Police science: science of the police or science for the police?

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POLICE SCIENCE: SCIENCE OF THE POLICE OR SCIENCE FOR THE POLICE? — CONCEPTUAL CLARIFICATION AND TAXONOMY FOR COMPARING POLICE SYSTEMS

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Recently, a revival in police science is observed in several parts of the world. I say a revival since police science was born in the early 18th century in France and in Germany. French police commissioner Nicolas Delamare (see Napoli, 2003) as well as Germany thinkers called 'caméralistes' developed that notion. In fact, with contemporary vocabulary, is would be labeled 'political science' or 'government science'. Police science of that time was one of population, religion, roadways, trade, agriculture and finances. But also it also was one of happiness of the public (*félicité publique*). Early in the 20th century an academic journal was published under the name 'Police Science'. 'The application of science to the detection of crime' (Goddard, 1932: 165). It started to be published by Northwestern University in 1930 but almost disappeared two years after. The *American Journal of Police Science* ([1]) was absorbed by the *Journal of Criminal Law and Criminology* as soon as 1932. There was apparently not enough interest for police science in the academic arena to render the journal sustainable. Police Science as distinct from penal law and criminology will resurface in the Journal of Police Science and Administration in 1973 (Kaminsky, 1995: 20).

More recently, in the United States soon followed by Britain, academics have raised the prospect of a new age of policing that would be based on knowledge and systematic use of evidence for deciding what is the right thing to do for police services (among early committed academics and organisations in the UK see for instance the seminal work of Sherman *et al.*, 1997, the work of the Campbell collaboration and works sponsored by the Home Office in the UK). David Weisburd and Peter Neyroud (2011) spoke of a new paradigm. In Latin America, police science is being recognised as an important goal for the government of Colombia and an international conference was organised on this very topic in 2011 together with the launch of an international network by the police academy of Bogota. In Europe, CEPOL has not spared its efforts to popularise the notion of police science by publishing reports as of 2007 (Jaschke et alii, 2007, printing a bulletin (CEPOL European Police Science and Research Bulletin) and organising a conference in Lyon in 2012.

INTRODUCTION: SCIENCE AND POLICE

In the late 20th century and early 21st century, the term 'police science' as used by the administration and academia has a more restricted sense than in the early 18th century. It is very much focused on public order and public safety (that continental Europeans tend to name 'public security' although the word safety

([1]) http://www.jstor.org/action/showPublication?journalCode=amerjpoliscie2.

also exists in languages derived from Latin). This science would be a kind of engineering science that would help police to be efficient and display efficacy in their methods.

Still, there is no shared definition of police science. What exactly is police science? Should it be limited to the engineering of police methods and organisation? And how could progress towards science in policing be made when we have no definition of the police themselves, of the object or subject of the science? What are the police? Are they just the ones that claim 'we are the police' in a given country at a given time, as typically do public national forces in continental Europe? This really seems a very empirical and conceptually week definition of police that might not be sufficient for establishing them as an object or subject of a science.

Police definition has been and still is very much debated since Bittner tried to unify 'police' through the use of physical force (1978). But is it a good idea to try to define in a monist way 'something' which is extremely multifaceted, variable even when considered in one country only and even more across countries? For example, J-P Brodeur has highlighted the dual nature of police as a secret organisation on the one hand, and a public one on the other (1983). Discovering the unity of something that happens to be or because it is called with a similar name (police, polis, policia) seems rather a utopian idea to me. It is striking that police needs an s as in polices — more in certain countries than others though, that the notions of police network, plural policing or policing web has emerged. The word policing (which does not exist in Spanish or French) blurs more than it brings a solution. What is the definitive connection between issuing a ticket for unlawful parking, investigating human trafficking and spying on other governments? Were Reiss and Bordua (1967) not right when they concluded that policing cannot be the same for the various groups constituting a society, that law enforcement is socially biased? What if police is not, never was and never will be 'one thing'? What if the quest for the essence of police was misleading from the start? What if, on the contrary, what matters for understanding police is who installs the police as an organisation with special operational powers? And how is the police (whatever its names and functions) tied to its environment?

We are not even attempting here to propose a new substantial definition of police or to suggest a new theory of police. We rather try to come with some elements of methodology for understanding how organisations whose names are police do develop themselves and display various profiles across national contexts (without being able to rigorously decide which should be included in a review since that would entail having a definition for that purpose).

In this chapter, we contend that there are two main avenues in police science: 'science for the police' and 'science of the police', the latter being today an orphan of the efforts of the scientific community despite its critical importance. We also support the view that a police science cannot be established without a cross-national approach that constitutes the precondition for understanding what 'police' are. We believe that such an effort should be conceptually guided. In fact, as many scholars have already noted, each country has such idiosyncratic conditions that it proves theoretically very risky to generalise on the basis of a few cases of forces, a fortiori if studied in the same country or in the same cultural area. Most of the production of knowledge is centred on local studies or national studies and is very rarely about the comparison of 'police' in different national settings, although exceptions exist, specifically the notorious David Bayley (1975, 1979, 1985).

Forging a comparative methodology for studying 'police' requires scholars to discuss and perhaps agree about the key notions that can guide empirical works and to develop names for and measures of the various dimensions that constitute 'police'. This also necessitates gathering observations about those 'objects', to invent a taxonomy and populate it with 'police forms' so that we can compare them like early taxidermists used to compare birds or butterflies through their physical features (weight, length, size of eyes), and, possibly, link those to their behavioural patterns. We would need to agree about how to describe police forces. Such observations by naturalists paved the way for the theory of evolution of life forms and I believe that police science cannot be consolidated without a description of 'police forms'. A taxonomy of police ecosystems would also be very useful (the institutions with which police interact).

The description and comparison of police forces and their environment rests in its infancy at present and it will take long before it reaches adulthood. Our contribution in this chapter is

therefore modest and proposes to remind of some of the challenges of undertaking a systematic comparative approach to police, to introduce the notions and definitions that we believe are indispensable, and to illustrate our approach based on some examples of how definitions and the related measurement of aspects of police forces and their environment can be used based on case studies.

In order to compare policing, we assume that an emphasis must be placed on the links that unite 'police' and their environments, both social and political. And we contend that such links have structuring effects on the work of the police. We think of those links as defined by three broad notions: the polity, the doctrines and the oversight mechanisms.

Such a perspective certainly contains an academic aim of producing knowledge. In addition, it permits offering public authorities that are in charge of policing a new view on the administrative organisations that they are commanding and controlling (in centralised states) or managing (in decentralised polities).

SCIENCE FOR THE POLICE OR SCIENCE OF THE POLICE?

After the 18th century view that confounded police science with government science was abandoned, the more vivid definition of police science rests with the 'evidence-based' approach. Based on a medical metaphor, its proponents offer a more professional view on policing in the classic sense of a value-free orientation and a decision about what works and what doesn't that stems from the observation of actual policing practices with rigorous methodology. The medical inspiration is overtly claimed by some of the most famous pundits (Sherman in his 1998 lecture at the police foundation; for criticisms see among others Thatcher) and perspire when reading the compilation of quantitative meta analyses (for a recent example, see police legitimacy: Mazerolle, Bennett, Sargeant, Manning, 2013). It certainly constitutes an important current in criminology, with its journals, think tanks and intellectual leaders. We do not intend to discuss the principles that lay beyond such an endeavour (such as: what are the implications of a more efficient police which are not in themselves a neutral factor in a just society? or to what extent can the police be confounded with medicine?). Every major thinking tide has its critics.

Our main and only point here is that the evidence-based approach is an engineering kind of science. Contrary to critical criminology, is does not express outrage vis-à-vis police racism. It rather tries to measure the existence of bias in policing and compares the effect of training curricula on the importance of ethnic imbalance during stop and search. It does not portray private property as a theft (as did Joseph Proudon, 'La propriété, c'est le vol', a French 19th century intellectual), but rather tries to determine if a 5 % increase of street patrols reduces (and to what extent) the frequency of burglaries in experimental neighbourhood compared to control ones.

Evidence-based science has not yet focused much on organisational features of police forces. Perhaps the COMPSTAT study is a borderline one since it touches on police interventions and police organisation (e.g.. Willis, Mastrofski, Weisburd, 2007). Evidence-based science is first and foremost a science for the police. It is for the benefit of police chiefs and of police forces. And possibly for the benefit of those overseeing the police. It would be unfair to deny that citizens might indirectly enjoy those benefits as well, for example it they are less often burgled after more efficient methods are implemented. Science for the police is meant to be an applied form of science. It has a normative nature in the sense that it is meant to say what is good and what should be done (or what shouldn't). In any case, what is learned is meant to cause a change for a better functioning police not a better understanding of why police services change (or don't), what policing means and how police organisations develop, grow in size and gain more advantages and resources for their constituent units and police officers.

But should evidence-based science be restricted to science for the police? Another avenue is also possible, which is distinct but does not oppose the first one.

Science of the police would mean studying police forms in their environment in order to better understand their development and their behaviour, for example how those forms compete for survival and interact with their environment (for accessing more resources or for other purposes). Three subjects are central to the

science of the police: police forms development over time in different settings, police acquisition of resources (an organism needs to feed itself in order to survive) and police determination by their environment. The links between police development and political development began to be comparatively studied by Bayley (1975) almost forty years ago, but he had few followers.

It is not a normative approach in its essence, but it would be unfair to conceal that it can be used in a normative framework (in fact, it is within such a framework that I started to be interested in the taxonomy of forces, when my responsibility was to measure the distance between a given police force and international standards of democratic policing, whatever this means). The police are usually not interested in the science of the police, with notable exceptions of course, since a police chief is interested in 'doing better' in a given situation and in a given organisational environment. Explanations of how and why a force will change over time is not part of his/her primary concerns, at least in the countries in which I worked. Reckless politicians might be interested in the science of the police, and interested to the point that it is not taking too many odds in order to change a police force.

I explained that science *of* the police is not to be confused with science *for* the police. However, systematic and rigorous observation can be mobilised for the benefit of science for the police as well as for science of the police. There are benefits to studying the programmes in order to decide rigorously on 'what works'. However, equally important is to look at system level. There are some isolated articles advising to do so (for example in relation to the juvenile justice systems, see Smith, 2005). More generally, for the purpose of understanding police-related changes, it will be beneficial to observe the links to the system in which a form develops itself.

COMPARATIVE STUDY OF POLICE FORMS: CHALLENGES AHEAD

There are a number of technical roadblocks in getting to the destination outlined in the introduction. And these obstacles are, we believe, even more obvious when adopting a comparative approach since the definition of a multifaceted organisation, police, cannot only be found in one of its actual manifestations. What police are cannot be taken for granted in a comparative perspective. The differences stand out and show their true colours.

The first difficulty resides in the absence of shared definition of what 'police' could be. It has been observed by historians or sociologists that their forms vary historically and geographically. They can be diffuse in nature or vested in a specialised profession or corps, with a mix of public and private services (the balance between these two varies from country to country, Johnston, 1999). The professionals can be civilian or military, as in countries with a gendarmerie or even pure military forces carrying out internal security duties. The forces can be local, regional, or national, or a mix of all these. In some countries internal security and external security are mixed together, as in eastern Turkey, which often happens when the borders are not fully secured or when some nations claim cultural recognition across state borders. In this case, the gendarmerie fights terrorism as an army and undertakes more civilian policing of rural places. The missions consisting of prevention, deterrence, detection of crime and protection of public institutions are organised differently in almost every state. These are just examples of how complex finding a definition can be.

Missions of police forms, often subsumed under the term 'safety' or 'security' are diverse and changing over time. Every attempt to count them ends up with lists of more than a dozen tasks (Bordua, Reiss: 1966: 78). There is a need for categorising them. For example, sociologist Dominique Monjardet (1996) proposed differentiating between 'police of sovereignty', 'high judicial police' and 'police of quietness' meaning the daily policing work based on the French case study. Such endeavours do not provide a definition, but help to depict the complexity of police of which shape, organisation and functioning display important differences.

There are two widespread definitions of the police. The more popular element of definition by the 'legitimate use of physical force' as did Bittner (1970: 131) or Bayley in the third volume of The Enclyclopedia of Crime and Justice (1983: 1120), is not fully convincing. Canadian sociologist Paul Brodeur (1994, 2011) denied in detail that such a notion could be sufficient or even valid for specifying what police can be. Let us simply add to the discussion that in authoritarian regimes,

the police do not use force for maintaining order and security since the purpose of police in such cases is to create a sense of insecurity in the public. In addition, it must be said that the use of force is not necessarily perceived as legitimate by the public, as we witnessed recently during the Arab Spring in Tunisia or in Egypt. Other scholars insisted on their capacity to define exceptions in the maintenance of order (Manning, 2010: 80).

According to me, the best starting point remains the work of Bayley, but not when he relates police and the use of force, rather when he takes a larger view. He sees the police as a corps that is instituted by an authority (Bailey, 1985), which clearly opposes the police as a force that established itself as a power, as the army does in some countries. It might be because he adopted a comparative point of view deterring him from choosing too restricted a definition. The police serve a higher power. In democracies, that power is meant to be the people, in autocratic regimes the President or the king. Bayley reached this very stimulating conclusion long after the French revolutionaries drafted their Declaration of the Rights of Man and of the Citizen in 1789, which arrives to the exact same conclusion although it is stated in a normative fashion. Article 4 states that: 'La garantie des droits de l'Homme et du Citoyen nécessite une force publique: cette force est donc instituée pour l'avantage de tous, et non pour l'utilité particulière de ceux auxquels elle est confiée' (The guarantee of the rights of man and of the citizen requires a public force: that force is instituted for the benefits of all, and not for the particular benefit of those to whom it is entrusted). This article encapsulates the general principles of a democratic police: they are set up for servicing the people and protecting their rights.

Bayley's emphasis for defining the police is on the link of forces with a superior authority. This authority could be the people or the government, be it democratic or tyrannical. It is the environment of police. Based on that premise, I propose that understanding the different types of police forms is precisely that: to make sense of the links that unite a force or a series of forces to their social and political environment. Manning (2010) implicitly followed the same path, however he focused on what the police do when he tried to give a definition of police as dealing with 'exceptions' that is in relation with the dependence to their superior authority ([2]). What Bayley indicated is the 'intermediary role of the police'. Police have a broker function both for inputs and outputs of the political system. This is why it is so important to theorise the link of the police to their environments. The affiliation of police forces to government, a critical element of police — government relations, has not yet been systematically analysed, neither at state level nor, and even less, in a comparative fashion.

Years ago, political scientists D. Easton and J. Dennis stated that the police are marginal to the heart of political science works and lack a serious analysis of their function in political systems (1969: 210). Since then, some authors have started to collate monographs on aspects of these relationships, but without a clear conceptual framework (Bear, Murray, 2007) or limited to one country without proper intellectual equipment for comparative research (Loubet del Bayle, 1992, 2006). Research has been centred on a few English speaking countries and termed ethnocentric and chauvinistic by British and American academics themselves (Mawby, 1989, introduction). The quest for an analysis of their functions in political systems appears still unfinished. I believe that it is a critical element for science of the police.

At this point, we propose limiting ourselves to observing some public forces, i.e. forces that are set up by a higher authority, in a selection of countries with two objectives in mind: to determine and measure their main characteristics, their mutual relationships and their relationships with their environment. The reason for including the characteristics of the forces in the review of the dimensions of their relationships with their environment is that those characteristics possibly shape that relationhip, at least in part.

From an empirical point of view, there is no database gathering characteristics of the police forces in different states, even in democratic regimes. Certain organisms as OSCE offer partial descriptions of the missions of the forces, but they are usually based on the legal definition in

([2]) The police as an organization in Anglo-American societies, constituted of many diverse agencies, are authoritatively coordinated, legitimate organizations. They stand ready to apply force up and including fatal force in politically defined territories. They seek to sustain politically defined order and ordering via tracking, surveillance and arrest. As such, they require compliance to command from lower personnel and citizens and the ability to proceed by exception' (2010: 79-80).

a given country and are not systematic across countries. We state that such a cross-national description necessitates prior identification of what exactly should be measured in police forms, what criteria are preferred in order to measure and compare forms (the measurements and the units of measurements). This is why concepts are indispensable for a comparative science of the police.

METHODOLOGY

How to navigate the many challenges along the journey to comparative police science? We clearly don't have a full answer to that question and our ambition here is only to propose concepts and illustrate that they can be useful. For the purpose of comparing police forms, a few concepts are needed.

We propose four basic concepts based on a first work to gather descriptors of police oversight mechanisms (Roché et al., 2010) and on a work on key notions for reengineering a police system (Roché, 2011) both prepared in the framework of international technical assistance for security sector reform.

We assume that police forms evolve inside a social and institutional environment. It is constituted of civilian government, the army (in some countries the army is a branch of the state together with the legislature, the executive and the judiciary), of civil society and of other actors (independent authorities or NMIs, the media for example). We intend to describe the traits of police forms (the characteristics of the entities, forces or services that do policing) and the nature of the links of police forms to their environment. For example, when British police chiefs talk about police independence, what does it mean and how can this be conceptualised and measured (how independent and from what?) so that Britain can be compared to other countries?

SELECTION OF REFERENCE COUNTRIES

The scope and complexity of the work is such that we would like to trial our approach on a limited set of states and with simple indicators for assessing the existence of the links. It is beyond our capacity to include all states or even a rigorous sample of states since we don't have a hypothesis for designing such a sample. We will select contrasted case studies, with enough distance between them to allow observation of various traits and organising principles.

The principle guiding us for inclusion of case studies is diversity: diversity, as far as the polity is concerned, but also as far as the police system features are concerned. We know that there are different types of polities and police systems as well, and we intend to account for some of the diversity of both polities and police forms.

We have combined four criteria: size (population) and type of state (federal and unitary), fragmentation and type of forces. The state may be:

- a symmetrical or asymmetrical federation, a unitary state;
- a large or small state as measured by population and geographical squared mileage;
- characterised by very fragmented police systems or with more unified police systems (the fragmentation of a system is indicated by the division of the number of forces by the resident population of a nation state);
- characterised by police forces only, or with police combined with gendarmerie (a mixed system often called a 'dual system').

We will also make reference to other systems, the United Kingdom or Nigeria for example, when needed. Our ambition in this paper is not to be as systematic as we should be, but has to be limited at this stage to provide examples that are a source of inspiration for designing a comparative approach.

Federal systems are very heterogeneous. The United States is a large country (9 million km^2, 308 million inhabitants). It is a symmetrical federal system with a very fragmented police system without a police force with a military status. Switzerland is also a symmetrical federation, but substantially smaller (41 000 km^2, 7.7 million inhabitants), with a high fragmentation of police. There is a force named the gendarmerie, but without a military status. India is a vast state (3.2 million km^2, 1.2 billion inhabitants) and a symmetrical federation with a system that is moderately fragmented and without a gendarmerie. Spain is a middle-sized

Table 1: Countries included in the study

	Population (in millions)	Polity	Name of member unit	Fragmentation of police system	Military status police force (Gendarmerie)
India	1 115	Symetrical federalism	State (28)	Moderate	No
Spain	46	Asymmetrical federalism	Autonomia (17+2 cities)	Low	Yes (Yes)
Switzerland	7.7	Symmetrical federalism	Canton (26)	High	No (Yes)*
USA	308	Symmetrical federalism	State (50)	Very high	No
France	67	Unitary	State (1)	Very low	Yes (Yes)
Turkey	75	Unitary	State (1)	Very low	Yes (Yes)

**** A gendarmerie is found in Switzerland, but its status is not military.***

nation (505 000 km^2, 47 million inhabitants), an asymmetrical federation with centralised police forces, a civilian and a military-status police. France has approximately the same size (550 000 km^2, 66 million inhabitants) but with a unitary state and centralised police forces, a civilian and a military-status police. Finally, Turkey is in the same category as France (783 000 km^2, 75 million inhabitants) with a unitary state and centralised police forces, a civilian and a military-status police. Turkey has adopted an administrative system that is rooted in the French tradition.

As we will see below, this very general description doesn't render justice to the differences between the most comparable countries. Police forces are structured (and operate) differently in different countries even if those countries live under the same type of political order. For example, federalism doesn't entail a well-determined and specific type of police system. When one refers to a 'federal police force' it is done so in order to point at the type of police force, not at the arrangement of the police system itself. Federal forces are mobilised within their jurisdiction, which is usually given by the nature of the crime committed (for example a crime against a federal official) or the place where it is committed (for example federal buildings or the federal state of Mexico City of Washington D.C.).

THE FIVE CONCEPTS FOR COMPARING POLICE

The work below draws on previous empirical and conceptual efforts (Roché 2011, 2013). In order to describe the main distinctive features of police systems that can be found around the world, and to determine how they compare to one another, we propose that it is necessary to look at:

- 'police forms': the traits of a police form are size, means for connecting them to the political system by ministerial affiliation for example, and police operational powers in particular remit (national, local jurisdiction);

In addition, one needs to study four aspects:

- polity or structure of political powers: type of regime, distribution of powers to the various levels of government (federal, state, region, municipalities) and the *de facto* power of organisations (for example of the military in policing work);

- police ecosystem, or the mutual relationships of all police forms at the nation level;

- police doctrines (operational strategy for implementing a policing policy);

- police accountability mechanisms, which are also very diverse (political accountability, performance management, inspection).

The reason for selecting those four dimensions is that firstly they are critical for designing the relationships of police forms with their environment and secondly that they seem to be empirically independent bricks or elementary elements that can be combined to define 'what the police are' in a given place at a given time. We contend that 'what the police are' can be defined by the relationships of each form with their instituting or monitoring authorities. The four types of bricks are different in nature:

- For a given type of polity, various traits of police forms can be found. The architecture of a police system is not given by the polity: centralised police forms can be found in federal polities; civilian or military status police forms can be found within the boundaries of the EU.

- Even in lookalike police forms (let's say centralised forces with a military status), substantial differences in doctrines can be found.

- Doctrines with similar aims are found in contrasting polities, and in various police forms (large or small, central or local).

- The degree of centralisation of a form (and possibly of a system) is not only tied to the institutional architecture but to managerial strategies of the governments.

- The nature and modalities of the oversight over police forms is not dictated by the architecture of the polity or the degree of decentralisation.

- Furthermore, it is for example possible to change the oversight mechanisms without impacting the polity or the traits of police forms or the doctrine.

COMPARING POLICE: MEASUREMENTS OF MORPHOLOGY IN SELECTED STATES

We will now provide a definition for each of the four core notions. They all are multidimensional and require therefore to identify their main dimensions. We will provide examples of measurement for each dimension.

POLICE FORMS, POLICE ECOSYSTEM

A police system is composed of multiple police forms, which together comprise the totality of agencies explicitly and exclusively (in the sense that policing is their sole or dominant mission) tasked with maintaining internal public security and order. These forces may or may not be linked together operationally or in terms of control by higher civilian authorities.

The notion of police form is useful since it doesn't fully overlap with the legally defined notion of police force or policing agency or police service. Legal definitions are usually taken for granted by academics. An illustration can be drawn from France. The police of Paris are a central state one. They do not exist legally as a force since there are only two national forces in France, the Paris police being part of the national police. However, based on empirical observation and not on law, it is observed that Paris police are a force as such. It has independent command and control, and internal oversight, as well as other features of a national force (including its intelligence services). We use the notion of police form as a generic term for describing the observed reality.

What distinguishes a police system from its constituent units? Police forms are the basic unit of observation in our methodology. A police force exists if a set of agents (whose function is defined) that operate within an organisation with a line of command and control, and in a geographical jurisdiction. It generally has a mechanism for controlling and sanctioning the agents, even if rudimentary. Forces report to the public authorities in charge of the police (police authorities). Often forces undertake various types of missions. They can be, for example, very specialised, or of private or public nature (or of mixed nature), legal or illegal, civilian or

military etc. Thus, we can say that a nation's police system is a set of police forms plus the relationships among all the constituent police forces within a given territory.

As we express above, there is no shared definition of a police force, and even if we use the one by Bayley, it does not solve the problem in full. Now, we propose to discuss traits of the police forms. More precision is often needed, for example we could decide that police forces shall be distinct from armed forces in that the former are assigned with the mission of maintaining internal public order and order. However, in various countries this is not fully the case. Interestingly, police forces are rarely defined in the national laws. In addition, there often are few published analyses in undemocratic regimes or even in regimes in transition. For public forms, elements contributing to the definition of the civilian versus the military nature of a force such as the ministerial affiliation, the employer of agents and the missions, are sometimes specified more precisely in democratic regimes.

We believe that the morphology of the forces should be determined. How can the police forms be described with a limited number of traits which themselves will be quantified?

There is a very large number of organisational traits for each police form and each of these is multidimensional, for example the opposition between the military versus civilian status of forms. At system level, one can see two traditions in Europe, the Anglo-Saxon, built against the French model, where public forces are of civilian nature since such countries excluded the possibility of having a gendarmerie. This tradition is reflected in international norms and standards where a clear division is sought between the role of the army (defence) and the police (internal public order and security).

Based on our small sample, we found that several countries have a gendarmerie: France, Spain, Switzerland and Turkey. But, clearly, looking only at the tag that is put on the force does not suffice to grasp its nature. At force level, at least two dimensions must be taken into account for defining the degree of militarisation: the militarisation of the status of the personnel and the militarisation as stemming from ministerial affiliation. As can be seen in Table 1, Switzerland has a gendarmerie, however its personnel are fully civilian and it is affiliated to a civilian governmental body. This means that the gendarmerie in this country is in fact a police force that is identical in all means with a civilian one. At the other end of the spectrum, the Turkish Jandarma is found. This force is composed of soldiers (and conscripts), commanded by a land force general, and it is affiliated to the general Chief of Staff (a military entity which does not report to the Ministry of Defence). It is the most militarised force in our sample. In the middle are gendarmeries made of gendarmes that are distinctly trained against other armies (land forces in particular) and that are affiliated to the Ministry of the Interior in Spain and France both in functional and organisational terms, and of Italy where the Carabinieri are functionally under the Ministry of the Interior but not organizationally. Their resources are provided by the Ministry of Defence, but the command and control line lies with the Ministry of the Interior.

We are here primarily concerned with the public subsystem and its structural features. When observing a force, we leave aside the external control, the content of the training processes, the management as far as performance and 'value for money' is concerned and limit ourselves to reference to the traits of each forms. We only include here the appointments and revocations of the top heads of forces since they are an internal feature of the form, despite the fact that it is set up by the political environment.

In order to properly compare the forms, we need to use a series of measurements of characteristics. We need to establish a taxonomy of police forms, similar to catagorising life forms in the sea for example. Some are very big in size, some are small, some are solitary and others, social fish. Fish live in the sea with other animals that also can 'swim' alike them, without being fish, for example dolphins. And biologists can differentiate between fish and dolphins because of certain criteria, such as the respiratory system.

FEATURES OF FORMS AND OF ECOSYSTEMS: THE CHALLENGE OF DESCRIPTION

One of the first challenges of social scientists in the current state of knowledge is simply to describe 'what we see'. We observe that there are a very large number of important organisational traits in police forms and police systems. And, when studying them, we found that each trait is multidimensional (see below the example of militarisation). Comparing forms and systems implies that we are able to identify those traits and build an index or scale for measuring each of them (for example a militarisation score). A table of core features or fundamental features of police traits needs to be designed and tested.

The main features of forms are listed in Table 1. This table is composed of very frequently discussed elements in the police literature. It is by no means a final list of fundamental traits of police forms. I propose that there are seven core traits, and that each of them is multidimensional. Those traits for each form are:

- *Status* (military versus civilian)
- *Nature* (public or private)
- *Shape and characteristic of the top levels of the hierarchy* by which the form is attached to its political environment (the hook or attachment point)
- *Shape of the command and inspection system*, which is a kind of nervous system of the form
- *Size* of the force
- *Centralisation*
- *Jurisdiction*
- *Professionalisation* (literacy, specificity of training).

I understand that many other elements could be added and I am geared here with including as few traits as possible. For example, an important element to be added is how a form feeds itself and reproduces itself and I contend that the limbs or organs that equip forms are critically important to be integrated.

I agree with Bayley when he observed that some commonplace notions such as centralisation or decentralisation are not very useful for comparative purposes of governance (1979: 219). A decentralised force like the NYPD can in effect be larger in size than the centralised force of a small country, with less inhabitants. Another example can be used to illustrate the problem. Some countries, like France, have a centralised police system in which a very large force is independent from the two main and centralised ones (the national police and the gendarmerie), namely the police of Paris. But is the police of Paris a centralised or decentralised force? There is no answer to that question because of the flawed conceptual framework for asking it. However, until such notions are replaced, we are tied to using them.

The main features of a system can be described with a combination of measures of the forces as displayed in the table below. I cannot discuss all the difficulties that are related to the use of notions and related measurements. My focus is now to insist that features can be observed and measured at force level or a police-system level, and that the two levels should be carefully differentiated. For example, a force can be more or less militarised. But then, a police system is more militarised when both the affiliation and status of forces are military, but also when the size of the military police forces is bigger than the civilian units.

As another example, we can look at the fragmentation of systems and compare the United States and France, two of the most opposed police systems. In France there are a national police, a gendarmerie and a Paris police force (totalling 230 000 personnel) as well as 3 030 municipal forces with only 13 098 personnel ([3]) (two thirds of municipal authorities do not authorise their agents to bear arms) for 66 million inhabitants. In the United States we find 17 800 forces for a population of 312 million. The fragmentation index can be computed as the number of armed forms divided by the size of the resident population. This method shows that the United

([3]) See the ' Information report ' by the joint mission of the French Senate and Parliamentary Assembly. Mercier Michel (2000), *Pour une république territoriale: l'unité dans la diversité*, Rapport d'information 447 Tome 1 (1999-2000) — Mission Commune D'information.

Table 2: Example of traits and measurements of police forms and of police systems

	Force Level	System Level	Example of the indicator at system level
Status: civilian/military	Degree of militarisation of a force	Militarisation of the system	Score of a country based on all dimensions measuring militarisation
Nature: public/private	Degree of public control on a force	Share of public forces in the total number of agents	Ratio of public versus private agents in a country
Attachment point (hook) to political environment	General director, Commander with fixed-term mandate (or not)	Number of hooks, existence of notions of political neutrality, political independence	Proportion of hooks under civilian authority
Existence of control and command line	Hierarchy and inspection system are functional	Proportion of forces which have a functional hierarchy and inspection	The head of the force can appoint or revoke an agent (staffing of central inspection divided by total staff)
Size/ Fragmentation	Number of agents and/or budget of force	Number of forces Coordination mechanisms	Number of forces per 10 million population (see graph)
Centralisation	Degree to which a force reports to the central powers	Degree to which forces/ agents are mainly affiliated to the central powers	Percentage of public agents that operate in forces mainly affiliated to the central powers
Powers (operational)	Degree to which a force possesses powers	Balance of powers between forces	% of agents without powers in force A compared to force B
Jurisdiction (geographical operational power)	Geographical and criminal based Gendarmeries' natural habitat is countryside	Preeminence of a force, mutual geographic exclusion	Percentage of the population in jurisdiction of a force
Professionalisation	Proportion of agents with education and proper training	Share of agents that are specifically recruited and trained for policing duties	Literacy of agents, presence of conscripts, specific training curriculum

States has a ratio per 1 million population of 57 forces and France of 15.

I have asserted that each trait is multidimensional. For the purpose of clarity, I will now take the example of militariness (the degree to which a police form is militarised). A first proxy of militariness is the use of a label, most often 'gendarmerie', a French word meaning armed men. However, such labels cannot be trusted at face value. In fact, some forces like the ' 'Gendarmerie Royale du Canada' only include the word gendarmerie in French, and not in English (its name being the Royal Canadian Mounted Police). Which name should be used in that case for the purpose of classification of the form? More importantly, the gendarmeries of Switzerland, Turkey and the southern European countries (France, Italy, Spain) appear to have little in common when compared on a systematic basis. Firstly, the affiliation of the form has to be assessed, together with the status of the personnel and the legal procedures guiding the work of the

agents as well as the legal liability of agents. Those variables can be represented in a two dimensional space (Graph 1): one refers the affiliation of the force, the other to the status of the agents. The two most opposed forces are Switzerland and Turkey (Jandarma). In Switzerland, the name gendarmerie is the only link to militariness. In fact, the form is affiliated to civilian non-army bureaucrats, answering to elected politicians and composed of civilian agents bound by civilian (non-military) procedures and codes. At the other end of the spectrum, the Turkish Jandarma is the fourth army of the country, it is affiliated to the general chief of staff who is acting as the head of a constitutional power and does not answer to the Minister of Defence. The gendarmerie protects borders, fights a domestic war against the terrorist organisation PKK, and does rural police work at the same time. It operates under military codes of procedures and the agents are liable to military courts. In the middle, the continental European forces are found: the personnel has retained a military status (for working hours, pensions) but is placed under civilian rules and procedures as well as administrative and political civilian authority which makes them 'civilian police forces'. They are integrated in the Ministry of the Interior (to a varying degree though) rather than the Ministry of Defence.

Analysts such as Llorente (2006) have noticed the changing ministerial affiliations of the police — between defence and interior — in Latin America and suggested that such changes have an important impact on the degree of militarisation of the police. It is likely that the ministerial affiliation is important, but that the locus of control is equally so (what is a form hooked to). If the internal security sector for a large part is in the hands of soldiers instead of politicians, as it is the case for example in Turkey with the gendarmerie, the evolution of the police system and police doctrines will probably be much slower. Ministerial affiliation can be only formal, and not imply a real civilian locus of control.

COMPARING POLICE: RELATION TO THEIR ENVIRONMENT

Each police form has features of its own and is developing in relation with other forms, larger of small, of various statuses. All these forms are themselves part of a larger ecosystem which structure is politically determined.

I propose to divide the relationships of police forms to their environment between the social environment and the political environment. Most often, the political environment defines the relationship of the police with its social environment through different principles, as stated in legal documents (constitution, police laws, police doctrines, police ethics guides). These principles embody national traditions that can be substantially distinct even among democracies. There is also a set of mechanisms that permit civil society to be heard: direct election of police chiefs, of authorities to which chiefs are accountable; consultative mechanism for example. However, the social environment can influence the political spheres, mostly via elections in fully-fledged democracies or even in delegative democracies (O'Donnel, 1994).

POLITY, POWER RELATIONS AND POLICE

The authorities that institute police forms are doing so based on legal provisions in core legislations or based on power relations (*de facto* exercise of power). It should be noted that not only legal authorities establish police forms.

The police forms are instituted by and report to a higher authority that can be monopolistic. However, sometimes in a given territory various authorities compete with one another. This can be observed in countries were rivalry occurs between civilian authority and military ones, for example in Egypt or in Turkey. There can be competition between civilians groups in unstable environments but also in stable ones, like in Spain between the central and local levels. The case of the United States where police chiefs can challenge mayors and run for election there is another type of competition which has not been studied comparatively. In France, such a possibility is explicitly ruled out by law since a line is drawn between the work of administrations and forces and the political sphere: a former police officer cannot run for any elected mandate in a municipality over which he/she had jurisdiction during the previous years.

Since the police are established by superior authorities, the political framework of a country might be an important element in understanding the development of police forms. What defines the

polity of a country? A polity is usually defined as a civil order, the form of government of a social organisation. It is generally accepted that there are three forms of government structure: unitary governments, confederations, federations (approximately 24/200 states). In unitary states and even more in strictly unitary ones all power resides in the central government. Conversely, in federations sovereignty is constitutionally divided between a central governing authority and constituent political units (often states or provinces).

How much determination of the nature of police forms and of police systems stems from the constitution that set up the polity? The constitution has two potential main effects on police since it decides:

1. the limits within which police forces will exercise their operational powers, and the limitations that shall be put on the police forces;

2. the allocation of competences to the different governmental levels (what level is in charge of what kind of police).

A constitution often starts with listing the fundamental rights, the freedom and liberties that no state organisation and in particular the police can jeopardise through its actions and procedures. The importance given in constitutions to these rights and the inclusion (or not) of all human beings is critical since the highest courts will eventually refer to it. If not guaranteed at the constitutional level, the freedom and liberties might lack the necessary legal support for their full enforcement. Those rights will act as a guiding principle for all public services, including the police forces. And since police powers and police actions are by definition limitative of liberties, the impact of those guarantees is decisive for police forces.

With regard to the mission of the policing forces, the constitution of Spain, dating back to 1978, clearly assigns a duty of protecting the citizens and their rights to the national police and the Guardia Civil, the two national forces. In fact, security is defined as an 'exclusive competence' of the central state by the core document. A strong emphasis is put on the rule of law and the disciplinary system for the national forces.

The United States' constitution is also a short document. It does not mention the criminal justice system or the police. It only mentions that the judicial power rests in a Supreme Court that has the power of judicial review. Many important phrases and terms in the constitution that govern law and criminal justice are written in a general and often imprecise language that has no specific meaning until placed in a social context. The central principle is that the government, despite all its powers, cannot enter people's private spheres without a compelling and verifiable justification.

However, those guarantees do not constitute a distinctive feature of federal states when compared against unitary ones. A unitary state like France has a declaration of human rights in addition to its constitution so that the document has the highest value in the legal system. Moreover, the protection of basic rights doesn't correspond to a shape in police organisations. Are there specifications about police forms in constitutions?

It is possible, but rarely observed, that the constitution also assigns duties and responsibilities to the public policing forces. In Spain, the recent constitution (1978) requires such provisions to be elaborated in detail in an organic law. The organic law (a law ranked between the constitution and regular acts of Parliament) organises in detail the duties and responsibilities of the national forces, their ministerial affiliation, the rights of the agents working in the force. All forces, whether they have a civilian (national police) or military status (Guardia Civil), are housed by, and accountable to, the Ministry of the Interior. As a consequence, neither the Ministry of Defence nor the army can have a role in internal security.

What the constitution systematically does is the 'distribution of competences' or 'distribution of police powers'. It means that the legislation declares what authority is legally entrusted with the competence of establishing police forces, developing police forms. The multi-level organisation of police competence and powers is specific to federal systems when unitary states recognise only one owner of such power.

In all our case studies, the distribution of police powers is established by the constitution. Distribution is often but not always presented in lists of competences. Let's take a number of examples. In the case of India, there are three lists. The first specifies the power (competence) of the

union, the second of the states and the last one — the shared power. Such a list exists also for the United States. The 'delegated powers' are those delegated specifically to the national government.

The Indian constitution lists the powers (competence) and functions of the central government and state governments. Three lists are distinguished: the Central List, the State List and the Concurrent List. According to Article 246 of the constitution, parliament has exclusive power to make laws regarding matters enumerated in list one. State legislatures have exclusive power to make laws for the state regarding any of the matters in list two. Both parliament and state legislature can make laws on subjects specified in list three. However, primacy is given to Central Government (Union) laws over state laws. This clearly indicates that the Union Government has supremacy over the state governments in matters related to legislation. Experts note that this supremacy exists not only in legislative powers but in administrative and financial matters also (Ramakantan, 2008: 2). The predominance of national laws (whenever national and state legislation overlap) or national bodies (whenever federal and state supreme courts disagree) is not specific to India and applies to Switzerland for example. However, more counterweights are found in Switzerland, the cantons being protected against an 'over-legislation' by the confederation.

Switzerland vests the administration of justice in the member units (cantons) but the legal penal framework (penal code, penal procedure) in the federation. The cantons can establish their own police forces as they wish as long as they comply with federal regulations, including the penal code. The country has no formal list of police competences and regulates the division of competences between the federal and the local level using the so-called 'principle of subsidiarity' (Articles 3 and 5 of the Federal Constitution). According to this principle, all powers not explicitly assigned to the federal level belong automatically to the local level. This translates into the existence of a single list defining crimes dealt with by the federal police. These crimes in Switzerland are defined by law, not the constitution. All other crimes are assigned to the cantonal police.

There is no list of competences in the Spanish constitution. Instead, there is a list of police powers to be distributed between the two national forces. Distribution of competences is based on agreements between the central government and the member units on an ad hoc basis. The reason explaining this situation stems from the fact that the constitution establishes a balance of police competence that is clearly favourable to the central level since policing is defined as 'an exclusive duty' of the central government. However, it does not clearly discard an involvement of other public forces in internal security. Based on this possibility, some member units (called 'autonomies') have set up their own forces (see the section below).

An opposite situation is found in the United States where the balance of competence is clearly favourable to the local level. There are federal duties related to policing, but those are far more limited than state and local ones. The maintenance of peace, conduct of orderly elections and prosecution of unlawful actions are all state responsibilities, pursuant to the states' primary job of exercising police power and maintaining law and order.

In Switzerland, the balance of policing competencies clearly favours the local level as well. Federal responsibilities are mostly limited to terrorism and organised crime. There is no uniformed police at the federal level, thus public order and investigation of crimes is entirely distributed to cantons. Cantons can themselves further devolve policing powers to municipalities, which is the case in a majority of cantons.

In summary, the constitutions seem to offer only a few criteria, not for deciding police forms but for distributing police powers. It seems that constitutions do not shape in all respects the police forms and police system of a country. And, a closer look into police forms within different countries displays how little influence a constitution has on police forms.

POLITY AND POLICE FORMS

In section two we introduced a number of traits for characterising a police form, and also a police ecosystem. We can now empirically investigate the relationship between polities (federal versus unitary) and police systems in order to better understand if the former determines the latter. There are various reasons to be dubious of any determinations. Firstly, virtually no precise rule concerning the establishment of the police system can be found in constitutions since neither

federal nor unitary systems were invented for the purpose of providing 'good policing'. Secondly, local conditions affect the development of police systems after police powers are distributed.

After competences are vested in a level of government, organisation of police forms lies within the concerned authority. Very often, four levels are observed: the federal, the member unit (state, canton, *autonomia*) and the municipal one for cities and a territorial unit for the countryside (sheriff in the United States, gendarmerie in Spain). In each nation, those levels of government have their own specific domestic dynamics, which can be influenced by elements as distinct as a democratic revolution, external violent threats, or aspiration of a people towards more sovereignty as in social movement for autonomy of regions of a state.

We noticed that the organisation of public police forces cannot be deducted from the overall polity. I will only provide examples of diversity that are found, while accepting the fact that further research is needed based on a larger sample.

For example, there are two central forces with shared ministerial affiliation in Spain. Both the National Police and the Guardia Civil (a policing force with a military nature) are under the authority of the central Ministry of the Interior. Those forces operate throughout the country at all administrative levels and constitute the main forces on the ground despite the fact that the constituent units of Spain have their own government. This kind of distribution of police powers is usually found in unitary states, as in France or Italy. In fact, in federations like Germany no such locally operating national forces exist. And they cannot be found in India, Switzerland or the United States.

Some countries have an extremely fragmented police system, while others tend to have only two main forces or even sometimes one. Usually, unitary states have less policing forces. However, Nigeria, a federal state, has one single national police operating throughout the country ([4]). Among democratic states, almost none have only one force that operates throughout the country for all purposes.

Even within federal states, a lot of variation can be found. India represents a mixed example: police force there is a national, but policing is also divided into as many forces as there are states and directed by the Ministry of the Interior of the member units (not the central government). The Union Government establishes its own distinct forces in line with the powers bestowed by the constitution.

In other words, it is not possible to determine how a police system is organized simply by taking into account the federal or unitary nature of the polity. Over time, the police forms develop while the levels of governments also evolve in their mutual relations. What do we find if we try to depict the panorama at a given time? At one end of the spectrum, one can find countries like the United States and Switzerland. Their political system and their police system are extremely fragmented. At the other end of the spectrum, one can find a quasi federal state like Spain and a unitary one as France with two forces accounting for more than 90 % of all police personnel operating in the country. Of course, when comparing countries the size of the forces is negatively correlated with their number.

Even within a federal polity, the police system can be more or less decentralised. Decentralisation is the process of dispersing decision-making governance closer to the people and citizen (Dubois, Fattore, 2009). Political decentralisation aims to give citizens or their elected representatives more power in public decision-making. Is it found that both unitary and federal polities can be more or less decentralised. A more centralised system is meant to be more homogeneous and a more decentralised system is geared towards heterogeneity. Again, decentralisation is a multidimensional notion.

When it comes to decentralisation of police forms, a number of indicators should be taken into consideration:

- are the recruitment and appointment of local police chiefs decided nationaly or locally?
- are police staff dependent on federal, constituent units (state, canton etc.), or municipal levels of government?
- is police training standardised over the national territory?

([4]) See: www.cleen.org/policing. %20driver %20of %20change.pdf.

- are the various laws and regulations related to police (penal code, standards for ethics, discipline as previously listed, Roché, 2011: 43; box 5) unified at central level?

A national force is a force which responds to the central authorities with jurisdiction over the entire country concerning the majority of crimes that can be committed. Most countries do not have such a force. However, nations can take steps towards a more homogeneous police service by establishing a police corps (recruited and managed, even if not operating under the authority of a central government) or police standards for selection and training.

No such national force is found in the United States. There is not even a definition of a federal police peace officer. Similarly, in Switzerland, there is no national force of this kind. Since 2003 the police profession has been recognised on a federal level with the introduction of a federal certification and unified basic training. Municipal police generally receive a shorter non-federally sanctioned training (3 months) which is provided in various local police schools. Four training centres are to replace the old cantonal police schools and training will be standardised. However, the current system remains largely fragmented. There is no higher- level police academy in Switzerland which could be compared to the Police Leadership Academy of Münster in Germany for instance. All recruitment/training is done locally by cantonal police forces or municipal forces. On the contrary, there are two national forces in Spain (nationally recruited, trained, appointed and managed, for all ranks of the force).

In India, an intermediate situation is found: the 'All India Service', i.e. the Indian Police Service is recruited, trained and managed by the central government and provides senior officers to the State Police Forces. It is not a national force in the Spanish sense (a national service operating at all ranks locally and under the direction of the central government). However, there is a national body of police chiefs and middle-rank managers.

We have elaborated the following chart by comparing a quantitative indicator, the 'percentage of police agents that belong to the central level'. Not all are federal police, since in India such a notion is not in use. In Spain, the police and Guardia Civil also are central forms, but not federal with the attached division of powers.

Simply put, we find that the proportion of central or federal forces can vary vastly from 10 % in the United States to 100 % in Nigeria. Federalism can shelter police forms that are very local or very central. In addition, we found very large or small forces, the smallest being usually local forms and the largest, national ones (rather than federal ones).

Additionally, a large variety of forms in terms of their nature were observed: some countries have forces with a military status (gendarmerie in Spain), or without a military status (gendarmerie in Switzerland); others have armed forces (Central Police Organisations in India) whose

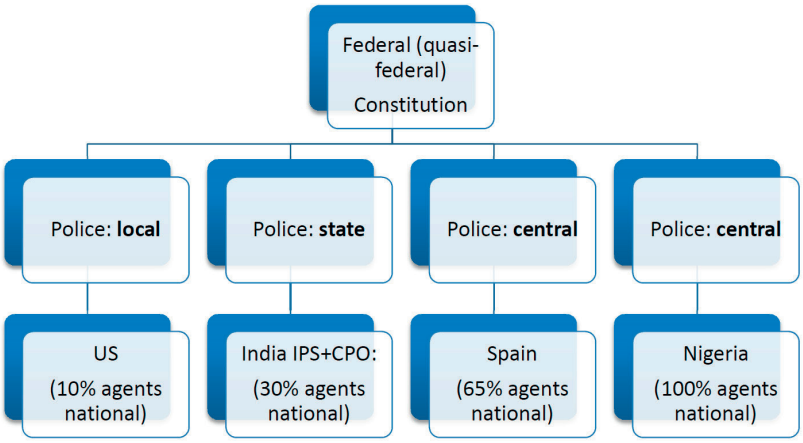

Figure 1. Polity and percentage of forces operating under central government

status is opposed to civilian state police; finally only non-military forces are found in the United States.

We have not reviewed all the main traits of police forms. However, based on our overview, be it of local or central nature, of size, or of nature we find to say the least vast variations in police forms. Given these facts, it would be difficult to contend that police organisation stems from polity.

POLITY AND POLICE SYSTEMS

After observing variations at the forms level, we will now briefly do so at police-system level. We propose here to dividing the police systems into three types: centralised, decentralised and distributive. These are ideal types.

The below table indicates, for a selection of states, the main levels of government that have police powers (measured by the number of agents in the forces). It displays the level of government that recruits local police chiefs: in the United States or Switzerland they are recruited locally, in other states centrally or in a mixed way (Spain). The jurisdiction of police chiefs is presented on the last line, being one of the most important of police operational powers. Two patterns are visible: the nations for which municipal-level chiefs have municipal jurisdiction and those for which local chiefs have a larger jurisdiction. This is because the form was established at a higher level than the municipality (the central government of a constituent unit of the federal government).

Table 3: Appointment and jurisdiction of police chiefs operating locally in selected states

	USA	India	Spain	France	Switzerland
Main level	Municipal	State	National/ Autonomias	Central	Canton
Chief recruited	Municipal	Federal	National/ Autonomias	Central	Canton
Chief jurisdiction	Municipal	State	Autonomias	Province	Canton

We use a chart to represent three ideal types. The centralised type is the most obvious. In the centralised system, the central forces are the most prominent forms (bigger in size, with the largest power for investigating). The appointment of police chiefs is done at the central level. The 'hook' of each force is unique, and the force meant to be administered from the center. The French police system falls into the first category, as does the Nigerian police system. In France, the local chief answers to the central director and is locally in a position to instruct any municipal force: there is an imbalance of power to the benefit of the locally appointed national chief of police.

The decentralised model is an intermediate situation. Local chiefs of forces are appointed by national authorities, as is the case in India. Alternatively, local chiefs can be appointed locally. Or, such a system can be a mix of the two solutions, as observed in Spain: there are national police chiefs operating locally (the local heads of police and Guardia Civil that have national jurisdiction) coexisting with local police chiefs operating locally (the local heads of the police forces of *autonomias* and municipalities). In the mixed decentralised model, there is no hierarchical link between the national chief operating locally and local chief operating locally.

Finally, the last model is the distributive one, which as an ideal type has no centre. All local chiefs are appointed locally. The United States and Swiss case studies are probably the closest to the ideal type. A proliferation of agencies can be found, and the various forms are independent from one another (in terms of status, training, communication system and hierarchy). However, they are free to cooperate or compete for innovation for example.

Challenge of description of networks & systems

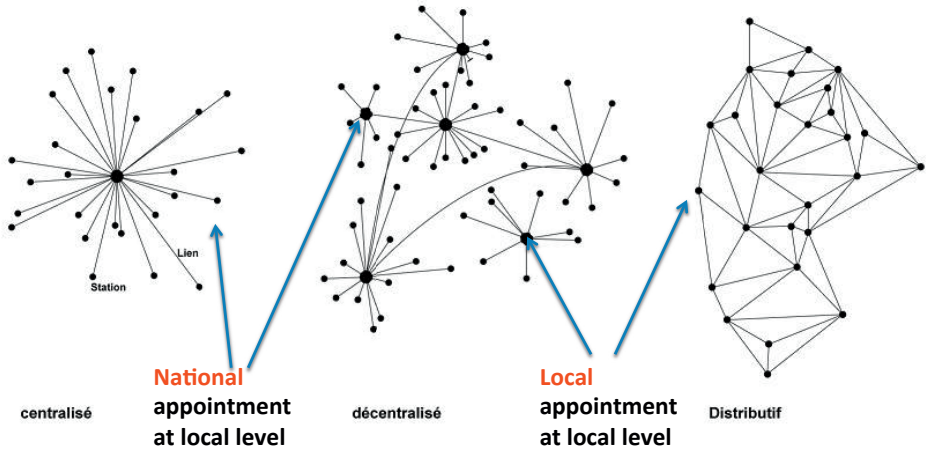

Figure 2. Ideal types of networks representing police ecosystems: centralized, decentralized, and distributive.

CONCEPTUAL CONCLUSIONS ABOUT THE POLITY AND THE POLICE

This basic attempt of a comparative approach leads me to propose a number of conceptual operations.

Firstly, 'police powers' is a polysomic notion. The terminology should draw a line between the notion of power to establish a police form and the operational powers of a police form. We will use 'police powers' for the power to set up a form of a higher authority and 'operation police powers' in reference to the powers that a given form can use when carrying out operations. For example, a government can establish various police forms with distinct police operational powers for each.

Secondly, another distinction based on the above needs to be introduced. It relates to the polity and police forms:

- distribution of powers entails more or less competence for levels of governments, and is distinct from decentralisation of police forms as organisations;
- the form and degree of decentralisation of a police system does not automatically stem from a federal versus unitary arrangement.

Although not systematically studied, I think that this distinction was well perceived by Bayley when he wrote 'British liberty does not depend, and never has depended, upon any particular form of police organisation' or 'We do not accept that the criterion of a police state is whether a country's police force is national rather than local — if that were the test, Belgium, Denmark and Sweden should be described as police states' (1985: 212).

In countries where the state is a national entity (unitary states) and the police an arm of the central state, it is often believed that the nature of the police is to be confounded with the nature of the state. Comparing countries obviously unveils the fact that the 'nature of the state' or polity does not allow prediction of the specification of police forms and the organisation of the police forces, the police system. The notion of distribution of powers relates to the role of various levels of government as defined by law. The description of police forms belongs to the sociology of police that clearly indicates how the form can develop in multiple different ways.

It seems to me that each country is a syncretism that combines three elements into a unique police construction:

- distribution of police competences to the different levels of governments;
- policing operational powers given to each force or service;
- the hook: codifications of police — government relations for operations (neutrality, independence);
- a more or less centralised organisation of policing forces, with a possible territorial division of powers among forces (a central force working at the local level or a central force working at the central level for example).

Figure 3. A police system in a country is based on four core elements

Finally, we suggest that the architecture of a police system derives from a combination of these two basic elements: elements 'external' to the police form (for example, the vision of 'big government' as good or bad, or a competition between different levels of government), and internal elements to the police form (for example, the defence of the interest of the agents of which the force is made by professional organisation).

In Section 6, we did not include any reference to the power relations between the police form and its environment. It seems that further research is needed on that important aspect. Contrary to the 'principal agent theory' which takes a normative stance, empirical evidence suggests that police forms influence governments in many ways. Two major avenues for research could be:

1. the study of police forms as issues at stake for superior authorities (for example do civilian authorities and military authorities compete for the provision of policing?);
2. police dependence vis-à-vis superior authorities.

The dependence (understood as a mutual relationship) between the government and the police seems of particular importance. A number of practices tend to insulate the police from politicians (for example the notion of 'operational autonomy', which does not exist in France or Turkey), but also the characteristics of the office of 'chief of police' (which can be held by professionals for a fixed term mandate as in the example of Chile after being appointed by civilian authorities, see Frey, 2013). The right to unionise probably strongly impacts the dependence (although members of police also find indirect ways of influencing governments, through associations of retired personal for example). Finally, countries where a neo-corporatist model prevails at local or central level could well shape the dependence specifically in the sense of the exclusion of the clients or users of police from the definition of police resources or police priorities. In such countries, the police are institutionally given a stronger voice than the public, as exemplified by the French case study.

ACCOUNTABILITY AND DOCTRINES

Our initial intuition is that a police form development is dependent on relations with its environment. The major elements that we identify are the polity and possibly the structural arrangement that define government — police relations (dependence, neo-corporatism), but also the police doctrines that tend to gear police chiefs towards the needs of local communities and the accountability procedures and mechanisms.

Again, we state that such notions are independent basic bricks defining what police actually are and deliver: doctrines are meant to guide the day-to-day work, be a continuation of legal orientations

turned into strategic choices (not to be confused with daily rules and procedures), and accountability procedures and mechanisms are the formal links that police forms have with the diversity of oversight bodies, be they executive branches of government, legislature, the magistracy, non-majoritarian institutions and other administrative bodies.

In this chapter I will only briefly deal with these two important issues, which are subjects of their own and have attracted a lot of interest from academics. I will try to indicate ideal types and examples more than provide a comprehensive view of such complex issues.

POLICE DOCTRINES

Police doctrines as such are neither determined by the type of polity, nor by the type of police system. However, doctrines and implementations can also shape the relationship with the environment. And they can explain some traits of police forms since the police have to adapt in order to undertake to new functions (for example by establishing new organs, new departments, new communication lines) or expand existing ones. They can even modify how their natural habitat (for example when using small neighbourhood police stations).

In contemporary police reforms, the principal innovation often resides in the introduction of a concept of public security, a paradigm that goes beyond the traditional view centred on police efficiency as measured by clear-up rates or arrest rates. New police doctrines have been produced in order to meet this challenge.

Police doctrines are meant to contribute to democratic policing or the good governance of the police system. However, a police doctrine is a dimension of study that should not be considered independently of the type of police system and the type of polity.

The police system is made up of the forces operating in a given country. Not all its constituent forces necessarily have the same doctrine. For example, the Chicago police department and the Los Angeles police department have different policing policy orientations and doctrines.

Across different countries with different polities and different police systems, similar police doctrines can be found. For example, many governments (central or local) have decided to implement community-orientated policing doctrines (CoP) or proximity policing (PP), the former is mostly found in the United States and the United Kingdom, but also in Latin America countries, the latter in continental Europe.

Police doctrines are rarely studied in a comparative way. There are some attempts to compare them across American cities (Skogan, 2006), but not systematically across nations. The best example is the most world famous doctrine is 'community policing' or 'community orientated policing'. When comparing countries the differences in meaning and practical implementation of a doctrine are striking. In addition, the names used are not identical: some refer to 'community' (the United States) and some to neighbourhood (the UK in the last decade), some to proximity (France, Spain Switzerland, for the French case study see Roché, 2005).

Operational elements in community policing have been compared by some scholars (see Sherman and Milton 1973, Tuffin et al. 2006 for examples and a review as well as useful summary tables provided by Mackenzie, Henry, 2009). However, we are more interested in the links to their environment. Two core elements in community policing are the consultation of civil society and the setting up of partnership of police forms with various institutions (depending on the mayors' office, schools, NGOs and municipal police — in countries where the police is centralised — or others).

The extent to which doctrines will affect the police forms can sometimes be inferred from their very name. In Turkey, the law establishing it in 2009 was labelled 'police supported by the community' and not 'community-orientated policing', which means that the objective of the law is to strengthen the police, not the opposite. Continental European forces do not refer to communities but to proximity, as the communities do not have legal existence and are perceived as a challenge to the central state, which is in that case the entity that establishes the police and implements the new doctrine.

The dimensions of community policing should be identified and compared systematically. We identify a series of them: new positions are created, new organs (high-visibility patrols for example), or the police organs are reengineered (as in France in 1997, all police departments were modified at the local level), police habitat is changed (with

Table 4: Relations with environment of police forms entailed by community policing

	Origin	Existence / Importance of the doctrine	New police traits (functions, habitat)	Partnership coordination mechanism	Accountability of police to civil society/locally elected leaders
USA	Local	Yes/Locally defined	PR officer Local police stations	Mayor's office	To the mayor
UK	MIxed	Yes/Strong (official national doctrine)	High-visibility patrols Local police stations	Police Commissioner	To police authority (now PCC)
France	Central	No/Weak	Local police stations	Mayor with Governor (*préfet*)	Weak (information from the mayor)
Turkey	Central	No/Weak	PR officer	Police chief of province	None
Spain	Central	Yes/Strong (official national doctrine)	Local police stations	Mayor with Governor	Locally elected leaders

new small and more accessible stations). Some of these organs are mixed in nature (half police, half something else) and their meaning depends on the partnership coordination mechanism. In fact, since the police are mainly municipal in the United States, coordination implicitly means a job to be done by the mayor. Not so in continental Europe where the traits of police forms are different: they are big forms, most often centralised. Coordination doesn't mean that the police service will operationally coordinate with another service, but that the entities establishing the forces will have to cooperate (the mayor as a police authority, the head of an Autonomia (region) in Spain, the governor that represents the state locally and others).

The size of the organs for police accountability to local civil society would be very interesting to compare. For some forms, the organs can be limited because the main police form operating locally belongs to the local superior authority, as in the United States or, on the contrary, because they are reluctant to report to those authorities, as in France (non-municipal police are reluctant to report to mayors even if proximity policing requires them to do so).

ACCOUNTABILITY

Accountability is an additional very complex, debated, not agreed upon notion (Mulgan 2011). It has gained substantial grounds in the last decade and has pervaded police research as well, very often on a normative basis. Proper accountability is understood in development agencies as a proxy for 'good governance'.

Accountability of police usually means very different things. It can be about the liability of agents; the fact that any police personal whatever his/her status can be brought before a penal court. The management of complaints can be very important in that respect and some studies have set criteria for assessing its performance (Stenning, 2000).

Accountability of police also means that the government-elected or appointed office in charge of the police (be it the mayor of the Minister of the Interior, or any other) can be asked to explain himself/herself before parliament. This notion of accountability in fact refers to accountability not so much of the police but of the political office instructing the police: the holder of police power as defined by law. There has been

(5) See http://www.sgi-network.org/index.php?page=indicator_quali&indicator=M11_3.

some comparative assessment of parliamentary oversight, but not specific to oversight of the internal forces. Criteria have been defined and qualitatively assessed in order to rate the quality of parliament control (Bertelsmann Stiftung ([5])).

Accountability is used in relation to the authorities that verify that the tools and mechanisms used by police are legal: the police are accountable for what they do as a department, as a form as a whole. Here what is overseen is in fact the usage of 'operational police powers' to use the terms that we have proposed. Very often, continental European countries have vested such power of holding police accountable to non-majoritarian institutions, to ombudsmen or defenders of rights. These guarantee that the rights of citizens are preserved when in contact with an administration. It is administrative external and independent oversight.

Accountability is also a term that can integrate the command and control line, the means available to the chief of police for ensuring that his/her policy is properly implemented. Here accountability is an internal procedure carried out by audit or inspection departments. It pertains to administrative and internal oversight.

Finally, accountability also means value for money and efficiency of every agent and of a force as a whole. Courts of accounts or managerial units carry out such duties.

Accountability rules can have a major impact on police forms since they decide which resources are available to police (conditionality resources), and they impose new processes and new bureaus within police forms. I am limiting myself to two objectives in this chapter: presenting a comparative classification of administrative oversight mechanisms and presenting two opposite ideal types for political accountability of police forms (France and the UK).

Administrative oversight can be of an internal or external nature, the appointment procedures can open doors to non-police members or not, and might be more or less authoritative, i.e. be constitutionalised or not, with parliamental consultation for the appointment of a head, reporting to parliament rather than only to a higher level of a police form, have more or less powers (for example to obtain documents, to recommend changes), and finally might be more or less independent from the police (it may have to ask specialised police services to investigate certain matters or even have its own investigation teams, therefore increasing independence from police personal and services).

I propose to place the oversight bodies in a two dimensional space, one being the opposition between pure police and pure civil society oversight, and the other the opposition between strong and weak authoritative bodies. The UK emerges among four countries as the one case study with the stronger investigative body, which might be surprising given the criticism addressed domestically to the IPCC. The IPCC combines the authority to investigate cases of police misconduct by its own team and is not only composed of police staff. Noteworthy, in the inspectorate of police forces since October 1993, following the Citizen's Charter principle that Inspectorates should include a 'lay element', two HM Inspectors were appointed from non-police backgrounds. And it has a 'parliamentary dimension' with the approval of the head of the inspectorate.

At the other end of the spectrum we find the case of Turkey. 'Human rights boards' accept complaints about violations of all types of human rights in all sectors (health, education, police for example). Their members can be laymen (non police) but those local boards are internal to the Ministry of the Interior and chaired by governors. In addition they have very limited capacity. Being local boards in a centralised system makes them weak entities. In 2013, a 'defender of rights was established' but is not routinely functional at the moment. Internal investigations are carried out by a police board. Parliament is not consulted for the appointment of its head and it only comprises police or Ministry of Interior personnel.

France and Spain are intermediate cases in which defenders of civil rights are constitutional bodies (in France only since 2012), but without authority to investigate cases by themselves. The inspectorate system of police is not open to non-police members. Only the inspectorate of administration (IGA) includes some high-level civil servants who are not police but still appointed government officials who depend on politicians for their career. Parliament appoints the head of the defenders of the people in Spain which provides him/her additional independence from the executive branch, but not in France where the President of the Republic appoints him/her.

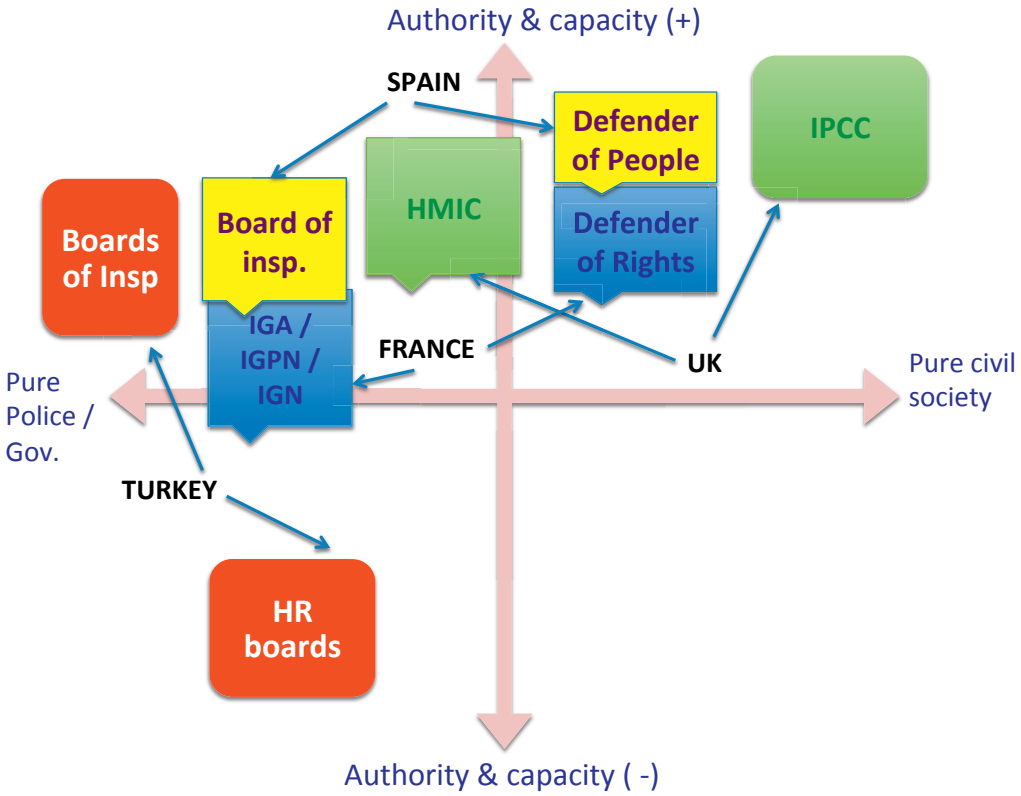

Figure 4. Two dimensions of oversight in selected states

Let's now briefly consider political accountability. Europe, France and the UK have the most opposed police systems. When looking at the traits of forces we find numerous small ones in the UK, and few large ones in France, the political hook (or attachment point) is local in one country, national in the other, the nature of forces are 100 % civilian police across the channel and 50 % military according to the status of personnel in the continental case study, while the notion of operational independence does not exist in France where police work is very politicised along national political lines.

The following figure simplifies the French political accountability system. It is a centralised system that is naturally steered from the centre in order to report to the Minister of the Interior.

A classic military, top-down type of command and control line is found. Priorities are set in Paris for the entire country and transmitted locally in provinces by the governor or *Préfet* who represent the executive branch of the government and therefore the police and gendarmerie. The managerial system (targets, indicators and bonus for agents of units) is decided and run from Paris in the 'General directorates' of Police and Gendarmerie. There is limited external evaluation of performance by the court of account (value for money). Local needs are not systematically assessed and collecting them is not a legal requirement for police forces at the local level. In summary, the police forms are large national entities reporting to an appointed minister, often not a Member of Parliament before he/she is appointed by the President of the Republic. Citizens are unable to exercise control locally on police outputs since the appointed provincial chief of police reports to the appointed *Préfet*, who reports to the appointed general director, who himself reports to the Minister of the Interior, an appointed official. Election is only used for the designation of the President of the Republic, where police issues are presented in a 'package' during electoral campaigns and discussed along political lines and not so much in terms of locally serving the citizens.

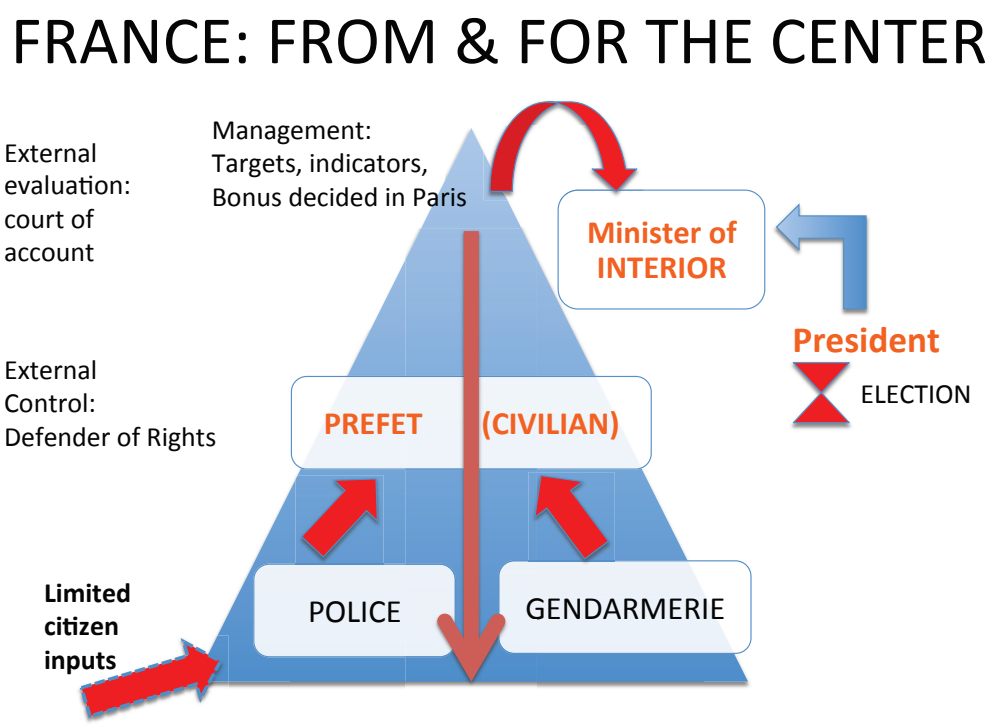

Figure 5. An example of a state-orientated and centrally managed set of forms: the case of France

In the UK, the system of political accountability to citizens has an opposite structure as summarised in the next figure. The forces are subject to the oversight of the central government mainly through financial and managerial mechanisms (as opposed to hierarchical control and command lines, as found in France). Although a vivid debate exists in the UK about centralisation as a trend, comparatively speaking the UK system is by far less centralised and has renewed the local accountability mechanisms on the one hand (via the election of Police and Crime Commissioners) as well as client orientation of the forces by using a managerial model on the other hand.

What characterises the UK model when compared to the French one is first of all the existence of dozens of regional medium size which makes them by definition local forces, and second the existence of a series of mechanisms for local accountability: each of the forms having to report to the elected Police and Crime Commissioners, who are bound by law to record people's priorities. They are assessed about their performance in servicing citizens by independent organisations (for example surveying victims after a visit to the police station), and by instilling competition and interforce ratings. Another specificity introduced recently is the 'competition for the market'. Competition for a market refers to the struggle of the central government to create a new market. Private firms can compete in that market in order to increase accountability to the citizens served as clients.

Basically, the UK model of accountability is based on local election and local competition to satisfy the customer (across forces and for running forces). The French model is structured around the accountability of the President of the Republic during national election times.

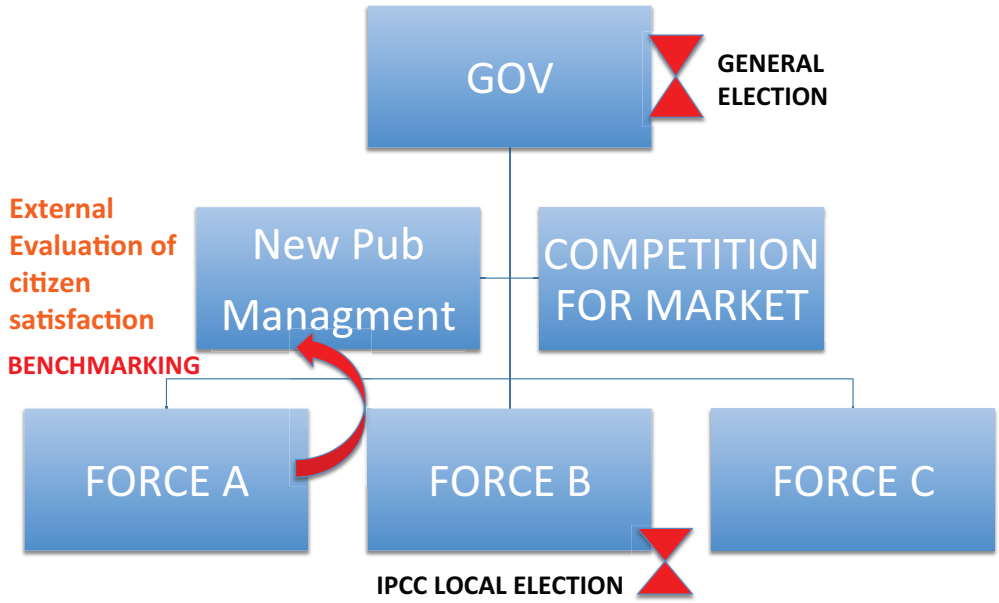

Figure 6. An example of client-orientated and locally accountable forces: the case of the UK

SUMMARY OF THE CONCEPTUAL TOOLS INTRODUCED FOR A SCIENCE OF THE POLICE

The development of a science of police forces requires, in my view, studying police forms as 'organised life forms' in their environment. It is a science of the development of the forms as part of a larger police system and political system. It is important to look for the determinants of the evolution of forces through observation of the modification of the morphology of the police forms. At present, there is no consensus about what are the police or even what is a police force. And no attempt has been made to establish the concepts for describing the police as a life form (its organs, its nervous system or information system and other traits) and to define how measurements of a form and its organs can be ensured (size, shape or other traits). An interesting attempt could be to build a taxonomy of police forms and additional taxonomies of some their organs (at police form level), but also of police systems (at society level).

Since public police forms need to breath and feed themselves, they have to rely on their institutional environment for providing such resources. I believe that these links to the institutional environments are of utmost importance, and in countries where the relationships with civil society have been institutionalised, the links to civil society also become critical for police forms.

In fact, police forms cannot obtain such resources by themselves if they are not allowed to sell commodities on the market (which still is the case despite the introduction of neoliberalism recipes in policing and the fiscal restraint following the financial crisis of 2008). By definition public forms are established by superior authorities that have the responsibility to provide air and food to the forms and their constituent cells. Such superior authorities can of course alternatively decide an amputation of some organs or to downsize the overall police form when their resources are stretched.

Figure 7 summarises a number of conceptual distinctions that I have used. First of all, I propose to identify 'police forms' in various social settings. What is and is not a police form is subject to debates by academics or even governments and international organisations. The police forms must have various organs to be eligible to be reckoned as such: a head that reports to the superior authority that established them, a nervous system (even at embryonic stage) for ensuring transportation of information through the form as chain of command and an inspection system for example, a number of organs. Identified police forms should be clustered along their measurable traits: are they civilian, military, big, small and how is the hook to the political system designed?

The development of police forms could be explained by relationships to their environment. One of the difficulties is in drawing a line between the form and its environment. For example, where does the form end? Is the head of the force only a piece of the police form or also an element of the larger political authority?

Notwithstanding this difficulty, I propose to utilize concepts for pointing at four critical elements that could shape police forms: power relations, police system, police doctrine, police accountability. Each of them is independent of the three other ones. These basic bricks are combined in each nation to build police forces and to shape policing.

The first one is 'polity and power relations', referring to rules that are used for distributing 'police powers', the power to set up a force, in the sense of the legitimacy or ability to establish police forms. I have referred to them as 'superior authorities'; the authorities that can establish a police form or the directorate or other office to which the authority to run a force was delegated. In democracies, the constitutions indicate such rules, but reality has to be observed by empirical research to understand whether such basic legal rules are actually at the core of the setting up of forces. I believe that the type of regime of relationship between police forms and superior authorities should be studied and integrated into the picture although I don't offer any solution for doing so at this stage. I underlined the difference between distribution of powers and the organisation of police forms, for example regarding the degree of decentralisation of a force that can substantially vary within a given type of polity.

The second notion is police system. In a given country, many police forms can be found, each with their own specific traits. When observed at the national level, all these forms together and the relationships that unite them constitute the police system. Additional elements are needed for understanding the homogeneity of a police system, such as the existence of a recognised status for agents, national laws or communication system for example. Various ideal types of police system exist: the centralised one (sometimes unified and centralised, with one force only run from the centre), the mixed one and the distributive one, which is acentric and made of forms that do not have hierarchical relationship among them. France is very centralised, Switzerland closer to the distributive ideal type. I did not include any reference to the private enterprises selling their goods on the market, and this should clearly be done in future research since such agencies can be as large, or even larger, than public forms in the United States or in South Africa for example.

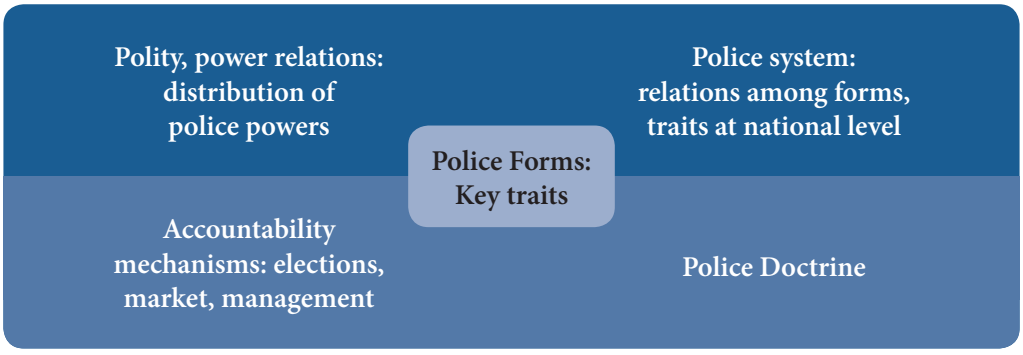

Figure 7. Four concepts for comparing police forms across nations

I used the term of police doctrine as the third concept needed for comparing police forms. Various forms in different contexts are sometimes compelled to introduce apparently comparable doctrines or organisation rules in line with international principles. It has not been studied systematically what doctrines with similar names actually include and how they are implemented, even in homogeneous political areas such as the EU. However, in our view doctrines clearly depart from the institutional arrangements (polity), or structure of the national system (police system). They also contribute to shaping a police department.

Finally, accountability is one of the many ill-defined notions that I have used. And, as for most of them I am suggesting breaking it down into measurable dimensions. I paid specific attention to political accountability in the sense of accountability to citizens. As governments can introduce market-like mechanisms for enhancing accountability to citizen needs alongside electoral ones, the circumscription of political accountability itself is not easy to ensure. However, accountability seems to impact the development of police forms. Certainly that does not alter the number of public forms (as this is dependent on the distribution of police powers). However, accountability entails the development of new bureaus, procedures and circulation of information. And in some countries administrative accountability provokes the birth of hybrid forms, such as when two police forms have to share their inspectorate system or their back office resources. I suspect that the accountability rules encapsulate a number of elements that are critical for comparing police forms since they are dealing with police legitimacy before the public and the allocation of resources.

Police science needs to address the challenge of simultaneously comparing the four dimensions that shape police organisation and work. Focusing on one only, for example the doctrine of community policing, can be very misleading since the dynamics behind such an introduction and implementation will be driven by the structure of the police system and accountability of police forms.

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