CONSIDERING THE 'OTHER' IN WILDLIFE CRIME MITIGATION: A SOUTH AFRICAN STRATEGY CASE STUDY

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ABSTRACT

Actors' worldviews are critical when developing strategies; not every actor holds the same problem perception and solution. This is the case with wildlife trafficking. Not only does the state have an interest in safeguarding South Africa's wildlife, but other non-state actors, such as conservation interest groups, are also participants. These are some of the 'visible' actors with 'power'. There also exists 'invisible' actors seemingly without 'power', such as the local communities living around conservation areas, and the wildlife itself. Poachers and crime syndicates, on the other hand, poach wildlife, such as rhino, and are 'drivers' of wildlife trafficking and trade. In this article, a methodology towards a deeper understanding of actors' causal mechanism perspectives is presented. This methodology highlights the interplay between agential, ideational, material, and structural causal mechanisms and their operationalisation. Linear cause and effect relations are not the only causal types. An alternative approach, that can assist researchers and policy makers, as well as practitioners, to develop more nuanced strategies than those derived from linear causality, is advocated. The case study used in the research was the National Integrated Strategy to Combat Wildlife Trafficking. The authors' intention is to show that the 'othered' influences the perspectives of the powerful and that the 'othered' is an important component to consider when developing policies and strategies.

Keywords: *Wildlife trafficking; 'other' / 'others' / 'othered'; strategy; causal mechanism; rhino poaching; National Integrated Strategy to Combat Wildlife Trafficking.*

INTRODUCTION

In this article an advancement of suitable methods for developing strategies to counter wildlife trafficking by researchers and government officials is put forward. It is here argued that other actors' perspectives need consideration to enable a deeper understanding of wildlife trafficking's processes and contexts leading to more suitable outcomes for all actors (Inayatullah, 2008: 12-15) including but not limited to eco-tourism and the hospitality industry within the context of the rural eeconomy (Minnaar & Herbig, 2018: 147). According to the United Nations Office on Drugs and Crime (UNODC):

> "…wildlife trafficking involves the illegal trade, smuggling, poaching, capture, or collection of endangered species, protected wildlife (including animals and plants that are subject to harvest quotas and regulated permits), derivatives, or products thereof" (United Nations Office on Drugs and Crime (UNODC), 2021: np).

The method outlined in this study is not a new way of investigating societal problems, such as wildlife trafficking, but it is still important to consider alternative perspectives, other than a positivistic approach, since a small number of actors by themselves cannot solve complex problems. Wildlife trafficking, for example, has a cascading effect on other elements of the South African rural economy, such as the feasibility of wildlife ranching and environmental sustainability (Minnaar & Herbig, 2018: 147).

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Considering alternate viewpoints, research by Meissner (2014: 198-217; 2016: 1-10; 2017: 1-251; & 2021: 1-288) indicates that the dominant positivist way of generating knowledge through traditional scientific methods (e.g., statistics and linear causality) is not the only legitimate way of knowing (George & Bennett, 2004: 4; Bennett & Elman, 2006: 255 & 263). Different actors hold diverse perspectives on causation that they develop from various worldviews (paradigms) that helps to organise, guide, and bind their practices. In this sense, worldviews are sets of understandings of the nature of reality, the relationship between the actor and reality, and how to practice certain activities (Schultz & Hatch, 1996: 541; Sil & Katzenstein, 2010: 8). Worldviews influence the policy community in how wildlife trafficking is addressed (Duncker & Gonçalves, 2017: 216). When developing strategies to confront harms, actors' perspectives and worldviews are critical. In this article, reference is also made to a 'mindset', which is defined as: "…a set of attitudes or fixed ideas that somebody has and that are often difficult to change" (Wehmeier & Hornby, 2000: 643). A mindset is a narrower conceptualisation than a worldview, where a mindset is linked to an issue and a worldview a specific set of understandings linked to an issue.

Wildlife trafficking is currently a topical issue in South Africa, especially when considering its link with the poaching of large animals, such as rhinoceros and elephants. Rhino poaching in South Africa attracted the attention of authorities in around 2008 with the annual rhino mortalities peaking in 2014 at 1 215 (Emslie, Milliken, Talukdar, Ellis, Adcock & Knight, 2016: 2), and, while since declining the numbers of rhino killedin South Africa remained above the 1 000 fatalities for the years 2015-2017 (Minnaar & Herbig, 2018: 150). According to Herbig and Minnaar (2019: 67): "For two decades, rhino poaching has made headline news as the South African and global public increasingly endeared themselves to this species, in part due to their precarious status and conservation plight", with rhino poaching levels reaching: "…pandemic levels", while elephant poaching have seen a steady increase in recent years (Herbig & Minnaar, 2019: 70). In this article the focus will be specifically on rhino poaching, with a passing reference to elephant poaching, to illustrate certain aspects of the thinking on anti-poaching policy.

The South African national strategic response to rhino poaching has several interventions, namely: law enforcement; community intervention; biological management; responsive legislative provisions; and demand management (Department of Forestry, Fisheries & the Environment. 2016(a): np; 2016(b): np). The South African government has made efforts to include a variety of stakeholders in policy development. One example is the Department of Environmental Affairs' Rhino Lab held from 14-26 August 2016, where the objective was to develop detailed implementation plans based on the Committee of Inquiry recommendations for each of the interventions. But some actors, such as communities around the Kruger National Park, are difficult to represent in such forums. Their socio-political and historical context and continued marginalisation (Hübschle, 2017: 432) means that they are 'othered'. In the context of moving to whole-of-government and whole-of-society approaches that incorporate alternative perspectives and worldviews required for complex issues, such as wildlife trafficking, is important (Gonçalves, 2017: 9-18).

To indicate this significance, as an example from the 'others'' perspective, the *National Integrated Strategy to Combat Wildlife Trafficking* (NISCWT), which is part of law enforcement intervention, was analysed. On the one hand, it can be argued that since the NISCWT is part of the law enforcement strategy, it does not need to be concerned with all the actors that might be more relevant to other interventions. On the other hand, how other actors, for example: communities, are treated by law enforcement is important so that the law enforcement intervention does not adversely impact other interventions. For instance, if law enforcement agencies view communities as harbouring poachers, they might adopt forceful

means, inadvertently marginalising such communities further and lose their support in anti-wildlife trafficking efforts.

In this article, the research methodology used to identify different causal mechanisms held by invisible 'others' linked to wildlife trafficking and the problem's amelioration, were presented. The article was structured as follows. In the first section, why the methodology is an important variable to consider when investigating societal problems was investigated. In this section, the concept of an actor was elaborated, since this definition plays a central role in the identification of causal mechanisms. Following this, the conceptualisations of causal mechanisms was presented, after which the agential, ideational, material, and structural (AIMS) methodology is described. This is followed by reporting on the analysis conducted of the *National Integrated Strategy to Combat Wildlife Trafficking* (NISCWT). The primary argument throughout is that society can react to the problem in a way that could limit understanding based on implicit, limited worldviews of wildlife trafficking.

ISSUES WITH POLICY DEVELOPMENT IN WILDLIFE TRAFFICKING

Methodology's importance

There is a temptation to dismiss methodology in the face of complexity and to be "practical" resulting in "muddling through" (Lindblom, 1979: 517). For Lindblom, methodology supplies direction beacons to finding one's way through a policy landscape and legitimacy of the results and those producing the results (Lindblom, 1979: 517-526). A methodology helps us to move towards policy practicalities. Without a methodology one would not only be lost, but also wasteful, since one would not understand where, when, and how to spend resources to solve problems or create opportunities. What is currently missing in efforts to address problems can become clearer through newly developed or refined methodologies (Tranfield, Denyer & Smart, 2003: 207; George & Bennett, 2004: xi; Bennett & Elman, 2006: 250). This research extends the analytical framework to analyse researchers' and policy developers' research worldviews and perspectives in the maritime and water sectors developed by the lead author to include the other (Meissner, 2014: 198-217; 2016: 1-10; 2017: 1-251).

Causal mechanisms

Causal mechanisms are at the heart towards a deeper understanding of causality (Lindquist & Wellstead, 2019: 16) in the complexities of the policy process. At first glance, the concept 'causal mechanism' appears straightforward in its meaning. According to Koslowski, Okagaki, Lorenz and Umbach (1989: 1317): "…[a] causal mechanism provides an explanatory account of observed results by describing the mediating process by which the target factor could have produced the effect." It is possible to gain a deeper grasp of the inner workings of complex programmes by focusing on causal mechanisms. An increase in the causal capacity of evaluations, or the ability of evaluators to make more believable statements about causal relationships between the contribution of an intervention and its observable consequences, is also in the works (Schmitt, 2020: 12). Causal mechanisms are not direct and linear causes between two or more events and are more a description of results when variables interact with one another than the causation itself. For Rueschemeyer (2009: 21), a causal mechanism is: "…a condition, relation, or process that brings about certain events and states." Considering these conceptualisations, causal mechanisms constitute both processes of causation and 'things' that constitute change. Causal mechanisms, therefore, are cognitions containing actions or practices to control the natural environment and human beings. Mechanisms are the cause-and-effect links between policymakers' attention to policy problems and their receptivity to policy solutions from the standpoint of policy formulation and execution. Identifying causal mechanisms can help explain why some decisions work out and others do not. Said differently,

we want to know 'what works' when actors employ evidence in the policy process and pursue policy results that are consistent with that evidence (Lindquist & Wellstead, 2019: 17).

Causation acts can be viewed from different research worldviews that are influenced by the insights gained from the natural and social science and the philosophy of science (Lindquist & Wellstead, 2019: 17). Two views are briefly described. The first understanding is the Humean perspective, based on the philosophical ideas of David Hume; and the second the Aristotelian vision (e.g., Kurki, 2008: 6). Both understandings have implications for policy development and implementation.

The Humean understanding of "cause or causal analysis implies determinism, laws and objectivism". This view rests on four principles. The first is that: "…causal relations are tied to regular patterns of occurrences and causal analysis to the study of patterns of regularities in the world around us" (Kurki, 2008: 6). Secondly, observable patterns play an important role since causal relations are relations of regular configurations. Thirdly, "…causal relations are *regularity-deterministic*" since it is assumed that if certain observable regularities take place and a type of event happens, then another event type "can be assumed to follow (at least probabilistically)". Lastly, "it has also been assumed that causes refer to "moving" causes, that is, they are *efficient causes* that 'push and pull'" (original emphasis) (Kurki, 2008: 6).

Aristotle, on the other hand, described four causal types: material; formal; efficient; and final causes. By viewing cause in this way helps us to move away from the mechanistic push and pull conceptualisation of cause in modern social sciences. Many different things can be causes but not in the same way. One needs to understand: "…efficient causes ('movers')…, material causes (the passive potentiality of matter), formal causes (defining shapes or relations) and final causes (purposes that guide change)" (Kurki, 2008: 12). These causes are interdependent, and practitioners need to consider the four types and their complex interaction. That said, it does not mean that there exists a binary conceptualisation of cause. With the Aristotelian notion of a cause, one is able to broaden the notion of cause in policy development (Kurki, 2008: 12). This non-binary logic implies that one can still rely on:

> "…the notion of 'active' causes (efficient causes) while conceptualising these causes in relation to final causes and, critically, within a 'constitutive', or causally conditioning, environment understood through material and formal causes" (Kurki, 2008: 12).

The Aristotelian view is therefore more interpretivist than is the positivist Humean understanding, since formal causes helps "…us to understand the causal role of ideas, rules, norms and discourses" (Kurki, 2008: 12). In this article the argument is put forward that part of the wildlife trafficking problem is not so much the understanding of the problem, but how researchers and policy makers view causes. It further argues that researchers and policy makers in addressing wildlife trafficking see it more in the Humean way rather than through Aristotle's view. Accordingly, the objective view of cause and effect (active causation) is preferred by the authors over the more subjective and interpretivist understanding contained in ideas, rules, norms, and discourses.

Four causal mechanism types are used in the methodology, namely: agential; ideational; material; and structural (Sil & Katzenstein, 2010: 6). In the application of this categorisation, it is assumed that there is an equal weighting of agential, ideational, material, and structural (AIMS) causes. When talking about agential causal mechanisms, it is meant the causes brought on by actors' actions (Sil & Katzenstein, 2010: 6), such as: poaching; killing; harvesting; collecting; smuggling; trafficking; protecting; conserving; and law enforcement. Ideational causes include: ideas; principles; perspectives; anticipation; ideologies; traditions; worldviews; and values. Material causes include: money; technology; human resources; and

artificial intelligence. When talking about structural causes, it is meant: policies; international treaties; conventions; and the Rule of Law.

Actor behaviour

Actor behaviour, for the purposes of this article, is determined by: i) the actors' values (what they need) and perspectives based on these needs, which shape acquired knowledge (autonomy); and ii) other actors who impose, on the first actor, while living and governing in the world (heteronomy). Galtung (1985: 147), in his peace research, reminds us that essential needs include: survival; welfare; freedom; and identity. Actors value what they do not possess, starting with basic needs (Gonçalves, 2018: 1-18). John Demartini speaks of "voids" driving values. Sartre's concept of "lack" and Heidegger's concept of "*sorge*" [worries] express similar understandings (Kotze, 2009: 70).

In the context of this article, the concerns are not the validity or legitimacy of an actor's truth claims. Rather, the concern is with actors' needs, knowledge, meaning, values, and worldviews. When actors live out these values, they are acting autonomously (Gonçalves, 2018: 1-18). Once stakeholders understand this, then resources and agency levels to satisfy needs become clearer. One can assume that unsatisfied needs would result in some outlet that is consistent with actor values and worldviews. However, actors do not only live out their values. They also obey instructions from others (even in criminal organisations), they obey laws and are subject to various norms, although the level of compliance may vary. In this regard, they experience heteronomy (Gonçalves, 2018: 1-18). Thus, the dynamic interaction of actors living their values while simultaneously being imposed on by other actors living out their values, constitute their complex behaviour.

The sample

The analysis of the NISCWT in this article is for illustration. Yet, the sampling of actors for the general case needs to be addressed. The inquiry determines the sampling requirement. In this regard, actor sampling is not about statistical analyses, where the statistical significance of results and random sampling are considerations. In the realm of complexity, more data, and most certainly not more statistical data, does not reduce uncertainty (Cilliers, 2005: 606). If one accepts the 'other' as important in addressing wildlife trafficking, then actors participate and are included in analyses to understand their needs, values, and interests and hence the knowledge they possess. This, together with an actor's resources, determines their actions (Gonçalves, 2018: 1-18). Because of non-linearity's influence in and on complexity (Cilliers, 2002: ix), insignificant actors can have noteworthy effects and it, therefore, becomes important to explore the actor domain, from the invisible actor perspective. In the context of social problems, fringe actors (Hart & Sharma, 2004: 7-18), vulnerable communities or impenetrable social groupings (Atkinson & Flint, 2001: 1-4), all need to be considered. It is better to explore actors that may appear unimportant, and later remove them from consideration than to converge on actors with seemingly great significance too quickly and miss important 'other' actors. That said, in this research a single case study methodology was followed (Gerring, 2004: 342) by taking the NISCWT as the case, and the invisible 'others' and their perspectives as the properties of this single case.

The AIMS methodology

Enabling the causal typology to assist decision makers in reaching a deeper understanding of wildlife trafficking, a methodology was developed with which the AIMS mechanisms are identified and scored. Identifying certain causal mechanisms, and their predominance in strategies, highlights the discourse's framing and the potential to develop wildlife trafficking

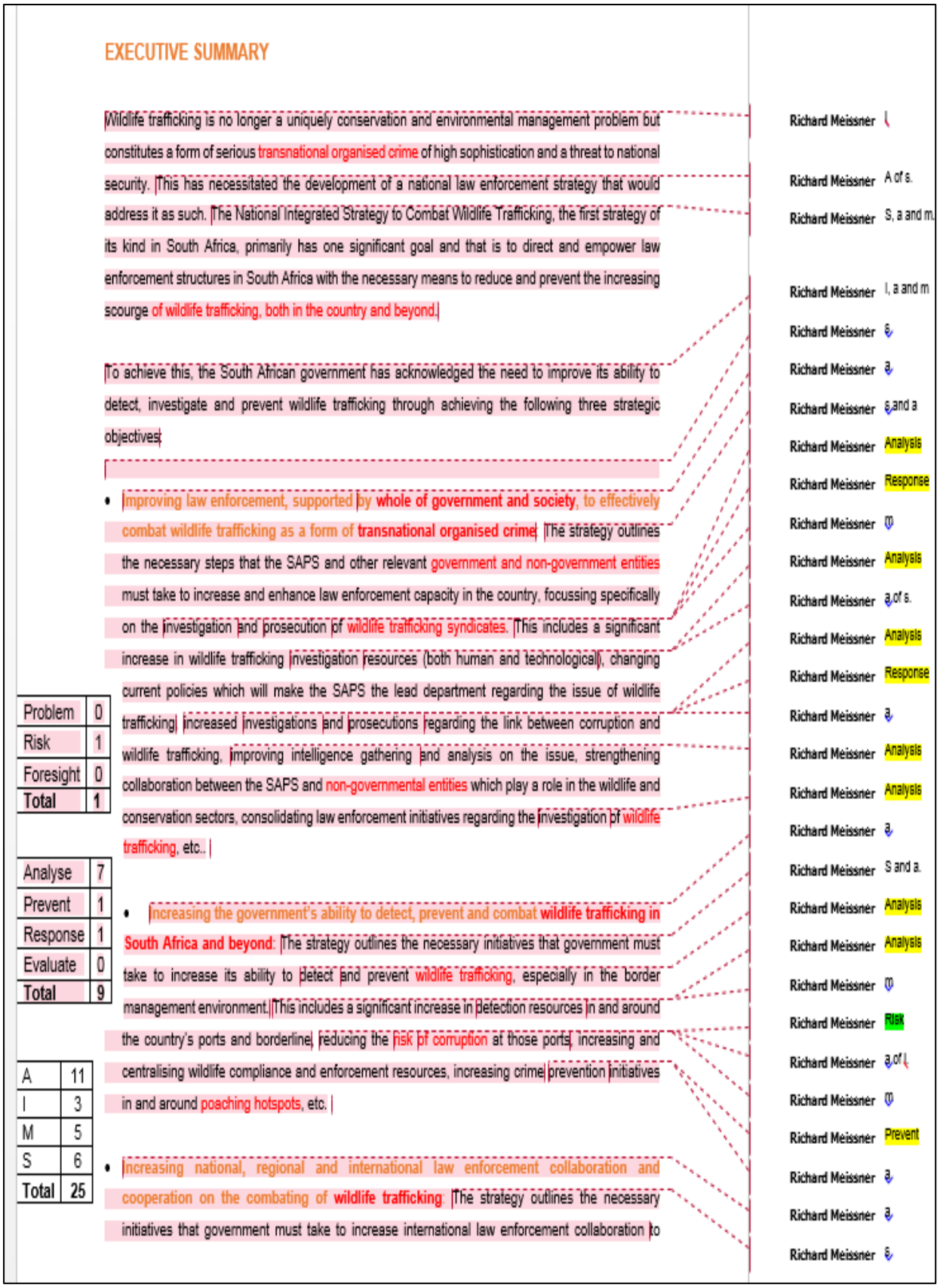
interventions. The methodology highlights different perspectives each actor mentions in reaction to wildlife trafficking and its amelioration. Using the causal mechanism definitions and typology, the NISCWT is investigated and analysed wherein invisible 'others' are mentioned by the strategists (Republic of South Africa (RSA), 2016: 4-61).

A simple scoring system to identify the AIMS causal mechanisms was devised. The Review Comments function in Microsoft Word assists in tagging particular causal mechanisms identified in the text (Figure 1). Following this, the causal mechanisms appearing on each page were counted and the score for causal mechanism types placed on every page (Figure 2). Then the score from each page was added in an Excel Spreadsheet to produce the radar diagrams in Figure 3 and Figure 4.

Figure 1: An example of a causal mechanism analysis

(Original text from Ramsay, 2014: np).

Figure 2: Causal mechanism scoring of part of the NISCWT's Executive Summary



(Original source: RSA, 2016: 13)

The 'other's'' causal mechanisms

The relationship between power, knowledge, and world views coupled with the inclusion and exclusion of actors are important. This links with Nietzsche's argument that perspectives are drivers compelling us towards ruling and the uptake or acceptance of our norms by others (Nietzsche, 1967: np). This form of influencing resembles the notion of "power through ideas", which is the "…capacity of actors to persuade other actors to accept and adopt their views of what to think and do using ideational elements" (Carstensen & Schmidt, 2016: 318). Since this article reports on the analysis of the NISCWT, it is worthwhile to note that language and society are mutually constitutive in that society shapes language and vice versa. Language is one of the mediums through which the 'power through ideas' is expressed and is the ambit of critical discourse analysis investigating ideology, identity, cultural differences, gender, and ethnicity (Van Dijk, 1993: 249-283). Language, and the analysis thereof, is linked with actors' needs, knowledge, meaning, values, and worldviews. Discourse plays a role in power dynamics and particularly dominance's production and reproduction. One dimension of power is that it encompasses individuals and groups' control over other individuals and groups. This control may involve action and cognition. This means that: "…a powerful group may limit the freedom of action of others, but also influence their minds" (Van Dijk, 1993: 249-283). Modern types of effective power incorporate persuasion and manipulation to change others' minds in one's own interests (Van Dijk, 1993: 249-283). Since an analysis of causal mechanisms exemplified by 'others' contained in the NISCWT was conducted, the actions, worldviews, and mindsets contained in the document are under scrutiny.

Linking control back to the notion of the actor, documents, such as the NISCWT, exclude 'others' and their views are not explicitly expressed in the strategy. These 'others' are the poachers; wildlife trafficking syndicates; buyers of illegally harvested wildlife; organised crime syndicates; the wildlife; local communities that could benefit from the conservation of wildlife or tourism, and non-government entities involved in law enforcement, border management, wildlife management and the conservation sector. The invisible 'other' also has needs that he, she or the group acts on through worldviews constituting actions. Without satisfying these needs, any policy strategy to curb wildlife trafficking could have limited effect. We, therefore, need to include the excluded 'other's' causal mechanisms. The problem is that the 'other's' worldview is invisible. How does one account for this? The discourse that the visible stakeholder produces gives us clues to what the 'other's'' causal mechanisms could be. These invisible causal mechanisms contain practicalities for decision makers since the 'others' are influencing issues through their own invisible causal mechanisms.

Take for instance the following statement from the NISCWT: "There is a need for the SAPS [South African Police Service] to increase its crime prevention operations in and around communities living adjacent to poaching hotspots as many of the poachers derive from those areas" (RSA, 2016: 27). The 'other' is, in this instance, the poachers that, according to policy makers, utilise several causal mechanisms to facilitate the practice of poaching. Ideationally, they view wildlife as a natural resource to be 'harvested' by killing or collecting it and selling it on the illegal wildlife market for financial gain to sustain livelihoods. This provides insight into their cultural and socio-economic perspectives; from a "dominant" culture perspective (Brymer, 1991: 177) poachers are deviants, from the poachers' perspective they are 'hunting' and collecting for survival. A practicality of this is that different cultural perspectives towards wildlife could create conflicting situations wherein a dominant view constitutes a specific way of framing and dealing with poaching: define it as an illegal activity and put security resources and structures in place to deal with the 'problem'. Although 'invisible', the 'other' plays a role in the dominant actors' reactions and, therefore, are agents through invisibility.

Addressing the problem

In this section the analysis of the 'others'' causal mechanisms found in the NISCWT, is reported. In Table 1, the causal mechanisms of the 'others' mentioned in the strategy, are summarised. Since the NISCWT is a government strategic document it can be concluded that the framing of the 'others' is done from a government perspective. Through the analysis, in Table 1, government's view of 'others' is presented. Government perceives certain non-governmental entities as partners that hold legitimate concerns constituted by legitimate interests, either as organisations that could help curb wildlife trafficking, and communities that could benefit from wildlife conservation. The poachers, on the other hand, are viewed as an 'invasion force' or insurgents and, therefore, a problem to be dealt with in a military manner. The third 'other', is wildlife. Although wildlife does not have a mindset and worldviews, its mere existence constitutes a mindset, worldview, and actions on the part of the South African government and conservationists (e.g., Nicolini, 2012: 4; McCourt, 2016: 480). These state and non-state entities see wildlife as a natural and economic resource that is under government protection. Wildlife, therefore, needs to be protected within a safety and security paradigm at the risk of securitisation or militarisation (Duffy, 2014: 821; McDonald, 2008: 563-587). Sustainable development underlies wildlife's exploitation as natural and economic resources, a worldview mostly held by conservationists.

Table 1: 'Others' as identified in the NISCWT

'Other' Types	Mindsets according to NISCWT	Worldviews according to NISCWT	Actions according to NISCWT	The causal mechanisms identified from the mindsets, worldviews and actions according to the NISCWT
Poachers	"An individual or a group of individuals responsible for the illegal killing or harvesting/ collecting of fauna and flora" (RSA, 2016: 4). They are the (rural) poor and need to generate a financial income to survive and to be breadwinners for their families. When a poaching opportunity arises to earn an income, they are likely to consider doing it because of their survival and self-actualisation needs.	Because they are rural dwellers and financial resources are scarce, they see wildlife as a resource base. They might also see their respective governments as the responsible ones for ignoring their poverty circumstances and use this rationale to justify their poaching activities. Making a living, or survival, is the main paradigm for poachers.	Resorting to poaching, when given the opportunity by crime syndicates, might be an easier decision than deciding not to do so because it is against the law and, therefore, carry risks, such as imprisonment, injury, and even death.	• *Ideational*: Survival and self-actualisation that links to their identity. • *Agential*: They poach wildlife to augment their income and to be breadwinners by their families to increase their and their dependents' welfare. They are not bound by the law, so they have 'freedom' to practice poaching. • *Material*: They use information to poach wildlife successfully. They get resources from crime syndicates, such as money, firearms and other instruments to ply their 'trade'.
Organised Crime Syndicates and criminals other than poachers.	"Wildlife trafficking syndicates have stepped up their brutal methods to get their hands on our wildlife to sell in faraway markets, while also corrupting government officials and processes aimed at securing our wildlife resources. The criminal industry involved in wildlife trafficking run organised multi-billion-dollar operations worldwide, that will not stop these attacks in order to satisfy their greed" (RSA, 2016: 5). They include wildlife trafficking syndicates, corrupt government officials and often foreign diplomats and are part of the value chain of illegally sourcing, buying, selling, and transporting poached wildlife across the globe. They see themselves as generating wealth through business opportunities.	They see wildlife, such as rhinos and abalone, as an exploitable resource. They often do not view their actions as illegitimate because wildlife can be exploited for financial gain. Their main paradigm is financial gain through the exploitation of wildlife.	Engaging in the business of wildlife trafficking is based on the notion that they react to a market that has supply and demand features.	• *Agential:* Sourcing and supplying illegally harvested wildlife for illegal wildlife local and global market use to increase their welfare and survival as an organised syndicate. • *Ideational:* They view their operations as legitimate business activities because of their reaction to supply a demand for wildlife. This gives them the freedom to practice their trade and satisfies their identity needs. • *Material:* They use human resources (e.g., poachers), financial resources, information technology communication systems, and transportation systems (e.g., from motor vehicles to container shipping and aircraft) to supply the demand for illegal wildlife. • *Structural*: They are embedded into local and global illegal wildlife sourcing and supplying networks. They also constitute a local and international wildlife trade market constituting their survival and welfare.

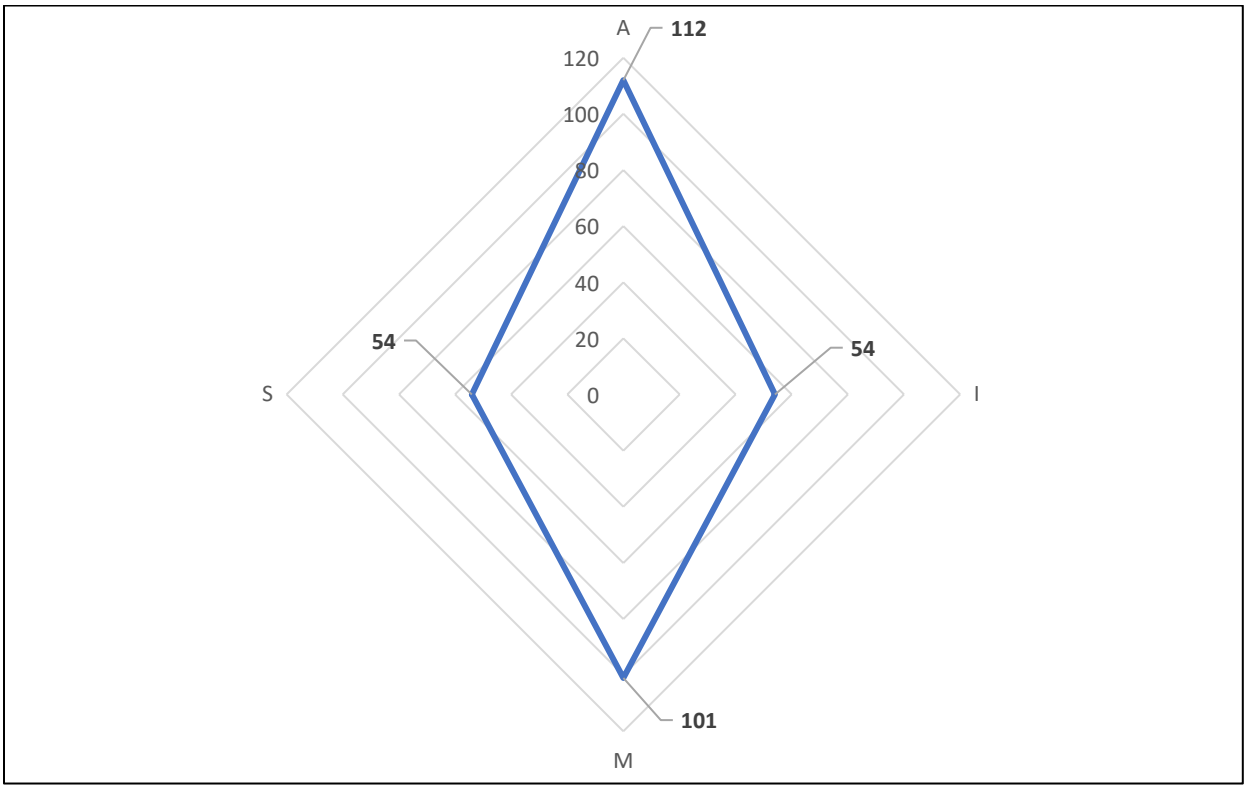
'Other' Types	**Mindsets according to NISCWT**	**Worldviews according to NISCWT**	**Actions according to NISCWT**	**The causal mechanisms identified from the mindsets, worldviews and actions according to the NISCWT**
Wildlife	"Wildlife trafficking is not just a conservation challenge, it also affects communities, it destroys livelihoods and aggravates crime while entrenching poverty in already under-developed communities" (RSA, 2016: 5-6). Wildlife as natural *and* economic resources play an active role in wildlife trafficking and conservation practices (e.g., Nicolini, 2012: 4). Wildlife are under provincial and national government protection, as well as through international conventions and agreements. Wildlife are also under private protection on privately-owned land.	According to practice theories, wildlife are not mere natural resources but could 'act back' to co-create along with humans' political arrangements (McCourt, 2016: 480). Government needs to maximise welfare by using wildlife as a natural *and* economic resource. The private sector also uses wildlife to maximise welfare. Government needs to supply order through legislation, policies, and strategies to protect wildlife resources. Sustainable development and use are the dominant paradigms.	Wildlife, through human agency, give durability to practices and connect practices with each other over space and time (Nicolini, 2012: 4). Government protects wildlife with the safety and security of wildlife in mind. Government casts poachers and organised crime syndicates in the role of an 'invasion force' that needs combating in a 'military' manner.	• *Ideational and agential*: The idea that wildlife could "co-create" political arrangements together with humans, give these natural resources agency to 'act back' (McCourt, 2016: 480). • *Ideational*: Sustainable development is the dominant paradigm. Government casts poachers in the light of an 'invasion force'. The ideas of safety and security are foundations for protecting wildlife. This causal mechanism links directly to human survival, welfare, freedom, and identity (e.g., a person identified as a poacher or hunter that is free or restricted, respectively, to exploit wildlife). • *Agential*: Protect wildlife by combating poaching and organised wildlife trafficking syndicates and criminal networks. • *Material*: Wildlife are natural *and* economic resources. The natural resource is a source of income and foreign revenue constituting survival and welfare needs. • *Structural*: Because wildlife "act back" (e.g., McCourt, 2016: 480), government protect it through policies, legislation, and other national and international structures this constitutes government's identity as custodian of fauna and flora.
Local communities that could benefit from the conservation of wildlife.	"[W]e will continue to emphasize the importance of uplifting communities living alongside wildlife areas which continue to bear the brunt of poaching" (RSA, 2016: 6). They may have likely been removed from areas where wildlife parks had been established and could, therefore, view these sanctuaries with resentment (e.g., Ramutsindela, 2004: 71; Sinthumule, 2014: 33). Local community members that are not actively poaching wildlife could harbour poachers because they	Local communities might view wildlife sanctuaries as being responsible for their poverty. Local communities could view poachers as a friend or foe.	Local communities living in and around parks often harbour poachers and/or they are poachers themselves. Local communities could also assist law enforcement structures in the fight against	• *Ideational:* The idea that they are excluded from conservation areas manifests into a self-help strategy to augment income for survival and welfare. • *Agential*: Could help poachers to poach and transport wildlife, again for survival and welfare purposes and be identified as criminals or accomplices of poachers. • *Agential:* Could help law enforcement agencies to fight poaching and wildlife trafficking giving them a collaborator identity.

'Other' Types	Mindsets according to NISCWT	Worldviews according to NISCWT	Actions according to NISCWT	The causal mechanisms identified from the mindsets, worldviews and actions according to the NISCWT
	might feel they are not benefiting from the wildlife sanctuaries where wildlife is kept and protected, or they are intimidated by poachers. Local community members could also view poachers as criminals.		poaching and wildlife trafficking.	
Wildlife constituencies	"Wildlife trafficking is a threat to both human and environmental security in South Africa: Government security and conservation officials, private rhinoceros owners, private security personnel, and others, face increasing physical risks in their attempts to prevent wildlife crime" (RSA, 2016: 10). As stakeholders in the protection of wildlife and as private wildlife owners, these constituencies feel that their interests are threatened by wildlife poaching and wildlife trafficking. Some of them might also feel that threats to wildlife hold opportunities to trade with certain species, such as rhino and rhino horn legitimately. They, therefore, view themselves as legitimate participants in developing the NISCWT by potentially influencing its content and direction. They see themselves as legitimate role players in the protection and conservation of wildlife with knowledge about wildlife practices and general data on wildlife (e.g., census data of various wildlife populations) and understands the threat posed by poaching and wildlife trafficking to the protection and conservation of wildlife.	They view government as the custodian of wildlife. As such, government needs to take the constituencies' interests and concerns up into the strategy. For them, government's purpose is welfare maximisation and the supply of order ((Hobson & Seabrooke, 2007) through legislation, policies, and strategies, such as the NISCWT. For many of these organisations, wildlife should be protected and conserved with the scientific method as background knowledge. This means that the positivist research paradigm is their prime world view.	Because they view themselves as legitimate participants with legitimate interests and concerns, they feel that government has no choice but to take their views into consideration and cooperate with them. They would, therefore, give their inputs willingly through a participative process with the SAPS. They actively through business processes (e.g., private security companies that protect wildlife sanctuaries) and scientifically (e.g., wildlife conservation and research organisations) protect and conserve wildlife.	• *Ideational*: Interests and concerns derived from their identity as wildlife protectors. • *Agential*: They would participate willingly in the NISCWT's implementation. • *Material*: Their input would form part of the content, nature, and direction of the NISCWT. • *Material*: Private wildlife owners would also like to cover their security costs incurred through added protection measures of their wildlife against poaching. This links directly to their survival and welfare needs. • *Ideational*: The scientific method (positivism) is the basis of knowledge generation of wildlife and wildlife numbers, as well as the foundation to proof the devastating effects of poaching and wildlife trafficking on wildlife resources. This could give them the freedom to identity, stakeholders that speak for fauna and flora. • *Agential:* Practicing the science of wildlife conservation constituting their identity as scientists representing fauna and flora. Aid law enforcement agencies in the generation of knowledge and intelligence on wildlife poaching and trafficking. Support or oppose governmental actions and structures of rule based on the scientific method through the freedom of association, to conduct research, and communicating research findings.

(Source: RSA, 2016: 4-64).

The data analysis indicates that agential causal mechanisms scored the highest overall during the count (112); followed by material (101); and ideational and structural with a score of 54 each (Figure 3). The high score of the agential causal mechanisms is attributed to the 'others'' 'invisible' actions, such as: poaching; trafficking; living next to conservation areas; and conserving wildlife. These actions constitute practices that contribute or inhibit the wildlife trafficking value chain. Poachers, therefore, are the first link in the wildlife trafficking value chain. Organised crime syndicates, on the other hand, play their part in this value chain through several activities, such as selling wildlife to overseas markets and money laundering (RSA, 2016: 10). The fauna and flora, as natural resources, as well as the material gains from these illegal practices explain the high scores for material and agential causal mechanisms (Figure 4). In other words, the NISCWT is a document that emphasises the actions or activities necessary for others to do what they do, be it illegally harvesting wildlife or conserving and protecting fauna and flora. The material resources, fauna and flora, constitute practices. This means that these resources play an active role in the practices of the various 'others'. Therefore, it can be said that these objects have agency, since they give practices durability and connect practices with each other over space and time (Nicolini, 2012: 4). For instance, when transnational crime syndicates source, transport, and sell South Africa's wildlife to overseas 'customers'. The biophysical environment, together with people, "co-created" political arrangements (McCourt, 2016: 480), such as the NISCWT. These implications explain the shape of the radar diagram represented in Figure 3.

Figure 3: The 'others''s overall causal mechanism analysis score



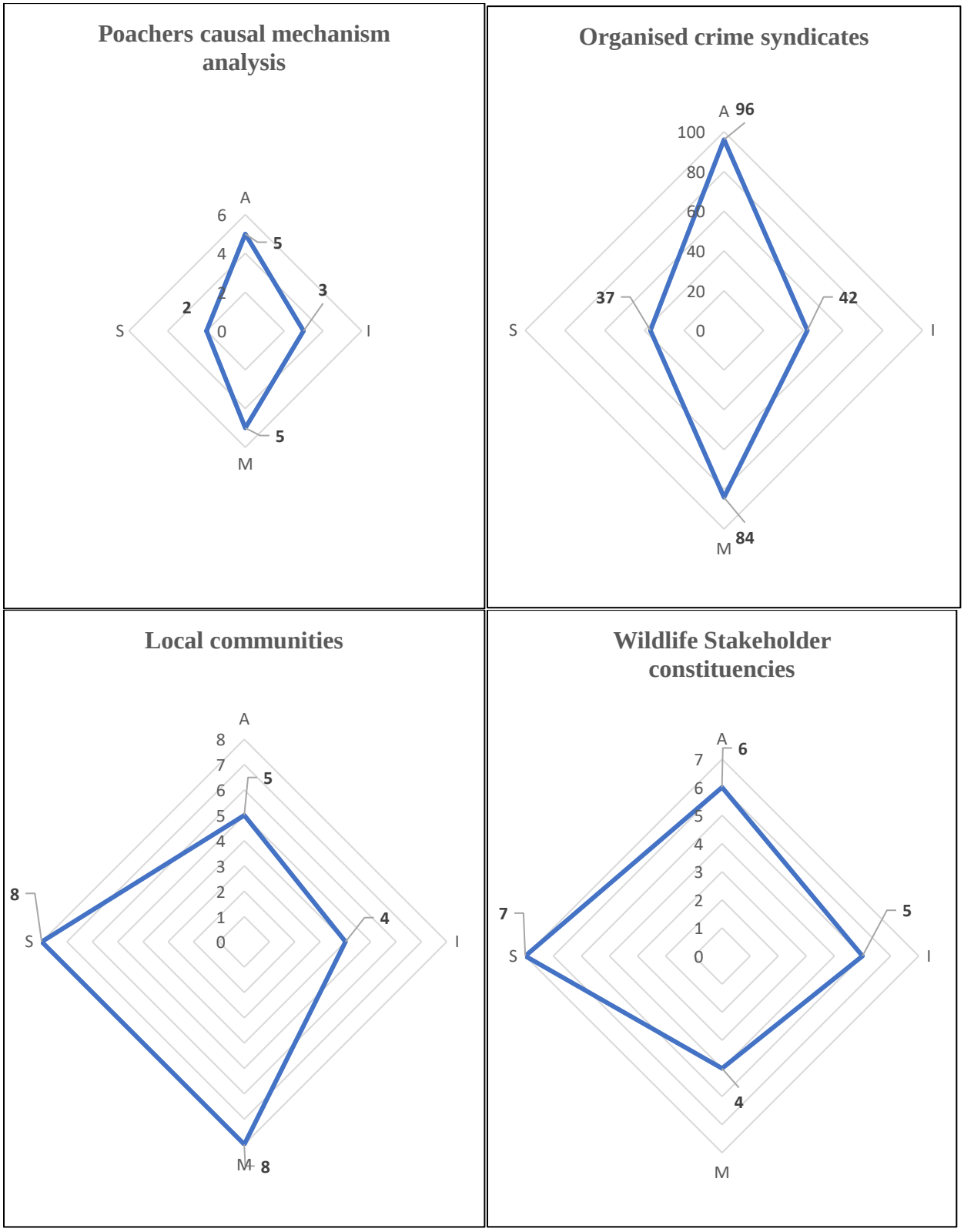
Moreover, local communities and wildlife stakeholder constituencies, could also incur material costs, such as safeguarding wildlife populations in conservation areas and, in the case of private wildlife owners, spending financial resources on security to prevent poaching. This means that material causal mechanisms do not only constitute the gains or benefits for actors but also the costs of their involvement and participation in the issue area. There is a link between ideational and material causal mechanisms with respect to local communities living close to wildlife reserves. They could have been moved from an area to be proclaimed a reserve where they had access to natural resources to sustain a livelihood, into another area, where they are now 'poorer' in terms of exclusion from these natural resources. A causal chain of seeing the wildlife reserve as being responsible for lowering their living standards to assisting poachers to augment their individual or household income could be the result.

From Figure 3, many of the other's ideas and structures are invisible to government; especially those involved in illegal activities, such as corrupt government officials, poachers, and transnational crime syndicates. Their activities are invisible because they operate outside legal frameworks, where they are accountable and transparent only to themselves (e.g., corrupt government officials) or a close-knit leadership grouping in the case organised crime syndicates. The practice of disclosing information of their activities to a select few, or not at all, make the detection and identification of illegal 'others' structural and ideational causal mechanisms difficult for those operating within legal structures, such as government and conservation agencies.

In Figure 4, it can be discerned that poachers and organised crime syndicates have similar causal mechanism profiles, whereas that of local communities and wildlife stakeholder constituencies – whose structures are better known – have dissimilar causal mechanism profiles to each other and to the poachers and organised crime syndicates.

Material mechanisms also scored highly since the NISCWT's aim is the managing of natural resources: fauna and flora. The availability of fauna and flora with a high market value, such as rhino horn, elephant tusks, abalone, pangolin scales, cycads and other rare plants constitutes the opening of a market for the poaching and subsequent illegal international trade of these natural resources. Here, fauna and flora 'act' as agential causal mechanisms resulting in the practices of all the other stakeholders (poachers, international crime syndicates, local communities and wildlife conservation constituencies). Furthermore, fauna and flora are material mechanisms because the demand for it fuels wildlife trafficking. Crime syndicates 'supplying' illegal fauna and flora to the black-market commit material assets, such as 'human resources', to ply their trade. Figure 4 shows an almost even split between crime syndicates' agential and material causal mechanisms because of this. Resource commitment (as mechanisms and practice), such as money and human resources from international crime syndicates, therefore, instituted the increase in wildlife trafficking. This conclusion also explains the high score for the agential causal mechanism, such as protecting and conserving wildlife.

Figure 4: The causal mechanism scores for the identified 'others'



DISCUSSION AND CONCLUSION

The question of how 'others' are addressed in NISCWT has been analysed, bearing in mind that the NISCWT is part of a broader strategy. Environmental problems specifically contain non-human actors which are vulnerable to being 'othered'. One of the important and challenging of those 'othered' in the NISCWT, are the animals, with rhino and elephant as examples. Even the largest land animals are not as powerful as humans have become (Lötter, 2016: 91). Firstly, these non-human actors are unable to speak for themselves. Secondly, if one believes that animals have experience, how can one know what that experience is like? This is much like Nagel's question of can we know what it is like to be a bat (or any animal for that matter) (Nagel, 1974: 435-450). Furthermore, the primary reason for the poaching of rhino and elephant is for harvesting the horns or tusks and only seldom for food. Lastly, whoever is chosen to speak for the animals, cannot bind the animals to an agreement. It is here where alternative perspectives, worldviews and mindsets become important considerations since these can direct human action albeit to 'speak for animals' and to develop the necessary legal and political animal protection structures. By being 'othered' animals lose 'agency'.

For instance, Section 24 of The Constitution of the Republic of South Africa, 1996 (as amended) refers to "ecologically sustainable development and use of natural resources". The constitutional language has influenced the NISCWT, as evident in Table 1. What does sustainable use mean from an animal's point of view? The concept of sustainable use seems to be a compromise between human parties but not between human and non-human actors. The environment has been framed in economic language as 'natural resources' and 'othered' as such.

Given these challenges, who 'speaks' for the wildlife at strategy and policy discussions? There are assumptions that scientists speak "with authority" on the basis of "facts" (Pouloudi & Whitley, 2000: 339), which the authors have explored further in this article. Firstly, scientists have preferences towards certain ways of knowing, that is specific knowledge production worldviews. There are at least four ways of knowing: doing (techne), thinking (Scientia), being (praxis) and seeing (gnosis) (Wildman & Inayatullah, 1996: 731). Doing and thinking are preferred over being and seeing by scientists and usually are positivistic approaches. Human preferences in this regard, may not be the most relevant to animals. Secondly, which scientific discipline will decide and speak on behalf of the wildlife? If there is more than one discipline, then there are disciplinary boundaries to be bridged. Thirdly, science as a social activity faces the same weaknesses that any other human activity might face: "Scientists have suffered from enforced orthodoxies, nepotism and favouritism; and ideal norms have been corrupted so that some science appears biased, proprietary, self-interested, or credulous" (Andrews, 2007: 161). Thus, to privilege science is to privilege a part of the truth, a part of society and a part of the environment.

Speaking for wildlife is a form of activism and requires more than just "facts" or content. It also requires a procedural or methodological component (Andrews, 2007: 162). In social contexts, policy decisions are legitimate if they are legal, authoritative, and appropriate for the context (Andrews, 2007: 162). However, what this means for animals is not clear, yet. Ethically driven activism, that is scientifically informed from the ecological to ethological and includes the humanities, from environmental ethics to law, and integrated with the social in a transdisciplinary way (as proposed by Nicolescu, 2010: np) appears to be a move in the right direction. This is, however, not the current situation.

So why does it matter if animals are 'othered'? If one is to move animals from being 'resources' to a new identity, one needs to give them a voice so that this leads to different language usage in national policy and legal documents. The goal is to achieve more successful, sustainable outcomes in complex policy situations. The authors' interest in the other is not naïve – and do not believe that all actors can be brought to a consensus.

With regards to criminals as 'other', progress is being made, for example: participatory crime policy development (Johnstone, 2000: 161); research methodological innovations such as sociology of markets (Hübschle, 2016: 43 & 45); and re-examining visions of policing (Outram, Brenner, McClelland & Dorph, 2014: 98).

Our intention with AIMS is to create an understanding of the various drivers influencing wildlife trafficking from different actor perspectives, and especially from the perspective of the invisible 'other'. The authors do not argue for an equal application of the four causal mechanisms when designing strategies. Government is not incorporating the 'other', since they are not a political group or, part of a government bureaucracy, for instance situated in the security cluster. On the latter point, scientists that can speak for animals are part of the strategy development and implementation and, therefore, are included as a 'worthy' grouping.

Subjective argumentation is just as important as 'objective' research in strategy development. Knowledge generation should not only revolve around objectivity (Weber, 2004: iii), but also a social reality constructed through actors' reference frames and lived experiences (Lincoln & Guba, 1985: 2). Objectivity should not be prioritised above subjectivity when dealing with wildlife trafficking. After all, to what extent do crime syndicates distinguish between objectivism and subjectivism when creating an illegal wildlife market? Postulated here is that their lived experience also play a role as ideational causal mechanisms linked with objective market analyses. Their lived experience plays a role since criminals need to operate 'invisibly'.

For policy practitioners, one innovation could be to reflect on what constitutes wildlife trafficking and "contested illegality". The latter term is a sort of ideational causal mechanism, or what Hübschle (2016: Abstract) calls: "…a legitimization mechanism employed by market participants" in the supply of wildlife products. "These actors' implicit or explicit contestation of the state-sponsored label of illegality serves as a legitimising and enabling mechanism, facilitating participation in grey or illegal markets for rhino horn" (Hübschle, 2016: Abstract). Combined, these definitions give insights into how actors view societal norms and standards and how their perspectives influence their behaviour towards natural resource exploitation. Wildlife trafficking should not only be viewed from a conservation perspective or the products, dead or alive, produced by crime syndicates. The conceptualisation of illegal wildlife trade should also focus attention on the human element involved. Here is not only referring to criminals, but also to actors that suggest solutions to the problems and policy makers trying to cope with and develop solutions to the problem. Different solutions come from different quarters with a specific focus on specific causal mechanisms as solutions. The perspective of the other is, therefore, a valuable lens to perceive strategies and tactics around wildlife trade and which worldviews prevail and who holds power and how the invisible 'other' acts as an agent. Local communities living near conservation areas, for instance, with rhinos might highlight the more material and ideational (i.e., unequal opportunities in accessing resources and poverty) elements. Involving actors in suggesting problem solutions is the first clue in understanding causality in wildlife trafficking.

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