The Future of Municipal Police Violence In Advanced Industrialized Democracies: Towards A Structural Causal Model*

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ABSTRACT

Research on the future of policing generally ignores the problem of police violence. The author articulates a series of important structural level factors predicted to influence situational variables connected to the type, amount, and severity of police violence in the future. Relationships among the variables are posited, then assembled into a tentative causal model. The author concludes by discussing alternative methodologies for testing propositions from this model.

INTRODUCTION

Over the past decade-and-a-half a subspecialty of police science and criminology has focused on the analysis of the future of policing. One of the neglected areas in this subspecialty are predictions on the future of police violence (or force).[1] Although much research has been conducted on police use of violence, these studies refrain from predicting the future of this type of police behavior. This void in both these literatures is regrettable since reasonable predictions on the future of police violence are essential in order to: minimize its occurrence; prevent government, public and police overreaction; and, motivate proper policy and law for this social and policy problem. Research on this neglected area is even more important because of the increasing number of countries throughout the world that are experimenting with democratic processes and structures. Invariably this democratization will affect the municipal police.

Definitional Issues

Several definitions dealing with the interaction between police and violence· have been articulated.[2] In general, police violence is defined as a physical action by police designed to affect an arrest, apprehend a suspect, or intimidate a member of the public. It can be either legally (according to a criminal code) or normatively defined (e.g., misconduct or type of deviance). Such acts can be classified into a variety of subtypes including: abuse, brutality, excessive or extra-legal force, riots, torture, shootings, deadly force, and killings.[3] Finally, these actions include both lethal and nonlethal force.

Treatment of Police Violence in the Literature

Academic research on police violence can be classified into three basic categories: descriptions (i.e., those dealing with a particular incident or a series of incidents of police violence); analyses of causes of police violence in general or of specific types; and outcomes studies. While our knowledge about police violence has improved, the majority of research on police violence has focused on its causes at the expense of outcomes (e.g., Ross, 1992).

Even though there is some consensus about the causes of police use of deadly force (e.g., Fyfe, 1988), no accepted theories or explanations of the general problem of police use of violence exist. In the main, police violence is contingent upon many of the variables mentioned in broader studies of police behavior (e.g., Goldstein, 1967; Galliher, 1971; Sherman, 1980b; Lundman, 1980; Mastrofski & Parks, 1990), and police violence, both generally and specifically. Police violence, like other forms of police behavior, depends upon the interaction of a number of individual, situational, organizational, community, and legal factors. Moreover, the relative importance of different causes varies with the type of police violence. The aim of this article, taking its cue from Black's *The Behavior of Law*, is to develop a preliminary sketch of the variables and interactions that may cause police violence in the future. The articulation of potential measures for variables are avoided mainly because they vary based on the country or jurisdiction that is eventually investigated.

METHODOLOGY

There are six principle methods used by futurists to predict the likelihood of any phenomenon: scenario construction, expert opinion, mapping, games and simulations, trend extrapolation, and models.[4] Scenario development is eschewed in this study mainly because of the plethora of fictional material of dubious

empirical quality on the future of the police. Expert opinion is avoided due to the enormous costs of conducting this type of research. And mapping, games and simulations are avoided because comprehensive data on police violence do not exist or alternatively are not publicly available making it difficult to test hypotheses on the process of police violence. Consequently, statistical predictions about the type, amount, and rate of police violence are next to impossible.

The present study uses a combination of trend extrapolation and conceptual modeling. Trend extrapolation in this context, is based on a review of the literature with an emphasis on factors that traditionally have influenced police violence and have been articulated in the future of police literature.[5] Modeling, for this purpose, consists of describing the causal sequence of variables and predicting their interactions.

It must be acknowledged that futures research is not without its critiques (e.g., Koenig, DeBeck, & Laxton 1983:105; Bell, 1987; Tully, 1987; Dublin, 1990). These criticisms, however, should not prevent work in the field, but rather serve as a reminder to researchers to be cautious about their predictive capabilities when they carry out this type of work. Given these limitations, the confidence one can attribute to the model outlined in this article is limited to the near rather than the distant future. The model proposed herein attempts to portray the most important factors, hypotheses, and the direction of the present model. One must be mindful that other processes influence many of the independent and dependent variables that are not included in the model.

Policing is fundamentally different depending on the type of political system (Bayley, 1979: 1985). In order to sharpen this study, the author limits the analysis to the future of police violence in advanced industrialized democracies. This type of political and economic system places a higher priority on constitutionally and procedurally guaranteed protections for human and civil rights (including the prevention of police extra-legal force) that are not present in other types of political systems. Moreover, information on police violence in these contexts is generally more available and reliable than that emanating from lesser developed and transitional political systems. Finally, with increasing democratization, what happens in the advanced industrialized countries should be eventually replicated in other political contexts.

The model seeks to explain rates of police violence by connecting the situational to the structural (i.e., community or societal) level. This does not deny the importance that other levels of explanation may have on their own, but data accumulation at the situational and structural levels is perhaps easier to gather for empirical testing.

The Dependent Variable:
Proactive or Reactive Violent Police-Citizen Interactions[6]

In the main, police violence depends upon the nature of police-citizen interactions. While most police dealings with the public are peaceful, some involve the proactive or reactive use of force. The latter types of interactions involving violence take place because police perceive that force will be necessary to apprehend suspects, or from situations where the use of force is initiated either by the citizen or the police officer due to a dysfunctional interaction (Black & Reiss, 1970; Sykes & Brent, 1980;). Hence, proactive or reactive violent police-citizen interactions (PORVPCI) can lead to police violence. It is hypothesized that PORVPCI depends on a series of subtle and overt primary and secondary structural factors (independent variables), that are both internal and external to police forces, and that the increased intensity of these causes will lead to a higher number of opportunities for PORVPCI. This explanation does not minimize the importance and contribution of psychological factors which may be present in PORVPCI, it implies, however, that structural variables are easier to measure than psychological ones and hence prediction can be more stable. Moreover, it is acknowledged that some of the relationships among variables are linear bivariate relationships at one time and curvilinear at others. Finally, predictions about the rate of police violence are made for specific periods of time and not for individual incidents.

The Independent Variables: Primary and Secondary Factors

There are five basic reasons (precipitants) why police interact with citizens: to question, help, charge, intimidate, and arrest. Law enforcement officers will question a citizen to: collect information, determine whether to lay a charge, and to decide if arrest is warranted. Police will help an individual if they determine that is necessary or have been dispatched to aid that individual. Law enforcement officers will charge an individual if they believe s/he has violated a law. Police may intimidate a citizen if they feel that their authority is challenged or in the process of questioning and arresting. Finally, law enforcement officers will arrest an individual if they have reasonable grounds to suspect s/he has violated a serious criminal law.

Any factors which affect these five processes outlined above should then be relevant to PORVPCI. It follows that the greater the potential for questioning, helping, charging, intimidating, or arresting, the higher the number and intensity of PORVPCI. Moreover, as the interaction between police officers and citizens moves from questioning to arresting there is a higher probability of PORVPCI.

Thus one must identify the factors which will increase these five precipitants if one is to have a reasonable prediction of the future probability of police violence.

Three interrelated primary, also known as direct, factors are hypothesized to affect PORVPCI. They are proposed to be in increasing order of importance: *Government Environment, Police Performance,* and *Social Context.* On the other hand, fourteen interrelated secondary, also known as indirect variables are hypothesized to affect the three primary variables. These secondary variables are the amount, type, and effectiveness (hereafter, "quality"), of *Government Expenditures, Number of Public Police, Demographic Shifts, Internal Controls on Police Forces, External Controls on Police Departments, Crime Prevention Techniques, Type of Assignments, Social Inequality, New Coercive Police Technologies and Techniques, New Criminal Laws,* and *Amount and Intensity of Violent Crime, Organizational Change and Policy Implementation, Police Leadership,* and *Police Union/Association Activity.*[7] Moreover, there are three tertiary variables some of which affect a handful of the secondary variables. These tertiary variables include, *Age Composition* of the general population, *Family Structure,* and *Immigration Patterns.* Finally, there are two, for lack of a better label, remote variables: *Number of Youths* and *Number of Senior Citizens* which affect the tertiary variables. In general, the greater the presence and intensity of indirect factors, the higher the likelihood of occurrence of the direct variables. Before specifying the relationships among these factors, each of the nonprimary variables are reviewed in the context of each of the three primary variables.

GOVERNMENT ENVIRONMENT

Government environment consists of four principle subcomponents: expenditures on the police, ratio of officers to citizens, changes in criminal laws, and new external controls on police officers.

Government Expenditures

Governments at all levels throughout advanced industrialized democracies are increasingly faced with cutting back on the amount of money they spend on social services and public security. Given that in many municipal contexts the police budget accounts for almost fifty percent of all expenditures, severe budget cuts will have a tremendous impact on police operations. Consequently, this shortage of funds affects police forces' decisions regarding their allocation of resources (e.g., Koenig, DeBeck, & Laxton, 1983). Much of the police budget is devoted to payroll, pensions, and retirement funds, and the balance to plant

and equipment. With strained budgets, cities will be forced to cut back on the number of law enforcement officers they employ and rely instead on technological and private solutions. This should, in turn, put severe strains on the functioning of other "social services" (e.g., welfare) whose budgets will also be cut or decreased. The resultant reduced manpower may lead to increased personnel turnover in police forces; higher training costs; or, police officers resorting to the use of lethal force as a way of coping with a frustrating, overly stressful, and demoralizing situation. These factors, in turn should place a greater burden on city resources and there should be a parallel increase in crime. Tightening of governmental budgets could lead police departments to purchase and use new Coercive Police Technologies and Techniques. These methods will be perceived as cost effective alternatives as payroll occupies the lion's share of police department budgets. Decreases in government expenditures should lead to more police union/association militancy. Tightening of governmental budgets could also affect how police organizations change and implement policy. Decreases in government expenditures should also affect the social context.

Proposition GEX: The greater the tightening of government budgets, the less the number of public police.

Proposition GEXa: The greater the tightening of government budgets, the greater the police union/association activity.

Proposition GEXb: The greater the tightening of government budgets, the greater the resort to new Coercive Police Technologies and Techniques.

Proposition GEXc: The greater the tightening of government budgets, the less the efficacy of organizational change and policy implementation.

Ratio of Officers to Citizens

Another variable affecting the commission of police violence in the future, should be the number of officers working in a particular geographical location. Simply, the more police officers in an area, the greater the opportunities for contact with citizens and, in turn, more opportunities for using violence in the process.[8] The expected decrease in budgets and the leanness for police organizations that can be afforded through technological and private solutions will result in a decline in the number of publicly funded police officers. While the decrease in the number of law enforcement officers may lead to a drop in

questioning, helping, intimidating, charging, and arresting, other factors, such as high frustration levels among police officers, may lead to increases in the use of violence as well as strain police-community relations (e.g., Kotecha & Walker, 1976). Granted some police forces are trying to recoup some costs by billing citizens and businesses for their once free services. For example, "Several departments currently charge for automobile accident investigations, for response to false alarms, and for a host of other services which historically, have been provided without charge. This trend is likely to grow, generating as it does additional income" (Tully, 1987). This trend might offset other costs including hiring new personnel or buying new technology (coercive or otherwise).

Proposition NPPOL: The less the number of public police, the greater the reliance on New Police Coercive Technologies and Techniques.

New Criminal Laws (Number, Type, and Mobilization)

Changes in laws make behaviors once legal illegal and vice versa. Consequently, it is important to understand what type of actions will become illegal and what type of felon (e.g., gender, age, class position, etc.) is most likely to commit crimes in the future. In general, some predictions suggest that there will be increased monitoring by police forces of white collar and occupational crime, contraventions that are neither associated with physical violence by the perpetrators, nor lead to police violence committed in the arrest procedure. By the same token, "the quantity of criminal law varies directly with the seriousness of the infraction" (Gottfredson & Hindelang, 1979: 16). As new drugs, sources of supply, and distribution are developed, new laws will be developed to control their use, possession, sale, manufacture, and importation which, in turn, will create more opportunities for police intervention, thus police violence. And, unlike white collar crime, this type of activity is usually associated with violence both by those committing the crime and those policing the crime.

On the other hand, the decriminalization of some types of controlled substances, particularly marijuana, should lead to a decrease in street stops, charging and arrests by law enforcement officers and consequently decrease PORVPCI. The legalization or decriminalization of prostitution, as is the practice in some countries (e.g., Netherlands) and jurisdictions in the United States (e.g., Nevada), should also lead to a decrease in PORVPCI. On the other hand, the controversy in many countries over the decriminalization of abortion, which will probably not be resolved by the end of this century, might lead

committed members of both positions on this issue to exercise increasingly confrontational tactics including murder and the use of bombs (Nice, 1988). New legislation has been passed protecting clinics and sanctioning those who use violence in blocking entrance to them. This, in turn, should continue to pit police forces against unruly mobs of pro- and anti-abortionists. More important than the implementation of new laws, is their enforcement. Simple enactment of legislation then must be treated cautiously as an indicator of potential future violence.

Conterminously, can the steady decline in police use of deadly force since 1974, reinforced by the 1985 supreme court *Garner vs. Tennessee* decision which ruled that a "police officer may not seize an unarmed nondangerous suspect by shooting him dead," continue in the United States and become a goal towards which other states may ascribe to? Perhaps. The amendment of criminal codes, constitutions, procedures, and general rules used by police forces to eliminate opportunities for the rank and file to use deadly force against fleeing felons should also help in reducing this type of violence. But there is also the argument that the decreased use of hand and shot guns may actually increase police officers' propensity to use other forms of deadly force (e.g., choke holds, stun guns, etc.) or other forms of already existing coercive police technology.[9] In sum, the increase in criminal laws is hypothesized to increase future crime, new coercive police technologies and techniques, and PORVPCI.

Proposition NCL: The greater the number of criminal laws, the greater the PORVPCI.

New External Controls on Police Forces

Controlling, also referred to as constraining, limiting, minimizing, preventing, reducing, restricting or reviewing police violence, is the notion that organizations and their members should perform according to some standard(s) which should constrain, restrict, or restrain, their behavior. In democracies, one would ideally want to both control and prevent the police from engaging in unnecessary violence. In the main, there are two types of controls on police forces: internal and external. Internal control takes place inside the police department such as hiring, policies, etc. External controls, on the other hand, may be conceptualized as public or governmental. With respect to governmental types of control we have ombudsmen, human rights commissions, special prosecutors offices, or the creation of civilian complaints commissioners (e.g., Watt, 1991). With respect to the public we can locate public opinion and the media.

Periodically, new external mechanisms are instituted to improve control over police violence. The question that needs to be answered is, will it be easier, more difficult, or relatively the same to control police violence by external actors in the future than it is presently? In general, one can probably expect that the greater the number and quality of external controls on police violence, the less the amount of PORVPCI.

Proposition ECPF1: The greater the number and quality of external controls on police violence, the less the amount of PORVPCI.

POLICE PERFORMANCE

In addition to the government environment, the actual police department bears scrutiny. In the main, police performance is affected by seven secondary factors from least to most important in terms of how they affect police use of violence: effectiveness of crime prevention, unionization/association activity, police organizational change and policy implementation, police leadership abilities, special assignments of officers, new coercive police technologies and techniques, and internal controls on police.

Effectiveness of Police Crime Prevention

The effectiveness of police (and citizen) crime prevention programs affects the type, amount, and intensity of crime as well as the occasions for police violence (Rosenbaum, 1988). Crime prevention programs range from those that are initiated by the police with minimal citizen participation to those started by citizens without the intervention of law enforcement establishments. In general, if one use the results of the New Jersey or Kansas City patrol experiments as indices, police are not that effective in preventing crime. And, there is a lack of evaluation research as well as poorly constructed assessments of citizen actions to protect themselves. The effectiveness of crime prevention affects future types of crime, in addition to PORVPCI.

Proposition CPREV: The greater the effectiveness of crime prevention techniques the less the amount of PORVPCI.

Proposition CPREVa: The greater the effectiveness of crime prevention techniques the less the amount and intensity of violent crime.

Police Union/Association Activity

Police associations or unions protect and expand the power of their members. Not only have these organizations secured higher wages, improved working conditions, increased officers' power in decision-making, supported officers charged with a variety of departmental and criminal offenses, but they also have demanded from police forces more discretion for their members in the use of violence and use of weapons (Ray, 1977: 44). A number of police analysts have documented an increase in police political power (e.g., Reiner, 1981). While not advocating an anti-labour stance, communities need to monitor police associations/unions' attempts to introduce new coercive technology; lobby for legislation that improves police ability to use certain techniques; and, criminalize certain behaviors. These three processes have the potential to increase PORVPCI.

Proposition PUAA: The greater the amount of police union/association activity, the higher the amount of New Coercive Police Technologies and Techniques.

Proposition PUAAa: The higher the amount of police union/association activity, the greater the number of criminal laws.

Proposition PUAAb: The greater the amount of police union/association activity, the less the quality of controls on police behavior.

Organizational Change and Policy Implementation

Since the creation of the first police department, numerous changes have been made. For instance, small forces have been consolidated into larger ones; coordination inside and among different departments has improved; and various styles of policing have been experimented with. The effects of these changes, however, have been difficult to analyze. Although changes can sometimes alter the command structure of a department, they often leave intact more subtle and powerful organizational and personal relationships. Moreover, just because a well intentioned policy is recommended, it does not necessarily follow that implementation has occurred. For example, police departments are getting bigger, thus implementation of policy is more difficult. Hence the impact that such a policy may have is difficult to assess (e.g., Henig et al., 1977). In sum, quality of organizational change and policy implementation, in the area of police violence, control, and supervision can affect police leadership; the external

controls on police forces; new type of recruits that are hired; and, new coercive police technologies and techniques.

Proposition OCP&I: The greater the efficacy of organizational change and policy implementation, the greater the controls over police forces.

Police Leadership

Improving the power or quality of police leadership has been offered as a solution to the problem of police violence. The impact of police administration on the policies of the department and its officers has been documented and analyzed by several researchers (e.g., Grosman, 1975: 10-12; Wilson, 1968: 57). Chiefs of police do not have full "knowledge and control" over the police organization. Police managers are a dime a dozen. But good administrators that are in touch with their forces and the community are a rare commodity. Most police executives are operations-people, content to sit in their offices and put out fires when necessary. This general lack of active participation in the community may partly be explained by the limited interactions between police administrators and the community. However, with the advent of such programs as community policing, police managers are increasingly becoming involved with their communities and are taking courses such as "Police Executive Sessions," or "Operation Bootstrap" to enhance their level of professionalism by introducing into their departments techniques that are used in major corporations (e.g., Moore & Trojanowicz, 1988). Police leadership affects organizational change and policy implementation, the effectiveness of crime prevention efforts, types of assignments, and internal controls on police violence.

Proposition PL: The greater the efficacy of police leadership, the stronger the internal controls on the police force.

Proposition PLa: The greater the efficacy of police leadership, the stronger the organizational change and ability to implement policy.

Proposition PLb: The greater the efficacy of police leadership, the greater the ability to affect types of recruits that police will hire.

New Coercive Police Technologies and Techniques

Perhaps the most controversial factor affecting the type and intensity of future police violence are the new instruments and methods that police use to take a suspect into custody, effect an arrest, or protect themselves or others (e.g., Ackroyd et al., 1970; Wright, 1985, 1990; British Society of Social Responsibility in Science, 1985). While police are continuing to refine their surveillance capabilities, other so-called noncoercive methods of social control have been introduced. Due to budget cuts police are capable of and willing to invest heavily in innovative methods of technological development that are coercive. It is speculated that some forms of new technology might actually minimize the violent nature of encounters (e.g., Bennett, 1989).[10] Similarly, observers of police activities suggest that unnecessary shootings by police officers will be reduced because of the larger arsenal of nonlethal weapons available to the police. Additionally, with the advent of new or improved forensic techniques (e.g., polygraphs, voice stress analyzers, hypnosis, truth serum, physical trace evidence, DNA finger prints, etc.) there may also be a decrease in forced confessions and torture.

The introduction of guns, cars, and two-way communications, for example, altered policing methods and styles but often upset police-community relations.[11] Likewise, the use of more coercive technological devices has produced a public outcry; so-called nonlethal weapons (e.g., rubber bullets) have had lethal consequences. In short, police are continuously increasing their use of more powerful weapons. During the 1960's there was "a concentration of money and research on the development and improve[ment] [of] technology [especially in weapons... usually borrowed from the military" (Center for the Research of Criminal Justice, 1977: 76).

New technology might lead the police to misuse it leading, in turn, to less humane ways of dealing with citizens (Ackroyd, et al., 1980). Some of the weapons that police are either experimenting with or have introduced in the advanced industrialized democracies include: chemical weapons such as new forms of mace, CN, CR and CS gases; Tasers; stun batons; leg grabbers; immobilizers; large restraining nets; slippery banana peel liquids; new types of bullets such as the "shortstop" tranquilizer, as well as rubber ones; sound churdlers; squawk boxes; water cannons;[12] and robots (Metts, 1985: 32).[13] While many of these technological developments were initially introduced to harmlessly immobilize "offenders," there has been a litany of incidents where they have been misused or malfunctioned causing injuries and in some cases death (e.g., Ackroyd et al., 1980).

Coterminous with the change in police technology, are new or improved techniques for dealing with violent situations. The increasing use of hostage negotiations has been suggested as an alternative to police use of deadly force (e.g., Tully, 1987: 97). Snatch squads used in riots and demonstrations and "vehicles that are driven into the crowd to make random arrests" (Ackroyd et al., 1980: xxv) are some examples of recent forceful practices. While some of these techniques could lead to a decrease in police violence, others will not. By the same token, there has been a proliferation of Special Weapons and Tactical (SWAT) Units, armed with sophisticated military weaponry, in almost every police force, regardless of its size (Center for the Research of Criminal Justice, 1977: Chapter 9).

Incidents such as the MOVE bombing (1985) and the public backlash that it created called into question the necessity of police use of explosives to flush out the groups' members (e.g., Anderson & Hevenor, 1987). The Center for the Research of Criminal Justice (CRCJ) claimed that "[b]ehind th[e] emphasis on technical and managerial improvement is a specific ideology about the sources of crime and disorder which supports the use of technical solutions to problems that are actually social and political" (1977: 76). New Coercive Police Technologies and Techniques are then hypothesized to influence PORVPCI.

Proposition NCPT&T: The greater the number of new coercive police technologies and techniques, the greater the amount of PORVPCI.

Type of Assignments

The allocation of police officers to different assignments such as community policing, and drug and traffic enforcement exposes them to various members of the public. In general, those assignments that are more confrontational, such as drug enforcement, should place police officers in situations where they resort to the use of violence. Additionally, many of the functions of police officers (e.g., traffic and parking enforcement) are increasingly being handled by citizens or privatized.

Proposition SA: The type of assignments police may have will affect the types of crimes they will police.

New Internal Controls on Police

As the deviant behavior of police officers and their departments increasingly are placed under the media and public spotlight, and because chiefs of police fear their loss of autonomy, police organizations will grudgingly experiment and, in some cases, institutionalize new internal controls. In this context, new reporting arrangements, new forms concerning use of force and discharge of weapons, and new hiring practices and restrictions will continue to be implemented. New internal controls should affect the use of new coercive police technology and tactics, types of assignments, and PORVPCI.

Proposition CPF1: The greater the number and quality of internal controls on police violence, the less the amount of PORVPCI.

SOCIAL CONTEXT

The social context, also referred to as the nongonvermental external environment or morphology,[14] of the future will be characterized by a considerable amount of instability. Social context is a summary measure for three interrelated secondary variables: demographic shifts, inequality, and rate and level of violent crime. Three tertiary factors contribute to demographic shifts: the age composition of populations, family structure, and immigration patterns.

Demographic Shifts

Demographic shifts constitute changes in the composition of populations. Criminologists, demographers, and police administrators wonder what the majority of criminals in the future will be like? What types of crimes will they commit? And, how will they respond when they are questioned, intimidated, charged or arrested? It has been argued that the populations of advanced industrialized democracies will be affected by increases in the number of seniors, youths, and immigrants (e.g., Trojanowicz & Carter 1990; Linden, 1989; McCord & Wicker, 1990; McKie, 1991; Williams, 1990). These types of individuals are generally predicted to be more apparent as perpetrators and victims of crime.

i. Changes in Age Composition
In the main, there are two factors important in the changes in age composition: the relative presence of seniors and youths. By the first quarter of

the twenty-first century, a quarter of the populations of advanced industrialized democracies will be over sixty years old. This means that twice as many people will be in this age group than there were in 1980. Given this demographic increase alone, Bennett's (1989) suggestion that "grey crime" or the "geriatric delinquent will substantially increase into the twenty-first century and beyond" appears a certainty. Seniors might take more risks and elicit more police violence if, like death row criminals or "lifers," feel that they have nothing to lose. If this is the case, they might engage in more violence eliciting a similar response by police.

In all probability, effecting arrests against the older criminal might be easier. The increased geriatric population does not in and of itself predict delinquency. Although these people may engage in uninhibited crime; it is equally possible that age may soften them, making them less willing to commit criminal acts and more willing to play by the rules and make peace with themselves and authorities. Also with age there is an exponential increase in physical and psychological problems which limit a person's energy and may virtually limit what s/he can do. On this front, at least, there may be less violent crime. Nevertheless, the increase in the number of seniors will increase the potential of likely targets. Thus, the increased number of seniors affects the types of crimes that will be perpetrated in the future.

Along with an upsurge in the number of elderly, it is also expected that the number of males aged 15-24 both in at least the United States (Skogan, 1989) and Canada (Koenig, DeBeck, & Laxton, 1983) will increase. This age span is believed to be the crime-prone years when young men are more likely to engage in illegal activity. It is generally argued that over the last two decades there has been an upsurge in street crime. One of the reasons posited for this trend has been a rise in the number of young males (e.g., Koenig, DeBeck, & Laxton, 1983). Undoubtedly, these trends will continue into the twenty-first century. Coupled with an increased number in this age group is a rise in drug and gang activity. The young continue, in rising numbers, to victimize senior citizens, immigrants, racial, ethnic and visible minorities, and working/lower class communities.

Proposition S: The greater the number of seniors, the greater the amount of demographic shifts

Proposition Sa: The greater the number of seniors, the greater the amount of violent crime.

Proposition Y: The greater the number of male youths, the greater the amount of demographic shifts.

Proposition Ya: The greater the number of male youths, the greater the amount of violent crime.

ii. Family Structure

Closely related to the number of seniors and youths is the changing family structure which has an affect on the amount of crime committed (Koenig, DeBeck, & Laxton, 1983; Linden, 1989). In particular, there has been an increase in the number of nontraditional roles for both sexes; divorces; working mothers; common law relationships; children born out of wedlock; and, people living alone (Toffler & Toffler, 1990). For instance, in single-parent families there may be a decrease in the amount of supervision given to children which, in turn, would increase the number of opportunities for children coming into contact with situations that might lead them to some type of criminal activity. The problem is compounded if, as is often the case, single-parents must leave their residences empty during the day due to their work outside the home thereby leaving dwellings available as likely targets for criminals.

Proposition FS: The greater the number of single parent families the greater the amount of crime by youths.

iii. Immigration Patterns

In the future, we will witness an increase in the number of visible minorities and refugees particularly Blacks, Hispanics and Asians in the United States, Canada, and Great Britain due to an increase in birthrates and immigration (legal and illegal) (Coles, 1989). And, in Europe, guest workers from Southern countries will continue to seek out higher paying jobs in Northern states. Although the composition of immigrants, guest workers, and refugees is changing (e.g., influx of Eastern Europeans and an exodus of southern Mediterraneans from the northern states, refugees from the former Yugoslavia), the majority of them still move to the large cities. This may lead to increased tension with the dominant white culture, predominantly white police forces, and the entrenched ethnic groups in cities to which they move. If police forces do not recruit actively among minorities and newly arrived immigrant groups there will be even greater difficulties in mediating conflict among these communities. Immigrants affect the types of crime committed in the future. In short, the changing demographics of populations will lead to more conflicts and crime, new types of recruits, and PORVPCI.

Proposition VS: The greater the number of visible immigrants, the greater the amount of demographic shifts.

Proposition VSa: The greater the number of visible immigrants the higher the amount of violent crime.

Inequality

The gap between the rich and poor, sometimes explained by social stratification, is increasing. This current gap is caused by three related processes, government cut backs, loss of jobs, and the so-called world-wide recession. Government cut backs have been fueled by declining tax bases and political (i.e., partisan) pressures. And loss of jobs, in the form of unemployment and early retirement, has been caused by companies going out of business, the international mobility of capital, (i.e., relocating to more economically favorable locations), downsizing, and by the introduction of new technology (Valaskakis, 1991). Unemployment will force more people to depend on some form of social and economic assistance, thus placing greater pressures on the services the state provides provide. Moreover, some unemployed individuals may feel a sense of relative deprivation, or not having anything better to do with their time, leading some to engage in crime (Valaskakis, 1991). The increase in unemployment and crime then has the potential of decreasing the tax base of governments, which may also increase the amount of crime committed (Koenig, DeBeck, & Laxton, 1983).

Proposition I: The greater the amount of inequality, the greater the amount and intensity of crime.

Amount and Intensity of Violent Crime

The most important external contributor to the future level of POR VPCI is the amount and intensity of violent crime (e.g., Bennett, 1989). Factors generally associated with crime causation (i.e., urbanization, alienation, interpersonal conflict, percentage of males in the general population, availability of weapons, institutional factors, and substance abuse) are increasing. For instance, criminals will continue to have access to more sophisticated and deadly forms of weaponry and develop new skills forcing the police to respond with similar tactics. Moreover, hard drug use is increasing (Eck, 1989); police and federal agency

crackdowns on drug users and traffickers could increase already strained police-citizen relations leading to even more tension between these two types of actors. Public disorder and terrorism are predicted to increase in the future.[15] These measures are perceived to create the greatest amount of violence in police-citizen interactions.

Although traditionally, violent crime is caused by "interpersonal conflict situations, such as arguments over money, love triangles, [and] threats to masculinity," availability of weapons, and intoxication and substance abuse (Hagan, 1990: 228), information about the increase in these factors is contradictory.

Proposition AIVC: The greater the amount and intensity of violent crime, the greater the PORVPCI.

Proposition AIVCa: The higher the amount and intensity of violent crime, the greater the number of new coercive police technologies and techniques used.

Proposition AIVCb: The higher the amount and intensity of violent crime, the greater the number of criminal laws that will be passed.

SUMMARY

In sum, the author outlined twenty-two separate primary and secondary variables. These, in combination, lead to thirty-six separate hypotheses which should be tested individually or in combination in order to specify which relationships in the proposed model are most important for policy makers and police administrators to pay attention to (see figure 1).

FIGURE 1

A Tentative Model of the Structural Causes of the Future of Police Violence. The direction(s) of proposed effects on police violence are indicated by plus (+) and minus (-) signs.
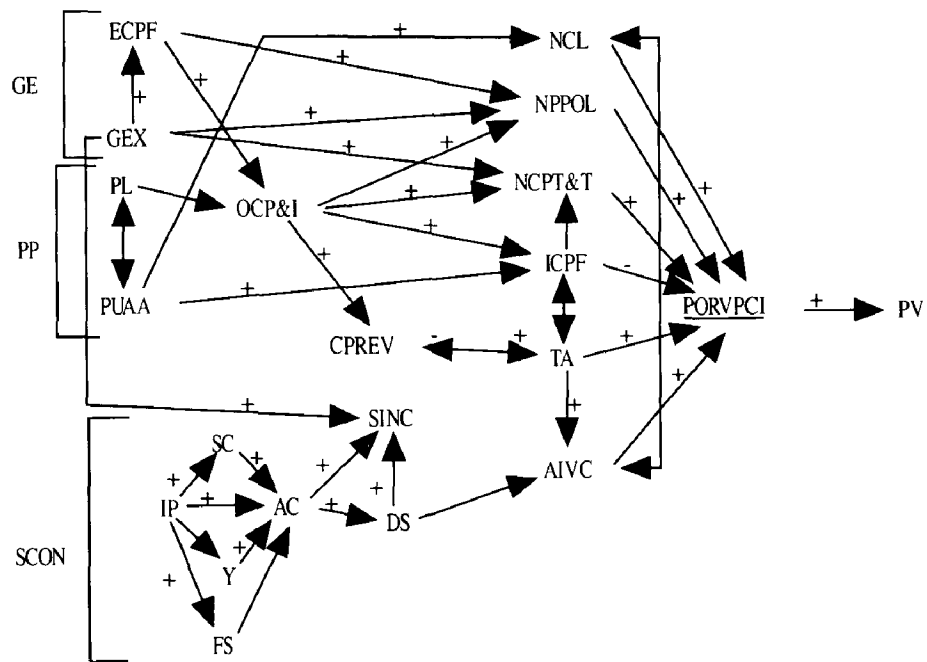
CONCLUSION

How might one empirically test this model of the future of police violence? First, researchers could develop scenarios of possible police violence situations. For example, they could review science fiction and fantasy literatures or motion pictures that depict state of the art policing and extrapolate as to the kinds of future situations that may be the most concern for policing.[16]

Second, expert opinions on the future of police violence can be tapped through surveys (e.g., Delphi method) or interviews to determine how much they conform to the model articulated here.

Third, a more detailed study devoting a considerable amount of attention to each variable in order to specify its effects should be developed. A data set might be developed that allows the author to test some if not all the hypotheses in the model, and then use the data to inductively support or modify the theoretical propositions.

Fourth, perhaps more immediate, future studies might be limited to one or a handful of jurisdictions in order to make the task of data collection more manageable.

Finally, the testing of propositions of the model might be limited to one type of police violence in that jurisdiction thereby making the data accumulation easier.

In sum, failure of communities, government, and the police bureaucracy to effectively deal with police violence can produce increased psychological, social, and economic stresses in the twenty-first century. Current crises of legitimacy over police use of violence must be solved as soon as they arise, otherwise they run the risk of creating or worsening strained relationships between police and the communities they serve which will take a long time and maybe never be able to heal. Moreover, small disturbances in and on the domestic or home front can lead to larger problems both nationally or globally. Traditional solutions to common problems, such as police violence, cannot always be achieved by routine, standard or untested means. The mitigation of existing crises and monitoring of potential problems must be tackled at the local, state, regional, national, and global levels. Furthermore, it is possible to resolve these problems through cooperation and advanced planning, rather than confrontation.

In the meantime, perhaps Toffler and Toffler's (1989: 5) suggestion that "every arm of law enforcement, ... [should] assign some of their best thinkers to the task of probing the future, and to plug their findings into decision-making at every level - including at the very top." We also need leaders that can be sensitive to the changes in communities and thus policing (e.g., Lunney, 1988). But the place for monitoring should not only rest with the police. It is incumbent

for academics, government agencies, and the citizenry to play a vital role in police monitoring.[17] The challenge may be to determine what sorts of control can one exert over the police and how one can help people make intelligent choices about the future process of policing.

ENDNOTES

1. For an exception see, for example, Alpert and Dunham (1992): 173-183.

2. What types of items definitions exclude is sometimes as important as the items/issues they include. Factored out of this definition is what some conflict theorists (e.g., Galtung, 1964) call nonphysical, psychological, or structural violence. In the police realm this would include (i.e., threats to use force) technology and techniques for monitoring citizen behavior.

3. This article excludes police actions against violence and violence against police, and focuses on violence committed by police. See Sherman (1980a) for a distinction among the three.

4. See Cornish (1983: Chapter 8) for a review of these methods. Dublin (1990) equates prediction, forecasting, futurology, and scenario writing with prophecy. Hasenpusch (1979) suggests that there are two types of criminological forecasts: exploratory and normative.

5. Toffler and Toffler (1990:5) advise us to "forget straight-line trend extrapolation and the people who peddle it. Trends are usually spotted when they are already half over.... But far more important than trying to forecast they can help us to imagine more possible scenarios and alternative tomorrows."

6. A number of authors catalogue areas where they believe that there will be some change in policing in the future. Tully (1987) suggests the economy, locus of political power, demography, technology, and crime will be important areas of change. Bayley (1989) examines the growth of private security, community-oriented policing, "managerial expertise," "change in the quality of police personnel," "technological innovation," and "the potential for collective social violence." This article differs from Tully and Bayley because it specifically focuses on one aspect of the future of policing and places it in an analytical framework.

7. While one might speculate that *Types of Recruits* is important, research on the effects of the new types of recruits including, visible minority and women, residency requirements, and the retirement of veterans is contradictory.

8. A similar basic argument is made with the number of doctors or psychiatrists and the incidence of medical, psychological and mental illness.

9. Reuss-Ianni (1984:36) suggested that "one constantly recurring theme was that the department (NYPD) should provide good gym equipment at the station houses because, as more restrictions are placed on the use of gun, many officers feel that increased emphasis should be placed on physical conditioning."

10. For a critique of Bennett see, for example, Manning (1990).

11. By new technology the author is avoiding a discussion of the computerization of policing and new ways for the detection of offenders. For a discussion of this latter process see, for example, Baldwin and Kinsey (1982) or Bayley (1989).

12. Many of these weapons are commercially and legally available to the public and are routinely advertised in military, mercenary, and gun related publications, or available through mail order companies. Mailing lists for these businesses are routinely sold to each other. Police executives go to the same conferences and get on the same mailing lists for police technology manufacturers and distributors.

13. For a further elaboration of the policing uses of robots see, for example, "Robot Security Guards: The Shape of Things to Come" *Canadian Security* August/September 1989: 39.

14. Morphology refers to "the distribution of people in relation to one another, including their division of labor networks of interaction, intimacy, and integration" (Block, 1976: 37).

15. A deeper gap among social stratas, shortages of food, larger urban populations, strains on other social services, depletion of natural resources, and pressures for a better environment and redistribution of resources, are predicted to lead to increased political protest, violence and crime. These political, social, and economic manifestations, by design, create more disputes for police to mediate drawing them into more potentially volatile situations.

Unlike with public disorder, there is much consensus over the future course of international terrorism. In general, terrorists (individuals and groups) may be increasingly inter-connected; engage in more extravagant, attention-seeking destructive acts against a plethora of new and vulnerable targets; and, acquire and use new weapons including more destructive technologies like nuclear, biological, chemical and toxic weapons. Moreover, terrorism may be used with greater frequency by governments as surrogate warfare (e.g., Jenkins, 1985a; 1985b; Bowyer Bell, 1985; Jenkins, 1987a; 1987b; and Charters, 1990).

16. Popular movies have routinely depicted the use of robots for nefarious and violent policing practices (e.g., "Zombies of the Stratosphere," "Metropolis," "Robocop," etc.).

17. See, for example, TRACES pamphlet, "The Transnational Research and Company Enquiry Service (Traces) Tracking the Global Transfers of the Police-Industrial Complex" (1990) which is an example of a private activist organization that monitors the growth of police coercive technology. Others have suggested that the government should prohibit the police from attending these conferences.

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APPENDIX A

Defintion of Variables

Dependent Variable
     PORVPCI   = Proactive or Reactive Violent Police-Citizen Interactions

Primary/Permissive Independent Variables
     GE   = Government Environment
     PP   = Police Performance
     SCON   = Social Context

Secondary/Precipitant Independent Variables
     AIVC   = Amount and Intensity of Violent Crime
     CPREV   = Crime Prevention Techniques
     DS   = Demographic Shifts
     ECPF   = External Controls on Police Forces
     GEX   = Government Expenditures
     ICPF   = Internal Controls on Police Forces
     NCL   = New Criminal Laws
     NCPT&T   = New Coercive Police Technologies and Techniques
     NPPOL   = Number of Public Police
     OCP&I   = Organizational Change and Policy Implementation
     PL   = Police Leadership
     PUAA   = Police Union/Association Activity
     SINC   = Social Inequality
     TA   = Type of Assignments

Tertiary Independent Variables
     IP   = Immigration Patterns
     AC   = Age Composition
     FS   = Family Structure

Remote Independent Variables
     SC   = Senior Citizens
     Y   = Youths