

Towards a ‘just’ conservation psychology

Abstract

Climate change and biodiversity loss are serious concerns for environmental researchers and conservationists. However, the impact of climate change and biodiversity loss disproportionately affects low-income communities, indigenous groups, and people of colour. Conservation initiatives, however, sometimes perpetuate historical injustices of marginalised people. We argue that environmental justice may be effectively merged with conservation psychology to promote a just conservation psychology. We discuss a case study of a South African community impacted by conservation-related environmental injustices under apartheid. We discuss the role of capacity building in a community-based conservation initiative that promotes justice, human wellbeing, and conservation goals.

Introduction

The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES, 2019) report warns that the current loss of biodiversity is unprecedented and of significant global concern. The exploitation of natural resources and wildlife has taken on renewed significance given the possible zoonotic origins of COVID-19 and its continuing societal impacts (UNDESA World Social Report, 2021). Importantly, the loss of biodiversity disproportionately affects low income and vulnerable groups (Islam & Winkel, 2017; UNDESA World Social Report, 2020) and is also an issue of environmental (in)justice (Hart, 2014). Therefore, it is essential that conservation scholars and practitioners address and advocate for environmental justice in the context of biodiversity loss and climate change.

Biodiversity encompasses all aspects of the biological processes that make life possible on Earth. This includes

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air quality, water and food security, a stable climate, medicinal resources, mental wellbeing, economic benefits, and the spread of infectious diseases, which are all negatively influenced by a loss of biodiversity (IPBES, 2019). Climate change is contributing to accelerated environmental degradation, with severe consequences for extreme climate events and hazards, leading to damage to lives and livelihoods, infrastructure, health, and resources (UNDESA World Social Report, 2020). Decision-makers need to urgently address environmental degradation to curb the harmful impacts the most vulnerable communities are likely to suffer (UNDESA World Social Report, 2020).

There have been calls to incorporate more ‘psychology’ into ‘conservation’ alongside other social science disciplines (Green et al., 2015), such as environmental history, political ecology, environmental sociology, and environmental ethics (Bennett et al., 2017b). In response to this, in the early 2000s, the American Psychological Association created a branch of environmental psychology called *conservation psychology* in recognition that a reciprocal relationship exists between human behaviour and the natural environment (APA Divisions, 2011).

Conservation psychology (explored in more detail below) is a field of research and practice that examines the reciprocal relationship between humans and the natural world (APA Divisions, 2011). The idea that conservation is inextricably linked to human behaviour and choices has gained recognition amongst psychology researchers and conservationists alike (Cranston, 2013; Salafsky, Margoluis, Redford, & Robinson, 2002; Balmford & Cowley, 2006; Schultz, 2011). Although psychology has been slow to take a firm hold in the conservation sciences, in recent years, it is increasingly recognised that social-psychological researchers can make a valuable contribution in conservation (Bennett et al., 2017a; Hicks et al., 2016; Schultz, 2011; St John, Edward-Jones, & Jones, 2010). Understanding human behaviour, attitudes, decision-making, and social norms is a necessary and important aspect of conservation and environmental issues (St John, Edward-Jones, & Jones, 2010; Schultz, 2011; Bennett et al., 2017a).

However, mainstream conservation psychology, like other conservation sciences, have not adequately incorporated historical and contemporary issues of (in)justice. We argue that uncritically applying mainstream conservation psychology is likely to exacerbate social and environmental injustices, particularly in the global South where injustices, such as land dispossession, exclusion, militarisation and labour exploitation, stem from conservation initiatives. Social, environmental, and ecological justice ought to be central to both fields (psychology and conservation) in complementary ways. We offer insights into how justice can be foregrounded by emphasising the interrelated nature of social and environmental justice and the importance of genuine, autonomous participation and capacity building in conservation initiatives.

Conservation psychology not only offers the potential to provide a more meaningful and effective way to implement successful conservation interventions but, if framed appropriately, may also provide an important platform to foreground *justice*. We highlight two conservation problems that emphasise a justice-oriented role for conservation psychology, present a case study of injustices experienced by South Africans living adjacent to the Kruger National Park, and offer insights into how a just conservation psychology may, in part, mitigate these historical injustices.

At this point, it is also necessary to define “community” for the purposes of this paper. Notwithstanding the problems with defining community, we draw on the following definition given our focus on (in)justice and genuine community participation. MacQueen et al.’s (2001: 1936) definition captures the collective nature of communities of people in the context of conservation psychology: a community may be seen “as a group of people with diverse characteristics who are linked by social ties, share common perspectives, and engage in joint action in geographical locations or settings”.

Two conservation problems in the global South

There are many problems with conservation efforts. However, we draw attention to two problems as they relate to psychology and conservation. The first problem is that conservation research and practice has historically overlooked the psychological dimensions of conservation, despite the impact of human behaviour in the success or failure of conservation projects that aim to protect land, species, and resources. Current evidence recognises that the health of the environment and its nonhuman inhabitants are strongly associated with present and future quality of life for humans (Clayton & Myers, 2015). Various environmental issues result from damaging human behaviours, including climate change, unsustainable depletion of natural resources, pollution, and biodiversity loss (Clayton & Myers, 2015). Therefore, Clayton and Myers (2015) make a compelling argument for the contributions of psychology in the field of environmental and conservation research, which ultimately aims to conserve the natural world and improve human wellbeing.

Psychological researchers and practitioners may offer useful insights into understanding conservation-related behaviour on an individual, local, and global scale. Bennett et al. (2017a) suggest that psychological researchers are well-positioned to provide in-depth documenting and description of conservation practices, which aids in identifying why initiatives succeed or fail. Social-psychological research can also offer a critical lens to identify inequity and systemic problems, thus also assisting in understanding the ethical aspects of working with people and appreciating social and cultural perspectives. Psychological perspectives also add a vital component to the

study of environmental issues, specifically that of promoting human wellbeing (Clayton and Myers, 2015; Cranston, 2013), both of which are inextricably linked to one another.

Psychology researchers can also provide valuable insight into psycho-social indicators (Hicks et al., 2016) that can be used to monitor environmental issues and ensure a sustainable future for both people and the natural world. Such indicators may be beneficial to measure wellbeing, values, agency, and inequality, according to Hicks et al. (2016). First, human wellbeing is largely reliant on a healthy environment. Thus, a better understanding of assessing wellbeing is required outside of purely economic interests that also consider material and relational wellbeing and quality of life. In addition, an appreciation of values is linked to wellbeing and necessary to understand what drives human behaviour and thinking. Most importantly, agency and empowerment are argued to be necessary factors as agency enables people to pursue what they value and require improving wellbeing. Last, indicators of inequality allow researchers critical insight into how sustainability is negatively impacted by unequal access to resources and power.

In addition, autocratic, top-down practices typical in conservation may perpetuate injustice in the communities often impacted by conservation initiatives, which may, in turn, result in ineffective protection of land, resources, and wildlife (Downes, n.d; Green et al., 2015). Psychology research and practice have a strong focus on process, consultation, and including participants' voices', which may increase the likelihood of successful conservation. Additionally, psychology has a growing interest in inclusivity, and there is a need for researchers to focus on non-Western and non-English speaking communities (Bennett et al., 2017a). This is necessary to broaden conventional scientific literature and address existing inequality by appreciating indigenous knowledge and local perspectives. This echoes Soule's (1985) original call for research to be considerate of indigenous communities and their local economies in decision making. Bringing social-psychological perspectives into the design, implementation and assessment of conservation science work will thus allow greater insight into policies and practices on a local scale (individual and community levels) to an international scale. Individual and community perspectives might study attitudes, behaviours, and values, whilst a global perspective may explore narratives of environmental care and how this influences the development of policies (Bennett et al., 2017a). Overall, psychology may provide the impetus to transform conservation practices to be justly inclusive and participatory.

A second conservation problem is that many conservation efforts have failed to adequately address environmental justice, which advocates for those impacted by both social and ecological injustices. According to Bullard (1993, 2001), environmental

justice gained momentum in the late 1960s as African American communities started to fight for better working conditions for black garbage workers. Protests continued in the decades that followed (see Szasz & Meuser, 1997), igniting a movement that stressed the disproportionate impact of environmental damages on disadvantaged communities, predominantly African American communities (Mohai, Pellow, & Roberts, 2009; Szasz & Meuser, 1997), thus raising the issue of environmental racism.

At this point, it is necessary to define three important justice concepts relevant to the discussion of conservation in this paper and to echo Schlosberg's (2007), and Carson's (1962) calls for the environmental justice movement to seek parallels with ecological justice. First, environmental justice may be defined by the maldistribution of environmental resources and damages that predominantly affect indigenous communities, those living in poverty, and communities of colour. Ecological justice is concerned primarily with the wellbeing and protection of the natural world and its nonhuman inhabitants. Third, social justice cannot be excluded from the environmental justice movement as it addresses issues of inequality, maldistribution, and exclusion (Schlosberg, 2007).

To merge these three movements, it becomes apparent that social and environmental injustices predominantly exploit disadvantaged communities, whilst the natural world is exploited for resources; economic gain from such exploitive practices benefits only a small minority (Agyeman, Bullard, & Evans, 2002; Bullard, 1993; Schlosberg, 2007). Conservation practices that aim to protect the natural world and its nonhuman inhabitants are thus closely aligned with ecological justice, but given the significant human dimension associated with conservation, environmental and social justice are equally important to successfully protect biodiversity, human wellbeing, and equality.

Likewise, Bullard (2001) demonstrates how social justice and environmental justice merged in the early 1990s as the focus on toxic environmental waste expanded towards issues of distribution of resources, empowerment, and public health and safety, thus creating a unified movement. This focus on justice seeks to uncover and dismantle unjust practices that lead to an unfair lack of protection through grassroots initiatives (Bullard, 2001). From a conservation perspective, environmental justice may address social and ecological injustices with equal importance in such a way that marginalised communities experience empowerment through grassroots initiatives and a critical dismantling of inherently racist practices while natural resources receive a greater level of protection that benefits biodiversity and human wellbeing.

Further, necessary concepts within environmental justice require an understanding of the constructs of distributive justice, procedural justice, and environmental racism.

Distributive justice in the context of environmentalism emphasises the unequal distribution of environmental benefits and burdens; however, environmental justice has focused primarily not on benefits but rather on the disproportionate burdens placed upon historically disadvantaged communities (Schlosberg, 2007; Schroeder, St Martin, Wilson, & Sen, 2008). This focus is not surprising given the history of the environmental justice movement that advocates for communities unfairly burdened by toxic waste, forced removals and exclusion, unfair access to resources, and a lack of autonomy (Taylor, 2000). To expand upon this notion, Green (1977) argues that distributive justice should not only focus on the fair distribution of resources for current generations but also account for equitable distribution to future generations to avoid inflicting harm on those who follow. Conservation practices are similarly aligned with this goal to ensure that future generations access natural spaces and resources in a healthy, thriving environment.

In contrast, procedural justice emphasises the lack of opportunities marginalised communities face not only in the distribution of environmental resources but in decision making and participation to shape environmental policies. Institutional processes are critically examined for perpetuating injustice by holding power in economic, political, and cultural decision making to the detriment of marginalised communities (Schroeder, St Martin, Wilson, & Sen, 2008).

Last, environmental racism initially focused on the intentional and disproportionate dumping of toxic waste in minority communities in the United States (Bullard, 1993). Awareness of environmental racism has now grown across the world where communities of colour, indigenous people, and those living in poverty face the unjust burden of environmental discrimination (Bullard, 1993; Steady, 2009; Taylor, 2000). The United States has historically been associated with racist environmental practices, as outlined extensively by Bullard (1993) and Taylor (2000), but parallels may also be drawn with South Africa's apartheid past and its legacy (Stull, Bell, & Mcwadi, 2016). As such, communities of colour and indigenous people suffer the consequences of institutional racism and exploitation shaped by colonialism (Bullard, 1993), as discussed in more detail below.

Environmental justice may also be examined from a South African perspective by understanding the rise of traditional, authoritarian protection of "wild" spaces and wildlife. Conservation in South Africa has historically been approached in an authoritarian manner, known as the "fences and fines" approach or "fortress conservation" (DeCaro & Stokes, 2008; Redmore, Stronza, Songhurst, & McCulloch, 2018) in which fences have been used to delineate land for protection and land for people to occupy. During apartheid, prior to South Africa's democracy in 1994, this

involved the forceful removal of black South Africans from their land into crowded, under-resourced settlements, often bordering protected areas. South Africa has historically relied on colonial conservation practices-in which local communities have been removed from declared protected areas and fined heavily for trespassing. Use of the land's resources was prohibited and criminalised for black South Africans.

South Africa and the Kruger National Park: an illustration of historical injustice

One such example of extreme environmental racism during apartheid involved the expulsion of black South Africans from the land that would later become the Kruger National Park (Cock & Fig, 2000; Dlamini, 2020; Hart, 2014). We recognise that there are many similar examples of deeply unjust conservation practices but given the Kruger National Park's size at approximately 20 000km² and its ecological, social and historical valence, we use the Kruger National Park as a case study. As further motivation, the case study discussed below was conducted in the Acornhoek community bordering the park's western boundary. As such, the community members have experienced the direct impacts of apartheid's influence on the national park's creation, making its historical account relevant. While the Kruger National Park today serves an important function in protecting biodiversity and generating revenue for South Africa, it is also necessary to better understand its historical context to ensure that the environmental injustices committed in the past are not perpetuated, even inadvertently, today.

The history of the Kruger National Park is, therefore, not one based solely on conservation efforts to protect biodiversity but rather reflects the political and social underpinnings of South Africa under colonial rule before finally growing into a democracy (Carruthers, 1995). For this reason, Carruthers conveys the Kruger National Park as an "ambiguous symbol" (p. 1) for both foreign tourists and South Africans. For foreign visitors, the Kruger Park is likely to symbolise the opportunity to experience wildlife in their natural habitats, whereas for South Africans, mainly the white middle class, the Kruger symbolises recreational opportunities and the ability to experience a romantic look into a pre-modern past. However, for black South Africans living in poverty, the Kruger Park may represent a history of racial segregation, a place considered off-limits.

While there are some historical accounts of the Kruger Park that neglect the negative, racially divisive aspects of the park's history (Carruthers, 1995), others aspire to shed light on the political and social aspects that occurred under colonial and apartheid rule, as can be seen in Carruthers' book. More recently, Dlamini (2020) offers a compelling argument about the complex relationships South Africans of various racial, class, and social backgrounds hold with the Kruger Park. Rather than focusing on narratives of

exclusion, Dlamini (2020) demonstrates that black South Africans were present, and their very presence in the Kruger Park and its surroundings ought to be examined closely to understand that narratives of exclusion go beyond the “figures of the labourer and the poacher” to undo “the national(ist) casing that surrounds most histories of the KNP” (p. 12). In so doing, Dlamini seeks to alter the narrative and give prominence to black South Africans and their stories and experiences of the Kruger National Park – stories that highlight presence despite oppression. This alternate account examines black South Africans’ experiences of struggling for resources, labour, the rise of tourism, the trauma of apartheid rule, and South Africa’s eventual move towards democracy (Dlamini, 2020). This provides an insightful starting point to examine the complexity of the park’s history and impact on local communities along its borders. A deeper appreciation of this complexity is likely to be essential in understanding how future participatory approaches can address issues of justice effectively.

Since democracy in 1994, the South African National Parks (SANParks) has committed itself to redefine its conservation practices to benefit both the protection of biodiversity and the needs of local South Africans previously disenfranchised by the apartheid system (see Musavengane and Leonard, 2019). Transformation requires a deep restructuring of historically racist practices, with the process including local employment, sustainable access to resources, land restitution, cultural and heritage management, in addition to improved community involvement and access (Cock & Fig, 2000; Pollard, Shackleton, & Carruthers, 2003). There is much potential for the SANParks to continue to dismantle historically unjust practices and to serve as an example of what may be achieved with community involvement and just conservation practice. One such example is the continuing need for black leadership roles within conservation organisations (Musavengane and Leonard, 2019). Furthermore, the “marginalisation of the social ecologists” (Cock & Fig, 2000, p. 33) may also prevent further opportunities for deep transformation to be realised in a post-apartheid South Africa if different perspectives are not given due prominence.

South Africans face further environmental struggles post-apartheid, most prominently experienced by those living in poverty. However, despite the environmental root of these issues, South Africans are more likely to frame these struggles in health and traditional rights discourse, likely to be in partial response to constitutional wording of environmental issues in health terms and the negative association of historically authoritarian conservation practices (Cock, 2004). The multiplicity of environmental issues South Africans face appears to suggest competing priorities of “brown” (or urban) and “green” (or natural land) struggles. Such struggles include dumping, waste management, agriculture, mining, energy, water, pollution, poaching, biodiversity, and climate change (Cock, 2004).

However, caution is required as such issues need not be fragmented by those involved in the environmental justice movement in South Africa. Both Cock (2004) and Freund (1999) emphasise the necessity to see that both issues involve people and the environment; they complement each other and ought to be integrated, therefore compartmentalised thinking does not assist the environmental justice movement in achieving its goals. Freund (1999) argues that “the divide between green and brown conceptually remains strong and there is an absence of champions who understand the need to integrate the two and redefine environmentalism in new terms that brings together economic development, social needs and the striving for a pleasant and healthy relation to natural forces” (p. 737). The environmental justice movements can be further unified to address “red” issues (Cock, 2004) that of social justice to highlight those poor and vulnerable communities most impacted by environmental injustices share interconnected and shared concerns that span natural, urban, and social injustices. It is therefore crucial for practitioners and researchers to acknowledge and foreground justice in approaching these interrelated conservation issues.

Foregrounding justice in conservation and psychology

In this section, we draw on elements of political, decolonial and critical community psychology to put forward ideas for a ‘just’ conservation psychology. We also draw on critical ideas from community-based conservation (CBC) (Berkes, 2004) to frame a transformative role for a just conservation psychology.

Conservation psychology, as it is currently conceptualised in the global North, is inadequate to address the continuing injustices experienced by marginalised communities. As in our case study, communities excluded from the land continue to bear the brunt of land dispossession and exclusion from economic opportunities (Kohler & Brondizio, 2016) brought about by conservation. Given the historical and contemporary environmental injustices committed against black South Africans, this section argues in favour of a justice driven approach that merges psychology and conservation. Conservation psychology’s focus on individual behaviour and agency will need to change towards a social and environmental justice framework, one in which historical injustice and structural racism is dismantled and examined critically. Both psychology and conservation practitioners may benefit from a shift in focus.

Foregrounding justice is likely to improve psychology’s impact and relevance in Africa, while conservation practice may benefit from a nuanced understanding of humanity and wellbeing in the context of decolonial thinking. A move towards justice is likely to open doors for psychology to address structural issues of racism, class, gender, and the impact of environmental injustice on poor and vulnerable communities.

Psychology has typically been viewed as a profession in the realm of healthcare in private and public settings, as well as academia and popular culture, something inaccessible and irrelevant to a large majority of people (Pillay, 2017) and typically ignores class, structural inequality, oppression, and its psychological sequelae for so many South Africans (Long, 2016). While the decolonisation of psychology, particularly in a South African context, is constantly evolving, we see justice framed in conservation and psychology as a step towards dismantling the legacy of colonial power in South Africa and the social and environmental injustices experienced as a result.

A just conservation psychology would become a “shaper of public discourse”, to quote Long (2016, p.3). Justice can, therefore, provide the glue between psychology and conservation. In this way, justice ought to be central to both conservation psychology and traditional conservation approaches. Without a meaningful recognition of the human component within conservation, social and environmental injustices are likely to perpetuate disproportionately within historically disadvantaged communities.

The most important element of a just conservation psychology is to acknowledge the structural legacy of coloniality, apartheid and the continued systematic exclusion of marginalised people from conservation. Many of those who live on the geopolitical margins of conservation (DeCaro & Stokes, 2008) are disproportionately affected directly (for example, through land dispossession and ongoing systemic exclusion) and indirectly through intergenerational poverty and trauma. There is also growing concern and critical inquiry into the militarisation of conservation in Africa and its detrimental, unjust impact on people and poor long-term conservation outcomes (Duffy et al., 2019; Ramutsindela, Matose, & Mushonga, 2022). In many instances, marginalised people do not meaningfully benefit from the economic benefits of conservation, for example, from ecotourism (Sheyvens, 1999). Importantly, marginalised communities are blamed for their exclusion based on racist and classist assumptions, for example, that poor black people do not value conservation. Mainstream conservation psychology not only ignores the systemic determinants but feeds into the idea that poor people do not think about conservation (Hunter, Strife, & Twine, 2010). Mainstream conservation psychology is likely then to inadvertently place the source and solution of conservation on marginalised communities while neglecting to address the systemic injustices underlying issues of poverty and marginalisation.

Furthermore, it is increasingly important to acknowledge that marginalised people are disproportionately affected by the impact of environmental degradation and biodiversity loss. Social inequality is exacerbated by the effects of climate change in which vulnerable groups suffer a sequence of disadvantages through increased exposure and vulnerability to the negative consequences of climate change and poorer

chances of overcoming such negative impacts (Islam & Winkel, 2017; UNDESA World Social Report, 2020) compared to wealthier groups with greater access to resources.

It is crucial, therefore, for psychologists to get involved in justice efforts, together with other disciplines (for example, environmental law, political ecology, environmental sociology) and stakeholders (for example, the state, private and traditional structures) aimed at correcting the power imbalances. One way to do this is to conduct primary research or synthesise secondary research on the impacts of systemic exclusion due to conservation and become involved in redress efforts. In cases of litigation, psychologists could provide expert testimony (e.g., Barnwell, 2021).

Psychologists could be useful allies and facilitators to set up community-led conservation entities and programmes. For example, psychologists can also contribute to the processes underpinning conservation efforts. There is sufficient evidence that expert-driven, top-down interventions are largely ineffective (DeCaro & Stokes, 2008; Reddy et al., 2016). We argue in favour of an autonomy-supportive environment in which *all* people are freely able to express themselves and grow, participate in the management of initiatives, be recognised as important stakeholders, and interact in a respectful and non-coercive manner. All too often, communities are only superficially engaged in the name of community participation and then are subsequently sidelined from those benefits that benefit a privileged few. These ultimately undermine the ability of local communities to engage in pro-conservation practices in a way that promotes their autonomous motivation and intrinsic values (DeCaro & Stokes, 2008) and has significant implications for programs and interventions to ensure a fully democratic and participatory approach that moves away from the colonial conservation policies.

Therefore, researchers and practitioners should seek to empower marginalised communities and encourage the involvement of stakeholders (Boyd & Bright, 2007), who are ultimately affected by community initiatives. This includes promoting *with* communities, strength, competency, and empowerment, encouraging participation, and embracing diversity (Levine et al., 2005). Furthermore, Levine et al. (2005) emphasise not only community psychology's research role in the development of theories and evaluating the effectiveness of community programmes and policies, but also its focus on values in society. This dual focus on human and environmental wellbeing is more likely to be conducted in ways that do not perpetuate environmental injustices.

The United Nations Academic Impact (UNAI) defines capacity building as the “process of developing and strengthening the skills, instincts, abilities, processes and resources that organisations and communities need to survive, adapt, and thrive in a fast-

changing world” (n.d). Capacity building is an important aspect of the UN’s Sustainable Development Goals, which aim to address major global issues, including climate change, poverty, education, justice, and environmental degradation by the year 2030. It is necessary to distinguish between the two terms that are often used to describe engagement in local communities – that of capacity development and community-based conservation (CBC) (Cranston, 2016). Whilst capacity development focuses on the development of skills and problem solving, community-based conservation is based on a participatory approach in which communities and organisations collaborate on conservation projects, and these may occur to varying extents in different conservation initiatives.

Capacity may be aimed at three levels: institutional (conservation and/or wildlife organisations), community (a geographically bound group), and individual (those citizens within a specific community), by ensuring stakeholders and communities participate in the decision-making and implementation of wildlife policies (Raik, Decker, & Siemer, 2003; Cranston, 2016). Ultimately, in the context of conservation, the goal of capacity development is to ensure individuals and groups within these three levels have developed the skills necessary to continue conservation work and resolve future challenges (Salafsky, Margoluis, Redford, & Robinson, 2002) in ways that enable just distribution of resources and community ownership. Several community-based conservation initiatives reflect an appreciation for the social and human dimensions of conservation, focusing on community engagement and upliftment through mutually beneficial conservation activities. Research has thus far explored the social-psychological principles of CBC (DeCaro & Stokes, 2008); illegal wildlife trade (Cooney et al., 2016); ecotourism and empowerment (Scheyvens, 1999); and the importance of challenging Africa’s colonial past and supporting grassroots conservation initiatives (Sebunya, 2017), demonstrating the breadth of issues that may be addressed in conservation when the human dimensions are considered. However, some CBC initiatives run the risk of using capacity development as a means of achieving a goal related only to protecting natural spaces or wildlife, rather than prioritising both environmental and capacity goals equally. CBC initiatives are most effective and sustainable when both capacity development and environmental goals are of equal importance rather than a means to an end (Cranston, 2016). Importantly, CBC initiatives need to acknowledge historical injustices. In such a way, the likelihood of sustainable and positive change for people and wildlife is strengthened.

Several uncertainties exist that psychological research may address regarding participatory programmes, namely gaining an understanding of stakeholders’ perceptions, the social impact, economic impact, and the ability to have a positive impact on local communities (DeCaro & Stokes, 2008). Research attention is required

to better understand the influence such initiatives have on participants in the short to long term. Cranston (2016) points to the need for capacity development initiatives to measure the success of their programs using psychological theories of motivation and willingness in individual participants. Whilst this research was conducted on conservation professionals it may have applications if adapted for youth participants engaging in conservation initiatives

Initiatives that target conservation education and capacity development simultaneously and with equal importance may provide significant opportunities to open previously closed doors for marginalised communities. The advantages of addressing both issues include exposure to job opportunities, job creation and self-employment opportunities, as well as an increase in awareness of environmental issues, which may lead to further care and advocacy actions. Capacity development should, therefore, be aimed at various levels, including individuals, communities, and institutions, to foster the skills needed to autonomously solve future conservation challenges (Salafsky et al., 2002; Cranston, 2016). However, to take this a step further, Salafsky et al. (2002, p. 1478) describe the importance of “second-order capacity building” in which educators are provided with further capacity building who may then lead training and education within a group, community, or institution. The advantage of second-order capacity building is that conservation work can be grown or maintained into the future by members themselves (Cranston, 2016), ultimately leading to autonomous and empowered groups leading change from within their communities.

In sum, if we are to move towards a just conservation psychology, we need to acknowledge historical and contemporary colonial injustices (and not inadvertently reinforce those), get involved in efforts to address those injustices, and foster meaningful community engagement to develop capacity and education. Put differently, we see a just conservation psychology, working alongside other disciplines and stakeholders, as working towards the triple imperatives of conservation and sustainability, economic and community development, and justice. The following case study offers an example of a just conservation psychology approach applied using the photovoice methodology to explore youths’ experiences of capacity building and conservation.

Towards a just conservation psychology: a case study

An ongoing research project is exploring the experiences of youth participants in a capacity building outreach based in the greater Kruger region of South Africa. The outreach aims to engage with teenagers and young adults from historically disadvantaged communities about wildlife photography and conservation work in response to high unemployment rates. The communities in which the outreach

operates border the Kruger National Park boundaries and thus have experienced the exclusionary practices perpetuated under apartheid and the national park's early years. The Acornhoek community was initially an African "reserve" set aside by the Native Affairs Department using land from the Sabi Game Reserve in 1923 (Carruthers, 1995; Dlamini, 2020). Thus, the youth attending the outreach are descendants of those with personal experience of the national park's divisive history and continue to experience the intergenerational poverty emanating from those unjust historical policies and practices.

The capacity building component of the workshops is extended long-term towards internships, vocational and educational opportunities. Participants may pursue opportunities to work for conservation organisations as photographers, filmmakers, guides, and rangers, whilst others have pursued full-time studies in filmmaking or opened their own photographic businesses. Furthermore, second-order capacity building is also a priority so that previous participants may pursue opportunities to run the photographic and conservation workshops themselves. The goal of the outreach is to create a community-based and community-driven platform, so young photographers from the local villages and communities run the workshops for other young members of the community. Approximately 700 participants have attended the workshops, which are currently ongoing and being led by graduated participants who want to pursue photography-related careers. As such, the outreach's goals are demonstrated in its ability to address critical issues of conservation and protection of natural resources and explicitly promote economic development and job creation amongst its young participants in conservation, tourism, and the arts. How do youth living on the park border experience the conservation outreach programme against the backdrop of historical and contemporary injustices? What does this mean for the theorising of a just conservation psychology?

The study used the photovoice method, which, as a participatory approach rooted in documentary photography, uses photographs taken by participants to share their knowledge and experiences (Wang & Burris, 1997). Photovoice is also grounded in critical consciousness with an explicit goal of facilitating empowerment by creating awareness and reflection on community needs to develop social and political change (Evans-Agnew & Rosemberg, 2016). This methodology was used to elevate participants' voices who have experienced the long-term consequences of environmental injustices committed during South Africa's apartheid years. As a visual method, it also offers a valuable opportunity to critically explore the participants' experiences of place (Tuck & McKenzie, 2015), more specifically, their connections and narratives related to growing up in a place so closely tied to South Africa's apartheid history. Tuck and McKenzie (2014) argue that a critical understanding of the significance of place is necessary given the growing concern for climate change and environmental sustainability, and

it can contribute towards addressing the negative impacts of colonialism. The use of photovoice in the current case study aimed to give in-depth consideration to the significance of place in the lives of the participants living along the Kruger National Park boundaries.

As young aspiring photographers, the photovoice method provided a valuable opportunity to elucidate personal stories about their perceptions of a capacity-building initiative while better understanding the significance of place and the natural environment in the participants' lives. The goal of the ongoing research is to explore participants' experiences and the meaningful ways in which the workshops may have influenced their own goals and career opportunities, experiences of nature, and living along the park's borders post-apartheid. The initial results of the photovoice project suggest the participants experienced a sense of empowerment and enjoyment of learning new skills in photography, particularly of seeing wildlife for the first time for many. From a perspective of understanding place, very few participants had entered a national park or reserve prior to the workshops and expressed enjoyment and interest in experiencing nature, with further eagerness to protect it for future generations in their community. The theme of previous exclusion is powerful as participants described barriers to accessing these places, even post-apartheid, and gratitude for the opportunity to join the outreach workshops. It is evident that the participants' sense of place is strongly influenced by exclusion and issues of access, a legacy of apartheid still experienced today.

Preliminary research, based on 12 photovoice participants and their collective 175 photographs across six themes, suggests that there have been several positive influences from the capacity building workshops. Following the outreach workshops, the outreach has also reported that three participants moved into conservation internships and then into running their own photographic businesses. One of these participants and another two have entered degrees in filmmaking. One participant works for an international camera brand as an online trainer. Currently, six outreach graduates are running the photographic workshops for new students. The outreach serves as an example of capacity building in which participants grow to become meaningful partners and drivers of the outreach's activities and, as such, fosters an autonomy-supportive environment and genuine participation. In turn, the capacity-building focus creates an empowering springboard that recognises the human component of conservation and the exclusionary impact of apartheid on the communities directly impacted by its legacy. The outreach offers a significant change from traditional environmental education programmes, such as the Kruger Park Environmental Education Programme (Swemmer & Mmethi, 2016), which often focus on increasing short-term access and awareness, measuring impact through the number

of participants alone. The engagement, second-order capacity building, and long term-opportunities provided by the outreach programme demonstrate a valuable shift towards a just conservation approach.

Conclusion and recommendations

Conservation psychology's greatest potential lies in both its theoretical and practical contributions to human wellbeing and conservation of the natural world. This may encompass many aspects of environmental concerns and the impact these will have on policy change, human wellbeing, and the natural world at large. Furthermore, by foregrounding justice, conservation psychology may make significant contributions to redefine the interrelated nature of environmental injustice (both natural and urban) and social injustice (Cock, 2004; Freund, 1999) to simultaneously promote “red”, “brown”, and “green” issues most commonly impacting poor and vulnerable groups.

Like conservation biology, just conservation psychology can thus be a valuable means of achieving two objectives. First, to evaluate the impact of human behaviour on the natural world, and second, to design pragmatic interventions and approaches to protect biodiversity and prevent further damaging losses (Soule, 1986). Unlike conservation biology, we propose a third objective that may be achieved through conservation psychology- promoting environmental protection, human wellbeing, and justice, simultaneously and with equal importance. We propose three main ways in which researchers and practitioners may achieve these objectives:

First, since all conservation initiatives involve human participants and stakeholders, participatory approaches should be prioritised in designing and implementing conservation interventions. In doing so, practitioners may respectfully embrace indigenous knowledge, social norms, and cultural practices. In turn, values of empowerment and a sense of ownership over the process may increase engagement and autonomy (DeCaro & Stokes, 2008). Foregrounding environmental justice in conservation initiatives can thus be achieved through genuine participation and acknowledging and dismantling historically exclusive practices.

Second, conservation organisations and teams would benefit significantly by including social science researchers in designing and implementing initiatives. Social science researchers are uniquely positioned to offer a social lens on environmental issues to ensure a more holistic approach that embraces environmental justice as a framework to improve conservation outcomes. Furthermore, social science researchers may also offer valuable insight in evaluating such initiatives to better understand their successes or failures to implement future changes.

Lastly, in tandem with educators and environmental scientists, psychology researchers are well equipped to engage in capacity development to provide an empowering foundation for job creation and self-employment opportunities. Such capacity development could potentially be focused on conservation and tourism-related opportunities, such as field guides, rangers, hospitality, and veterinary services, to name a few. Creative pursuits such as photography and filmmaking in wildlife tourism are also appealing career opportunities demonstrated by the case study. We do, however, caution against traditional psycho-education and individual behaviour change to ensure that justice remains at the forefront of conservation psychology. In this way, researchers and practitioners can remain mindful of dismantling racially exclusionary practices to work towards social redress and a healthy environment for present and future generations.

In summary, conservation psychology is uniquely positioned to offer a more meaningful and effective means of implementing conservation practice by foregrounding justice. Therefore, new perspectives on social-psychological issues may provide valuable insight into and ways of addressing structural racism, environmental injustice, and environmental issues with equal importance. Such interdisciplinary work is invaluable to prevent the perpetuation of unjust practices in conservation whilst simultaneously addressing the urgency of protecting biodiversity.

Future research seeks to expand upon the use of photovoice in critical place inquiry to aid an in-depth exploration of the outreach participants' own perceptions of place and the natural environment, specifically in the greater Kruger region. This is especially relevant in the context of capacity building and conservation foregrounded by an environmental justice framework.

References

Agyeman, J, Bullard, R D & Evans, B (2002) Joined-up thinking: bringing together sustainability, environmental justice and equity, In Agyeman, J, Bullard, R D & Evans B (eds) **Just Sustainabilities: Development in an Unequal World** (pp1-16). Taylor and Francis.

APA Divisions (2011) Division 34 Conservation psychology. <https://www.apadivisions.org/division-34/interests/conservation/index>

APA Divisions (2021) Division 34 Environmental, Population, and Conservation Psychology. <https://www.apadivisions.org/division-34>

Balmford, A & Cowling, R M (2006) Fusion or failure? The future of conservation biology. **Conservation Biology**, **20(3)**, 692-695. doi: 10.1111/j.1523-1739.2006.00434.x

Barnwell, G (2021) Expert report: The psychological and mental health consequences of climate change in South Africa. Centre for Environmental Rights. <https://cer.org.za/wp-content/uploads/2021/09/CER-Expert-Report-Garret-Barnwell-31-August-2021-Public-1.pdf>

Bennett, N J, Roth, R, Klain, S C, Chan, K, Christie, P, Clark, D A, Cullman, G, ... Wyborn, C (2017a) Conservation social science: Understanding and integrating human dimensions to improve conservation. **Biological Conservation**, **205**, 93–108. doi:10.1016/j.biocon.2016.10.006

Bennett, N J, Roth, R, Klain, S C, Chan, K M A, Clark, D A, Cullman, G, Epstein, G, ... Verissimo, D (2017b) Mainstreaming the social sciences in conservation. **Conservation Biology**, **31(1)**, 56-66. doi: 10.1111/cobi.12788

Boyd, N M & Bright, D S (2007) Appreciative inquiry as a mode of action research for community psychology. **Journal of Community Psychology**, **35(8)**, 1019–1036. doi:10.1002/jcop.20208

Bullard, R D (1993) Anatomy of environmental racism and the environmental justice movement, In Bullard, R D (ed) (1994) **Confronting environmental racism: voices from the grassroots** (pp. 15-39). Boston, Massachusetts: South End Press.

Bullard, R D (2001) Environmental justice in the 21st century: race still matters. **Phylon**, **49(3/4)**, 151-171.

Carruthers, J (1995) **The Kruger National Park: a social and political history**. Pietermaritzburg, South Africa: University of Natal Press.

Carson, R L (1962) **Silent Spring**. New York: Houghton Mifflin.

Clayton, S, Litchfield, C & Geller, S E (2013) Psychological science, conservation, and environmental sustainability. **Frontiers in Ecology and the Environment**, **11(7)**, 377-382. doi: 10.1890/120351

Clayton, S & Myers, G (2015) **Conservation psychology**. West Sussex, England: Wiley Blackwell.

Cranston, K A (2013) A brief history of conservation psychology. Unpublished manuscript, Antioch University, New England.

Cock, J (2004) Connecting the red, brown and green: the environmental justice movement in South Africa (Research report Globalisation, marginalisation and the new social movements in post-apartheid South Africa).

Cock, J & Fig, D (2000) From colonial to community based conservation: Environmental justice and the national parks of South Africa. **Society in Transition, 31(1)**, 22-35, doi: 10.1080/21528586.2000.10419008

Cooney, R, Roe, D, Dublin, H, Phelps, J, Wilkie, D, Keane, A, Travers, H, ... Biggs, D (2017) From poacher to protectors: engaging local communities in solutions to illegal wildlife trade. **Conservation Letters, 10(3)**, 367–374. doi:10.1111/conl.12294

DeCaro, D & Stokes, M (2008) Social-psychological principles of community-based conservation and conservancy motivation: Attaining goals within an autonomy-supportive environment. **Conservation Biology, 22(6)**, 1443–53. doi:10.1111/j.15231739.2008.00996.x

Downes, A T (nd) Why community is the cornerstone of conservation. <https://www.impactingourfuture.com/environmental-protection/why-community-is-the-cornerstone-of-conservation-2/>. Date retrieved or accessed 2 June 2021.

Duffy, R, Massé, F, Smidt, E, Marijnen, E, Büscher, B, Verweijen, J, Ramutsindela, M, ... Lunstrum, E (2019) Why we must question the militarisation of conservation. **Biological Conservation, 232**, 66-73. doi: <https://doi.org/10.1016/j.biocon.2019.01.013>

Evans-Agnew, R A & Rosemberg, M S (2016) Questioning photovoice research: whose voice? **Qualitative Health Research, 26(8)**, 1019-1030. doi: 10.1177/1049732315624223

Freund, B (1999) Brown and green in Durban: the evolution of environmental policy in a post-apartheid city. **International Journal of Urban and Regional Research, 24(5)**, 717-739. doi: 10.1111/1468-2427.00341

Green, R M (1977) Intergenerational distributive justice and environmental responsibility. **BioScience, 27(4)**, 260-265.

Green, S J, Armstrong, J, Bogan, M, Darling, E, Kross, S, Rochman, C M, Smyth, A & Verissimo, D (2015) Conservation needs diverse values, approaches, and practitioners. **Conservation Letters, 8(6)**, 385-387. doi: 10.1111/conl.12204

Hart, C (2014) The role of environmental justice in biodiversity conservation: investigating experiences of communities near Kruger National Park, South Africa. **Dalhousie Journal of Interdisciplinary Management**, **10(1)**. doi: 10.5931/djim.v10i1.3359

Hicks, C C, Levine, A, Agrawal, A, Basurto, X, Breslow, S J, Carothers, C, Charnley, S, ... Levin, P S (2016) Engage key social concepts for sustainability. **Social Science and Sustainability**, **352(6281)**, 38–40. doi:10.1126/science.aad4977

Hunter, L M, Strife, S & Twine, W (2010) Environmental perceptions of rural South African residents: the complex nature of environmental concern. **Society and Natural Resources**, **23(6)**, 525-541. doi: 10.1080/08941920903357782

IPBES (2019) Summary for policymakers of the global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. S. Díaz, J. Settele, E. S. Brondízio E.S., H. T. Ngo, M. Guèze, J. Agard, A. Arneth, P. Balvanera, K. A. Brauman, S. H. M. Butchart, K. M. A. Chan, L. A. Garibaldi, K. Ichii, J. Liu, S. M. Subramanian, G. F. Midgley, P. Miloslavich, Z. Molnár, D. Obura, A. Pfaff, S. Polasky, A. Purvis, J. Razzaque, B. Reyers, R. Roy Chowdhury, Y. J. Shin, I. J. Visseren-Hamakers, K. J. Willis, and C. N. Zayas (eds). IPBES secretariat, Bonn, Germany.

Islam, S N & Winkel, J (2017) Climate change and social inequality (DESA Working Paper No. 152). <https://www.un.org/en/desa/climate-change-and-social-inequality>

Kohler, F & Brondizio, E S (2017) Considering the needs of indigenous and local populations in conservation programs. **Conservation Biology**, **31(2)**, 245–251. <https://doi.org/10.1111/cobi.12843>

Levine, M, Perkins, D D & Perkins, D V (2005) **Principles of community psychology: Perspectives and applications**. Oxford, England: Oxford University Press.

Long, W (2016) On the Africanization of psychology. **South African Journal of Psychology**, **1-3**. doi: 10.1177/0081246316650853

MacQueen, K M, McLellan, E, Metzger, D S, Kegeles, S, Strauss, R P, Scotti, R, Blanchard, L & Trotter, R T (2001) What is community? An evidence-based definition for participatory public health. **American Journal of Public Health**, **91(12)**, 1929-1937. doi: 10.2105/AJPH.91.12.1926

Merchant, C (1980) **The death of nature: Women, ecology, and the scientific revolution**. New York: Harper Collins.

Merchant, C (2006) The scientific revolution and the death of nature. **Isis**, **97(3)**, 513-533.

Mohai, P, Pellow, D & Roberts, J T (2009) Environmental justice. **Annual Review of Environment and Resources**, 405-430. doi: 10.1146/annurev-environ-082508-094348

Musavengane, R & Leonard, L (2019) When race and social equity matters in nature conservation in post-apartheid South Africa. **Conservation and Society**, **17(2)**, 135-146. doi: <https://www.jstor.org/stable/26611740>

Nustad, K G (2015) **Creating Africas: struggles over nature, conservation and land**. London: C. Hurst & Co.

Pillay, S (2017) Cracking the fortress: can we really decolonise psychology? **South African Journal of Psychology**, **47(2)**, 135-140. doi: 10.1177/0081246317698059

Pollard, S, Shackleton, C & Carruthers, J (2003) Beyond the fence: people and the lowveld landscape, In DuToit, J, Rogers, K & Biggs, H (eds) (2003) **The Kruger experience** (pp422-446). Island Press, Washington, D.C.

Raik, D B, Decker, D J & Siemer, W F (2003) Dimensions of capacity in community-based suburban deer management: the managers' perspective. **Wildlife Society Bulletin**, **31(3)**, 854-864. doi: <https://www.jstor.org/stable/3784610>

Ramutsindela, M, Matose, F & Mushonga, T (2022) Conservation and violence in Africa, In Ramutsindela, M (ed) (2022) **The Violence of Conservation in Africa**. Edward Elgar Publishing.

Reddy, S M W, Montambault, J, Masuda, Y J, Keenan, E, Butler, W, Fisher, J R B, Asah, S T & Gneezy, A (2016) Advancing conservation by understanding and influencing human behaviour. **Conservation Letters**, **10(2)**, 248-256. doi: 10.1111/conl.12252

Redmore, L, Stronza, A, Songhurst, A & McCulloch, G (2018) Which way forward? Past and new perspectives on community-based conservation in the Anthropocene. **Encyclopedia of the Anthropocene**, **3**, 453-460. doi: <https://doi.org/10.1016/B978-0-12-809665-9.09838-4>

Salafsky, N, Margoluis, R, Redford, K H & Robinson, J G (2002) Improving the practice of conservation: a conceptual framework and research agenda for conservation science. **Conservation Biology**, **16(6)**, 1469-1479.

Saunders, C D (2003) The emerging field of conservation psychology. **Human Ecology Forum**, **10(2)**, 137-149. doi:10.1038/mdl776

Scheyvens, R (1999) Ecotourism and the empowerment of local communities. **Tourism Management**, **20**, 245-249. doi:10.1016/S0261-5177(98)00069-7

Schlosberg, D (2007) **Defining environmental justice theories, movements, and nature**. New York: Oxford University Press.

Schroeder, R, St Martin, K, Wilson, B & Sen, D (2008) Third world environmental justice. **Society and Natural Resources**, **21(7)**, 547-555. doi: 10.1080/08941920802100721

Schultz, W P (2011) Conservation means behaviour. **Conservation Biology**, **25(6)**, 1080-1083. doi:10.1111/j.1523-1739.2011.01766.x

Sebunya, K (2017, July 31) Saving the world's wildlife is not just a 'white person thing'. The Guardian. <https://www.theguardian.com/environment/africa-wild/2017/jul/31/saving-wildlife-conservation-africa-colonialism-race>

Simmons, I G (1993) **Interpreting Nature: cultural constructions of the environment**. London: Routledge.

Soule, M E (1985) What is conservation biology? **BioScience**, **35(11)**, 727-734. http://marcus.ib.usp.br/biz0304/lib/exe/fetch.php?media=aulas:soule_bioscience_1985.pdf

Soule, M E (1986) Conservation biology and the 'Real World', In Soule, M E (ed) (1986) **Conservation biology. The science of scarcity and diversity**. Sunderland, MA: Sinauer Associates.

Steady, F C (2009) Introduction, In Steady F C (ed) (2009) **Environmental Justice in the New Millennium: Global Perspectives on Race, Ethnicity, and Human Rights** (pp. 1-16). Palgrave MacMillan: New York.

St John, F, Edward-Jones, G & Jones, J P G (2010) Conservation and human behaviour: Lessons from social psychology. **Wildlife Research**, **37**, 658-667. doi:10.1071/WR10032

Stull, V, Bell, M M & Ncwadi, M (2016) Environmental apartheid: Eco-health and rural marginalisation in South Africa. **Journal of Rural Studies**, **47**, 369-380. doi: <http://dx.doi.org/10.1016/j.jrurstud.2016.04.004>

Szasz, A & Meuser, M (1997) Environmental inequalities: literature review and proposals for new directions in research and theory. **Current Sociology**, **45(3)**, 99-120.

Taylor, D E (2000) The rise of the environmental justice paradigm. Injustice framing and the social construction of environmental discourses. **American Behavioural Scientist**, **43(4)**, 508-580.

Toomey, A H, Knight, A T & Barlow, J (2016) Navigating the space between research and implementation in conservation. **Conservation Letters**, **10(5)**, 619-625. doi:10.1111/conl.12315

Tuck, E & McKenzie, M (2015) **Place in research: theory, methodology, and methods**. New York: Routledge.

United Nations Department of Economic and Social Affairs (2020) World social report 2020: Inequality in a rapidly changing world. <https://www.un.org/development/desa/dspd/wp-content/uploads/sites/22/2020/02/World-Social-Report2020-FullReport.pdf>

United Nations Department of Economic and Social Affairs (2021) World social report 2021: Reconsidering rural development. <https://www.un.org/development/desa/dspd/world-social-report/2021-2.html>

United Nations Academic Impact (nd) Capacity Building. <https://www.un.org/en/academic-impact/capacity-building>. Date retrieved or accessed: 30 June 2021.

Wang, C & Burris, M A (1997) Photovoice: concept, methodology, and use for participatory needs assessment. **Health Education & Behaviour**, **24(3)**, 369-387.