

PARADIGM SHIFTS, SOUTH AFRICAN DEFENCE POLICY AND THE SOUTH AFRICAN NATIONAL DEFENCE FORCE: FROM HERE TO WHERE?

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Abstract

Elements of Kuhn's theory on scientific revolutions and its applicability to the political domain also promote explanations of military change. In this regard, changes in the South African defence realm during the past decade and the rise of the South African National Defence Force need not be viewed as inexplicable. These developments represent an opportunity to explain a prominent example of military change in Africa through an established theory. By making use of indicators drawn from the theory developed by Kuhn, an explanatory framework can be established to co-explain certain adjustments of the South African defence paradigm over the past 10 years. Of particular relevance is Kuhn's view of an initial dominant shift, which continues to evolve with the assistance of subsequent incremental shifts. The South African paradigm that guided the pre-1994 Total Strategy defence outlook was later opposed and ousted by one that was more explanatory and embracing of the democratic features permeating and envisaged for South African society. This democratic imperative drove the dominant shift in the South African defence paradigm during the middle 1990s as it dramatically and extensively began to adjust the policy environment regarding the role and utilisation of the South African National Defence Force (SANDF). In explaining his theory, Kuhn avers that a range of smaller adjustments towards maturing the initial shift soon follows the earlier dramatic shift. Upon investigation of this secondary field of smaller changes, more incremental adjustments also become visible when analysing the South African case. In this regard, the Defence Review (1998), the Military Strategy (2001), the primary-secondary role debate emanating from the 1996 Defence White Paper, and the 2004 Defence Budget Vote represent prominent indicators of the ongoing maturation process. The theory of Kuhn on scientific

revolutions furthermore holds that new paradigms also stand to be contested by rising challenges to its status. In the case of the South African defence realm and the SANDF in particular, advanced regional integration and the perceived decline of the role of the state, could once again challenge the post-1994 defence paradigm with its concomitant explanation and direction of South African thought on the preparation and deployment of the SANDF.

1. Introduction

Militaries must adjust in order to remain in step with societal changes. Although seldom acknowledged, military institutions are entities capable of changing and adjusting to changes within their operating environments.¹ These establishments of state power, however, have to transform into the entities which society anticipates they should be, or risk becoming outdated and problematic establishments.² Illustrative of this outlook, the Tofflers aver that as societies migrate through various stages, they take their military institutions along - with the latter having little leeway, but to adapt or become outmoded.³

As South African society migrated amidst shifts in its strategic environment to an era no longer dominated by the overlay of the Cold War and *apartheid*, emulating societal shifts in its armed forces became important. The consequence of this imperative saw a move from the pre-1994 Total Onslaught approach⁴ to that of the post-1994 Defence in a Democracy approach⁵. This new imperative ensured that South African defence thinking and the SANDF were in equilibrium with a changing South African society and its external strategic environment. Kuhn's theory on scientific revolutions represents one way of explaining this shift in the South African defence realm and in particular the extent to which he extends his theory to dramatic political adjustments in societies.⁶

A review of the last 10 years depicts much acclaimed changes in the regulatory environment of the SANDF. This observation can be ascribed to a number of explanations, one of which is how paradigm shifts operate and effect change. Paradigm shifts do not necessarily entail an immediate and total break with the past, as it is argued that parting with the old and allowing for the new to achieve maturity involves extended time frames. Furthermore, shedding the past in a dramatic and revolutionary way is possible, but the literature on paradigm shifts warns that this is not a common feature. Events arising from paradigm shifts are also prone to reflect evolutionary progress towards desired alternatives and this process implies extended dynamics in order to entrench the rival paradigm, until it is in turn once again challenged.

The following discussion is directed towards answering a simple research question: To what extent can the altering of the South African defence paradigm that debunked the realm of the former South African Defence Force (SADF) and paved the way for establishing the SANDF be explained by elements of the theory on scientific revolutions? To answer this question, four themes are investigated. Scientific revolutions, as a theoretical basis for understanding paradigm shifts, are addressed at the outset to establish indicators for investigating the research question. In order to extend the latter theory to the changes which gave rise to the SANDF and its operating environment, three further themes will be addressed. Firstly, the competitive process which gave rise to a rival defence paradigm that supplanted the former SADF and its defence paradigm. Secondly, how the new paradigm became entrenched over time to allow for its maturation. The third and final theme explores contemporary efforts to further refine the new paradigm together with a brief assessment of a possible future paradigm shift. In conclusion, a number of remarks have been made concerning the explanatory value of paradigm shifts when applied to changes in the South African defence realm.

2. Scientific Revolutions: A theory of paradigm shifts

According to Kuhn, scientific revolutions arise when "an existing paradigm has ceased to function adequately in the exploration of an aspect of nature to which that paradigm itself had previously led the way".⁷ In this regard, Kuhn draws a parallel between fundamental scientific shifts and that of political life in need of deep changes, but it being inhibited by existing institutions from taking effect.⁸ From the ensuing competition arises a rival paradigm that can either augment, co-exist with, or destroy the existing paradigm for explaining and understanding a certain phenomenon or practice.⁹

2.1 Shifts in scientific paradigms: Some theoretical perspectives

For a shift to take place in a dominant view, a crisis has to ensue in so far as existing conceptual tools such as theories, models and concepts fail to properly solve rising problems in the field of understanding and explaining a phenomenon.¹⁰ Kuhn outlines this by emphasising that the implied change is tied up in the ascent of a rival paradigm which facilitates an opposing model of scientific research that flows from "accepted examples of actual scientific practice."¹¹ Challenging the *status quo* in this way should be accompanied by an adjoining body of adherents comprising researchers, scientists, theorists and decision-makers who contest existing views and side with the new outlook or paradigm. From this competition arises the paradigm that eventually becomes the new reigning theoretical and explanatory basis.

The extent to which the rival paradigm attracts support often implies the demise of older schools and their supporters. Alternatively, competing paradigms even co-exist for a period of time before one eventually ascends to dominance. Once this transpires, researchers and supporters can adhere to the new paradigm and concentrate upon refining it.¹² This, however, is not a *fait accompli* as adherents to the *status quo* will defend it or introduce own adjustments to counter the challenge. The resultant anomaly is either addressed or it will assume crisis proportions and draw increasing attention in order to resolve the crisis. If not resolved, then it is bound to defy new approaches and remain a problem in the field.¹³

A new paradigm is not altogether coherent and fully mature at its inception as it must remain open-ended so as to allow sufficient scope for new problems and their resolution. It also permits accounting for a wider range of phenomena as well as explanations of certain past events with more precision, whilst slowly rising to prominence amidst attempts at refining it. In support of the theory of Kuhn, Cohen argues that scientific revolutions can be small as well as large.¹⁴ Large and wide ranging revolutions, however, are not frequent whilst even these leaps in actual fact consist of small and even invisible steps. Giant leaps are infrequent and quite visible above the mode of regular and incremental progress. Nevertheless, these advancements do continue and gather their respective proponents and opponents. Dramatic shifts are regularly viewed as negative in that they sometimes promote threatening and dangerous progress and developments such as increasingly deadly weapons systems. Such advancements are furthermore opposed from within entities for introducing change that opposes or destroys existing theories, beliefs and concepts.¹⁵ Bringing about required changes is therefore a difficult matter and effecting it in the military domain is no exception.

2.2 Military change: Shifting an entrenched paradigm

The contemporary and traditional paradigm of warfare is increasingly challenged by views that war is outdated and needs to be outlawed, adjusted, or radically changed. A plethora of literature portrays the sentiment that warfare is in the throes of a need for change, although a broad consensus about what exactly these changes should involve, remains unclear.¹⁶ This pressure for change is particularly visible and oft debated, particularly the Western view of warfare and its Clausewitzian framework.¹⁷ It is furthermore also visible in the clamour for co-operation as opposed to exclusionary and adversarial relationships based upon warfighting for the promotion of own interests.¹⁸

The Western view of war tends to posit clarity between war and peace as well as upholding this clarity between soldier and civilian as war unfolds.¹⁹ This clinical view is increasingly challenged and alternatives are required to cope with new military extremities such as the terror attacks upon the USA on 11 September 2001, and the subsequent invasion of Afghanistan and Iraq, and also the spate of internal conflicts threatening many developing countries - particularly those of Africa. This fundamental challenge demands a new perspective on the demarcation, accommodation and interpretation of the unfolding context of future warfare. However, for this to materialise requires from the proponents of warfighting futures to reconsider their position. They need to also consider rival or alternative theories on how armed forces will operate in future and the strategic environment within which this is to unfold.²⁰

2.3 Backdrop to shifting the military-strategic paradigm

Arguments for and theories on a military-strategic paradigm shift unfold against a larger backdrop of change in terms of beliefs, theory, preconceptions, and prejudices on how the international system works and what shapes it. MccGwire, (2001) drawing upon the work of Steinbruner (2000) and Rogers (2000), proposes an international system based upon co-operative engagement and consent to meet the challenges of a future security environment.²¹ MccGwire premises his argument upon the notion that the current and dominant paradigm of exclusionary national security is no longer valid and begs replacement. He emphasises that future types of conflict and instability will not be sufficiently addressed by merely reconfiguring military forces geared for rapid deployments and long-range strikes. A dependence upon these means of maintaining the *status quo* in the future is prone to failure.²² Avoiding such failure may well represent a fundamental shift that entails moving from an adversarial national security paradigm to a co-operative global security paradigm. The latter should not transpire in an abrupt and revolutionary manner, but rather as a learning process which is underpinned by incremental and cumulative shifts.²³

For the preferred shift to take place requires some recognition of the existing paradigm being dysfunctional and adding to difficulties of the future by losing its purpose as a utility to explain and resolve challenges. This creates some conceptual space for new thought to enter. However, four prerequisites are judged to underpin a shift of this nature. In a similar vein to the ideas of Kuhn, MccGwire notes these as follows. First, an impulse for change from shared fears and a common alternative vision to for example peace through warfighting. Secondly, the absence or removal of obstacles which obstruct migration towards a new paradigm, such as the influence of bellicose actors. Third, an engine of change that can for example be a treaty, or

the establishment of a regional body, to direct matters at hand. Lastly, a precipitating cause or event as illustrated by the collapse of the former Soviet Union.²⁴ Effecting a shift therefore requires some range of events or developments to allow for a dramatic new outlook to enter. This invariably promotes the idea that changing a reigning practice is bound to be a problematic process – particularly in the case of changing attitudes and preferences encased in historic entrenchments.²⁵

2.4 Military change and the danger of military stasis

The saying "if you don't know where you're going, then any road will do"²⁶ could well apply to the future complexity faced by some defence forces. Warfare is a social phenomenon that is constantly subject to influences or pressures for change.²⁷ This pressure is intensified by the dynamics of unclear or unpredictable stages of development and change along which societies tend to progress. Such uncertainty creates much difficulty for defence decision-makers responsible for guiding their armed forces towards the future. Illustrative of this is the irregular progression of defence forces alongside their societies from the agricultural era through industrialisation to a post-industrial and the current information era.²⁸ In a similar trend, one can trace how defence forces were adapted to keep in line with civilisational shifts as societies progressed from city states (Classical Civilisation) to feudal states (Medieval Civilisation) to nation states (Modern Civilisation).²⁹

Progressive stages and social development, 20th century understandings and a focus on technologies and economic foundations for their production tended to underpin outlooks on military change for some time.³⁰ The extent to which coping with such change defies the competencies of decision-makers allows for the rise of military stasis. Military stasis is further fuelled by whether or not the existing paradigm of war is accepted, adjusted or even radically altered.³¹ Dealing with future difficulties requires of defence and military decision-makers to also contend with current demands and changes within the framework of so-called legacy systems and a now outdated way of understanding and preparing for war.³² This dilemma holds the risk of entrenched military stasis whereby existing strategy, concepts, and tactics are merely continued, irrespective of changing futures. This intransigence is perpetuated by an assumed military unwillingness to allow for important structural and cultural changes.³³

A major strategic adjustment or shift as stated by Bauman and the opportunities alluded to by MccGwire transpired in the international arena during the late 20th century. The demise of the former Soviet Union confronted many armed forces with dramatic changes to the structure of the international strategic environment and the need for a particularly type of military force. The defence parameters that steered military thinking since the end of the Second World War

soon became open to question.³⁴ This shift in the strategic context which previously underpinned much of the rationale on preparing military forces and viewing future war in a somewhat predictable fashion called for politico-military decision-makers and theorists to reinterpret future warfare and align their military forces accordingly.³⁵

As armed forces around the globe increasingly find themselves exposed to continuous change, fewer resources and diminishing public sympathy, the risk of them not being able to adjust to the demands of their external and domestic environments has increased. These demands constitute a need for change and for responsible decision-makers to embark upon revolutionary or evolutionary adjustments of reigning military paradigms. These alternatives also faced the South African defence sphere during the late 20th and early 21st centuries. The military complex was confronted by an array of challenges that initiated dramatic change to the defence paradigm regarding the use of the armed forces in the future.

3. Shifting the defence paradigm: From total strategy to defence in a democracy

Military forces need to adjust if they are to remain a reflection of and relevant to the societies from which they originate and ultimately have to defend. During the past decade this appeal assumed an increasing international and national setting. Adhering to the latter appeal, the societal reflection and relevance of the SANDF received close political attention.³⁶ Less well known perhaps, is that its opposite, military stasis, with its own range of problems for society also became intensely debated in the South African Parliament on 22 June 1995. This debate involved a determined presentation by the then Deputy Minister of Defence on taking the defence force into the future as opposed to the risk of allowing it to become redundant and for military stasis to enter by allowing the defence *status quo* to continue.³⁷

During its early transition, the SANDF grappled with its future pathways. This uncertainty led to a statement in 1995 by Deputy Defence Minister Kasrils "[that] our future depends on us and the way we prepare for that future". One driving force of this perceived future was to break with the pre-1994 defence paradigm through new defence thinking. Mapping out the run up to and response to this call for a new defence paradigm can be compiled from the theory underpinning paradigm shifts. The comparison presented below draws upon nine indicators from the theory on scientific revolutions to illustrate shifts in the South African defence realm since the first half of the 1990s.

3.1 An emerging crisis for the defence realm

Changes in the international strategic environment from 1989 assumed a rapid and deeply influential impact upon the international system of states and their relations. South Africa chose to remain in step with the emergent international system and this not only posed a dilemma to its political decision-makers, but to its array of military and defence cadres as well.³⁸ Amidst the external changes, the impact of the 1993 and 1996 South African Constitutions accentuated the predicament of those in the South African defence realm.³⁹ These constitutional stipulations effectively began to block or terminate the exclusivity and influence of the incumbent military establishment by setting stringent normative confines upon its future operations. As a result, the reigning outlook which governed defence thinking and the use of South African armed forces came into question and consequently became quite incompatible with these normative arrangements. In addition, the 1975 and 1977 Defence White Papers that had introduced and solidified the Total Strategy for a Total Onslaught mould quickly lost their credibility and validity to address new military matters arising from a changed strategic and constitutional environment. Consequently, preferences for conducting defence as contained in the ANC blueprint *Ready to Govern*⁴⁰ emerged to fill the mounting void as these perspectives were judged to be more in line with future defence requirements.⁴¹ However, it should be acknowledged that, in spite of the availability of the *Ready to Govern* manifesto, those opposing the *status quo* did not have an altogether coherent alternative programme or blueprint on defence matters to immediately replace that of the previous dispensation.⁴²

The prospect of an outdated defence position and the presence of an immature alternative represented fertile ground for a crisis in the South African defence realm directing the use of its armed forces. Creating legitimate security institutions and a new approach to defence had little common ground with the incumbent defence approach of the pre-1994 government and its conduct of military affairs. This latter mode of defence thinking was fast becoming outdated, but no immediate and coherent alternative was in place. This inconsistency can be viewed as a lingering or ensuing crisis that allowed conceptual space to question its validity and argue for its replacement.

3.2 The ascent of a rival paradigm

The ascent of a rival defence paradigm emanated from three coincidental circumstances. First, the potential stasis that entered from the lack of explanatory utility by existing defence thought of the early 1990s. Secondly, the emergence of a group of theorists and proponents seeking to introduce a new perspective upon what direction South African defence thinking should assume.⁴³ Thirdly, the subsequent

crisis that emerged as discussed in the above section. The combination of the void, potential stasis and the rise of a group which promoted a competing view upon the future role of South African armed forces facilitated the ascent of a rival paradigm to replace the existing one and its bias towards competitive national security through military security.

The rival paradigm had its foundations in a new security approach which was more inclusive and explanatory of the needs and imperatives that began to characterise the environment of armed forces. It not only originated from the ideas of MccGwire and Buzan as alluded to in the above section, but, according to its proponents, defence and democracy had to be closely aligned to serve the needs and security of South African society. This approach materialised from the growing focus on human security as opposed to state security and was promoted through the exposure of its South African proponents to British-Scandinavian defence thinking.⁴⁴ Subsequently, defence in a democracy and similar terminology began to define the contours of the emerging South African defence paradigm. At its heart featured the destruction of the politicised, racial and militaristic features of its predecessor and replacing it with a constitutionally embedded and democratically based legitimacy cloak.⁴⁵

3.3 An adjoining body of adherents comprising researchers, scientists, theorists and decision-makers

A constituency of adherents arose between 1989 and 1994 who were committed to a defence outlook more suitable to the democratic futures to be served by the South African defence community. As the realisation dawned that the use of a utility which was embedded in military security was questionable, the need for an alternative drew increasing attention. From this group, later known as the Military Research Group (MRG), emerged views on the logic and utility of an alternative paradigm to fill the existing void by replacing or dramatically augmenting the reigning military paradigm. During the early 1990s, the SADF paradigm reflected a posture embedded in state or regime security cast into a pre-emptive, operationally offensive strategic posture.⁴⁶ It was this very mode of security and its brand of defence thinking that became opposed by a body of adherents that sought to support the introduction of a rival paradigm. According to Kenkel, the MRG also embodied a small group of academics who eventually rose to form an influential entity which was to introduce an alternative defence paradigm and convince defence decision-makers of its viability.⁴⁷

The MRG managed to introduce a coherent and viable alternative theory for future defence thought and convince influential defence decision-makers of its credibility and validity, and as a consequence, an adjoining body of adherents emerged. This body not only comprised academics, but attracted senior members of the ANC and its military wing. They became closely associated with and accepted by the new policy-makers in the emergent South African defence realm.⁴⁸ This coalition further strengthened the prerequisite of a diverse body of adherents required to sustain the introduction and functioning of a rival paradigm. They constituted the energy behind the rival defence paradigm and furthermore embodied a crucial body of adherents to oppose those potentially supporting the *status quo*.

3.4 The existing paradigm becomes dysfunctional and adds to future difficulties

Given the extent to which the pre-1994 paradigm rested upon a notion of security as primarily a military and police problem, it was rather irreconcilable with the new view of security in so far as it concerns the security of people.⁴⁹ Inherently the competitive national security based defence outlook clashed with that of the rival paradigm moulded by 'Defence in a Democracy' and its regional vision. Whilst the pre-1994 outlook showed a strong inclination to meet threats head-on and beyond national borders (within the sub-region)⁵⁰ the opposing outlook assumed a softer approach by not militarising all threats and thus not linking the bulk of its solution to the use of armed coercion. As this realisation dawned, militarisation through Total Strategy became further eroded as a limited or marginal paradigm to explain and/or present solutions to future security threats in the Southern African region. In this regard an interesting view is that many senior SADF officers most probably already realised by 1989 that a paradigmatic shift in defence was imminent. Amongst other factors, the rescinding of the ban on the ANC and other movements gave rise to a process which would chip away at the latticework that kept Total Strategy intact⁵¹ and it was bound to become dysfunctional. Inherent to this process, Kotze avers that some senior SADF officers also played a positive role in facilitating a non-disruptive transition from the old SANDF mindset to that of the incoming cadres and their preferences.⁵²

The rise of an alternative framework (although incomplete at the time) for conducting defence matters further contributed to the dysfunctionality and demise of Total Onslaught/Total Strategy. The resultant switch between pre- and post-1994 defence thought and its guidance for using armed forces could well be characterised as a paradigm shift where the dysfunctional South African defence paradigm or mould was replaced by a rival paradigm.⁵³ This image promotes the idea of an initial major shift in the realm of defence. Theoretical arguments and preferences in

the military realm, as argued by Huntington in *Two Worlds of Military Policy* (1974) and Kuhn, are, however, not always precisely reflected in the world of practical military decision-making. This warning needs to be heeded and is elaborated upon in the section below.

3.5 A paradigm shift is rarely a quick and uncomplicated phenomenon

In understanding the process of a paradigm shift, one also has to observe the warning by Kuhn that such a shift is a competitive process with the dysfunctional paradigm and its adherents not merely bowing out to the competition.⁵⁴ Although the transformation of the SADF to that of the SANDF could well be presented as illustrative of a major and fundamental shift in the South African defence domain, two perspectives influence the perceived immediate optimism. First, a political need to convince a changing South African society that the ousting of the SADF has been effected through changes of paradigmatic proportions and secondly, the imperative to convince society competing with the scientific reality that paradigm shifts are rarely sudden and once-off events. These two qualifications colour the optimism of effecting revolutionary changes during the initial changes as Kuhn warns that some competition is bound to persist.

In the case of the SANDF and its policy environment, certain traits as described by Kuhn on how a paradigm shift tends to materialise over time also need to be noted. First, a paradigm is not always fully matured from its inception and this is found in the South African case. Secondly, its opposition does not suddenly fade into oblivion. Third, it takes time for a new paradigm and its adherents to overcome lingering facets of the earlier paradigm whilst it also has to contend with difficulties upon its path towards maturation.

Kenkel avers that the emergence of a strand of defence thought that was judged to coincide with the views of defence in a democracy also had to contend with obstacles. As noted earlier, adherents of the rising paradigm initially had no coherent and finalised defence alternative to introduce into the hovering defence void of the early and middle 1990s.⁵⁵ Subsequently, only a normative framework of the new paradigm was introduced. The unfinished business of this initial normative shift becomes visible in the provision of the 1996 Defence White Paper for a later Defence Review to solidify the initial shifts effected.⁵⁶ Matters reserved for the Defence Review were long-range planning issues on matters such as posture, doctrine, force design, force levels, logistic support, armaments, equipment, human resources and funding.⁵⁷ This dual process indicates the lingering need to later solidify and establish the new paradigm more securely whilst also accentuating the reality of the initial, but dramatic shift, not being an immediate cure-all.

3.5.1 The opposition does not fade into oblivion

From its inception, the rival paradigm on defence introduced around 1994 had to contend with elements of its predecessor. However, by drawing the finer contours of what this opposition entailed, it emerges that deliberate opposition by members of the former defence establishment is difficult to isolate. In more abstract terms, one manifestation is the criticism of maintaining the primary role of defence against aggression through conventional warfighting within the set roles of the SANDF. This criticism holds that maintaining this priority reflects a vestige of earlier thought which was a feature of the ousted paradigm.⁵⁸ A second abstraction is that many of those serving in the SADF remained in service for an extended period of time and some still do. By 1998 white officers still constituted almost 70% of the officer corps whilst white Non-Commissioned Officers formed more than 40% of the NCO-rankings. Even after initial integration it was projected that former SADF members might probably still constitute more than 30% of the SANDF.⁵⁹ Although difficult to state in empirical terms, due to the extent to which former SADF members occupy middle and senior positions, elements of the previous paradigm continue and, rightly or wrongly, stand to be tagged as lingering elements of the ousted paradigm.⁶⁰

During the period immediately preceding the 1996 Defence White Paper, proponents of the new paradigm also had to contend with direct inputs of senior SADF members. These inputs reflected a military technocratic outlook that sometimes clashed with the preferred extended defence outlook for establishing a new defence paradigm.⁶¹ The preference contained in the latter, however, was seemingly one of moving as far away as possible from the pre-1994 defence paradigm and all it stood for. This determination led those opposing the existing paradigm towards the fields of critical security studies, human security and the pursuit of peace, rather than managing war, in order to refine the opposing paradigm.⁶² Certain SADF officials, however, tried to confine matters to narrow military issues, thus competing with the alternative and more normative defence outlook entered by those supporting an opposing paradigm.⁶³ Subsequently, both during its initial inception, as well as during later stages, indicators of potential competition to influence the new paradigm can be identified. This flowed forth as military practitioners of the previous dispensation and proponents of the new competed to have their ideas recognised amidst a climate of upholding consensual defence decision-making.⁶⁴ Finally, and in lieu of the above arguments being somewhat ambiguous, one could argue that opposition by former SADF officers emanated from differences pertaining to how to migrate to the new paradigm and manage this potentially explosive period rather than to the new paradigm itself.⁶⁵

More substantial research is perhaps required to prove or disprove deliberate opposition to the selected defence paradigm.

3.5.2 A new paradigm allows for explaining a wider range of phenomena

The extent to which a new paradigm achieves acceptance also results from its use as a tool to address a wider range of phenomena in its field.⁶⁶ According to Nathan, the new South African defence paradigm was dramatically different from its predecessor, but quite in line with established broader defence thinking of the time.⁶⁷ Accordingly, as the rising paradigm more closely reflected the debates in scholarly literature and defence policy in established democracies, it was bound to be more explanatory and open-ended than its predecessor. Furthermore, it also became suited to the democratic imperative deliberately injected into the South African defence debate and societal changes at that time, which became inevitable features of the South African strategic landscape. This closer interface obviously appealed to the democratic line preferred by political decision-makers and entrenched in the South African Constitution. Therefore, by cloaking the regulating policy environment and roles of the defence force in a democratic cloak, it eased political apprehensions.

As opposed to the more military styled outlook of the pre-1994 era, the post-1994 defence outlook and its directing paradigm constituted a framework to address and explain much more than mere military matters. The preferred new paradigm and its underpinnings of an extended view of security, allowed for a more coherent coverage of defence related matters. As opposed to the pre-1994 White Papers that primarily addressed military defence and related industries, the post-1994 version extended its ambit to include eight topics which encompassed transformation, civil-military relations, the strategic environment, roles and functions, human resources, budgetary considerations, arms control and the defence industry, land and environmental issues.⁶⁸

In addition to more traditional matters of defence, the rival defence paradigm also included domains above and below the state. Inter-departmental and sub-regional defence co-operation and its extension to regional and international levels became focal points of the extended paradigm that set it further apart from its predecessor. Inter-departmental co-operation for example, had a specific focus upon socio-economic upliftment.⁶⁹ Sub-regional defence co-operation had both defence as well as socio-economic goals whilst the regional and international aspirations (in line with international trends) reflected notions to address conflict in a preventative and co-operative way, rather than meeting it with interventionist and coercive means. In contrast to the prior paradigm and its coercive focus, the post 1994-paradigm and its entrenchment in human security, democratic principles and non-

isolation allowed for a more extended defence domain to be explained and entered. The emergent South African defence paradigm therefore not only addressed domestic matters, but also linked South African defence policy to international shifts of a military and non-military kind and so became more explanatory and accommodating than its predecessor.⁷⁰

3.6 Difficulties upon the pathway of maturation

The normative function of a new paradigm is to provide both a map as well as direction to the future as is acknowledged by Kuhn.⁷¹ In the South African case the acceptance of a normative framework of defence was linked to the notion of Defence in a Democracy. This notion, in turn, became institutionalised *via* the Defence White Paper that set in place a framework for considering the future direction of defence matters and to map out the role of the SANDF. From these foundations, the ongoing maturation of the rival paradigm had to be secured. During this maturation process smaller and more evolutionary shifts and adjustments as ascribed to Kuhn's theory by Cohen, transpired to fill the voids effected by the initial major competition and jostling between the supporters of the opposing paradigms.⁷² This maturation is addressed more comprehensively in the following section.

4. Promoting the maturation of an emerging paradigm shift

The theory on paradigm shifts posits that although open ended in kind, a new paradigm does not enter with a maturity that immediately supersedes all aspects of its predecessor. It requires time to establish itself and become the dominant driver and explanatory standard for resultant changes and events. Given that indicators of the rise of a rival paradigm were illustrated in the preceding section, it is subsequently also essential to trace indicators of the maturation process of this process.

Pertaining to the SANDF in particular, it is possible to identify and discuss four key indicators that functioned as mediating factors for the preferred new defence paradigm to find a more secure footing. These indicators can be labelled as: the discourse on the primary role of the SANDF, efforts to reinforce policy with an appropriate military strategy and the process to move the SANDF towards new roles and in particular that of a regional role player amidst the call for a defence review towards the end of 2004.

4.1 Debating the primary role of the SANDF

The post-1994 roles of the SANDF became established within the triad of strategic objectives providing defence against aggression, promoting security, and supporting the people of South Africa.⁷³ These objectives were developed, refined,

and captured in the SANDF Military Strategy. At the pinnacle of this triad, defence against aggression remained the primary focus. From its inception, this focus did not enjoy universal acceptance as it was thought to reflect previous cultural and ideological preferences.⁷⁴ Such criticism reflects that the decision to afford the primary role such centrality was not accepted by all parties - including certain adherents of the new paradigm. This lack of consensus and siding with past preferences inevitably raised the need to reconsider the primacy of this role at some future point in time.⁷⁵ Perpetuating older thought and preferences as an obstacle to the new paradigm was also criticised by Vale and pointed out as a lost opportunity and lack of imagination for introducing dramatic change to the defence debate.⁷⁶ Vale contends that the new incumbents merely continued the security perceptions of their predecessors and remained influenced by and even perpetuated significant elements of the "ousted" paradigm.⁷⁷

A second view on the need to review the primacy of the primary role became visible in the Defence Budget Speech of 2004 when the Defence Minister, Mosiuoa Lekota, acknowledged that the outlook of 1994 did not accurately foresee the prominence of one of the secondary roles envisaged for the SANDF, namely promoting peace in Africa.⁷⁸ Certain matters need to be revisited and he pointed out the salience of promoting peace in Africa. Although not indicative of revoking the primary role, it is possible to argue that peacekeeping, as a secondary role of the SANDF, is to assume a much more prominent and even primary profile in the near future. This lingering stand-off is essentially also part of the maturation of the new defence paradigm and its slant towards promoting peace and security, rather than warfighting. No true solution for this reality is apparent and, according to Kuhn's theory, one could aver that it is to "remain a problem in the field."⁷⁹

4.2 Reinforcing policy with an appropriate strategy

Although the White Paper on Defence (1996) and the Defence Review (1998) represent much groundwork for forging a new paradigm, a supporting military strategy for the SANDF only came into effect by 2001. The military strategy had to relate new policy realms to roles and missions for the SANDF and adjust them amidst the drastic changes it represented.⁸⁰ The identified spectrum of missions for the 2001 Military Strategy is characterised by extremities in the sense that all three ends, (defence against aggression, promoting security and supporting the people of South Africa), feature alongside one another.⁸¹ The strategy clarifies how the roles of the SANDF (as defined in the Defence White Paper) are to be executed and continuously prioritises them as to the perceived strategic environment. It furthermore also provides a window on a preceding time frame of six years and repeated efforts to interface the crucial policy-strategy continuum by

accommodating or acknowledging deep policy changes.⁸² By completing this relationship, the Military Strategy of 2001 refines and further entrenches the initial indicators of a paradigm shift.

The SANDF Military Strategy also serves to address the normative broadness and even vagueness of the policy environment. Although the void of policies being vague and broad was acknowledged during the 2004 Defence Budget Vote, the introduction of the triad of strategic ends, ways and means closed much of the conceptual gap that plagued the execution of the newly introduced policy. Despite it only coming to fruition five years down the line (1996-2001), the military strategic capabilities, military strategic concepts, and military strategic objectives were nonetheless introduced to serve the needs of policy.⁸³ Subsequently, the 2001 strategy closed down the initial distance between the rise of a new, but immature defence paradigm, the resultant policy for its introduction and a strategy for execution. This strategy-policy link kept the SANDF in step with the requirements and expectations of its higher-order policy framework, its democratic imperative, and contributed to a more mature defence paradigm.

4.3 Assuming new roles to satisfy new policy outlooks

The introduction of a new defence paradigm raised a further difficult matter for the SANDF. It had to adjust some elements of its posture, strategic culture and also its roles in order to remain in equilibrium with new roles envisaged by policy-makers. This called for an extended outlook upon the diverse defence requirements that ultimately have to be executed by the SANDF. Le Roux⁸⁴ addressed this dilemma by pointing out that the SANDF needs to be structured and prepared in a way that provides for executing an ever-increasing spectrum of roles, but emphasised the fact that it cannot be designed for each of these roles. The need, therefore, is for the SANDF to be able to execute its most enduring role and, from this inherent capacity, also deal with the plethora of other roles ascribed to the SANDF since the 1994 transition. Inherently, the architects of the SANDF military strategy addressed this need. By reconciling the primary-secondary preferences and demands through regular prioritisation of roles and missions for the SANDF, they found a way to infuse order to the profusion of normative demands placed upon the SANDF.⁸⁵

Finding a pathway to introduce new defence thinking which promoted democratic principles and appropriate roles was also the topic of an address by the Chief of the SANDF, General Sipiwe Nyanda, during 2000 at the Annual General Meeting of the South African Institute of International Affairs. By acknowledging that the total strategy and its threat-based approach had been superseded, Nyanda remarked that new defence thinking could not readily indulge in images of solving

conflicts by military means. The difficulty of this matter finds expression in how to maintain a traditional military readiness as well as those capabilities that promote legitimacy of the SANDF in the eyes of South African society.⁸⁶ As a new defence outlook took effect, it did not automatically have the SANDF and its roles migrate in some synchronised fashion. Some disequilibrium thus remained between the preferred outlook and reality of using the SANDF to play its role. Hence, the call by Nyanda during 2000 for "much deeper thought and academic debate" to deal with new defence thinking. As for the emergent paradigm, this call points towards initial shifts that still had to be fleshed out in subsequent debates to establish proper pathways towards the future use of the SANDF.

The contours of using the SANDF as a policy instrument became more lucid in an article by Du Plessis⁸⁷ in which he defines priorities introduced by the military strategy on the missions of the SANDF, the use of its inherent capacity to perform a spectrum of roles, and that the resolution of conflict is not only vested in military means. Although the article upholds the traditional nexus of the military instrument as a foreign policy option, it also alludes to its adjustment to serve a changed defence outlook and in particular the regionalisation of South African foreign interests.⁸⁸ In essence, the recent (post-1994) use of the military instrument by South Africa assumed a profile that reflects diversity and the near absence of its use up to 1998. Its initial absence, but especially its recent saliency could, however, also be interpreted as incremental steps to systematically, if not cautiously, assume new roles to satisfy emergent policy outlooks.⁸⁹ In order to maintain consistency, fitting the use of the SANDF to the emergent defence paradigm tends to portray a gradual curve stretching from its non-use towards its restrained use and, as can be assumed from the 2004 Defence Budget Vote, eventually an indelible footprint beyond the national borders. In retrospect, this cautious use, as argued by Du Plessis, is also indicative of testing or experimenting over time and the maturation of the upcoming defence paradigm.

4.4 A 2004 review of defence matters

During the 2004 Defence Budget Vote explicit reference was made to a second defence review or at the minimum - a review of both the Defence White Paper of 1996 and Defence Review of 1998 by the end of 2004. The Minister stated that "[w]e aim to complete the review of the White Paper on Defence and the Defence Review by the end of this year. This is a crucial exercise and will drive the last phase of the transformation of the Department of Defence."⁹⁰ This statement points towards some lingering disequilibrium between what the initial Defence White Paper and Defence Review set out to promote and achieve, and the extent to which it materialised during the intervening years. In particular, the escalation of

SANDF involvement in an array of peace missions and the demands it placed upon the SANDF, were apparently incorrectly judged and inadequately provided for.⁹¹

Verbal and written commitments to a regional role for the SANDF and the practicalities of assuming such a role amidst that of maintaining the primary role of defence against aggression, most probably need a finer balance or reprioritisation as originally perceived and opposed by Williams.⁹² Williams maintains an extremely critical stance on the continued primacy of the primary role over that of the secondary domain. However, as acknowledged by the Minister of Defence, maintaining the paradigm introduced with the advent of the 1996 White Paper to shift defence thinking away from the warfighting role to that of preventing war and promoting peace, did not foresee the longer term.⁹³ This acknowledgement and the proposed measures to address the perceived caveats and shortcomings also indicate later or ongoing incremental adjustments to ideas of a newly introduced defence paradigm. The implied adjustments are directed at the following entities and functions.⁹⁴

- Enhancing the capacity of the Defence Secretariat to better compliment the SANDF.⁹⁵
- Refining defence procurement to prevent overlap between procurement and the manufacturing sector.
- Refining South Africa's role and contribution in peacekeeping by also drawing upon the cumulative experiences gained during the recent past and to enter the realm of sustainable peacekeeping.
- Reviewing the responsibilities placed upon South African defence architecture by the African Union (AU) and its sub-structures.
- Tackling the difficult dilemma of intervention when human life is threatened and the matters obstructing this responsibility.
- The need to solidify and assist a newly introduced paradigm to full maturation is proposed by the theory on paradigm shifts. This process can also be identified in the South African case as the passage of time and various events tested elements of the new defence paradigm and affirmed, rather than dislodged, it. However, as Kuhn argues that maturity is characterised by repetitive shifts,⁹⁶ a further challenge is the possibility of a subsequent paradigm shift. This is very briefly explored in the following section.

5. Moving towards the future: From here to where?

Post-1994 South African defence policy and the armed forces, in the view of one of its the primary architects, has undergone a fundamental transformation and even a paradigm shift in relation to the *apartheid* era defence policy and its implementation strategy.⁹⁷ This fundamental shift, according to Nathan (2004), was followed by a period of consolidation and the entrenchment of wide-ranging changes introduced to the South African defence domain.

It is, however, the responsibility of policy-makers to scan the future and think ahead. Societies continue to progress and for defence institutions to remain relevant to what society expects of them, they have to keep in step. In the case of the SANDF, as the primary instrument of defence policy, the euphoria of the 1994 transition that included major shifts in its defence and military sectors, should not be viewed as a future cure-all. Forward-looking decision-makers, analysts, and theorists need to consider evolutionary and even revolutionary adjustments to the defence paradigm now generally known as Defence in a Democracy.

5.1 An evolutionary adjustment to the defence paradigm: Interfacing with the African co-operative security paradigm

The notion of multilateralism (the practice of co-ordinating national policies in groups of three or more states) is a prominent aspiration amongst states of the current international order.⁹⁸ In this regard, the African co-operative agenda flows along political imperatives towards an eventual outcome of higher-end regional integration and achieving a security community at some future point in time. Embracing this preference, South Africa opted (and recently even more so) to channel much of its defence efforts towards this African realm. South Africa now closely associates itself with the ideals of the AU and that of promoting peace and security in a multilateral and co-operative way as, for instance, argued by McGwire. This declared migration process towards different levels of integration implies that defence institutions have to co-migrate in support of it. The nexus between political and defence migration to sustain political and economic integration is acknowledged in the African sphere and the defence connection is seen to be promoted and eventually executed through the Peace and Security Council (PSC) and a Common African Defence and Security Policy (CADSP).⁹⁹

The acknowledgement that national defence matters need a review in order to align them with extended African involvement and ideals of the AU, is not only indicative of South Africa's commitment. This statement also points towards continuous defence adjustments to realign the military policy instrument more appropriately.¹⁰⁰ Of particular relevance are references in the Minister of Defence's

speech on the 2004/2005 Defence Budget Vote to Africa and that a defence force engaged in peacekeeping operations operates entirely differently from a defence force at war. His deliberate emphasis on integrating the defence function and its domain with sub-regional and regional structures should not be ignored. It reveals a clear intent regarding the focus of the upcoming defence review and of aligning defence and, particularly the SANDF, with national priorities towards the African region.

During the *State of the Nation Address* of 21 May 2004 by the South African President, Thabo Mbeki, the African agenda also received prominence with a special emphasis on the PSC of the AU. If read together with the 2004 Defence Budget Vote, this coincidental emphasis on establishing African security mechanisms serves as an indicator of its saliency - considering that the *State of the Nation Address* otherwise overwhelmingly focussed upon domestic socio-economic matters. From a defence point of view, the relevance of this is contained in the statement that "South Africans must change their isolationist mindset and support the creation of stability in the region".¹⁰¹ In this regard, both the President, and the Minister of Defence, clearly indicated the importance of taking defence to the African realm from 2004 onwards. This is bound to constitute a primary field of defence activity in the near future. Although it is possible to extensively speculate about what these activities could entail, it is more functional to limit the discussion to particular indicators of what is envisaged.

Although the 1963 establishment of the OAU included a proposal to search for continental frameworks to promote peace and security on the African continent, 2004 is perhaps the year where the most progress was forthcoming. Having been introduced during the 2002 establishment of the AU, the PSC was formally constituted during May 2004. South African political commitment and support to the PSC makes it a future domain to which South African defence thinking now has to be adjusted. This adjustment is bound to terminate the recent somewhat *ad hoc* defence involvement in the region in favour of a formally structured responsibility. The latter is to have the SANDF tailored towards an array of missions on the African continent, but within the ambit of the PSC and its main military structure, the African Standby Force (ASF).¹⁰²

Establishing multidisciplinary standby contingents with civilian and military components located within the country and fully ready for rapid deployment to perform the following functions by 2010:

- Observation and monitoring

- Peace support missions, intervention in member states on request of the member state, or when grave circumstances require
- Preventative deployment
- Peace building and post-conflict involvement
- Humanitarian assistance

The costs, logistics, personnel and finances involved in establishing a dependable ASF are also bound to place several demands upon the South African defence community and the SANDF in particular given the scope of African conflicts to be addressed. This responsibility requires a capacity to contend with the following:

- Extensive budgetary contributions to the AU Peace Fund amidst the lack of assurances that both member states as well as other partners are to sustain their contributions.¹⁰³
- Troop and observer contributions to the ASF in the face of an ever-expanding range of conflicts on the African continent.¹⁰⁴
- Partaking in establishing a regional brigade and sustaining such a brigade to be operational through subsequent involvement in self-sustainability for 30 days, logistical infrastructure, and on-call donor-owned equipment.¹⁰⁵

Although current South African defence policy alludes to the African agenda to promote security, recent national policy statements have placed high on the list of policy imperatives to which South African defence policy and the SANDF must adapt. Executing this policy-imperative is now bound to draw increased attention, resources, and time commitments in order to establish it as policy outputs and strategic priorities. This declared intent is to challenge the current South African defence paradigm to rise to the challenge and serve to align policy, strategy and its primary instrument, the SANDF, more closely to this envisaged realm of co-operative African military futures for 2010 and beyond.

5.2 A possible revolutionary adjustment to the defence paradigm: Highly integrated and stateless defence futures

The previous discussion still alludes to possible incremental adjustments to a defence paradigm that assumed ascendancy and portrays ongoing adjustments to entrench its normative outlooks or explanations of the South African defence realm. This also depicts ongoing small revolutions as projected by Kuhn to drive the normal curve of progress in a field.¹⁰⁶ Moving further forward entails stepping into the future and the realm of a successive paradigm. In this mode, future South

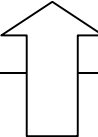
African defence outlooks could either be posited along a linear extension of the *status quo*, or be viewed in a non-linear way where the *status quo* once again crumbles and its defence paradigm becomes challenged.

Firstly, a more linear outlook towards longer term futures is bound to follow the alternative of a defence realm where defence matters become so integrated for the sake of interoperability that it flows across national borders in the pursuit of security. This integration far exceeds the co-operative notion alluded to in the previous section. Secondly, the non-linear alternative fundamentally questions the presence of defence amidst the state and its interests withering away and leaving defence forces devoid of their primary and even their secondary roles.

Moving towards a future of highly integrated military forces is perhaps not as far-fetched as images of this were alluded to during the 2003 South African Defence Budget vote.¹⁰⁷ In this regard, Gagiano¹⁰⁸ furthermore avers that establishing military capabilities along collective security and towards future interoperable and interdependent lines might well require a different security paradigm for he distinguishes between a paradigm to foster warfighting capabilities, and one for collective security. The latter calls for defence forces to operate in a combined manner, with reciprocal trust and confidence along lines promoting interoperability of equipment, human resources and doctrine. This requires quality decisions in the present to establish parameters for future defence and later adjustments to unfolding futures.¹⁰⁹ In this regard, extended time frames are projected for the integration of defence forces towards advanced interoperability between African defence forces as a future-operating domain of the SANDF.

The extended outlook by Gagiano calls for establishing tenets and a framework in order to have interoperable African defence forces at some future point in time to eradicate most forms of warfare. Considering the AU's current determination with erasing the scourge of war, the image being promoted is one of a warless future that in itself challenges current defence outlooks and its preference for some form of warfighting or role for defence forces. This represents a greatly altered, but not isolated paradigm for armed forces. According to Moskos, armed forces have to be adjusted to function even within futures not calling for traditional military roles and even within warless futures.¹¹⁰ The migration towards desired futures devoid of war supposes a certain politico-military migration that unfolds progressively, but in a synchronised manner to lower enmity and accentuate amity. An image of this politico-military co-migration and foreseen outcome is illustrated in Table 1.

Table 1: A Possible Pathway towards Political and Military Integration.

Probability of war	Pathway for political integration (Regional integration towards regional security)	Pathway for military integration (Military integration towards interoperable defence forces)
War between member states improbable	Security community	Interdependent defence institutions
	Security regimes	Complementary defence institutions
	Regional conflict	Jointness and co-operation amongst defence institutions
	Chaos and national interests	National security and warfighting
War between member states probable		

(Source: Own compilation from Buzan, 1994 and Gagliano, 2002)

The above adjustment to the South African defence paradigm is perhaps still in line with the outlook held by the 1994 ascendancy of Defence in a Democracy and the central role it afforded the state. It furthermore still follows a line characterised by eclipsing state security with human security and then introducing regional security as a further level of security to be pursued, but one calling for dramatic adjustments to the role of defence forces. Irrespective how it is viewed, the state remains the central organising concept and custodian of military power and security provision. Should the state, however, be denied this prominence, a severe challenge to the existing defence paradigm is bound to arise. This continued prominence of the state and its possible demise is central to the rise of a crisis and the need for a further paradigm shift in how defence policy is to direct the SANDF.

Although Vale admits that continuity of the old (security and the state as a central tenet) remains influential to satisfy the need for security assurances, an alternative and much more critical view needs to be acknowledged.¹¹¹ The

assumption that the quest for security can be pursued without the state playing its central role is bound to create a dilemma for defence forces. Defence without the state and its primary policy instrument for coercion is to be questioned if secondary agents of security begin to eclipse the state as the provider of security.¹¹²

Looking towards the future, Vale posits that, if left to its natural dynamics, Southern Africa is bound to emerge as a stateless entity where imposed borders are destined to become meaningless.¹¹³ Issues of food, water, land and human security, not the state and coercive military power, now become the markers and providers of security for all.¹¹⁴ The degree to which the state persistently fails to deliver security (as it did according to Vale), another avenue of approaching security should be considered.¹¹⁵ States, political power, superiority, violent conquest and a role for defence forces as a means to provide security, therefore stand to be altered.¹¹⁶ Family clan, tribe, business, trading, and religion are new forms for conducting societal affairs and are currently already accommodated within the state system of the Southern African region. If issues of land, water, food and human security arise as the true focus and explanatory constructs of a security paradigm forged through family, clan, tribe, business, trading and religious interests, what paradigm for defence and the SANDF is then to accompany this radical and non-linear future?

6. Conclusion

The question pursued in this paper was whether the transformation of the South African defence paradigm in 1994 debunked the Total Strategy of the SADF and in so doing paved the way for the SANDF and whether or not this could be explained by elements of the theory on scientific revolutions. This question was pursued by making use of the following logic contained in the theory:

- First, scientific revolutions hold that paradigm shifts arise when an established paradigm begins to falter in its ability to explain phenomena and developments within its assumed field of reference.
- Secondly, this explanatory void causes an ensuing crisis that creates leeway for a competing paradigm to arise.
- Third, adherents of the new normally introduce an alternative paradigm containing more explanatory value than its predecessor for the changing conditions.
- Lastly, the contending paradigm subsequently competes with and ousts, or co-exists, with the older paradigm. This process can assume evolutionary or

revolutionary parameters, but irrespective of this, a paradigm shift needs time and recurrent adjustments to establish itself and mature.

When applied to the rise of the SANDF and its guiding policies, it was established that the perspectives directing the SADF became questionable when they could no longer relate to and manage the demands of the fast-changing strategic environment and expanded defence outlooks required at that time. The crisis arising from this inability and in particular to explain and accommodate post-Cold War shifts and changes in South African society, resulted in an empty space in South African defence thinking. As a result, a crisis ensued and, as a prerequisite for the rise of rival paradigm, the crisis hastened the demise of the SADF and the migration to the SANDF. An opposing paradigm founded upon Defence in a Democracy was introduced and its adherents managed to muster significant political support to have the opposing paradigm successfully compete with its predecessor.

The theory on scientific revolutions, however, holds that the introduction of a new paradigm is only the first step in a process. The rival paradigm needs to mature over a period of time. In this regard the 1998 Defence Review, the 2001 Military Strategy, a debate on the roles of the SANDF according to the new paradigm, and even a second review of defence matters destined for the end of 2004, allowed the rival paradigm some time to mature, to absorb and respond to challenges. Further minor adjustments such as shifting the paradigm and the SANDF closer to the African agenda of national government also materialised whilst little, if any opposition, from adherents to the earlier paradigm obstructed the rise of the new. Along this pathway the new defence paradigm became more entrenched and some equilibrium between it, national demands and external developments began to show. The paradigm shift, however, is more observable in how one policy framework competed with an outdated one and to a lesser extent in the roles and missions of the SANDF. As for the latter, roles and missions of the South African armed forces were augmented and reprioritised to suit the new policy paradigm, rather than fundamentally altered.

Although dramatic paradigm shifts are rare, it does not imply they are improbable or always large and revolutionary. Therefore, two further possibilities for shifting and even resetting the South African defence paradigm were briefly noted. First, the possibility of extensive regional political integration calling for highly integrated and interoperable defence forces. Second, and beyond the comfort of the state-paradigm, the challenge arising from a demise of the centrality of the state-security-defence triad and its replacement by communal entities below the state. Both these alternatives are destined to challenge the current defence paradigm directing South African defence matters and the role of the SANDF – the former

much earlier than the latter. It is furthermore possible that they could even obstruct its future maturation over time.

Some correlation exists between the theory on paradigm shifts and the unfolding of events that effected the migration from the Total Onslaught/Total Strategy defence paradigm of the SADF to that of Defence in a Democracy and the SANDF. Not only can an initial dramatic and normative shift be observed and outlined, but also on-going smaller adjustments as embodied in the theory of Kuhn. It can be concluded that indicators identified in this paper on scientific revolutions contain a notable explanatory value towards understanding defence adjustments and the eventual establishment of the SANDF, as well as for explaining ongoing shifts in the South African military domain.

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