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Investigation into the development of a methodology for the study of environmental discourses

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The need to decolonise the academy and academic writing requires that methodology for research be chosen carefully. The methodology of a study reflects the researcher's point of departure or worldview, as well as their belief system. The current coronavirus disease 2019 (COVID-19) pandemic has drastically influenced the functioning of higher education institutes, as well as how scholars plan and execute their research. This includes investigation into the global environmental crisis that is widely researched from various disciplines. These disciplines tend to develop and favour different methodologies. The purpose of this presentation was to report on the inquiry into a suitable methodology to study social discourses about the environmental crisis. The methodologies investigated were an eco-linguistic approach to Critical Discourse Analysis, combined with eco-criticism, which was linked to the concept of an eco-sophy, using the framework of Dark Green Religion. The umbrella-concept of Dark Green Religion as a theoretical framework allows the comparison and incorporation of disparate methodologies as well as discourses. This framework also gives prominence to the role of religion in societal response to the environmental crisis. Due to the study being situated in an African context and striving to implement a decolonising discourse, some suggestions were made on decolonising research methodology in higher education.

Contribution: This article's contribution to new knowledge centred around situating current and new research in Africa in the context of the COVID-19 pandemic and deliberating on the impact for future studies. The conclusion was drawn that the COVID-19 pandemic can be a catalyst for re-interpreting research methodology from a decolonised perspective.

Keywords: Dark Green Religion; decolonising higher education; ecocritical analysis; ecolinguistics; environmental discourse; methodology.

Introduction

This article is a reflection on the research journey of a particular researcher during doctoral studies. The discussion centres on the study of social discourses that reflect societal responses to the environmental crisis, and an investigation of the role of religion in these responses. The doctoral studies reflect the researcher's personal background as a scientist involved in the study of religion, namely eco-theology, and could be classed as an interdisciplinary investigation. During the course of the literature study for the research, the scientific study of language was investigated and incorporated an ecolinguistic approach. This in turn led to the application of ecocriticism as a tool for revealing themes and positions in discourses, in an attempt to identify the underlying eco-sophy of the author.

A research journey may lead the researcher into an investigation of various research strategies and methodologies, each with their own terminologies, possibilities and limitations. Additional challenges are the current coronavirus disease 2019 (COVID-19) context as well as the evolving debate around the decolonising of higher education and academic research in Africa. This can be bewildering and the temptation exists to make the safe choices and follow the example of other scholars.

The COVID-19 context and academic research

The worldwide COVID-19 pandemic brought a halt to most human activities and also resulted in many deaths (Aborode et al. 2021:5212; White 2020). The World Health Organization has stated

that, up to August 2022, approximately 600 million cases were reported globally, and approximately 6.5 million deaths have been ascribed to infections by the novel coronavirus responsible for the COVID-19 pandemic (Official World Health Organization website, 2022).

The impact of the virus provided definite evidence of the incredible interconnectedness of global human society, and the role played by human travel and movement (Denzin & Giardina 2021:9; Montgomery, Raupp & Parkhurst 2021:184). A very clear demonstration of this was that, regardless of the strictness of the measures imposed on its citizens by Chinese authorities, the COVID-19 virus easily spread across the globe in a matter of days (Denzin & Giardina 2021:1–2). The mutations that soon surfaced and resulted in successive waves of infection, spread just as fast and eventually infected people in every country.

The pandemic revealed underlying inequalities in societies as well as the worldviews of governments and leaders, which became apparent in the measures taken to combat the pandemic (Denzin & Giardina 2021:2; Oxford Analytica 2020). The divide between privileged and underprivileged groups in society deepened, as only those people with adequate internet access and the required training could migrate to online workspaces, while unskilled workers had to brave the consequences of infection to continue working (Denzin & Giardina 2021:2). The COVID-19 pandemic also served as a measure of the separations that already existed between developed and less developed countries, by revealing the inequalities in the way virus infections could be traced and infected people treated, particularly relative to the distribution of vaccines (Aborode et al. 2021:5212).

Some spheres of society were more drastically affected than others, and education was one of them. Higher education institutes had to devise ways to continue teaching using online platforms and all students had to adapt to new ways of studying (Denzin & Giardina 2021:2; Maddumapatabandi & Gamage 2020). Academic research did not escape these changes (Denzin & Giardina 2021:8). In addition to the unequal access to internet facilities faced by less-privileged students, post-graduate candidates and other researchers had to rethink their research strategies. Research designs and methodologies had to be altered to take measures to prevent the spread of the COVID-19 virus into account (Denzin & Giardina 2021:7). The concept of research methodology had to be revised and re-*thinked*. In most cases, the only way to continue research projects was to change to online methods to gather data and to contact selected participants for interviews and questionnaires.

The COVID-19 pandemic also had a secondary effect on researchers. From working in communal spaces and having contact with supervisors, colleagues, as well as participants in studies, post-graduate students and researchers had to contend with working in isolation and having only virtual contact with other people. The consequence of being forced to change to virtual human interaction was that researchers

started to reflect on their research strategies and methodologies, and this in turn had an effect on their research outcomes. The final impact of the pandemic on human relationships and mental states will still have to be determined, but it is not far-fetched to expect that the impact will be felt in more ways than we currently envisage (Denzin & Giardina 2021:7–8). The COVID-19 pandemic therefore resulted in researchers reconsidering their reasons for doing research and also the ways in which they were doing research (Denzin & Giardina 2021:8). The global COVID-19 pandemic can be viewed as an opportunity for researchers to change their established ways of doing research.

The African context and academic research

The changes brought about by the COVID-19 pandemic affected researchers in Africa as well as in other parts of the world. However, African researchers also have another imperative to reconsider research methodologies. African academics have promoted arguments supporting the necessity for Africa to decolonise in all spheres for a number of years (Ikuenobe 2014; wa Thiong'o 2009).

The need to decolonise higher education institutions to remove the ingrained bias of Western thought and worldview is a developing theme in African academic discourse (Ndlovu-Gatsheni 2020:172), because African higher education institutions inherited and reproduced Western knowledge systems as a result of colonialism. Higher education is perceived as an effective tool for reproducing knowledge systems, and it is therefore important to focus decolonising efforts on the area of higher education (Ndlovu-Gatsheni 2018:161, 2020:152, 172). The current student generation, as well as their educators, are products of our current education system which can be considered as flawed in some respects, due to colonial influences. It is very difficult for students to find suitable means of decolonising their research under these circumstances. But if research topics can be addressed with a view to achieve this, change will be achieved in the end.

In Africa, higher education institutions such as universities have started to redesign curricula to reflect African knowledge and history, although the effectiveness of these changes has been criticised by students (Keane, Khupe & Seehawer 2017:15). Movements towards the recognition and preservation of indigenous knowledge are also taking place (Khupe & Keane 2017:25). Research has shown that it is important that the process of decolonisation of education should recognise and incorporate the indigenous knowledge of local communities, as well as focus on the contributions of women and vulnerable populations for the end-result to be inclusive (Khan et al. 2021:1). However, the decolonisation of research and research methodology has not received the same attention as the redesigning of curricula (Khupe & Keane 2017:25). More needs to be done to encourage students from Africa to do research and report on findings from a uniquely African perspective.

Decolonisation is a broad issue that will not be achieved by isolated actions, but needs to be addressed collectively, and with a view to include rather than exclude. Higher education plays an important role in gathering and disseminating knowledge and a focus to decolonise higher education will have great benefit to African societies. The impetus to decolonise higher education is not limited to Africa, but has also been an area of focus in other countries. Research in Canada has acknowledged the role of universities in the process of reconciliation, as part of the movement towards decolonisation (Lewis 2021:93).

Decolonising research methodology

The aftermath of colonisation on the African society is still felt long after the colonising powers have withdrawn. This is the result of the inculcation of languages and knowledge originating from Western (European and American) epistemological systems (Ndlovu-Gatsheni 2018:161–162). One of the questions African academics are wrestling with, is how to reflect decolonisation in their research strategies and methodologies (Melber 2018:8–9; Ndlovu-Gatsheni 2018: 190–191). The concept of decolonising African thought infers that Europe and Northern America should not continue to be considered as the centres where scientific thought and theories are authorised and disseminated (Melber 2018:6; Ndlovu-Gatsheni 2020:155). The challenge of decolonising African research methodologies across all disciplines will require of scholars to select their research methodologies with more intention, instead of following the examples of previous studies. Research strategies or paradigms are seen to have originated from Western philosophical thought patterns and recognised as providing the universal standard for academic work (Khan et al. 2021:2). For researchers developing proposals and selecting methodologies, the choice of methodologies is confined by paradigms and philosophies that are aligned with their particular discipline. An example is pragmatism, a research paradigm that is aligned with the research strategy of mixed-methods (Melber 2018:6; Ponterotto 2005:127–130). A decolonised approach to methodology will attempt to move beyond narrow, purely intellectual investigation, towards a more holistic, nuanced and inclusive approach (Melber 2018:11).

In any qualitative research project, the researcher plays an important part in the interpretation and evaluation of the data or results, which is why it is important to be aware of the philosophical assumptions or worldview of the researcher (Creswell 2013:16, 20). Axiological assumptions, or the declaration of personal values and biases, is considered typical of qualitative research (Creswell 2013:20). Qualitative research is characteristic of research in the social sciences and can be defined as the positioning of a researcher in this world, doing empirical studies of materials reflecting people's lives (Denzin & Lincoln 2013:7). Because there can never be a set view or interpretation of any situation, a qualitative researcher may use several methods to interpret observations, and become a collector of pieces of information that can be combined to answer specific questions (Denzin & Lincoln 2013:7–8). This collection and combination of knowledge can provide a qualitative researcher with the option to be somewhat flexible in the selection and application of methods of research.

An example of the possibility to introduce change is the debate around mixed-method versus purely qualitative or quantitative research methodologies. Some scholars consider mixed-methods as a valid research methodology (Creswell & Clark 2017), while others disagree (Denzin & Lincoln 2013). Still others discard both qualitative and quantitative, as well as the mixed-method categories and instead promote a system of integrated methodology (Plowright 2011).

In much the same way, a dialogue regarding the incorporation of a decolonised approach to research methodology is possible (Melber 2018:9). What would a decolonised methodology look like? And how would it differ from entrenched methodologies? As already suggested, methodologies that position indigenous knowledge and women's voices as focus areas will contribute to the decolonising of research. However, students follow in the footsteps of other scholars and tend to select methods that were used previously and received favourable feedback.

Research methodology applicable to the study of the social discourse about the environmental crisis

The global environmental crisis affects all spheres of human activity, in much the same way as the COVID-19 pandemic affected human activities. This is evident when comparing human responses to both the COVID-19 pandemic and the environmental crisis. Because the consequences of these global crises are negative and have undesired effects on human society, various social responses are observed (Denzin & Giardina 2021:4). Some responses are easily identified, for example the political divide in the United States of America between people prepared to adhere to the measures to curb the spread of the COVID-19 virus (such as masks) and those who refused. In a similar reaction, certain groups reject scientific reports about the seriousness of the environmental crisis and use potential job losses as motivation for continued investment in fossil fuel production (Denzin & Guardina 2021:2–3). This is in contrast with efforts to promote lifestyle changes and support of policies to implement sustainable technologies (Denzin & Giardina 2021:1–4).

The environmental crisis impacts on all areas of human life and it therefore follows that research on responses to the environmental crisis will originate from various disciplines. In the study of the relevant literature, it was found that terminology, themes and images display similarity, even though sourced from separate disciplines. This similarity might be the result of researchers from different disciplines responding to the magnitude of the environmental crisis, as well as the urgency and importance of finding answers before it is too late. The overwhelming supply of relevant material may be another reason for the development of various methods.

Selection of ecologically orientated methodologies

The prefix *eco-* appears regularly in terms related to the environmental crisis. This prefix originates from the term *ecology* – a concept that emerged shortly after Darwin released the results of his studies on evolution (Fill 2018:1). Ecology rapidly developed into a separate scientific domain and refers to the web of life that includes all living and non-living things in ecosystems that sustain life as we know it (Fill 2018:1). Instead of remaining as a research field with a narrow focus, it has expanded into an 'ecological approach to all life-phenomena' (Fill 2018:1). Therefore, the prefix *eco-* incorporates the reference to ecological systems into other terms, which are in use in discourses about the environment.

Ecolinguistics is a developing interdisciplinary field in which language interactions and the link with ecology and the environment are studied (Le Vasseur 2015:21–22). It is an expansion of the discipline of linguistics, the scientific study of language, into the field of environmental discourses (Fill 2001:61; Stibbe 2014:120). The origins of ecolinguistics are in the social sciences, but it has application in many other fields (Le Vasseur 2015:2021). Due to the interdisciplinary nature of ecolinguistics, various methods can be used by researchers.

Ecocritical analysis can be used as a tool to analyse narratives by revealing specific positions and images related to the environment and originally developed in the study of popular literature (Garrard 2004). However, the same themes and images can be found in academic narratives and various other social discourses, with the end-result of revealing the eco-sophy or environmental worldview of the respective authors. An eco-sophy represents a person's individual attitude and behaviour towards the specific environment he or she finds themselves in, and is an idea articulated by Arne Naes, the Norwegian philosopher (eds. Drengson & Devall 2008:32).

For the methodology of this study, the themes I found from the analysis of selected narratives were categorised according to a framework based on the principles of Dark Green Religion. The methodology of ecocriticism within the eco-linguistic approach to Critical Discourse Analysis (CDA) was thereby expanded and enriched by including a spiritual or religious worldview.

Dark Green Religion is an umbrella term for nature-revering movements, and was formulated by Bron Taylor. He attempted to categorise the myriad of nature and environmental movements emerging worldwide in response to people's concerns about the growing environmental crisis (Taylor 2010:13). The religious connection between these movements is based on their shared reverence for the earth as possessing intrinsic worth, rather than the utilitarian approach to nature as solely providing in the needs of humans, an attitude ascribed to Christianity by some authors (White 1967:48). The characteristic principles that are used to identify a specific movement as aligned with Dark Green Religion (DGA), are belonging, interconnectedness and sacredness. The principle of belonging emphasises that all life on earth has a common home and as such all living things are interconnected, because we share the same requirements for life. The intrinsic worth of the Earth elevates it to have meaning above that of mere resources to be exploited for profit, and bestows a sacred element on nature (Taylor 2010:13).

Eco-sophies or positions revealed through ecolinguistic and ecocritical analysis

The ecolinguistic analysis of texts and discourses attempts to reveal the underlying attitude of the author towards the environment (Fill 2001:61; Stibbe 2014:120). This attitude can also be described by the term 'eco-sophy' – which can result in either positive or destructive behaviour by an individual. Through using an ecolinguistic approach to critical discourse analysis, eco-sophies that guide behaviour leading to a lifestyle in harmony with the environment can be revealed (Stibbe 2014:120). Various eco-sophies, also called positions in ecocriticism, can be identified through this analysis. The positions are ranged from eco-sophies that are mainly anthropocentric – therefore putting human comforts and desires first, to more misanthropic – delegating human needs to a lower priority.

The *Cornucopian position or eco-sophy* reveals an attitude of human superiority over nature and a utilitarian approach towards the earth's resources. People guided by this eco-sophy consider the threat of the environmental crisis to be exaggerated and based on incorrectly interpreted data from scientific investigations (Garrard 2004:16; Stibbe 2014:123). The position has much in common with the *Environmental position* in that it strives above all else to maintain the status quo of the person's preferred lifestyle. Although certain allowances are made for conservation efforts by these individuals, the responsibility for addressing the problems resulting from the environmental crisis remains with the authorities or the scientific community (Garrard 2004:18; Stibbe 2014:123). Both these positions are anthropocentric because human interests are put first and these positions can also be classed as examples of shallow-ecology or shallow environmentalism (Naes 1973:95).

Shallow ecological positions are opposed to the position of *Deep Ecology* and the main difference is that Deep Ecology requires radical changes of humans. Supporters of the principles of Deep Ecology reject an anthropocentric worldview in favour of an eco- or nature-centred worldview or eco-sophy (Garrard 2004:22; Naes 1973:95). Various other positions are more or less aligned with the position of Deep Ecology, pursuing separate priorities but still with the overall goal of changing human society. Some of these are the position of eco-feminism (Garrard 2004:23; Stibbe 2014:123), social ecology, eco-Marxism and eco-justice (Garrard 2004:29; Stibbe 2014:123). Much more radical environmental positions exist, for example, some that focus on the implementation of measures to reduce human populations and the planning of

specific acts of sabotage, but these will not be addressed in this article.

The positions of *religious movements* form separate eco-sophies. Religious denominations each have an ingrained relationship with the environment in line with their specific doctrine. The Christian faith is accused of promoting a very anthropocentric view towards the environment among its members, although attempts have been made to redeem this position (Fill 2001:67; White 1967:53). The current head of the Catholic Church, Pope Francis, has been very emphatic in assigning a stewardship role to the church, in an effort to counteract the interpretation of the 'command to dominate' in the Hebrew Bible, Genesis 1:26–28 (Francis 2016). Among other religions, for example Islam, scholars are also advocating for more guidelines on the correct environmental relationship of their followers (Abu-Hola 2009:195, Ammar 2005:862–863).

African Traditional Religion is a collection of ancient religious and societal belief systems originating from Africa, that are all characterised by a reverence for nature (Ikuenobe 2014:2; Oduyoye 2020:xiv). As a result of the acknowledgement of the spiritual value of natural elements, certain places and animals have been imbued with sacredness by religious leaders and so acquired protection from exploitation by the human societies in the vicinity (Ikuenobe 2014:5, Oduyoye 2020:xvii). This close and mutually beneficial relationship was marred by the influence of colonialism (Ikuenobe 2014:2, Maathai 2007:6).

The worldview promoted by African Traditional Religion is more inclusive of nature and natural elements, moving away from a purely anthropocentric worldview and can therefore be reckoned as a very favourable environmental position to adopt.

The position of Dark Green Religion relative to Deep Ecology and African Traditional Religion

Deep Ecology (as opposed to shallow ecology) is based on a deep appreciation of the inherent value of all aspects of nature, but adopts a philosophical rather than a religious approach, and was the basis from which the concept of an eco-sophy was developed (eds. Drengson & Devall 2008:3). Dark Green Religion on the other hand, acknowledges human reverence for, or the bestowing of sacredness on nature, whether originating from an external divinity or as an intrinsic quality (Taylor 2008:89). The characteristics of belonging, and interconnectedness, can easily be recognised as compatible with the concepts of Deep Ecology, while the sacredness of nature and natural phenomena is inherent to African Religion. Both these belief systems or eco-sophies can therefore be aligned with Dark Green Religion.

Images or figures of speech applicable to environmental discourses

The images or figures of speech that will be discussed next, can be obtained from discourses using ecocritical analysis and also reveal the same characteristics that are shared by the belief systems pointed out previously. These images can be identified in literature, art works and movies (Garrard 2004: Preface).

Pastoral and wilderness images or figures of speech

The first is the image of pastoral scenery, depicting peaceful vistas of nature, evoking feelings of belonging, and of nature welcoming human presence (Garrard 2004:40). An image opposing that of the pastoral scene is that of the wilderness, of wild nature unaffected by human actions, evoking feelings of awe and reverence before the absolute power of nature (Garrard 2004:59–60). The pastoral figure of speech can be correlated with the Dark Green Religion characteristic of belonging, while the wilderness image can be linked with the Dark Green Religion characteristic of sacredness.

The concept of pollution

The image or concept of pollution has played an important role in raising awareness of the negative impact of products manufactured by humans, on the pastoral or wilderness images that were described in the previous paragraph. Pollution affects all facets of nature, including human well-being, and poses a serious threat to the continued existence of all life on earth (Garrard 2004:8). This figure of speech presents an opposite to the Dark Green Religion characteristic of interconnectedness, because it destroys the connection between people and nature.

Presentations of human habitation

The pastoral or wilderness images previously discussed are characterised by limited human presence. Human habitation is depicted as separate from pastoral and wilderness scenes and provides humans with a place where they truly feel at home (Garrard 2004:108). In previous generations, this would have been depicted by a farm homestead, but in current times, humans feel at home in the city. The image of the city is not yet compatible with our perceptions of nature. But this is a development that is urgently needed, so possible futures for human societies can become more tangible in our discourses and art work. The Dark Green Religion characteristic of belonging is related to the image of human habitation, although modern images of city dwellings are not always experienced as such, and may evoke impressions of a hostile and unnatural environment.

Apocalyptic images vs possible futures

Apocalyptic images are the antithesis of human habitation and evoke visions of dystopic societies and devastated nature. These images are not of modern origin, but are increasingly used in literature and art (Garrard 2004:93). Apocalyptic figures of speech arouse feelings of despair and doom, and have to be counteracted by images of possible futures for human society in harmony and co-existence with nature. Apocalyptic images are in conflict with Dark Green Religion characteristics, because the devastation depicted reflects the antithesis to belonging or interconnectedness.

Animals and humans

The last image connected to the environmental discourse is that of animals. Animals also belong in some of the images already mentioned (e.g. the pastoral and wilderness images), reflecting different relationships of humans with animals. This image can be seen as reflecting interconnectedness.

The topic of human relationships and interactions with animals is very broad, encompassing conservation, leisure, food and ethics (Garrard 2004:139), and will not be further elaborated on in this discussion.

Conclusion

The COVID-19 pandemic gave the global human society many insights, one of the most important being definite evidence of the incredible interconnectedness of global human society. Another fact reinforced by the COVID-19 pandemic is the interconnectedness between humans and nature, and the impact of human activities on nature was displayed very clearly during the pandemic. The lockdowns implemented by many governments severely curtailed human movement and other activities, and the effects of that on the environment became evident very soon.

Other impacts of the pandemic on human society are more subtle, but can also be far-reaching. People from all walks of life had time to rethink their way of life and their futures. Researchers had the same experience and came to their own personal conclusions. The COVID-19 pandemic showed us that change can happen at any time and is therefore always possible. As shown through the discussion in this article, one of the possible changes that can take place in the academy is that we can change the way we do research and the way we report on our findings.

From the several conclusions formulated during the research journey of this researcher, it became clear that it is very difficult to accommodate the various contexts that impact research activities into one coherent research focus. Especially in an interdisciplinary study, the options become overwhelming. However, because academic endeavours should reflect the living realities of people, even if not in a completely satisfactory manner, it is a problem researchers should strive to address.

By engaging Melber's (2018) theory on decolonisation, the article maintains that researchers from Africa have the unique opportunity to reflect critically on their methodological approaches from the point of view that knowledge production in the African context should be grounded in a framework of decolonisation. This can make an important contribution to the decolonising of the higher education environment not only in Africa, but also globally, and will pave the way for future researchers to establish their own identities in the academy.

The COVID-19 pandemic is an extremely rare event in human history, because it impacted the whole global human population at the same time and in similar ways. It gave us pause to rethink our lives in many aspects, I hope, especially with regard to the whole household of God which is the earth, and the environment that sustains us in our communities. In this period after the worst of the pandemic seems to be over, we should address the important issues that it brought to the fore with renewed conviction.

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