

*THE FUNCTION OF THE POLICE*  
**CRIME, SOCIAL  
EMERGENCIES AND  
DISORDER**



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# SUMMARY

- Proposals regarding police reform in South Africa frequently take for granted the answer to the very question that reform must start with: *what is the function of the police?*
- This paper distinguishes between *crimes*, *social emergencies*, and *disorders* and argues that police work focuses on crime and social emergencies to the extent that police officers regard them as a source of *disorder*.
- It defines these terms in the following way:
  - *Crime* is the most stable of these concepts because its content is defined in law. Crimes are enumerated in the criminal code.
  - A *disorder* is a situation or incident that the police regard as threatening to social life or as conducive to crime. The definition of a disorder depends on institutional culture and therefore varies from police station to police station.
  - *Social emergencies* are those situations or incidents that residents themselves regard as threatening or undermining community, neighbourhood, or family life.
- When a crime or a social emergency is regarded as a source of disorder, it becomes an object of policing.
- Historically, the South African Police did not work to resolve interpersonal violence or discord among Black people, nor did they work to deal with crime in Black areas.
- In the 1990s and early 2000s, there was much optimism that police reform in South Africa would bring the police under civilian control and create a service that responded to calls for help from ordinary South Africans.
- Moreover, it was working. Crime levels dropped during this period.
- However, after the appointment of Jackie Selebi as National Police Commissioner in 2000, police reform efforts were increasingly focused on demographic transformation in the police. At the same time, the police became an instrument by which the African National Congress policed itself.
- Crime has a legitimating discourse, and it is often compelling. In the case of state capture in South Africa, the language of “radical economic transformation” was often used to excuse the repurposing of state institutions, especially state-owned enterprises, and the concomitant fraud and looting.
- When the police (and prosecuting authorities) buy in to a legitimating discourse, certain statutory crimes and social emergencies become destigmatised and are no longer regarded as disorders. The police (and prosecuting authorities) tend not to pursue such cases with great interest.
- This is what happened in South Africa from 2009. A politicised police leadership effectively stopped policing various categories of crime, especially crimes of state capture – fraud, corruption, theft, rent-seeking, and illegal administrative actions – and especially crimes whose protagonists were politically connected persons.
- An analysis of morphological changes in the South African Police Service, including in the distribution of police resources across programmes and functions, suggests that the police have indeed turned away from responding to crimes and social emergencies.
- Depoliticising the police is a first step to redirecting the attention and activities of the police towards crime and interpersonal emergencies.

# ACKNOWLEDGEMENTS

This paper is born of a conversation between myself and Mark Shaw concerning the short-lived police transition from an Apartheid force to what promised to be an organisation in the service of everyday South Africans. The question arises, why was this promising transformation interrupted? I am grateful to the Global Initiative against Transnational Organised Crime for funding this work. My gratitude goes too to my colleagues at the NSI who read and commented on earlier versions. Jonny Steinberg, Elrena Van Der Spuy, and Janine Rauch made invaluable suggestions and directed me to important literatures. There is no modesty in saying that this paper would not have been possible without them.

# INTRODUCTION

Proposals about police reform in South Africa frequently take for granted the answer to the very question that reform must start with: *what is the function of the police?* These proposals assume that the answer to this question has been long decided or that it is so obvious that it does not need stating. The function of the police is to fight crime, and police reform is about improving the effectiveness of the police in that task (Burger 2021) – surely nothing could be more straightforward. Exasperation sets in because what needs to be done is well known, and yet politicians fail to do it (see Burger 2021, Lamb 2021).

The problem with this approach is that it starts from an idea of police work that is greatly removed from what the vast majority of police officers actually do. The police respond to social problems or emergencies, only some of which are crime scenes.

In this paper, I will set out a framework for analysing police performance. Developing concepts introduced by Egon Bittner, I will distinguish between *crimes*, *social emergencies*, and *disorders* and argue that police work is directed at crime and social emergencies only to the extent that police officers regard them as a source of *disorder*. This framing allows for nuance and flexibility in understanding police performance: what the police choose to police differs from location to location depending on the police's understanding of what causes disorder. My focus is the general picture – that is, the police's overall ability to fight crime, manage social emergencies, and deal with disorder. We will see that the police in South Africa generally do not make a great effort to police social emergencies or certain categories of (politically connected) crime. This explains the high formal crime rate as well as the high risk of harassment, aggression, and death faced in South African neighbourhoods and communities.

# CRIME AND SOCIAL EMERGENCIES

In a seminal essay, Egon Bittner asked what function the police serve. His answer has been the starting point for contemporary criminology ever since. Bittner proposed:

“...that police are empowered and required to impose or, as the case may be, coerce a provisional solution upon emergent problems without having to brook or defer to opposition of any kind, and that further, their competence to intervene extends to every kind of emergency, without any exceptions whatsoever.” (Bittner 1974, p. 18)

Importantly, this definition does not mention crime: for Bittner, combatting crime is no part of the function of the police. This is not an accidental omission. It is “misguided and misleading”, he argues, to reduce the police to a law enforcement agency whose mandate follows from the penal code or from criminal law (Bittner, p. 21). In fact, he suggests, if one considers what policemen actually do, they are very rarely – virtually never – involved in criminal law enforcement (Bittner, p. 23). Rather, he says, the police serve to *coerce a solution upon emergent problems*.

## What problems?

The problems that require policing are those which arise in the kinds of societies that produce police organisations as a specific ‘corps of public officials’ (Bittner, p. 19). *Urbanism* brings together large bodies of people who do not know each other – who are, in other words, strangers. These urban strangers, moreover, cannot avoid each other if they

wish to earn a living or to do business. Under these conditions, urban life abounds with opportunities for “infringing” on one another (Bittner, p. 20). There is thus a need formally to regulate relations between strangers. Such regulation is different to that which exists in tribes, among peasant societies, or even, Bittner proposes, in “colonial townships”; in each of those societies, regulation occurs through informal, traditional authorities.

Bittner’s definition of policing is useful for clarifying the purpose of police reform. What is at stake is the management and peaceful resolution of “social emergencies”: instances in which people infringe upon one another in a way that “causes or [is] likely to cause harassment, alarm or distress to one or more persons not of the same household” (Skogan 2015, p. 465).

Jean-Paul Brodeur has criticised this definition of the police as too narrow on the grounds that it excludes what he calls “high policing”: activities concerned with the security of the state. We will return to high policing at the end of this essay. Feminists, moreover, would doubtless find this definition too restrictive, since much inter-personal violence happens within the family and between people who decidedly are not strangers to each other.<sup>1</sup> And, since Wilson and Kelling’s “broken windows” argument (see Wilson and Kelling 1982), criminological circles increasingly emphasise “disorder” over “social emergency” in defining the role of the police. In this respect, the extension of the definition may narrow and expand according to the situation (and according to the proclivities of the author).

<sup>1</sup> In the work of Donzelot the policing of families comes from the imperative to keep order between strangers. Through the welfare apparatus and the medico-hygienist apparatus a new zone of society emerged, one which he called the ‘social’, a strange aquarium that has become the reality principle of modern societies. Here a wide range of means are deployed, including that of the police, to order family life so that it acts as a cushion for economic fluctuations and to reduce the likelihood of social dislocations (Donzelot, 1979). Like Foucault, Donzelot saw the family as a privileged site for modulating individuals’ most private behaviour and, ultimately, for creating and maintaining (liberal) political order.

Yet, in every case, what is at stake are those incidents or situations that undermine the stability of neighbourhoods, that undercut processes of social control, that discourage community solidarity, and that stimulate fears of crime (Skogan, pp. 480–481). For the British government, indicators of social disorder include activities as diverse as “squeegee men (auto shield cleaners) looking for tips”, “cat-calling women”, “congregations of idle men”, “yobbish behaviour”, “games in restricted areas”, “loitering”, “open gambling”, “street prostitution”, “public drinking”, and “public urination”. The shooting of African-American teenager Trayvon Martin in February 2012 and the killing of George Floyd in 2020 – incidents which gave rise to and boosted the Black Lives Matter movement – suggest that the mere presence of a Black man in an American suburb is regarded by the police as a disorder.

In this paper, I distinguish between crimes, disorders, and social emergencies in the following way:

- *Crime* is the most stable of these concepts because its content is defined in law. Crimes are enumerated in the criminal code.

- A *disorder*, for the purpose of this paper, is a situation or incident which the police regard as threatening to social life or as conducive to crime. The definition of a disorder depends on institutional culture and therefore varies from police station to police station. The degree to which understandings of disorder are shared across the police service reflects the extent to which the institution has been rationalised.
- *Social emergencies* are those situations or incidents which local residents regard as threatening or harmful to community, to their neighbourhood, or to family life. The substance of social emergencies is locational and varied. For example, racism, gender violence, and class prejudice are privileged elements of South Africa’s social emergencies.

A crime or social emergency becomes an object of policing if and when it is regarded as a source of disorder. I will argue that, in South Africa, crimes with a political character – which, from state capture to organised crime, account for much of the country’s crime – frequently are not regarded as disorders and therefore are not regarded as the proper objects of police activity.

## A SOCIETY WITHOUT POLICE

Bittner’s conception of policing implies that policing is a basic and necessary aspect of urban social life, even under ideal institutional conditions. In the years immediately after the end of Apartheid, the African National Congress (ANC) failed to recognise this, having inherited a specific – “non-racial” – analysis of the institutional bases of social estrangement.

Against the National Party’s conception of South Africa as a society of racial and ethnic strangers, in which each group warranted its own institutions, spaces, and even territories, the ANC, until recently, posited a vision of non-racialism. As David Everatt has noted, the ANC’s

use of this term has not been consistent, and non-racialism is often indistinguishable from mere multi-racialism (Everatt 2009, p. 6). Nonetheless, non-racialism is strongly related to a theory of social estrangement as the institutional effect of racism and capitalism, not a condition of racial difference. In this analysis, estrangement among South Africans was the effect of the Apartheid system, construed both as a system of racial domination and as a system of class exploitation.

The anti-Apartheid struggle, as a national democratic struggle, sought to destroy the structural foundations of social division and antagonism by eradicating institutional racism.

In the post-Apartheid era, racial redress and state-led development were to be the main instruments for dealing with crime and social emergencies. The influence of this idea goes some way towards explaining why crime took the ANC government by surprise after 1994 and why steps were not taken to deal with it until very late (Shaw 2002, p. 1). Although the ANC was surely correct that Apartheid's racist and exploitative institutions fostered social antagonism and required transformation, what was missing was an understanding of social emergencies as inevitable features of urbanisation and of urban life itself – indeed, of societies of great social difference – even under ideal conditions of post-apartheid transformation.

Moreover, ANC policymakers were unable to anticipate or make sense of a phenomenon that some criminologists anticipated as early as 1999, that crime would get worse as the transition developed. In 2001, Bill Dixon, working with sociologists at the University of Cape Town, sketched a theory of crime in South Africa which drew on Jock Young's notion of the "exclusive society". One of key concepts deployed by Young is *relative deprivation*, a concept that has particular explanatory utility in societies which are – or which purport to be – undergoing a transition to democracy.

In Young's terms, "crime occurs where there is cultural inclusion and structural exclusion" (Young 1999, p. 212). For Young, the primary source of this disjuncture is modernity, which radically

integrates everyone on the basis of the culture of the advanced industrial world (through the values of consumerism, for example) but simultaneously disqualifies those outside a privileged core of people in stable, full-time employment. This is what Young calls a *bulimic* society, one that expels the people it has engorged. Relative deprivation occurs when those who are excluded from modernity are also those who have accepted the promise of modernity and who become acutely aware that they lack the prosperity or freedoms afforded to others. Moreover, crucially, the grounds for their exclusion are largely arbitrary or are experienced as arbitrary. People thus deprived are the people who commit crime.

Dixon's work is useful because it extends Young's model to the promise of democracy. The bulimic society is a formally democratic society, or, in South Africa's case, a post-Apartheid society, which promises equality but which delivers and deepens racialised inequality. Democracy thus sharpens the relative deprivation felt by Black South Africans in townships, informal settlements, urban ghettos, and poverty-stricken rural areas, who perceive the prosperity of those in affluent suburbs and prosperous farms, but perceive it as a symbol not of hard work but of injustice and violence. Indeed, in post-Apartheid South Africa, no wealth is deemed legitimate. The jarring inequality of post-Apartheid South Africa therefore entails that people infringe, or are perceived to infringe, upon one another every day; and it is unsurprisingly a society that is rife with crime and violence.

<sup>2</sup> In the wake of Black Lives Matter in the United States, there have been attempts to formulate community-building projects that would render the police obsolete. At the core of calls for a "world without police" is the search for strategies to deal with traditional policing problems through other institutional means: in other words, to confront the police as an obstacle to policing.

# PERIODISING POLICE REFORM IN SOUTH AFRICA

The distinction between crime and social emergency is also helpful in periodising police reform in South Africa. As a general rule, the South African Police did not work to resolve problems between Black people or to deal with crime in Black areas. In other words, the Apartheid police did not regard crime or social emergencies between and among black people as a disorder that required policing. The absence of formal policing in Black areas led to the development of informal community-based policing mechanisms, which grew in importance from 1976: during the uprising that began in June 1976, the police were effectively evicted from many townships, a process that was consolidated during the unrest of the 1980s.

The organisations that took up the slack included civilian home guards, which began to emerge in the 1970s. In Soweto, many started as the parochial associations, often rooted in ethnic ties, that were sometimes referred to as *izibonda* (councils of elders) or *amadoda omuzi* (fathers of the homes). Once consolidated, these became organisations like *makgotla*, which developed multiple branches across the township and performed both policing and judicial functions (Glaser, p. 148, 151).

At the same time, the absence of formal policing encouraged the emergence and growth of gang organisation in Black areas. In the 1950s, gangs like the Russians on the East Rand had emerged as defensive/offensive organisations offering migrant labourers protection against attacks by criminals or other gangs (Bonner 1993, p. 161). By the 1980s, Soweto alone accommodated nearly fifty large gangs, up from about ten in the 1960s.

After flirting with gangs and gangsters as potential revolutionary agents, youth structures like the South Africa Students' Movement (SASM) and the Soweto Students' Representative Council (SSRC) moved decisively against them. After June 1976,

youth structures policed Soweto. As Glaser notes, some "were tightly controlled and consulted thoroughly with other community representatives before taking action", but "*comrades* were not always responsive to centralised leadership" (Glaser 2000, p. 188). By the 1990s, Soweto – like most areas of Black settlement – was policed through multiple networks of diverse organisations, each using different means and pursuing different values and purposes. Some were overtly political and integrated into structures of the United Democratic Front, while others shaded into criminal networks.

Policemen were, in general, regarded with suspicion. Cyril Ramaphosa, the current President of South Africa, was the son of a sergeant in the South African Police in Soweto. Samuel Mundzhedzi Ramaphosa's reputation as a "pillar of the community" likely saved him from being targeted when other policemen were in and after 1976. It likely saved his son of suspicion, too, enabling him to play senior political roles in the anti-Apartheid struggle (see Butler 2018, p. 7).

Decades later, in 2008, one of Steinberg's respondents observed, "What has changed is that [the cops] can freely socialise, they can have girlfriends in the community. But they are the rubbish of the township. They are the low life" (cited in Steinberg 2008, p. 95).

After they were expelled from the townships in the 1970s and 1980s, the police never properly regained their authority: after 1994, police officers in many parts of the country had to negotiate consent in the absence of moral authority (Steinberg 2008, p. 23). Moreover, after 1994, the police had to compete with a range of other institutions that had assumed the role of providing protection during their absence. The bottom line, however, is that, until 1994, Black South Africans had never been able to call on local policemen for solace or for protection.

# GREEN SHOOTS

In the 1990s and early 2000s, there was much optimism about the progress of police reform in South Africa. Typical of the mood, some commentators noted that the “world’s largest attempt at police transformation” was yielding positive results – that the “situation overall [was] improving” and that the “wounds of apartheid [were] beginning to heal” (Newham, Masuku and Dlamini 2006). South African experiments in police reform were regarded as “inspirational”, even as “blueprints”, for South Africa’s neighbours and for other states grappling with the transition from authoritarianism (Van Der Spuy 2005, p. 19). Monique Marks noted that there were positive signs of change, though she was not sanguine about the obstacles: for all the benefits that “civilianisation”, transparency, and affirmative action had brought, there remained “widespread incompetence, high levels of corruption, abuse of power, and misconduct” (Marks 2000, p. 562). Still, Marks viewed “dissident” policemen – like those in the Police and Prisons Civil Rights Union (POPCRU) and the Black Officers Forum (BOF) – as powerful and positive agents of change (Marks, p. 571).

The South African Police, as it was then still called, had understood as early as 1991 that change was coming. Its strategic plan of that year highlighted, among other things, the need to “depoliticise the police” and to “increase community accountability” (Rauch 2000). The National Peace Accord of 1992, acknowledging the same imperatives, established institutions that helped subject the police to civilian control, including a police board, local and regional peace committees with full-time secretariats, and police reporting officers (Rauch, p. 2). These were heady days as policing experts from around the world joined local scholars, activists, and police in designing a post-Apartheid police service. Many were advocates of a “critical”

or “radical criminology’ that sought to move away from notions of deviance rooted in theories of racialised and gendered personality and identity.

Four models of policing were in circulation in policy-making circles, often blending and competing in unexpected ways. Van der Spuy called them the colonial model, the liberal-democratic model, the governance model, and the transitional model (Van der Spuy 2005, p. 32). In retrospect, the early period of reform was dominated by combinations of the liberal-democratic, governance, and transitional models. In seeking to dismantle the prevailing model – a police force that acted in the service of a colonial power, imposing order on a subject and recalcitrant population – many looked forward to a South African Police that would no longer serve as “a ring of steel surrounding a beleaguered state” but instead would fight crime, prioritise the security of citizens, and police in terms of the law and with social consent (Van Der Spuy, pp. 41–42).

Thus early efforts were guided not only by the imperative of bringing the police under civilian control but also by the understanding that the police should respond to social emergencies and coerce peaceful solutions to them. For the first time ever, the police became an institution that responded to calls for help from ordinary Black South Africans. Moreover, it was working. In Alexandra township, for example, there were 241 reported cases of murder in 1995/96, but only 89 in 2006/07. The new policing model – the novelty for Black people of being able to call a police station and get a response – was beginning to pay. Jeremy Vearey recounts similar successes over the same period in Cape Town, where the police sought to re-establish trust with communities in Elsie’s River and Mitchells Plain. A former Umkhonto we Sizwe operative, Vearey had been integrated

into the police after 1994 and was impressed with the spirit of the National Crime Prevention Strategy, which he took as founded on “people’s policing, with the people for the people” (Vearey 2021, p. 71). In 2003, he introduced night-time patrols on the Cape Flats, targeting well-known drug and crime hotspots; these “challenged the authority and rule of the gangs in streets and parks”, bolstered the courage of community structures, and encouraged the growth of street committees (Vearey, p. 109).

By the end of the 1990s, however, there were signs that the new “liberalism” was giving way to a narrow technical focus on the modernisation

of internal systems and processes (see Van Der Spuy 2005, p. 47). It went together with a creeping nationalism. Especially after Jackie Selebi was appointed as National Police Commissioner in 2000, the police leadership became convinced that the primary challenge of police reform lay in the racial transformation of the organisation itself. The analysis of the police as a white colonial force – as “brutish, uneducated, working-class, white, [and] Afrikaans speaking” (Rauch 2000, p. 6) – increasingly predominated, despite ample evidence that it was not too simple.<sup>3</sup> Under Jackie Selebi, demographic change in the police became the key measure of transformation.



<sup>3</sup> For one, the Homeland police forces were staffed by mostly Black officers, including at a senior level.

# TRANSFORMATION

In fact, demographic change was already underway. In 1995, 80% percent of the police's 202 brigadiers were white men. Only one woman held that rank. Indeed, women made up only 11% of all commissioned officers. By 2000, Black policemen held 50% of senior posts and women held 30%. The pace of change was especially surprising because questions of equitable racial representation were only really taken up with Selebi's appointment as National Police Commissioner in 2000.

Indeed, George Fivas, the first post-Apartheid commissioner, had become a target of POPCRU precisely on the basis that he appeared insufficiently committed to demographic transformation and affirmative action (Marks 2000, p. 566). POPCRU quickly developed a mass membership in the police. Of POPCRU's 47 000 police members, the vast majority were black and most were new recruits or drawn from the lower ranks. In 1998, POPCRU was joined by the Black Officer's Forum (BOF), another group of "dissident police" but primarily representing senior officers. Together, POPCRU and the BOF helped build momentum for rapid affirmative action in the newly renamed South African Police Service (SAPS). When Selebi was appointed in 2000, he set ambitious transformation targets, taking as his baseline the national census, which recorded that 79,8% of South Africans were Black Africans, 8,8% were Coloured, 2,4% were Indian and 9,3% were white.

By 2005, having integrated 30 000 former homeland policemen and *kitskonstabels*, the SAPS stood at 148 970 employees, nearly three quarters of whom were police officers; the rest (27%) were civilians in administrative and support roles (Newham, Masuku and Dlamini 2006, p. 20). In that year, 64,3% of the total police complement was Black. There were more Black commissioned

officers (43,5%) than white (42,1%), though not enough to meet the 70% target set in the police's national employment equity plan of 2001.

Today the SAPS has more than 180 000 employees and the 2001 targets have largely been met and in some cases exceeded. In March 2021, there were no white people in "top management" and almost 93% of officers were Black African. Women made up 37,5% of this echelon. Only slightly less impressive were the changes in the senior management service. For example, 77% of Major-Generals in the police were Black and fewer than 9% were white. In total, Black Africans accounted for 67% of senior managers, Indians for almost 7%, Coloureds for 9%, and whites for 16%. Relative to the targets set in 2001, the transformation of the SAPS is close to complete.

However, there was a curious elision in the transformation strategy. Equitable representation of racial and gender diversity is a good in its own right, and changing the demographic profile of the police undoubtedly helped move the organisation away from its white, authoritarian past. It did not, however, usher in a new period of "democratic policing".

After all, many of the people integrated into the SAPS after 1994 – and subsequently fast-tracked into the middle and senior ranks – had come through authoritarian institutions, many in the former Bantustans. Many were functionaries of the violent state repression of the 1980s and had little professional purpose outside wielding batons. As Mark Shaw warned as early as 2002, police reform is complicated by political transition. "Transitional societies are faced with growing levels of crime in the period in which they attempt to consolidate democratic governance," he observed, "but they are seldom immediately equipped with the policing instruments to fight it" (Shaw 2002, p. 10).

While demographic transformation progressed, the green shoots of substantive reform were left to wither, as Vearey recounts in his memoir. Vearey deplors the toxic politics that infected the provincial and national management corps, which he saw lead to the demobilisation of dedicated police units focused on the gang problem. In many cases, units were disbanded precisely because they were effective. When his units succeeded in

reducing gang activity, he was visited by senior officers who wanted to “determine whether our reduced workload justified our numbers” (Vearey 2021, p. 65). The Visible Gang Unit and Gang Investigation Unit were eventually disbanded, and the Crime Intelligence Division abandoned its earlier role in collecting information on gang activities. “All this was done,” Vearey laments, “by strategic design” (Vearey, p. 111).

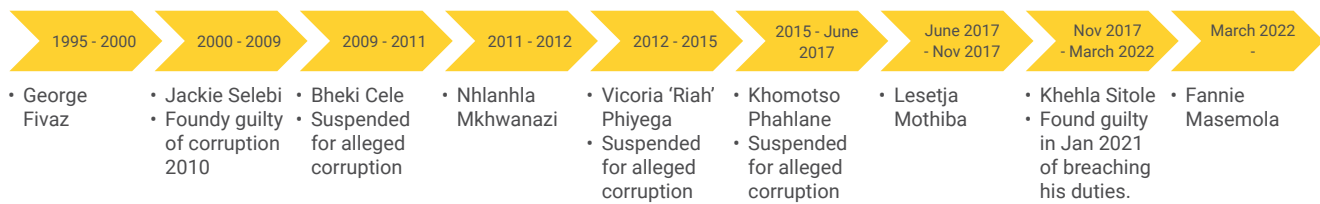
## THE REMILITARISATION OF THE POLICE

The remilitarisation of the police after 2000 was not the inevitable or accidental result of the inertia of reform. Something else happened: the very purpose of policing changed. Jackie Selebi’s appointment as National Police Commissioner in 2000 marked the end of a brief transitional period during which reform focused on bringing the police under civilian control. Selebi, like then-President Thabo Mbeki, had a different vision of policing. He was not an officer who had risen through the ranks of the organisation, but an ANC insider who had spent most of his adult life in exile and in service to the ANC. “Through him,” Steinberg observes, “the ruling party began to establish control over the organization” and “to use the organs of high policing primarily to police itself” (Steinberg 2008, p. 177)<sup>4</sup>. The politicisation of the police gathered momentum in 2007 when President Mbeki suspended Vusi Pikoli, then the head of the National Prosecuting Authority (NPA). It was rumoured that Pikoli had been preparing to prosecute Selebi, Mbeki’s close ally, on corruption charges.<sup>5</sup> In 2009, politicisation reached its apex with the disbanding

of the Scorpions, a specialised unit of the NPA which comprised multi-disciplinary teams of detectives and prosecutors. The Scorpions had pursued high-profile cases against senior ANC politicians and their associates, including the investigation into Selebi and investigations into the notorious 1999 arms deal, which saw charges laid against Tony Yengeni, Schabir Shaik, and Jacob Zuma. Zuma always insisted that the corruption charges against him were part of a conspiracy to end his political career, and when he became ANC President in 2007, he moved quickly to do away with the unit and replace it with the Hawks, a poor and compromised substitute. Post-Apartheid South Africa’s experiment with high policing was abruptly brought to an end. During the same period, after Selebi’s departure in 2009, the office of the National Police Commissioner became a target of intense political manoeuvring, reflected in the very high turnover of people in the position: seven commissioners in fourteen years.

<sup>4</sup> Alice Hills might argue that South African policing was starting to conform to an African pattern, where the police in many regimes are agents of the executive (Hills, p. 99) and where the lack of urgency in building effective police forces arises because many “regimes are supported by crime and corruption while others benefit from it” (Hills, p. 93).

<sup>5</sup> Selebi was, in fact, arrested, and he was convicted in 2010.

**Chart 1: Commissioners of Police, 1995 – present**

This trend must be explained with reference to the ANC's own post-Apartheid evolution and its political consequences, as elucidated in new work on protests and political stability in South Africa. After 1994, the ANC undertook to resolve two historic legacies of the Apartheid period. First, through Black Economic Empowerment, it sought to change South Africa's class structure. Second, and at the same time, it sought to consolidate the republic by amalgamating the homelands back into a unitary state. In this regard, the ANC was the nodal point or pivot between a vertical process of transformation and a horizontal process of integration. As such, the party became the preeminent forum where the multiple and contradictory shards of South African society – frequently antagonistic and violent – converged (Chipkin 2021). For the first decade after 1994, the ANC moderated or contained elite contestation by accommodating it within the party and therefore within the boundaries of the democratic system. From 2007, however,

elite contestation proved increasingly difficult to manage through internal party processes. It began to infect other forums, spilling out, in particular, in the form of protests (Chipkin and Vidojevic 2022).

As conflict inside the organisation became unmanageable, and especially with an ANC insider leading the police from 2000, the SAPS increasingly became an instrument by which the ANC policed itself. Though initial reform efforts had been guided by the vision of a policing practice that would focus on the social emergencies affecting Black lives, that project stalled, and the momentum of reform was redirected in service of a new conception of social emergencies. In effect, social emergencies were coming to be identified with that class of events which unsettled power relations within the ANC itself. Thus, police activities were increasingly oriented towards managing conflict in the ANC, rather than dealing with crime. This gradual reorientation is reflected in morphological changes in the SAPS.

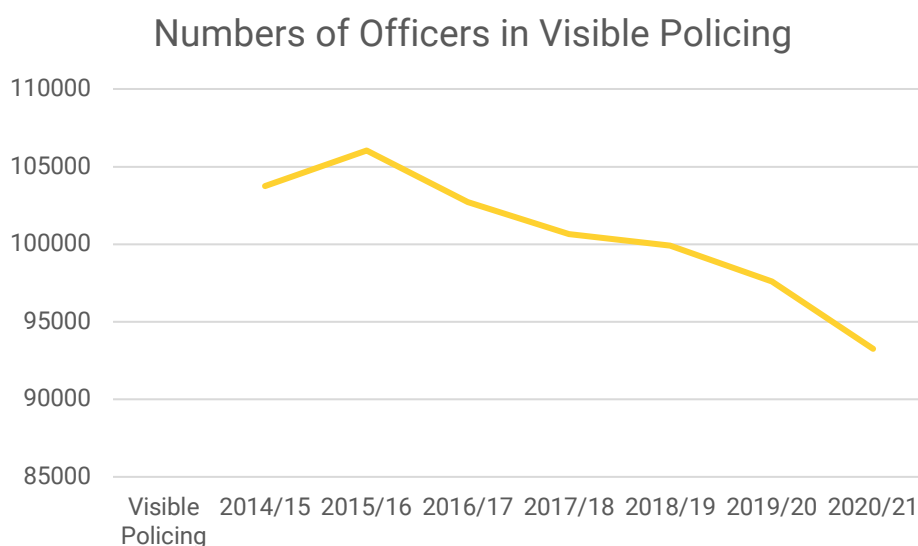
# MORPHOLOGICAL CHANGES IN THE SOUTH AFRICAN POLICE SERVICE

The SAPS is organised around five core programmes: Administration, Visible Policing, Detective Services, Crime Intelligence, and Protection and Security Services. The Visible Policing programme generally encompasses the activities that take place at police stations around the country with respect to preserving “safety and security” and “combatting crime”. By number of assigned officers, it is by far the largest programme, with Detective Services as a distant second. These two programmes are not only SAPS’s largest but also are core to the *raison d’être* of

the SAPS as a *police* organisation – that is, as an organisation whose primary function is to respond to interpersonal problems and emergencies.

Between 2015 and 2021, the number of personnel in Visible Policing declined steadily, dropping from 106 034 people in 2015 to 93 253 in 2021. Detective Services also contracted sharply in 2015 to 2016; it recovered slightly between 2016 and 2018, but began to shrink again thereafter. Crime Intelligence saw a general decline in personnel numbers over the same period.

**Figure 1: Personnel in Visible Policing, 2014–2021**

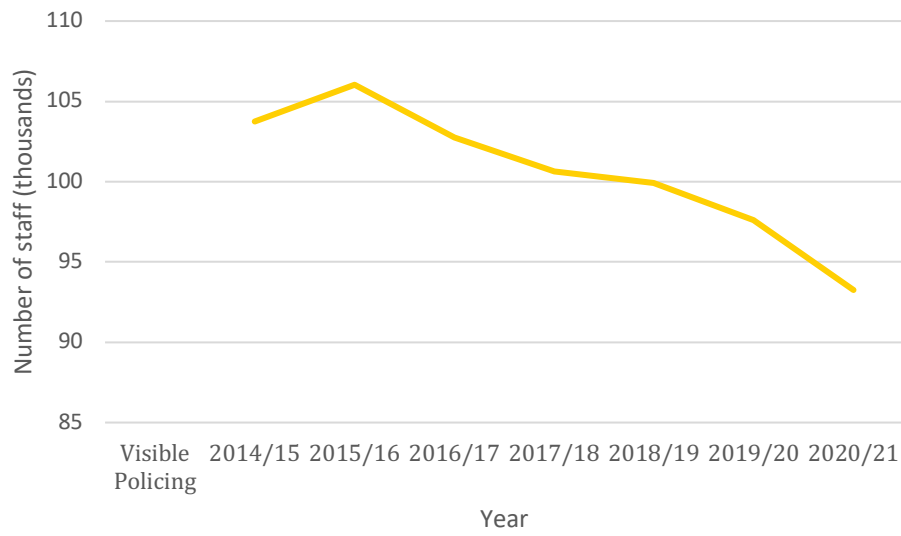


Source: National Treasury

In 2015 the detective services saw a sharp drop off in numbers too, recovering slightly between 2016 and 2018 before declining again sharply.

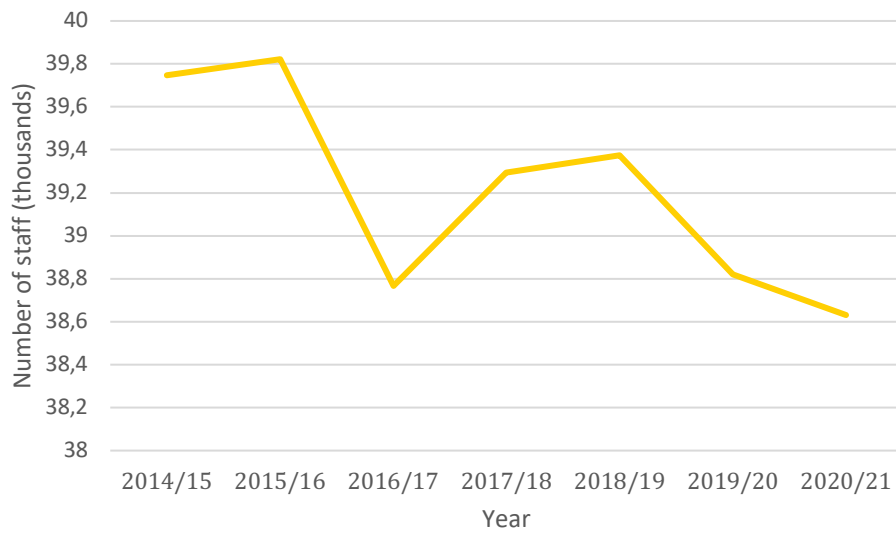
Crime Intelligence saw a general decline in numbers over the same period as well.

**Figure 2: Personnel in Detective Services, 2014–2021**



Source: National Treasury

**Figure 3: Personnel in Crime Intelligence, 2014–2021**

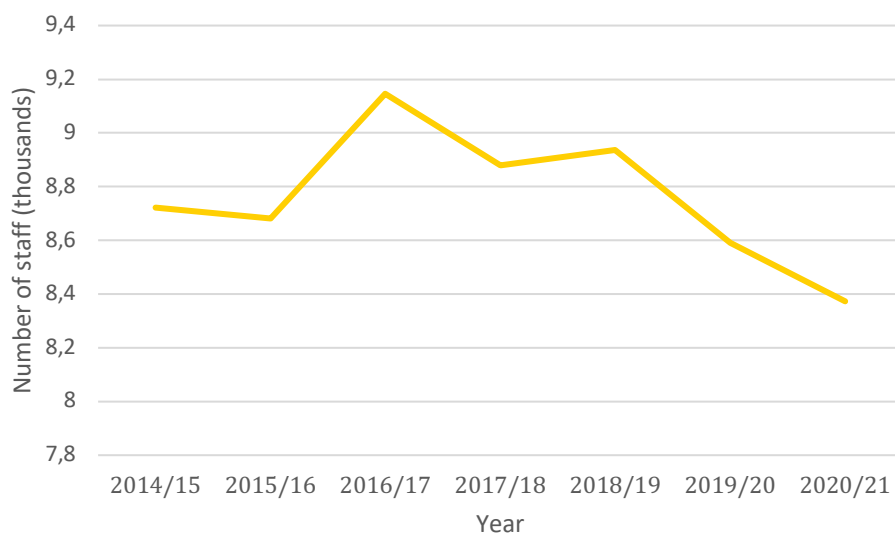


Source: National Treasury

The only programme that bucked this trend was so-called Protection and Security Services (PSS) – the programme which provides officers to serve as bodyguards to politicians. Personnel numbers in this division rose sharply between 2014 and 2016 and stabilised at a high level before tapering downwards from 2018. The State

Capture Commission heard evidence that some PSS officers – and some of the PPS budget – fell under the control of the State Security Agency, which used the programme’s resources to supply President Zuma and other politicians with what was effectively a private militia (Judicial Commission of Inquiry into State Capture 2021b, p. 7).

**Figure 4: Personnel in VIP Services, 2014–2021**

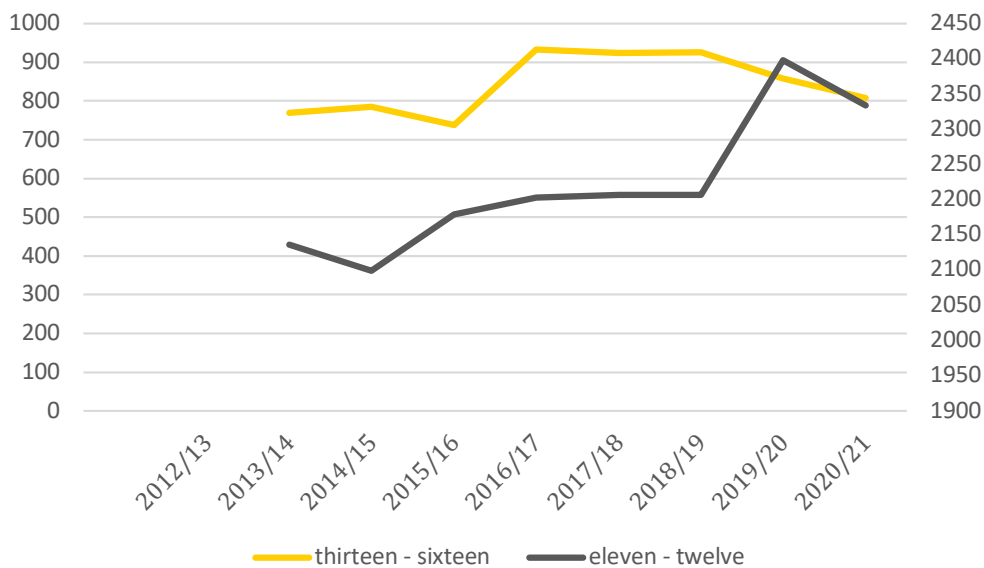


Source: National Treasury

The graphs above include all staff in each division, many of whom are not police officers but administrative and general support workers. Disaggregated statistics show that the number of police officers as a proportion of total SAPS personnel has increased slightly, by about two percentage points, since 2016 (Public Economy Project 2022, p. 50). The

number of personnel in more junior ranks (grades 1–6 and grades 7–10) has generally declined over the last decade or so, while the top echelon (grades 11–12 and grades 13–16) has grown. And since 2012, the headcount of police officers per 100 000 people has fallen, from around 290 in 2012 to current levels of around 220 (Public Economy Project, p. 51).

**Figure 5: Funded Posts in Grades 11 to 16, 2014–2021**



Source: National Treasury

While general expenditure on the SAPS has declined since 2010, spending on salaries now consumes a larger proportion of the total budget, squeezing out investments in buildings and equipment (Public Economy Project 2022, p. 48). Even more worryingly – and perhaps evincing weakening administrative capacity in police divisions – the SAPS has struggled to spend its capital budget:

an increasingly large portion of ring-fenced funds are returned to the National Treasury each year. In 2019/20, for example, the SAPS spent only 57% of the funds appropriated for repairs, maintenance, and upgrades at police stations (Maphangela 2020). The spending outcomes shown in Figure 6 were presented to the Select Committee on Security and Justice in 2022.

**Figure 6: Spending outcomes of the police capital works programme**

R'000	Main appropriation	Adjusted Appropriation	Actual spending	Virement & shifts	% of adju appr spent	% of main appr spent
2015/16	1 094 720	1 294 720	1 264 474	- 200 000	98%	116%
2016/17	1 138 272	883 458	833 831	254 814	94%	73%
2017/18	984 280	653 895	634 879	330 385	97%	65%
2018/19	934 015	774 015	719 880	160 000	93%	77%
2019/20	972 839	645 556	554 862	327 283	86%	57%
<b>TOTAL</b>	<b>5 124 126</b>	<b>4 251 644</b>	<b>4 007 925</b>	<b>872 482</b>	<b>94%</b>	<b>78.2%</b>
	<b>Compound average growth rate</b>					

Source: Annual reports and Medium Term Expenditure Framework allocation letters

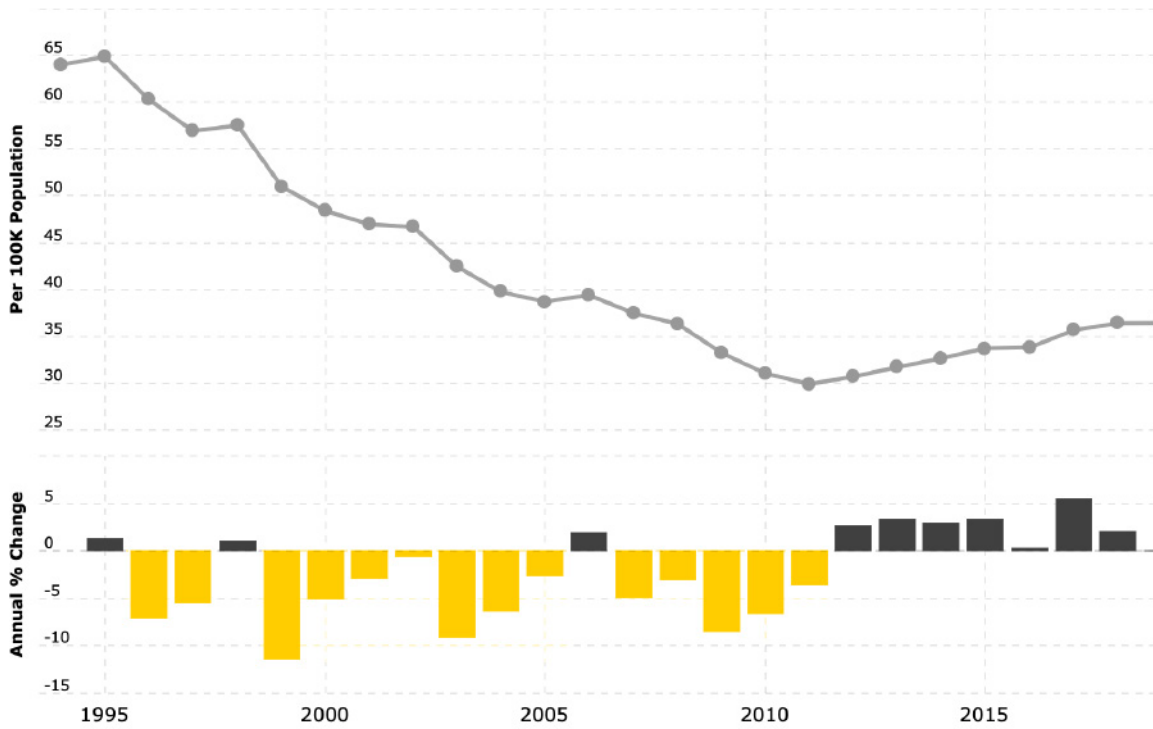
The minutes of relevant parliamentary committees also provide a sense of the day-to-day operational challenges in police stations. The Select Committee on Security and Justice heard that:

“there was a serious problem in all provinces regarding police vehicles... A recent response received from the Minister of Police, Mr Bheki Cele, on the time it takes to fix vehicles, indicated that they waited for 130 days in Springfontein, Free State, for a car battery to be replaced... Another problem is that police officers do not have driver’s licences.” (Parliamentary Monitoring Group, 2022)

The unavoidable conclusion seems to be that policing crime – and other events that disturb community life – simply is not a priority, especially because these morphological changes coincided

with a rise in crime across the country. South Africa was a “country at war with itself”, said one commentator (Altbeker 2007, p. 38). Mikhail Moosa and Gareth Newham note that public safety has deteriorated because of a decline in the quality of policing. The number of annual arrests has fallen by 24,5%, and the police’s efficacy in solving crimes (the detection rate) has dropped by 31% for murder and 24% for aggravated robbery (Moosa and Newham 2021). The general trend is reflected in the murder rate, which fell by 54% between 1994 and 2012 but has risen steadily since then. Some of the decline in the murder rate after 1994 reflects a stabilising political environment, though it reflects better policing as well. Given that these statistics reflect broad institutional changes in a huge organisation, the rise in murder rates since 2010 certainly reflects dynamics starting well before that date.

Figure 7: Murder Rate Per 100 000 people, 1995–2019



Source: World Bank



# THE CHALLENGE OF POLICE REFORM

The observations above help frame the problem of police reform in South Africa today. The primary challenge facing the police is not one of legitimacy – that is, the primary task is not merely to rebuild trust between the SAPS and crime-affected communities (Lamb 2021). A more fundamental reorientation is required. Police reform must start with the question of the police’s purpose, and therefore entails reorienting the activities of the police to focus on ending immediate social emergencies, including crime. In Julia Hornberger’s compelling expression, the police must become “partisan towards the citizens” (Hornberger 2014, p. 17). Such partisanship requires that the police agree with citizens about what constitutes a social emergency. Evidence that this is beginning to happen will be manifest in what the police leadership priorities in its budget: spending on everyday officers, police stations, especially in high crime areas, infrastructure and equipment, detective services and crime intelligence.

Whether it is perpetrated by South Africa’s “numbers” gangs or by the Italian mafia, crime often has a legitimating discourse, one that is frequently compelling. We see this from as diverse examples as ‘numbers’ gangs in South Africa to the syndicates that captured state owned enterprises and key political offices during the Zuma period. The numbers gangs (26s, 27s, and 28s), for example, trace their origins to the Ninevite gang, founded in Johannesburg in the late nineteenth or early twentieth century by a Zulu migrant named Nongoloza. Nongoloza frames the Ninevites’ activities in biblical and political terms: “I reorganised my gang of robbers, I laid them under what has since become known as Nineveh law. I read in the Bible about the great state Nineveh

which rebelled against the Lord and I selected that name for my gang as rebels against the Government’s laws” (cited in Steinberg 2004, p. 4).

More recently in South Africa, we have seen a discourse unfold in defence of state capture – that is, of the repurposing of state institutions, especially state-owned enterprises, for private gain and for the financing of political campaigns. The language of “radical economic transformation” (RET) was often invoked to excuse state capture and the fraud and looting that accompanied it. As an ideology, RET blames growing inequality and economic distress on the entrenched dominance of “white monopoly capital”. The actions of the Zuma administration were thus positioned as progressive moves to free the economy from the stranglehold of white capitalists. Similarly, Zuma developed a critique of South Africa’s political transition, predicated on an original sin in the constitutional negotiations. According to Zuma, the ANC was committed to a model of popular democracy until 1996, when the members of the Constitutional Assembly betrayed that promise and elaborated a constitutional framework which entrenched minority rights, moderated the sovereignty of the elected government, and prevented genuine majority rule. Thus when Zuma and his allies broke the law and undermined the Constitution, they could claim that they did so not as criminals but as freedom fighters in pursuit of genuine democracy and the full realisation of the post-Apartheid transition. It is noteworthy that these ideological moves have entered public political discourse and have found resonance among some opposition politicians – particularly in the Economic Freedom Fighters – as well as in university circles.

When this legitimating discourse is shared by the police (and by the prosecuting authorities), something remarkable happens. Statutory crimes and social emergencies become destigmatised and are no longer regarded as disorders, and the police (and prosecuting authorities) tend not to pursue such cases with great interest. This is what happened in South Africa from 2009. A politicised police leadership effectively stopped policing various categories of crime, especially crimes of state capture – fraud, corruption, theft, rent-seeking, and illegal administrative actions – and especially crimes whose protagonists were politically connected persons.

Moreover, and simultaneously, the resources of the police are actively redirected as weapons of elite competition, which in the ANC takes the form of fierce factional rivalry over access to power in the party, in government, and in the state. The police and other institutions of law and order are frequently ensnared in different sides of this internecine conflict, pursuing or protecting political enemies and friends (though the status and affiliation of each individual changes continuously).

The State Capture Commission did not make any specific findings on the police or the criminal justice system. This is a pity, because the Commission heard – and itself uncovered – extensive evidence about the failure of the police to pursue politically sensitive investigations. The Commission heard, for example, that investigations into 250 officials by the Crime Intelligence division were stymied when they were inexplicably closed on the SAPS criminal administration system (Judicial Commission of Inquiry into State Capture 2021a, pp. 398–99). Investigations into senior Crime Intelligence officials

themselves, or into senior State Security Agency personnel, were frequently frustrated or impeded. Police investigations into crimes at Eskom, Transnet and the Passenger Rail Agency (PRASA) were abandoned after complaints were laid or information of wrongdoing appeared in the public domain. These were not isolated incidents. As a rule, investigations and prosecutions started and stopped capriciously.

In 2019, a judicial inquiry headed by Justice Yvonne Mokgoro considered whether Advocates Nomgcobo Jiba and Lawrence Mrwebi were fit to hold office at the NPA. The inquiry concluded that “the recent history of the NPA demonstrates that the NPA may be vulnerable to executive and political interferences” (Mokgoro Enquiry 2019, p. 139). In fact, evidence before the inquiry justified a less cautious conclusion than this. Nonetheless, as a final remark, the panel warned politicians and officials:

“The Minister may not instruct the NPA to prosecute or to decline to prosecute or to terminate a pending prosecution, the he or she is entitled to be kept informed in respect of all prosecutions initiated or to be initiated which might arouse public interest or involve important aspects of legal or prosecutorial authority” (Mokgoro Enquiry 2019, p. 140).

A similar warning would apply in the case of police investigations. The challenge for the police is to initiate and pursue investigations that are justified on the basis of the criminal code or as responses to the social emergencies faced by South African communities and neighbourhoods. That is quite different from pursuing investigations on the basis of political criteria that reflect the balance of power among politicians and politicised police officers.

# CONCLUSION: DEMOCRATIC POLICING

Thinking of crime and policing in terms of social emergencies helps recast the question of police reform. Though leadership, training, and organisational structure remain important, police reform must go further: it must proceed from the question of the function of the police. Do the police serve to enforce law and order and manage emergencies among citizens, or do they serve to protect the government, the President, and the ruling party?

In South Africa, except for a very short period in the 1990s, policing has largely focused on the latter function, which Brodeur called high policing. In a twist on high policing, however, after 2000 the police focused less on the security of the state than on the protection of the ruling party: it became entangled in the contestation between ANC factions, providing private militias for some politicians and actively targeting others. The subordination of the police to the dictates of the ruling party and the executive was visible recently when the police were tasked with enforcing regulations drafted by the government to manage the Covid-19 pandemic. In many cases, officers violently intervened to prevent residents of overcrowded township homes from walking on the street, from buying cigarettes or alcohol, and even from buying flip-flop sandals. The army was later mobilised to support the police in the enforcement of these irrational regulations.

Establishing the autonomy of the police as *corps of public officials* should be the first item on a reform agenda. A good place to start in this regard is to reconsider the appointment processes for the National Police Commissioner and other top managers. In South Africa today, the President has sole discretion in appointing the commissioner. Because the President is

also the head of the largest political party, party-political considerations are effectively baked into the decision-making process. However, there are other ways of appointing the top cop.

In Canada, a Commissioner Appointment Advisory Committee, staffed by a mix of human rights activists, police officers, and policing experts is charged with preparing a ranked list of candidates for the Premier's consideration. If the Premier rejects the board's recommendations, the process starts again. A similar process exists in Northern Ireland. In Japan, the General Police Commander is selected by the National Public Safety Commission, whose members are appointed with the approval of both houses of parliament. Moreover, each party may nominate no more than two of the five commissioners. In New Zealand, the National Commissioner of Police is recruited by the Public Service Commission, which gives a shortlist to the relevant minister, and the leader of the opposition must be consulted on the final appointment. Scholars like Alice Hills are doubtful that such institutional autonomy is possible in African circumstances, but only because they have an essentialist view of African administrations as nothing but expressions of personalised relations.

If depoliticising the police is a first step in refocusing the police's attention on crime and interpersonal emergencies, the second step requires engaging with the social obstacles to policing. At the organisational level, low policing depends on effective crime intelligence as well as rebuilding the Detective Services. At the social-symbolic level, there are several issues that must be tackled. I mentioned that policemen are held in poor regard by many South African communities. The result is a dual deficit of authority and of trust. Authority and trust are related but distinct, and the police must establish both.

Authority comes from the assumption and the real-life fact that the police possess the monopoly of violence in a given situation and are therefore capable, if necessary, of coercing solutions upon the problems they encounter. Both the assumption and the circumstance are absent in South Africa. Some gangs, criminals, and political networks have access to weapons of the same or similar calibre as those carried by police officers, a situation aggravated by police corruption (see Shaw 2021). The balance of force must be re-established in favour of the police, either by reducing the circulation of high calibre weapons amongst criminals or by giving specialised units even better guns.

On the other hand, trust in the police is a function of routine and an effect of predictability. The police acquire trust not just through repeated engagements with the community but also, and primarily, by being seen to respond predictably and reasonably – with minimum force – to crime scenes and social emergencies. Some of the tactics currently favoured by police, especially the heavy-handed tactics associated with “high-density” policing and underpinned by a militaristic ethos, serve as “trust-diminishing” behaviours and are therefore counterproductive (see Lamb 2021, p. 102–3). When the police are reluctant to enter certain spaces, trust is weakened. When the police are seen to take bribes or turn a blind eye to wrongdoing, they destroy trust in the institution.

One final conclusion may be drawn from Bittner’s proposal to define policing in terms of social emergencies rather than in terms of crime. What counts as a social emergency will vary from state to state, not only by virtue of differences in culture and demographics but also by virtue of differences in the states’ *political form*. In other words, if the function of policing is defined in terms of emergencies, policing under secular authoritarianism will differ from policing under theocracy. Both in factual and in ideal terms, South Africa is a democracy, formally made up of citizens. Policing in South Africa should be defined in relation to that fact and that ideal.

Policing requires responding to and managing social emergencies that undermine or threaten civil relations between strangers. In a democracy, this entails that the function of the police is to make neighbourhoods and communities safe, so that citizens may interact with one another safely. Yet, in addition to and beyond this, it entails that the function of the police is to safeguard the very status of citizens as such by protecting them from the predation of politicians. In a democracy, when there is a deliberate effort to subvert democratic processes or institutions, an emergency has arisen and requires policing. On these terms, state capture or the subversion of electoral institutions should be regarded as democratic emergencies – that is, as members of a new class of *crimes against democracy*.



# References

- Altbeker, Anthony. 2007. *A Country at War With Itself*. Jonathan Ball.
- Burger, Johan. 2021. Despite a deep crisis, police leaders show no sign of acting on the many official recommendations available to them. *ISS Today* (28 June). <https://issafrica.org/iss-today/south-africas-police-need-urgent-and-fundamental-reform>.
- Bittner, Egon. 1974. Florence Nightingale in pursuit of Willie Sutton: A theory of the police. In Herbert Jacob (Ed.), *The Potential for Reform of Criminal Justice*, pp. 17–44. Sage Publications.
- Bonner, Philip. 1993. The Russians on the Reef 1947–1957: Urbanisation, gang warfare and ethnic mobilisation. In Philip Bonner, Peter Delius and Deborah Posel (Eds.), *Apartheid's Genesis, 1935–1962*. Witwatersrand University Press.
- Brodeur, Jean-Paul. 2007. High and low policing in post-9/11 times. *Policing*, 1(1), pp. 25–37.
- Butler, Anthony. 2018. *Cyril Ramaphosa*. Jacana Media.
- Chipkin, Ivor. 2021. *Making sense of state capture in South Africa* [Submission to the Commission on State Capture]. Government and Public Policy.
- Chipkin, Ivor and Jelena Vidojevic, with Laurence Rau and Daniel Saksenberg. 2022. *Dangerous elites: Protest, conflict and the future of South Africa*. Southern Africa Report No. 49, Government and Public Policy and Institute for Security Studies.
- Dixon, Bill. 2001. Exclusive societies: Towards a critical criminology of post-apartheid South Africa. *Society in Transition*, 32(2), pp. 205–227.
- Donzelot, Jacques. 1979. *The Policing of Families*. Pantheon Books.
- Everatt, David. 2009. *The Origins of Non-racialism: White Opposition to Apartheid in the 1950s*. Wits University Press.
- Glaser, Clive. 2000. *Bo-Tsotsi: The Youth Gangs of Soweto, 1935–1976*. David Philip.
- Hills, Alice. 2008. Managing the Interface: Regional Security and Substate Politics in Africa. In *African Security*, 1:92–114,
- Hornberger, Julia. 2014. We need complicit police! Political policing then and now. *SA Crime Quarterly*, 48, pp. 17–24.
- Judicial Commission of Inquiry into State Capture. 2021a. *Report of the Judicial Commission of Inquiry into State Capture, Part V, Vol. 1: State Security Agency and Crime Intelligence*.
- Judicial Commission of Inquiry into State Capture. 2021b. *Commission of Inquiry into State Capture Day 333 (28 January)*. [https://www.statecapture.org.za/site/files/transcript/347/Day\\_333\\_-\\_2021-01-28.pdf](https://www.statecapture.org.za/site/files/transcript/347/Day_333_-_2021-01-28.pdf).
- Lamb, Guy. 2021. Safeguarding the Republic? The South African Police Service, legitimacy and the tribulations of policing a violent democracy. *Journal of Asian and African Studies*, 56(1), pp. 92–108.
- Maphangela, Mmathapelo. 2020. *Evaluation of the provision of accommodation in the Police Service*. Government Technical Advisory Centre, National Treasury. <https://www.gtac.gov.za/pepa/wp-content/uploads/2021/11/Police-Infrastructure-Spending-Review-Report.pdf>.
- Marks, Monique. 2000. Transforming police organisations from within: Police dissident groupings in South Africa. *British Journal of Criminology*, 40(4), pp. 557–573.
- Mokgoro Enquiry. 2019. *Enquiry in terms of Section 12(6) of the National Prosecuting Authority Act 32 of 1998*. <https://www.thepresidency.gov.za/content/mokgoro-commission-enquiry-report>.

Moosa, Mikhail and Gareth Newham. 2021. Police reform: Can we achieve a safer and more united SA? *Business Day* (6 May). <https://www.businesslive.co.za/bd/opinion/2021-05-06-police-reform-can-we-achieve-a-safer-and-more-united-sa/>.

Parliamentary Monitoring Group. 2022. *South African Police Service annual performance plan 2022/23; with Deputy Minister* [Select Committee on Security and Justice minutes]. <https://pmg.org.za/committee-meeting/34891/>.

Newham, Gareth, Themba Masuku and Jabu Dlamini. 2006. *Diversity and transformation in the South African Police Service: A study of police perspectives on race, gender and the community in the Johannesburg policing area*. Centre for the Study of Violence and Reconciliation.

Rauch, Janine. 2000. *Police reform and South Africa's transition*. Paper presented at a conference of the South African Institute for International Affairs. Centre for the Study of Violence and Reconciliation.

Public Economy Project. 2022. *Public services, government employment and the budget*. Working Paper No. 39, Southern Centre for Inequality Studies.

Shaw, Mark. 2002. Crime, police and public in transitional societies. *Transformation*, 49, pp. 1–24.

Shaw, Mark. 2021. *Give Us More Guns: How South Africa's Gangs were Armed*. Jonathan Ball Publishers.

Skogan, Wesley. 2015. Disorder and decline: The state of research. *Journal of Research in Crime and Delinquency*, 52(4), pp. 464–485.

Steinberg, Jonny. 2008. *Thin Blue: The Unwritten Rules of Policing South Africa*. Jonathan Ball Publishers.

Steinberg, Jonny. 2004. *Nongoloza's children: Western Cape prison gangs during and after apartheid*. Centre for the Study of Violence and Reconciliation. <http://www.csvr.org.za/docs/correctional/nongolozaschildren.pdf>.

Van Der Spuy, Elna. 2005. *South African Police Reform in the 1990s: Internal Processes and External Influences* [Doctoral dissertation, University of Cape Town].

Vearey, Jeremy. 2021. *Into Dark Matter: A Police Memoir*. Tafelberg.

Wilson, James Q. and George Kelling. 1982. Broken windows. *Atlantic Monthly* (March), 29–38.

Young, Jock. 1999. *The Exclusive Society*. Sage Publications.

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