum managed to involve several prestigious Portuguese organisations which embraced all thematic vectors of this problem, namely a representative of the Ministry of Culture, universities, a local authorities' association and other police forces. On the whole, these are the current seven Partner institutions of PJ Museum (represented by EPJ) in the 'SOS Azulejo' Project:

- Associação Nacional de Municípios Portugueses (ANMP)

- Direção Geral do Património Cultural (DGPC)
- Instituto Politécnico de Tomar (IPT)
- Universidade de Lisboa (UL)
- Universidade de Aveiro (UA)
- Guarda Nacional Republicana (GNR)
- Polícia de Segurança Pública (PSP).

In 2007 a protocol was signed between the PJ Museum (represented by EPJ) and five of the mentioned partners, officially creating the project. The project's site www.sosazulejo.com was launched some months after and in 2010 and 2014 two other Partners (FLUL and UA) took the initiative of joining the project by signing an addendum to the original protocol.

The functioning of this unusual and multidisciplinary partnership is light and flexible. The Partners have regular general meetings every 3 months and are coordinated by the PJ Museum, which invests a lot of effort in communication with the Partners. At this point, the Project has no budget. Each Partner performs its specific skills within its institutional budget, giving the project a multidisciplinary and global performing capacity. Occasionally sponsors are enlisted for actions that cannot be covered by the Partners.

'SOS AZULEJO': ACTIONS AND RESULTS

Since 2007 the Project has been implemented through various actions according to the following different thematic focuses.

FOCUS 1: PREVENTING AND DETERRING THEFTS

Although it is the result of a global approach to the protection of historical and artistic 'azulejos', the

⁽⁵⁾ The concept of the 'museum's social function', which emerged for the first time in the 'Declaration of Santiago/Chile' at the Round Table of the International Council of Museums (ICOM) in 1972 (http://www.bermuseum.org/wp-content/uploads/2014/09/Publicacion_Mesa_Redonda_VOL_I.pdf) and was consolidated at the 'Declaration of Québec — Basic Principles for a New Museology' in 1984, was afterwards largely disseminated in museums' studies, bibliography and actions. Regarding PJ Museum's social function and its museological programme, see Sá, 2005, p. 5.



first priority of this Project consisted of fighting and preventing one of its most acute problems: rising theft and national and international traffic.

The first 'SOS Azulejo' action towards this goal therefore consisted of disseminating systematised information and images of stolen figurative tile panels through its website (and Facebook). Easy access to these images aimed at:

- a) making the identification and recovery of stolen historic tiles easier;
- b) therefore making the circulation of stolen historic tiles in the market difficult;
- c) in this way discouraging and deterring this kind of crime for burglars and fences.

Indeed before this 'SOS Azulejo' action, we have direct information that even figurative stolen 'azulejos' panels circulated very easily in the legal market, art circuits and even state museums. With the launching of SOS Azulejo's site this situation completely changed. Good faith buyers — whether antique dealers, curators or other professionals — now have easily available information and buyers in bad faith can no longer claim ignorance.

The results of this 'SOS Azulejo' measure were immediate and encouraging. The very first day after the launching of the website, a stolen tile panel (Figure 4) was recognised, identified and recovered by the police (Sá, 2013, 2014a, 2014b).

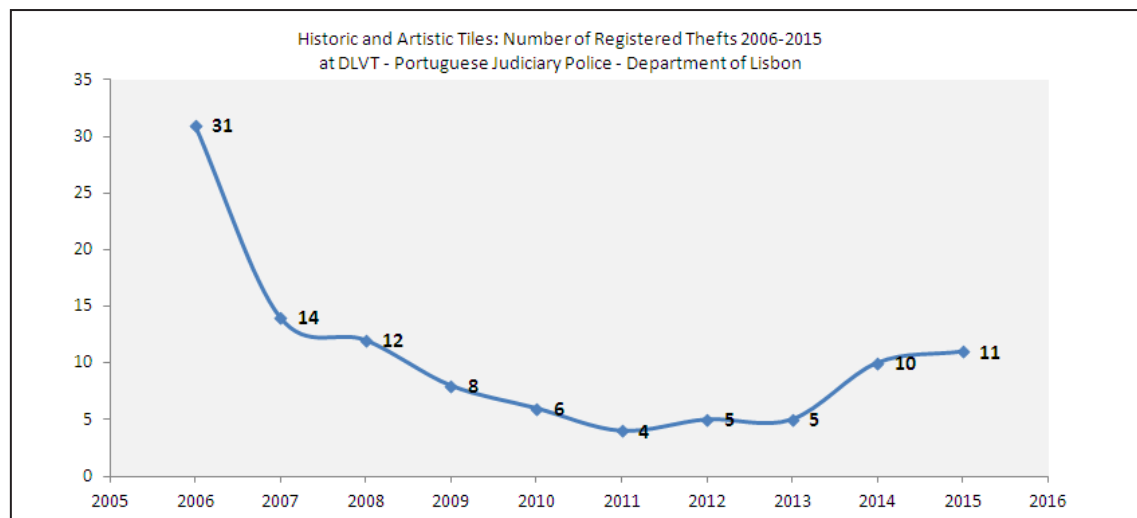
Figure 4. Figurative Panel of 'azulejos' from the beginning of the 20th century, by Leopoldo Battistini. It had been stolen from Palácio da Rosa in Lisbon in 2001.



Over the long run, statistics concerning registered thefts of 'azulejos' in the area of Lisbon from the 1990s until 2015 were especially encouraging

and showing impressive positive measurable results until 2013 (Figure 5).

Figure 5. Statistical data concerning registered thefts of artistic/historic tiles in the area of Lisbon within the period 2006-2015.





Considering the fact that ‘SOS Azulejo’ was created in 2007, we can see there is an important decrease of registered stolen ‘azulejos’ precisely from that year on, in the area of Lisbon. To be more precise, since 2006 until 2012 and 2013 the registered thefts decreased more than 80 per cent in and around Lisbon. As we can see in the chart, in 2014 and 2015 the thefts of ‘azulejos’ rose again — meaning the decrease of registered tile thefts since 2006 is now not so dramatic but still quite impressive, at a level of 65 %. The new rise of thefts concerns especially pattern tiles and not figurative tiles. Indeed, the figurative tiles can be recognised on the internet but not the pattern tiles, which repeat themselves in various buildings and cities, making it difficult to identify its source and to deny sellers who allege demolitions as the origin of their product. The coordination of SOS Azulejo has been studying this problem and proposed a new measure to its Partners which has been accepted. This new proposal deals with controlling sales of old tiles and was presented by the coordination of ‘SOS Azulejo’ to the 12th Parliamentary Commission in February 2016. We hope it will be discussed in Parliament and implemented in the near future.

FOCUS 2: PREVENTING NEGLECT AND DESTRUCTION AND ENCOURAGING CONSERVATION

Fighting and preventing neglect and visible lack of conservation of ceramic tiles (which encourage vandalism and theft) also constituted a priority of this Project. Among the measures taken by the project towards this goal, we will mention the ones with more positive measurable results.

MEASURE 2.1

Directly contacting the local municipal authority of Lisbon (CML) putting the potential of ‘SOS Azulejo’ at its service and raising its awareness to the problem.

After a long process, some positive results emerged. In May 2009 CML (Department of Culture) and Polícia Judiciária signed a protocol and organised a joint seminar, both aiming at the protection of historic and artistic ‘azulejos’

in Lisbon; in this sequence CML created a work group concerned with the issue of the safeguard of ‘azulejos’ in Lisbon.

In November 2010 a Recommendation was approved in the Municipal Assembly of Lisbon for the creation of a municipal plan for the protection of ‘azulejos’ in Lisbon, explicitly recognising the ‘truly remarkable’ role of ‘SOS Azulejo’ in this process.

By the end of 2010 the referred CML work group in the Culture Department presented for the first time its new plan for the protection of ‘azulejos’ in Lisbon. It is called ‘PISAL’ — ‘Plano de Investigação para a Salvaguarda dos ‘azulejos’ de Lisboa’ (‘Investigation Plan for the Safeguard of Lisbon’s “azulejos”’). The presentation was made at the ‘Centro Nacional de Cultura’ — ‘CNC’ (‘National Center for Culture’) proceeded by a presentation of ‘SOS Azulejo’.

The CML’s initial efforts in creating a work group (which later turned into the ‘PISAL’) were recognised and given a prize by ‘SOS Azulejo’ in 2010. Important inventory work concerning Lisbon’s ‘azulejos’ has been done by PISAL since then. We hope to see more practical positive results of ‘PISAL’ in the near future.

MEASURE 2.2

By the end of 2011 ‘SOS Azulejo’ proposed an important measure to be incorporated in the new regulations of the Urbanism Department of CML ⁽⁶⁾ that has been accepted and implemented in Lisbon since 2013 ⁽⁷⁾. It consists of prohibiting the demolition of buildings’ façades covered with ‘azulejos’ and/or the removal of ‘azulejos’ from the same façades. This means a full 180 degree turn in the protection approach of this kind of heritage in the capital: historical and artistic ‘azulejos’ in Lisbon are now regarded and protected as a whole and not only in cases of exceptional architectural value, and the *enormous amount of demolitions of tiled buildings in the last 30 years in Lisbon has been stopped* (Sá, 2014a, 2014b). At this point, ‘SOS Azulejo’ is trying to implement these new rules to the whole Portuguese territory. A single measure and input will have an enormous potential output in

⁽⁶⁾ The regulation is called ‘Regulamento Municipal de Urbanização e Edificação de Lisboa’ and is usually referred to as ‘RMUEL’.

⁽⁷⁾ MUNICÍPIO DE LISBOA, Aviso n.º 5147/2013, Alteração ao Regulamento Municipal de Urbanização e Edificação de Lisboa, art.ºs 13º e 14º, Diário da República, 2.ª série — N.º 74 — 16 de abril de 2013.



terms of the global protection of the Portuguese historic tiles' heritage. It will also be an important basis to the application of Portuguese 'azulejos' to World Heritage, as it will be the only way of guaranteeing their effective preservation.

MEASURE 2.3

Disseminating useful, valuable and information not available elsewhere on its website (complemented by Facebook) concerning a global approach to the protection of Portuguese Historic and Artistic Tiles for public access. The available information includes:

- practical advice concerning:
 - a) theft and vandalism — crime prevention;
 - b) conservation care — preventive conservation;
- useful information on good practices and how to accede municipalities' 'Tiles' banks' for public free use;
- academic works, information and news about all sorts of (educational) events and activities concerning historic and artistic tiles.

MEASURE 2.4

Creating effective prevention tools concerning hospital buildings in Lisbon (ancient convents and palaces) with very important tile collections. These buildings were sold and will become vacant and very vulnerable in the near future. Experience tells us the precious 'azulejos' from vacant buildings are very easily and systematically stolen. 'SOS Azulejo' identified this risk in these hospital buildings and developed three levels of preventive actions:

- a) making an inventory of all concerned tile collections (through Partner UL);
- b) promoting guided visits to these buildings and raising awareness of the outgoing board of directors and people in general;
- c) meeting and convincing the new owner to order and implement a security plan for the

first vacant building. This security plan has been implemented in May 2011. Until then Partner PSP patrolled the area. 'SOS Azulejo' intends to replicate this model of procedure as soon as other hospital buildings become vacant.

FOCUS 3: DISSEMINATING AND AWARDING GOOD PRACTICES

Departing from a focus on negative information — linked to the repression and prevention of thefts, vandalism and degradation, — 'SOS Azulejo' soon started to realize the importance of enlarging its perspective and adding a positive and rewarding scope of action. In this sequence, 'SOS Azulejo' developed a series of actions targeting a positive message, focused on ⁽⁸⁾:

- Disseminating and encouraging good (conservation) practices (including inventories);
- Encouraging and awarding academic studies, artists and community actions: Annual 'SOS Azulejo Awards' were created in 2010, allowing SOS Azulejo to publicly recognise individuals and institutions whose work related to 'azulejos' is remarkable and contributes not only to their safeguard, but also to their study, dissemination, fruition and continuity in contemporary art. These awards have given visibility to works of excellence in many different fields, and are meant to have an encouraging role. The ceremonies have taken place at the emblematic Fronteira Palace (built in the 17th century and covered with tiles) and have been most gratifying for all the involved;
- Disseminating love for 'azulejos' especially in school children: 'SCHOOL ACTION SOS AZULEJO' has been taking place annually during the first days of May since 2011. The 2016 edition will count with the participation of more than 75 schools groups and schools and almost 9 500 participants. The event has been a growing success, for pupils and teachers participate with great enthusiasm and we are certain to be raising awareness to this kind of cultural heritage in many children and their families, aiming at a better faith for 'azulejos' in the future.

⁽⁸⁾ The following list does not include biannual seminars and other actions of the Project.



CONCLUDING REMARKS

Several projects aiming at 'azulejos' protection have emerged after 'SOS Azulejo' (although more focused in specific sectors and not so multidisciplinary), which might be seen as a probable consequence of this Project's actions and contribution to the cause of 'azulejos' in Portugal. Also, institutional services awarded by this Project were afterwards given better conditions and means by their managers. This seems to be a good sign in terms of the Project's results — although not completely measurable — considering SOS Azulejo's initial aims in terms of raising institutional and people's awareness to the importance of Portuguese tiles.

Furthermore, at the end of this article we consider our initial proposition to be materialised and proven, that is, we hope to have shown 'SOS Azulejo' has achieved measurable positive results

regarding the protection of Portuguese 'azulejos' (especially in Lisbon) by developing innovative, preventive and positive actions within a strategy of global approach, through unusual partnerships and a multidisciplinary perspective — trying to turn a problem of theft, vandalism and neglect into a cultural opportunity for the dissemination of Portugal's cultural heritage.

This was recognised at a high European level in 2013, when 'SOS Azulejo Project' was awarded the Grand Prix of the European Union for Cultural Heritage/EUROPA NOSTRA in Category 4: Raising of Awareness, Education and Training.

'SOS Azulejo' considered this important award as an encouragement to continue, for there is still a long way to go until the cultural heritage of Portuguese 'azulejos' are protected — as they truly deserve to be.

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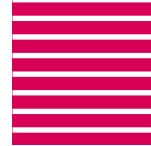
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THE ROLE OF DRAWING IN THE CONTEXT OF CRIMINAL INVESTIGATION



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Abstract: This article addresses the importance of graphic representation in the field of criminal investigation. In fact through the mechanisms and the act of drawing, processed in its majority by software, it is intended to unveil all the capabilities of this tool in the illustration and understanding of a particular crime. Throughout this study we searched to define the role played by the drawing as part of the investigation, highlighting its potential in the process of solving a crime. Assuming that drawing, as part of the Criminalistics, is permeable to scientific investigation, and considering that drawing, as such, has only been scientifically treated in a very superficial way (up to this moment), there is a need to analyse the story and the silver linings of the image created from a particular crime — the image that studies, explains and reveals (and unveils) the crime. Taking into consideration the internship developed at Lisbon's Laboratory of Scientific Police (LPC — Laboratório de Polícia Científica de Lisboa) a reflection organised under analytical and methodological objectives that seeks to understand the concerns of drawing in criminal context is propounded. The first group of objectives aims towards understanding the presence of drawing in the department of 'criminalistic image' by analysing and decomposing the processes of representation used in the criminal field. As to the methodological objectives, it is proposed to highlight the procedures used when drawing is applied in criminal investigations, thus following a case study that makes it possible to understand how drawing contributes to the analysis of a particular crime (¹).

Keywords: forensics; drawing; crime investigation.

INTRODUCTION

Considered by Manfredo Massironi as a docile tool, drawing has kept itself available for those who used it to create their art pieces. The materials, rudimental in its majority, have made drawing very versatile and able to prove its utility in a vast range of distinct areas, showing the broadness of its functions and the potential of its various applications (Massironi, 1982).

It is important to recognise the ability of drawing to communicate an idea, even when the considered idea is not valid. Its function is not to judge but only to express and represent the idea, despite its formal validity or scientific accuracy. The constant presence of this versatile tool became essential in the process of communicating, and this particular aspect will be the starting point towards studying the purpose and the implications of drawing when applied to criminal investigation.

(¹) All the references to the case study mentioned in this essay were changed in order to preserve the identity of intervenient.



DRAWING IN THE CONTEXT OF CRIMINAL INVESTIGATION

Drawing in criminal context relies essentially in its capability to illustrate an event and verify that the product of this action (this illustration) results in a unique document (Reis, 2003).

The activity of the forensic artist is to seek information in order to know and explore the scenery, the intervenient and the whole story of the crime. Hence, the act of drawing ceases to be a mere display of technical skills and becomes an exercise of recreation of the crime, where the most relevant facts are highlighted by the drawer.

In this context, the forensic artist clarifies through drawing certain aspects of the crime, stressing the legal relevance and severity of those particular aspects (Taylor, 2001).

Drawing has the potential to be a tool able of clarifying the silver lining of the crime. Through the drawing it is possible to show in court most of the time the severity of the event contributing therefore to aggravate the sentence of the criminal. This ability to support the premises of the investigation may contribute to make better justice.

Although the utility of these drawings relies on the images presented as follows, it is important to define, from the beginning, its application in different types of crime. In this context drawing proves to be particularly important when investigating violent crime such as homicide, kidnapping, theft and some crimes of sexual nature.

Considering the facts, the role of drawing differs depending on the type of crime suggested by those facts. If a certain individual is victim of armed robbery and ends up suffering a near miss shot, the drawing has the ability of understanding the performance of the gun and, therefore, to show that even though the victim was not hit, still the near miss shot represented a hazard to the victim's life and wellbeing. In this case the drawing works as a simulator that seeks to reconstruct the phenomenon through the creation of a graphical narrative of the facts. This kind of record usually results in the

acknowledgement and understanding of the expert in relation to the story of the crime and, therefore, it is from this first contact that one will try to adapt the potential of the drawing considering the type of crime that has been committed.

Thus, for example, in the context of a rape, the victim is directed towards the making of a composite sketch. In the case of a crime committed in a particular place, several sketches are made in order to reconstruct the past event (these sketches are also known as infographics)⁽²⁾.

These drawings as well as most of the images produced in this area are usually processed by software which allows the artist to work in the structure of the spaces with some accuracy and skill. They are usually subtitled in order to make them easier to read and understand.

The role of the expert is to scrutinise the several possibilities and adapt them to the characteristics of each case, considering the potential of the drawing and thus optimising the graphic qualities that are essential to fulfil its purpose. Developing technical skills is essential to obtain a good evaluation in each case, as the foundation of the drawing is a clear conscience and a commitment with the story of the crime.

It is not only about illustrating or making a record of a crime, but also about creating an element that perpetuates the evidence. Although the later uses photography to support its existence it reaches its supremacy and independence when it allies thought to the graphic representation. This symbiosis helps to clarify any gaps that photography cannot surpass.

Drawing and photography work side-by-side in order to overcome the specific limitations of each one of these tools. While the drawing graphically explains the moment that precedes the crime, the photography serves to document the traces it leaves behind.

At the scientific police lab the experts involved in the area dedicated to criminalistic drawing try to optimise its use as a helpful tool that is able to verify the authenticity of the facts reported by victims, witnesses and police force.

⁽²⁾ Infographics, as the name indicates 'info + graphic', is information that can be translated in graphical terms. This type of visual representation makes the understanding of a certain subject easier by expressing it through drawing.

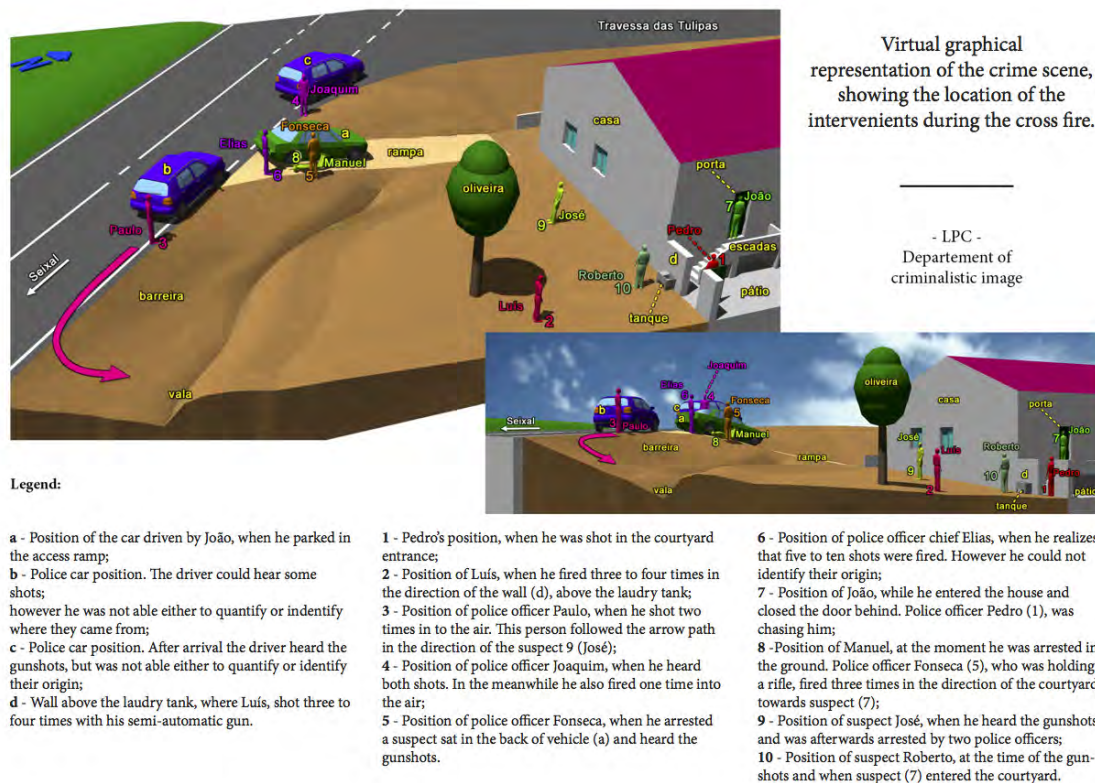


A CASE STUDY

The shooting sequence shown in Figure 1 was first analysed by crime investigators as follows: they assumed, at first, that the shot that hit the police officer Pedro (1) had been fired by one

of the accused, João (7). The drawing however would clarify what had actually happened. The bullet that hit Pedro had been accidentally fired by police officer Luís (2) who had also entered the action.

Figure 1. Shooting sequence in case A.



If we scan through Figure 1 we realise that this drawing comes alive based on the information provided by the inspectors and which is nothing but the summit of the key moment in which the shot that hit Pedro has been fired.

Analysing the drawing it is possible to verify the position of each intervenient and define the role each one played. If we focus on the main characters, Pedro, João and Luís, it is possible to verify that the relative position of these three elements defines what in fact has happened.

According to the evidence given, Pedro has gone upstairs with the purpose of neutralising João who was entering the house, but no sooner did he climb the first steps than he was shot on the back. At that precise moment Luís shots three times against the wall with the same intention of neutralising João but apparently one of the shots

hit Pedro. The evidence showed and the drawing reinforced the fact that João was not carrying any kind of gun since it has never been found. With this specific case it is easy to understand the role played by the drawing in the criminal investigation.

In some cases the act of scrutinising these images is conclusive for the understanding of the chronology of the facts and for proving what has actually happened. One should realise that the production of this type of drawing is impartial and it has the mere purpose of establishing facts and clarifying their veracity, although some cruel facts often are revealed. The impartiality presented in the images shows in a certain way the ethics behind the work that follows the rules of the investigation itself and has the unique purpose of clarifying in graphic terms the outline of a particular situation.



FINAL REMARKS

When depicting the crime the drawing has the purpose of telling the story of the event parcelling the moments into images which show facts and clear suspicions. This aim is more evident when these drawings are presented in court with the purpose of corroborating evidence, traces and descriptions given by several intervenients in a crime. In this context we impart to the drawing the possibility of

establishing the necessary links among the several elements displaying the result of that fusion. It can therefore be concluded that the drawing is extremely helpful to the criminal investigation, as the drawing has within itself a total roster of the gathered facts. When considering the vast numbers of criminal cases that have been exhaustively analysed by the different judicial actors we conclude that the drawing can play the role of the shortcut which leads us to the heart of the matter.

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