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Swedish University of Agricultural Sciences

**Faculty of Natural Resources and  
Agricultural Sciences**

# **Racism in environmental communication about plastic pollution**

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# **Racism in environmental communication about plastic pollution**

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## Abstract

This thesis contributes to the knowledge formation of how environmental racism is covertly transformed in environmental communication about plastic pollution and how that affects socioecological relations in Kwazulu Natal, South Africa. Through analysis rhetorical and narrative strategies of the communication by the NGO Durbanites Against Plastic Pollution and by observing the Durbanites it has been revealed how aversive racism is transformed within the context of plastic pollution. The findings suggest that the longterm racist conditioning of apartheid and restructuration into the post-apartheid society has created a hegemonic culture of silence that prevents open discussions about social and environmental problematics related to racism. To avoid risking conflict these problems are covertly addressed within the *safe premises* of environmental communication about plastic pollution through symbolism and tropes in sub narratives about stereotyping, racial melancholia, corruption and child homicide. This thesis illustrates how racial tensions can amplify in the context of an environmental crisis and how environmental issues are utilized to give agency to preexisting conflicts and frame issues of the Afrikaner community. The thesis concludes that white supremacy is an environmentally dysfunctional ideology and that racism needs to be discussed in the open to reduce the taboo and prevent racist ideologies to distract the development of sustainable socioecological relations that are necessary to mitigate plastic pollution and environmental degradation.

*Keywords: environmental racism, plastic pollution, socioecological relations, South Africa, narrative rhetoric strategies*



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# 1 Introduction

85% of the drinking water worldwide is contaminated by carcinogenic microplastic molecules that stay intact for up to 400 years (DAPP 2017, OC 2017, DGC 2017). This will affect all life on the planet for generations to come if no solutions are found (ibid). In a coastal city as Durban in a developing country as South Africa the plastic pollution problematics are critical. 8 million tons of plastic are discarded in the oceans worldwide every year and out of 192 examined countries regarding highest level of mismanagement of plastic waste South Africa ranks as 11 (Van Rensburg et al 2020). The most common forms of plastic pollution come from single-use plastics as bags, bottles, straws and food containers (DAPP 2017, Van Rensburg et al 2020). Because of consumer behavior and a high level of waste mismanagement in Durban plastic waste accumulates at the Umgeni river mouth from where it enters the ocean (ibid). Aside from the longterm carcinogenic effects on both humans and animals plastic pollution poses an immediate threat to the coastal and marine wildlife in South Africa where bottlenose dolphins, humpback whales, turtles and a wide variety of reef fish and birds are stranding and dying at an unprecedented rate due to entanglement and ingestion of plastic debris (Olbers 2017).

## 1.1 Racism

Another big problem in South Africa and worldwide is racism. There are many types of racism, but general definitions emphasize the idea that humans are subdivided into distinct groups that are different in their social behavior and innate capacities, which can be ranked as superior or inferior and that there is a direct correspondence between a group's values, behavior, attitudes and its physical features (Dennis 2004, Newman 2012). Racism can be expressed, reproduced and transformed intentionally and unintentionally due to causes as conditioning, lack of education, fear of what is different and maintenance of oppressive power structures in society (Bullard & Johnson 2000, Verwey & Quayle 2012, Shiva et al. 2014). Racism harms individuals, communities, people's health and their sense of welfare, freedom and dignity and creates a distrusting and disrespectful society (Dovidio et al 2002). During the apartheid regime (1948-1994) South Africa suffered 46 years of racist oppression and segregation (McDonald 2002, Verwey & Quayle 2012, Stewart & Ivala 2017, Musavengane & Leonard 2019). The long era of apartheid conditioned the South African population into a normalization of racism that in many ways still affect the post-apartheid society (ibid).

### 1.1.1 White supremacy

Ideologically apartheid is founded upon *white supremacy* that comprises the view of the *white man* as superior and nature as something separate and inferior that needs be conquered, tamed and exploited, just as people of color, women, children and animals (Bullard & Johnson 2000, Shiva et al. 2014, Cock 2018). White supremacy is an overarching ideology/discourse that has many underlying discourses<sup>1</sup> as black incompetence, whites under threat, black incrimination and racial melancholia through which racism has been reproduced and normalized (Helg 2000, McDonald 2002, Graham 2012). An example that illuminates the behavioral and strategic dynamics (Falkheimer & Heide 2014) that in South Africa sustain white supremacy is how the white Afrikaner community make themselves out to be victims of racism and oppression themselves and through this self-victimization further provokes and marginalize people of color (Verwey & Quayle 2012). By then appealing to white supremacy (Bullard & Johnson 2000, Turner & Wu 2002, Shiva et al 2014) where people of color has

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<sup>1</sup> See See section 2.1 Racist discourses

no acknowledged agency to confront the provocation as it would be interpreted as an unjustified attack and proof of the alleged violent nature of people of color (Helg 2000, McDonald 2002, Graham 2012). This example of racist reasoning and behavior reveals the narcissistic dynamics (Steenbergen 2018) and power strategies (Falkheimer & Heide 2014) behind white supremacy and the whites under threat discourse (McDonald 2002, Graham 2012, Verwey & Quayle 2012) and shows how people of color are cornered in their battle against racism. Power dynamics like this are volatile (Falkheimer & Heide 2014) and point out the dangers of addressing racism in the public room as it can cause violent reactions from all sides (Verwey & Quayle 2012, Stewart & Ivala 2017, Musavengane & Leonard 2019). White supremacy also produces a discourse (Jorgensen & Phillips 2002, Fairclough 2003) where the environmental and societal needs are in conflict (McDonald 2002, Turner & Wu 2002, Shiva et al 2014) through the worldview of nature as something to be ravaged and exploited to principally serve the needs of the superior and divine white man (Bullard & Johnson 2000, Shiva et al. 2014, Cock 2018). If racism is transformed into environmental communication it would thus be counteractive (Jorgensen & Phillips 2002, Fairclough 2003) towards environmental sustainability goals set up in Kwazulu Natal as nature conservation (Musavengane & Leonard 2019), stopping the plastic pollution (DAPP 2017, Van Rensburg et al 2020) and preserving a healthy marine wildlife (OCC 2017, Olbers 2017).

## 1.2 Durbanites Against Plastic Pollution

Durbanites Against Plastic Pollution (DAPP)<sup>2</sup> is a South African activist, education and outcome-based program within the NGO Durban Green Corridor<sup>3</sup> that works with eThekweni Municipality<sup>4</sup> to reduce plastic pollution in the marine environment and sustain a balance between environmental and societal needs (DAPP 2017). This is done by proposing production, consumer and legislation solutions, organizing clean-up events and informing about plastic pollution on their website, in social media and in the community. In their educational work DAPP shares stories about environmental achievements as Dianna Cohen's (2010) TED-talk about her venture to the Great Pacific Garbage Patch and a video presentation about pollution in the marine environment by students from the University of Kwazulu Natal and DAPP's own video about plastic pollution solutions (DAPP 2016). The reason for focusing on DAPP is because they are a locally anchored organization in Durban, South Africa<sup>5</sup> that work and network closely with other NGO's, corporations, municipality and volunteers and are involved in many parts of society and particularly within the Afrikaner community<sup>6</sup>. By having a strong presence in social media and on the ground DAPP are partakers in the mass education of the Durbanites and play an important role in ongoing knowledge formation about plastic pollution in Kwazulu Natal (Van Rensburg et al 2020). As it is mainly from social media that Durbanites gains knowledge about plastic pollution (27 %), followed by own experience (25%) and newspapers (16 %) (ibid), by both gathering and spreading information on polluted locations and continuously sharing their findings in social media<sup>7</sup> DAPP covers the two most important information sources.

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<sup>2</sup> <https://dpapp.org/>

<sup>3</sup> <http://www.durbangreencorridor.co.za/>

<sup>4</sup> <http://www.durban.gov.za/Pages/default.aspx>

<sup>5</sup> In 2017 I spend three months as an exchange student at the University of Kwazulu Natal in Durban, South Africa. My experiences, reflections and ethnology of what can be labelled as participatory ethnological observations (Povrzanović Frykman 2003, Silverman 2015) are implemented in the thesis as narratives to illustrate relevant similarities and dissimilarities found in the analysis of DAPP compared to an observed reality in their target area.

<sup>6</sup> How I was informed about DAPP shows their affiliation with people in power position in the Afrikaner community (Lovell 2003). An Afrikaner woman positioned as an environmental consultant at a South African infrastructure corporation received a flyer from DAPP at work that she passed on to me and said DAPP often came in there to leave material, which indicates she belongs to their target group (Falkheimer & Heide 2014).

<sup>7</sup> Social media in the case of DAPP refers to Facebook, Twitter and YouTube, where they post videoclips about the current state at polluted sightings, announce clean-up events and pass on news about changes in South African legislations and corporate policies that concern plastic pollution.



### 1.3 Environmental communication

Environmental communication in this case refers to how we speak of and relate to nature and environmental degradation and how that shapes the human/nature relationship (Milstein 2009). The human/nature relationship can further be narrowed down to socioecological relations (Hutchins & Stormer, Bassett & Peimer 2015). Socioecology is the study of how social structures and organizations are influenced by the environment and constitute socioecological relations (ibid). Changes in the environment as plastic pollution and climate change often cause redefinition and reframing of socioecological relations in a way that legitimizes power relations (Bassett & Peimer 2015). As for example framing the socioecological relations of people of color as indifferent to environmental degradation to legitimize racism (Musavengane & Leonard 2019). The environmental communication about plastic pollution by DAPP should thus reflect how socioecological relations are framed to sustain power structures in the post-apartheid society. To develop environmentally sustainable socioecological relations is an important goal in the fight against environmental degradation (Hutchins & Stormer, Bassett & Peimer 2015, Musavengane & Leonard 2019) and plastic pollution (Van Rensburg et al 2020) and as DAPP is a fairly new organization (founded in 2016) they can provide fresh insights into how far this development has come in Kwazulu Natal and what can be improved. This thesis informs the ongoing knowledge formation in Kwazulu Natal of how people relate to plastic pollution (Van Rensburg et al 2020), as well as the effects of environmental racism in nature conservation (Musavengane & Leonard 2019) and how racism is utilized as an oppressive tool by the Afrikaner community (McDonald 2002, Verwey & Quayle 2012, Stewart & Ivala 2017). This thesis adds the perspective of how aversive racism (Dovidio et al 2002)<sup>8</sup> is transformed into environmental communication about plastic pollution and how the Afrikaner community uses this arena to give agency to frame problems, causes and solutions that produces a racialized context that is counteractive towards the development of environmentally sustainable socioecological relations (Hutchins & Stormer 2013, Bassett & Peimer 2015).

### 1.4 Problem formulation and aim

To shed light upon how racism is transformed in environmental communication is not just relevant for South Africa, but all communities dealing with segregation and environmental problematics. The aim of this research is to study how the transformation of racism in environmental communication is affecting socioecological relations formed by the influence of plastic pollution in Kwazulu Natal. This is done by looking at by what rhetorical and narrative strategies the environmental issue of plastic pollution has been used to give agency to and are amplifying preexisting racial tensions and conflicts in Durban, SA. The problem statement of this study is to investigate how racist discourses as white supremacy, black incompetence, black incrimination, whites under threat and racial melancholia<sup>9</sup> (Bullard & Johnson 2000, Eng & Han 2000, Verwey & Quayle 2012, Shiva et al. 2014) are transformed into environmental communication as exemplified by the communication about plastic pollution by DAPP and what that implies for the development of environmental sustainability in the ongoing South African restructuring of socioecological relations (Verwey & Quayle 2012, Hutchins & Stormer 2013, Stewart & Ivala 2017). This research aims to illuminate how frame problems campaigned by the Afrikaner community around plastic pollution reproduces aversive racism (Dovidio et al 2002) by using rhetorical and narrative strategies addressing the self-victimization of the Afrikaners community (Verwey & Quayle 2012).

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<sup>8</sup> Aversive racism avoids overt discrimination if there is a risk that the discrimination would be recognized as racism and instead uses covert discrimination with critique based on other factors than race (Dovidio et al 2002).

<sup>9</sup> See section 2.1 Racist discourses, for definitions of white supremacy, black incompetence, black incrimination, whites under threat and racial melancholia.

## 1.5 Research questions

1. How is the transformation of racism in environmental communication affecting socioecological relations formed by the influence of plastic pollution in Kwazulu Natal?
2. By what rhetorical and narrative strategies has the environmental issue of plastic pollution been used to give agency to preexisting racial tensions and conflict in Durban, SA?
3. How are racial tensions being amplified in the context of the environmental crisis of plastic pollution by the Afrikaner community in Durban, SA?

## 2 Theoretical approaches and literature review

In this section prior research is reviewed and theoretical key concepts explained and motivated regarding how and why they have been utilized in the study (Creswell 2014). This study is situated in the fields of environmental racism, environmental communication and socioecological relation and contributes to the ongoing knowledge formation in Kwazulu Natal, South Africa about how plastic pollution (Van Rensburg et al 2020) and environmental degradation is affecting socioecological relations (Hutchins & Stormer 2013, Bassett & Peimer 2015) and how environmental management is affected by racism (Musavengane & Leonard 2019). To understand how, why, when, where, by whom and in what context (Creswell 2014)) racism has been transformed in the environmental communication about plastic pollution it has been important to inform the study with a background of South African history and contemporary studies of South African culture, prevalent traditions and customs (Verwey & Quayle 2012, Stewart & Ivala 2017).

### 2.1 Racist discourses

The colonialism in SA began already in 1652 (Musavengane & Leonard 2019), which means the racist conditioning has been operating long before the apartheid regime (Bullard & Johnson 2000, McDonald 2002). The longterm racial oppression and segregation created a discriminating hegemony (Jorgensen & Phillips 2002, Fairclough 2003) that normalized a social distancing between the Afrikaner community, nature and people of color ideologically and religiously supported by white supremacy (Bullard & Johnson 2000, McDonald 2002). The ideology of white supremacy along with its counterpart black incompetence and additional terms commonly used when discussing racism as whites under threat, black incrimination and racial melancholia will at times be referred to as racist discourses as they possess discursive and interdiscursive qualities (Jorgensen & Phillips 2002, Fairclough 2003, Milstein 2009, Verwey & Quayle 2012). In the analysis they are utilized as discourses (ibid) and categories which the results are deduced to and sorted into. As they will be mentioned frequently, here is a short summary of what the terms refer to: *White supremacy* is the idea that the white man is superior to all other genders, ethnicities, species and nature through the self-acclaimed divine purpose to conquer, rule and tame nature, animals and the rest of humanity (Bullard & Johnson 2000, Turner & Wu 2002, Shiva et al 2014). *Black incompetence* is the idea that people of color are inferior to other ethnicities, unable to resist sexual urges, care for their children, govern, manage land, abide laws, practice self-control and understand complex reasoning (Bullard & Johnson 2000, McDonald 2002, Graham 2012). *Whites under threat* encompasses *black incrimination* (Helg 2000, Graham 2012) and represent the fear of white people for being attacked or killed by people of color for their *provocative* white skin, as whiteness is considered symbolizing oppression, and is based upon the presumption that people of color are prone to violence and crime (McDonald 2002, Verwey & Quayle 2012). *Racial melancholia* is the unresolved grief from lost racialization, homes and language that can take expression through feelings as sadness, anger and powerlessness and involves a reluctance to accept loss and new directives (Eng & Han 2000, Cheng 2001, Verwey & Quayle 2012). White supremacy also imposes *black incompetence* by assuming and expecting people of color to lack agency to confront or capability to understand racism in a transformed state (Bullard & Johnson 2000), which if understood or confronted would vindicate the whites under threat and black incrimination discourses (ibid). This impasse of white supremacy is a practice similar to the strategic domination technique of narcissistic gaslighting (Falkheimer & Heide 2014, Steenbergen 2018)<sup>10</sup>.

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<sup>10</sup> The strategic domination technique of gaslighting refers to the psychological manipulation where the target is subjected to suspicion in order to sow seeds of doubt and disorient, destabilize and delegitimize the target and often

## 2.2 Environmental racism in Kwazulu Natal

Nature conservation in Kwazulu Natal has predominantly engaged white upper class in power (Musavengane & Leonard 2019). The principles of environmental justice state that: "...all people, regardless of race, ethnicity, or income should enjoy access to a safe and healthy environment." (Turner & Wu 2002). Environmental racism can be generalized as environmental injustices that occurs in practice and policy within a racialized context where it often entails the third world suffering from environmental degradation and exploitation caused by the first world (Bullard & Johnson 2000, Turner & Wu 2002, Musavengane & Leonard 2019). The institutionalized racism stemming from the apartheid regime has normalized environmental racism in South Africa (Bullard & Johnson 2000, McDonald 2002) where residents "...were inhibited from preventing environmental racism due to their low socioeconomic status, and lack of political representation and mobility." (Bullard & Johnson 2000). The view of people of color as environmentally destructive, incapable to govern, having no knowledge or interest in nature, whilst white people are seen as good competent land managers who cares more and have more knowledge about nature reproduces white environmental privilege and ideologically supports white supremacy and black incompetence (Bullard & Johnson 2000, Turner & Wu 2002, Shiva et al 2014). The perspective of environmental racism will be applied to the study when looking at how DAPP in their communication, policy making and law suggestions around plastic pollution could be expressing racial discrimination. Banning polystyrene is for example expected to "backlash from groups purporting to represent the poor." (DAPP 2016) which in Kwazulu Natal is 60,7 % of the total population, of which 83,55 % are people of color (Jacobs et al 2009, Stats SA 2020). When looking at how the environmental racism is expressed within the context of plastic pollution the transformation of aversive racism is also identified. Aversive racism avoids overt discrimination if there is a risk that the discrimination would be recognized as racism and instead uses covert discrimination with critique based on other factors than race as poverty, lack of education, culture and corruption (Dovidio et al 2002). These factors are utilized to identify aversive environmental racism in the material. Conservation programs and environmental organization with an aim to improve livelihoods and mitigate poverty tend to avoid confronting racial concerns and instead address them covertly (Dovidio et al 2002, Musavengane & Leonard 2019). As "DAPP seeks to prevent and reduce the impact of plastic and other packaging pollution on eThekweni's people and biodiversity whilst promoting pro-poor entrepreneurial development and dignified jobs in the green economy." (DAPP 2019) they fit the category.

## 2.3 Socioecological relations in South Africa

Changes in land-use and the environment can be deeply traumatic and trigger identity conflict that affect institutional and socioecological practices that define communities and often cause redefinition and reframing of socioecological relations in a way that legitimizes power relations (Hutchins & Stormer 2013, Bassett & Peimer 2015). Plastic pollution is a *new* change in land-use and in the environment that causes trauma due to its devastating effects on nature, animals and humans (DAPP 2017, Olbers 2017, Van Rensburg et al 2020). The Afrikaner community has for several years and still are experiencing another trauma caused by changes in land-use. Due to post-apartheid land reforms they have been forced to give back much of the land their ancestors occupied to the indigenous population of SA (Verwey & Quayle 2012, Musavengane & Leonard 2019). Apart from causing racial melancholia (Eng & Han 2000, Cheng 2001, Verwey & Quayle 2012) this resulted in covert and aversive racism (Dovidio et al 2002, Musavengane & Leonard 2019) where the Afrikaners resorted

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involve rumor spreading, abusive language, trivializing, withholding information and counteraccusation when called out (Falkheimer & Heide 2014, Steenbergen 2018).

overt racist expressions to private arenas as barbeques/braais (Verwey & Quayle 2012). The additional trauma caused by plastic pollution can then coax new ways of expressing the land reform trauma and reveal similar socioecological dynamics (Hutchins & Stormer 2013, Bassett & Peimer 2015) of covertly expressing racism (Dovidio et al 2002). Sub-narratives (Hyvärinen 2007, Salmon 2010) formed by racial rhetoric (Banton 1991) communicated within the context of plastic pollution can be categorized as a private arena based upon the racist expectation that people of color lack agency to confront or capability to understand racism in a transformed state (Bullard & Johnson 2000). To study socioecological relations and understand the local socioecological processes it is according to the Actor- Network Theory necessary to follow the actors closely (Bassett & Peimer 2015). This has been done through the participatory ethnological observations <sup>11</sup>(Povrzanović Frykman 2003, Silverman 2015) of the Durbanites in 2017 and the thorough analysis of the DAPP material. How DAPP and the Durbanites are influenced by plastic pollution shapes socioecological relations (Hutchins & Stormer 2013, Bassett & Peimer 2015). How these relations are communicated through rhetorical and narrative strategies addressing the self-victimization stemming from the loss of power and land of the Afrikaner community (Verwey & Quayle 2012, Musavengane & Leonard 2019) can reproduce aversive racism (Dovidio et al 2002) that is counteractive to environmental aims (Shiva et al 2014, Cock 2018).

## 2.4 South African identities and culture

Identity formation is part of the behavior that is conditioned by social structures and affect socioecological relations (Inglis 2012, Bassett & Peimer 2015, Bridge et al 2018). This motivates identification of identity formations that surface in the socioecological relations that DAPP and the Durbanites are forming through the influence of plastic pollution that are affected by the racist conditioning of the social structure of apartheid (Verwey & Quayle 2012, Musavengane & Leonard 2019). As the Afrikaner community is predominant in environmental management in Kwazulu Natal (Musavengane & Leonard 2019) and is the main target group of DAPP and in the participatory ethnological observations (Povrzanović Frykman 2003, Silverman 2015) their identities have been particularly scrutinized. Verwey & Quayle (2012) investigated whiteness, racism and post-apartheid Afrikaner identity expressed at barbeques, or braais<sup>12</sup> as they are commonly called in South Africa. Their findings showed a notable difference in how the Afrikaners expressed themselves publicly compared to privately: “While the participants rejected many stereotypes of Afrikaner identity, they simultaneously recycled key discourses underlying apartheid ideology, particularly discourses of black incompetence and whites under threat” (Verwey & Quayle 2012). The research of Verwey & Quayle (2012) has been put into practice when looking at how narratives (Hyvärinen 2007, Salmon 2010) indicate identification and affiliations with power structures and ideologies significant for the Afrikaner community through referrals that are characterizing for certain cultural occurrences, opinions, behaviors and ideas (Inglis 2012, Bassett & Peimer 2015, Bridge et al 2018).

### 2.4.1 *Fear of talking about racism*

Addressing racism in the public South African room is commonly considered dangerous and volatile (Verwey & Quayle 2012, Stewart & Ivala 2017, Musavengane & Leonard 2019) and because of that it is often attempted to be silenced by authorities and addressed covertly to avoid conflict (Dovidio et al 2002, Musavengane & Leonard 2019). When looking at possible underlying causes behind the transformation of racism in the environmental communication of DAPP, the risk of igniting public conflict is plausible to be one reason. Addressing racial

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<sup>11</sup> See section 3.5 Participatory ethnological observations of the Durbanites.

<sup>12</sup> To oppose the findings of Verwey & Quayle (2012) the braais I visited were hosted by both Zulus and Afrikaners. However, the people attending the braais were to 90% of same ethnic heritage as the host.

problematics covertly within the safe premises/neutral zone of plastic pollution could be apprehended as a strategy to minimize the risk of conflict. It also highlights the impasse of white supremacy<sup>13</sup> and the interdiscursive power relationship (Jorgensen & Phillips 2002, Fairclough 2003) between whites under threat and black incrimination (Helg 2000, Graham 2012, Verwey & Quayle 2012). However, the provocation in the racist expectation that people of color cannot understand covert racism (ibid) or are too afraid to react can in a longer perspective build up a more volatile conflict.

#### 2.4.2 *Accidents of birth*

Revealing aversive environmental racism also unveils the veil of ignorance originally placed upon the post-apartheid society (Musavengane & Leonard 2019). Musavengane & Leonard (2019) has interpreted Rawls (1971) concept of the veil of ignorance as it “..encourages us to be ignorant of accidents of birth (i.e. color of skin, place of birth, gender).” Ignoring accidents of birth prevents consideration of living conditions and reduces individual identity (Musavengane & Leonard 2019), group agency and performativity (Lovell 2003). It also ignores that categorizing race, gender and class (Lovell 2003) serve to identify “..agents who, being subject to similar conditions, tend to resemble one another and, as a result, are inclined to assemble practically, to come together as a practical group, and thus to reinforce their points of resemblance” (Bourdieu 1987: 6 in Lovell 2003). The hegemonic ignorance of accidents of birth placed upon the post-apartheid society ( Verwey & Quayle 2012, Musavengane & Leonard 2019) suppresses identities based upon race, gender and class and consign expression of such identity features to private or *safe* arenas, as braais (Verwey & Quayle 2012), nature conservation (Musavengane & Leonard 2019) or environmental communication about plastic pollution. Looking at how central Afrikaner identity features as whiteness, the Afrikaans language and class are expressed as oppressed can provide insights into how racial problematics are amplified within the context of environmental crisis.

## 2.5 The interdiscursive relationship between racism and plastic pollution

Transformation of racism in environmental communication about plastic pollution forms an interdiscursivity (Jorgensen & Phillips 2002, Fairclough 2003) between racism and plastic pollution that gives rise to an ideological conflict between white supremacy and environmentalism<sup>14</sup>. The dichotomy between white supremacy and environmentalism is counteractive to the development of environmentally sustainable socioecological relations (Hutchins & Stormer 2013, Shiva et al 2014, Bassett & Peimer 2015). The interdiscursivity between racism and plastic pollution also emulates environmental racism (Musavengane & Leonard 2019). As frame issues of the white Afrikaner community are campaigned within the environmental context of plastic pollution it reproduces white environmental privilege (ibid). The “Hard hitting communication campaigns targeting users, retailers and wholesale.” (DAPP 2017) could then reveal socioecological dynamics stemming from affiliating with and legitimizing power structures not always aligned with environmental aims (Hutchins & Stormer 2013, Bassett & Peimer 2015). Jaspal et al (2014) investigated how knowledge formation about climate change becomes diffused in society and associated with intergroup power struggles. The same dynamics can theoretically be found in how knowledge formation about plastic pollution becomes diffused in the post-apartheid society and associated with racial conflict and intergroup power struggles between the Afrikaner community and the Zulu community or people of color<sup>15</sup> in general through the interdiscursivity between racism and plastic pollution.

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<sup>13</sup> See section 2.1 Racist discourses

<sup>14</sup> Environmentalism is here referred to as the ideology and social movement that emphasizes the importance of a sustainable ecosystem and advocates nature preservation, conservation and restoration (Chemhuru 2019).

<sup>15</sup> In Kwazulu Natal the biggest ethnical group representing people of color is the Zulu nation (Stats SA 2020).

## 3 Methodology

As this is a distinct qualitative case study (Creswell 2014) the empirical material is relatively small in volume but rich in content and provides for a focused analysis. The empirical data collection consisted of assessing mediated artefacts from the website and social media of DAPP and participatory ethnological observations in Durban during three months in 2017. The analytical methodologies consist of rhetoric analysis (Payne 1997, Corbett 2004) and narrative analysis (Hyvärinen 2007, Salmon 2010) from which the results are summarized in an interdiscursive discussion (Jorgensen & Phillips 2002, Fairclough 2003). In this section the research design and use of chosen methods is explained, motivated and critically discussed (Creswell 2014).

### 3.1.1 *The videos*

1. Tough truths about plastic pollution; a TED-talk with Dianna Cohen from 2010, labelled Video 1 with the referral (Dianna Cohen 2010).
2. Polystyrene pollution solution presentation, by Durbanites Against Plastic Pollution<sup>16</sup>(DAPP) from 2016, labelled Video 2 with the referral (DAPP 2016).
3. Pollution in Durban's Marine Environment, by students from the University of Kwazulu Natal calling themselves an ENN Production from 2008, labelled Video 3 with the referral (ENN 2008).

### 3.2 The empirical material of DAPP

The material collected from DAPP consist of text, images and videos from their website and social media and an interview with founder Steve Cohen<sup>17</sup>. There is a strong focus on the three videos posted on their main page with the motivation that using video in communication is considered a good way to create a personal and trusting relationship with the audience and because a moving medium captures an audience more so than merely text and still images (Baumgartner et al 2005, Gillespie & Toynbee 2006, Gillham & Nixon 2008, Sturken & Cartwright 2009). Trusting and personal relationships in video communication are created by the effects of interpellation<sup>18</sup> and identification (Gillespie & Toynbee 2006, Sturken & Cartwright 2009) that are imposed and suggested by addressing personal appeal through the emotional impact of words, music and images in combination (Baumgartner et al 2005, Gillham & Nixon 2008). The strategic placement of the videos on the main page also indicates a designated importance (Falkheimer & Heide 2014). Aside from undergoing the rhetoric and narrative analysis a content analysis (Creswell 2014) has been performed on the DAPP material to see how the videos corresponds to the website and social media and to get an inclusive view of DAPP as an organization. In the sorting process the videos have been cut up in still images based on sequences to get a manageable body of material and an overview of how the visual components interact. Speech, interviews and text from captions, text frames and lyrics have been transcribed to facilitate analysis<sup>19</sup>.

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<sup>16</sup> Before DAPP took the name Durbanites Against Plastic Pollution they called themselves Durban Partnership Against Plastic Pollution (DPAPP) which is the name used in Video 2, but not referred to in the analysis.

<sup>17</sup> A short semi-structured interview (Brinkmann & Kvale 2009) was conducted on place in Durban with the founder of DAPP, Steven Cohen, with a few follow-up questions on email. However, the interview was unfortunately not recorded, so there is no transcript, only notes, which are not included in appendix.

<sup>18</sup>Interpellation is the practice of addressing an audience in manner that feels personal to them by referring to cultural and social phenomena they can identify with in order to recruit them into an ideological system or appeal to ideologies known and accepted by the audience to create a trusting relationship (Sturken & Cartwright 2009:446).

<sup>19</sup> See Appendix 2

### 3.3 Rhetoric analysis

A rhetoric analysis adds a linguistic understanding of how persuasive intent (Corbett 2004) through nudging and insinuations has been utilized to covertly transform an underlying racist agenda within the context of plastic pollution. The rhetoric analysis consists of identifying racial rhetoric (Banton 1991) in the environmental communication and how it has been transformed into tropes as metaphors, metonymy, irony and paradoxes (Payne 1997, Corbett 2004). The rhetoric analysis initially included an extensive schematic analysis<sup>20</sup>(ibid) of all textual material in the videos, which was then narrowed down to tropes and further extended to the website and social media of DAPP and the ethnography. Tropes has according to Aristotle the function of bringing life and clarity to the expression of thought (Corbett 2004) and are considered subtle expressions of persuasive intent that are assumptive of the existence of symbolical recognition and agreement (ibid). In that sense tropes are perfect tools to express aversive racism (Dovidio et al. 2002). As the tropes will be referred to frequently here is a short summary of what the different tropes entail: Metaphors often involve comparisons in relation to the topic of similarity, whereas paradoxes display dissimilarity, contradiction and juxtaposition and are often used to express irony, poetry or to reconcile seemingly opposite standpoints (Payne 1997, Corbett 2004). Metonymy is a figure of speech in which a thing or concept is referred to by a related concept, where a small part can symbolize a whole or a whole can symbolize a part (ibid). The rhetoric analysis reveals use of language that connotes aversive racism (Dovidio et al 2002) through the assumptive existence of symbolical recognition and agreement (Corbett 2004). “Are we doomed?” (ENN 2008), is an example using irony to seek agreement regarding the corrupt government and its environmental management policies that allowed the plastic pollution. The rhetoric analysis also supports and facilitates the narrative analysis. By noting reoccurring similarities (Hyvärinen 2007, Salmon 2010) during the schematic analysis, identification of tropes (Payne 1997, Corbett 2004) and content analysis (Creswell 2014) narratives have surfaced simultaneously.

### 3.4 Narrative analysis

Political and financial interests contribute to the construction of normative hegemonies in society (Jorgensen & Phillips 2002, Fairclough 2003, Moscovici et al 2013). In the manner individual and organizational narratives accumulate collective sociological fantasies and manuscripts of cultural customs that contribute to the construction of hegemonic and metaphorical understandings of life (Hyvärinen 2007, Jørgensen & Keller 2007). How the issue of plastic pollution is narrated reveals socioecological relations and their power affiliations (Milstein 2009, Hutchins & Stormer 2013, Bassett & Peimer 2015). In the narrative analysis themes are extracted and identified through the racist discourses<sup>21</sup>and reoccurring similarities given expression through values, attitudes, identities, negotiations and roles (Jorgensen & Phillips 2002, Fairclough 2003, Milstein 2009) that reflect frame issues of the Afrikaner community and known racial problematics in SA (Hartley 1999, Huchzermeyer 2004, Mathews et al 2013, de Villiers 2018). The narratives have been sorted into main and sub-narratives to reveal hegemonies of expression (Hyvärinen 2007) and socioecological relations (Hutchins & Stormer 2013) that display aversive racism (Dovido et al 2002). While the main narrative can be likened with the *official* story, the sub-narrative can be likened with the *unofficial* story, what is said between the lines, nudged and insinuated (Hyvärinen 2007, Salmon 2010) through tropes (Corbett 2004). Sub-narratives also bear conceptual comparison to subliminal messages that function as action priming where hidden agendas affect us subconsciously (Loftus 1992, Falkheimer & Heide 2014). One could also

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<sup>20</sup> See Appendix 1. Some residue of the extensive schematic analysis might appear in the Results.

<sup>21</sup> See section 2.1 Racist discourses



argue that sub-narratives bear conceptual comparison to the private situatedness of the braais in the Afrikaner community where racism is expressed more freely (Verwey & Quayle 2012).

### 3.5 Interdiscursive discussion

In the interdiscursive discussion the conclusions derived from the rhetoric and narrative analysis are critically discussed and elaborated in relation to the research question. Interdiscursivity is utilized as a term that explains the hierarchic relations and hegemonies between discourses and how the discourses relate to and affect each other, have common denominators and shared sub-discourses (Jorgensen & Phillips 2002, Fairclough 2003). The paradoxical interdiscursivity between environmentalism and racism (Shiva et al 2014, Cock 2018) provides an intriguing setting to analyze how DAPP and the Durbanites negotiate meaning and position themselves in relation to power structures in Kwazulu Natal. Coca Cola, the eThekweni municipality, the Afrikaner and Zulu communities are main actors and power structures in Kwazulu Natal (Musavengane & Leonard 2019, Van Rensburg et al 2020) that DAPP and the Durbanites need to affiliate, negotiate and position themselves in relation to (Jorgensen & Phillips 2002, Fairclough 2003) when addressing and seeking solutions to the plastic pollution problem. The hegemonies that are revealed in the negotiation of meaning and discursive positioning (Jorgensen & Phillips 2002, Fairclough 2003) with these power structures condition socioecological relations that ultimately affect environmental conditions (Hutchins & Stormer 2013, Bassett & Peimer 2015).

### 3.6 Participatory ethnological observations of the Durbanites

The participatory ethnological observations conducted in Durban 2017 provided an empirical framework for studying patterns of sociocultural behaviors and learning about discursive practices and underlying tendencies (Povrzanović Frykman 2003, Silverman 2015) that affect socioecological relations (Hutchins & Stormer 2013, Bassett & Peimer 2015) in Kwazulu Natal. The ethnography<sup>22</sup> of the observations serves to contextualize behavior around plastic pollution through the social conditioning (Inglis 2012, Moscovici et al 2013) and political history of apartheid (Verwey & Quayle 2012, Bridge et al 2018, Musavengane & Leonard 2019). Compared to desktop research participatory ethnological observations provide an embodied experience of the culture, its people and phenomena (Povrzanović Frykman 2003, Bassett & Peimer 2015, Silverman 2015). The observations in Durban 2017 gave a deeper understanding of the racial problematics behind the socioecological relations that DAPP and the Durbanites give expression to that perhaps would otherwise have been lost. The observed groups mainly consisted of white upper-class Afrikaners and black Zulu students and my role as researcher was to observe behaviors, listen and engage in regular activities and events<sup>23</sup> (Povrzanović Frykman 2003, Silverman 2015)<sup>24</sup>. “In South Africa people still identify according to race after known ethnic heritage or just appearance.”, a Zulu student explained. Categorizing the groups as black Zulu students and white upper-class Afrikaners serve to identify “..agents who, being subject to similar conditions, tend to resemble one another and, as a result, are inclined to assemble practically, to come together as a practical group, and thus to reinforce their points of resemblance” (Bourdieu 1987: 6 in Lovell 2003).

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<sup>22</sup> The ethnography (Silverman 2015) involves assessing field notes, photos, videos and memories.

<sup>23</sup> Events as International Clean-up Day, Durban International Film Festival and Wellness, Health and AIDS/HIV Awareness Day.

<sup>24</sup> The choice landed upon these groups as it was who I was naturally surrounded by during my time in Durban.

### 3.7 Discussion of research design

Qualitative research is a method for understanding individuals and groups and how they accredit meaning to social problems (Creswell 2014). In qualitative research data is often collected in participant settings and data analysis building upon themes (ibid), just as in this case with participatory ethnological observations (Povrzanović Frykman 2003, Silverman 2015) and rhetoric (Payne 1997, Corbett 2004) and narrative analysis (Hyvärinen 2007, Salmon 2010). This qualitative method serves to understand how DAPP and the Durbanites accredit meaning to the social and environmental problem of plastic pollution and how that affects socioecological relations (Hutchins & Stormer 2013, Bassett & Peimer 2015) in Kwazulu Natal. A qualitative approach honors an inductive style and the importance of rendering complexity of a situation (Creswell 2014). A quantitative approach would focus on testing theories through the relationship among variables and sorting results into statistics within a strict academic frame or scientific protocol (ibid). This research has adapted the strict academic thesis framing, used statistics from prior research and is testing theories, but not in a quantitative manner or enough to be labelled a mixed method. A mixed method would require the collection of data that is quantifiable and replicable (ibid). In this case that could have entailed a survey handed out to the observed groups, or coverage of several NGO's in Kwazulu Natal, which is how the research can be extended in the future.

#### 3.7.1 *Situatedness, subjectivity and confirmation bias*

The generalizations in the results are only valid for the individuals, groups, organizations and artefacts included in the study (Creswell 2014) and are concluded with consideration of the temporal period of the participatory ethnological observations, intersectionality, pragmatic multiple identities (Nightingale 2006), the South African society nexus in 2017 and history. The stories told by DAPP and the Durbanites accumulate collective sociological fantasies (Hyvärinen 2007, Jørgensen & Keller 2007) of a perceived reality that is thereto subjectively interpreted through the meta construction of an *objective* alter ego of the researcher (Husserl 1973). Alas, the observations or analys cannot be granted absolute accuracy as situations and conversations can be experienced differently (Povrzanović Frykman 2003, Silverman 2015) and the Mandela effect can create false memories (Maswood & Rajaram 2018). Initially this research did not focus on racism in environmental communication<sup>25</sup>, but found it, and an intent to identify and understand racism in this context was constructed. Having an intent can produce confirmation bias (Lundh et al 1992, Nightingale 2006, Creswell 2014) and looking for racism within any social structure in South Africa may seem unchallenging. It would be naïve to assume the existence of any racism-free social structure within a country that has suffered such a longterm racist conditioning (McDonald 2002, Verwey & Quayle 2012, Musavengane & Leonard 2019). As DAPP and the observed Durbanites exist within multiple social structures in the post-apartheid society it is highly unlikely that they uniquely would be unaffected, but because of the long-term conditioning the transformation of racism can be both intentional and unintentional (ibid).

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<sup>25</sup> Originally the research was set on a broader focus; to investigate marine plastic pollution in Durban, then narrowed down to storytelling about plastic pollution until it finally could not ignore the racist perspective.

## 4 Results

In this section the results from the rhetoric and narrative analyses are presented. The presentation is structured by listing main narratives and sub narratives (Hyvärinen 2007, Salmon 2010). The themes of the sub-narratives have been extracted and identified through the use of tropes (Payne 1997, Corbett 2004), racist discourses<sup>26</sup> and reoccurring similarities given expression through values, attitudes, identities, negotiations and roles (Jorgensen & Phillips 2002, Fairclough 2003, Milstein 2009) that reflect frame issues of the Afrikaner community and known racial problematics in SA (Hartley 1999, Huchzermeyer 2004, Mathews et al 2013, de Villiers 2018).

### 4.1 Main narratives

The main narrative (Hyvärinen 2007, Salmon 2010) in all three videos is to inform and educate about the health hazards and environmental dangers with plastic pollution and articulate the need to stop plastic production. This includes offering suggestions regarding solutions as using alternative packaging, new inventions and legislative proposals as well as promoting environmental activism. The videos are in that sense coherent with the main narrative on the DAPP website and social media, where slogans as “reduce, reuse, recycle” and “plastic pollution solution” (DAPP 2016) are used to persuade and engage (Corbett 2004). In the separate videos this overarching main narrative is expressed in different ways.

#### 4.1.1 Video 1

Video 1 is a TED-talk from 2010 where Dianna Cohen, a female white American artist and environmental activist, engages in classical storytelling in front of a studio audience (Hyvärinen 2007, Salmon 2010). Dianna Cohen (2010) tells about how her artwork with plastic led her on clean-up mission with “.. a cargo ship and two decommission fishing trawlers, a crane, a shipping machine and a cold molding machine..”(Dianna Cohen 2010) to the Great Pacific Garbage Patch (Eriksen 2013). There Dianna Cohen and her team collected plastic that was remolded and upcycled into bricks to be used as building blocks in underdeveloped countries. Dianna Cohen uses this project in her storytelling to advocate the benefits of upcycling in comparison to downcycling. In her storytelling she uses audience pleasing (Hyvärinen 2007, Salmon 2010) adverbs as *cool* and *hip* and ostentatious metaphors as ‘back up and look at the bigger picture, small drop in the bucket, turn off the faucet and cut the spigot’ (Dianna Cohen 2010). The sequences with Dianna Cohen’s storytelling are mixed with audience sweepings, logotypes and images of her art, plastic pollution sites, children and dead animals.

#### 4.1.2 Video 2

Video 2 is DAPP’s own production from 2016 and can be labelled an information video about the environmental dangers and health hazards with polystyrene. It explains how plastic breaks down into microplastic molecules that are difficult to clean up and are disturbing the marine life. The video contains images of plastic pollution and clean-up events, newspaper clips, text frames, law reform suggestions, charts with a phase out proposals for polystyrene and an option analysis regarding the estimated efficiency of different approaches to stop plastic pollution (DAPP 2016). Video 2 has no spoken content, no presentation of the people behind DAPP and the only sound is the song Saltwater by Julian Lennon (1991). Video 2 can be described as paradoxical (Corbett 2004); poetic with the melancholic music and pragmatic with the raw images, statistics and charts.

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<sup>26</sup> See section 2.1 Racist discourses

### 4.1.3 Video 3

Video 3 is made by three female white students from University of Kwazulu Natal and is a form of infotainment (Hyvärinen 2007, Salmon 2010) with an outspoken satirical tone (Payne 1997, Corbett 2004). Video 3 contains interviews with people at Durban beachfront about how they feel about the pollution, what they know about it and think should be done about it. The interview segments are mixed with text frames containing statistics regarding the amount of effluent being pumped into the ocean and information about government funding of environmental sustainability projects (ENN 2008). Video 3 also features enacted sequences with the students and documentary sequences of polluted areas. The musical contents in Video 3 are the songs Don't Panic by Coldplay (2000) and Pollution by Tom Lehrer (1965) and additional sound effects. In the end all participants in the video, including the producers are labelled with stereotypical identities in a humorous manner.

## 4.2 Sub narratives

The sub-narratives revealed themes that are divergent of the issue of plastic pollution (Jaspal et al 2014) and reflect intergroup power struggles between the Afrikaner and Zulu communities. The themes cover known issues in South Africa that are affected by racism<sup>27</sup> as derogatory stereotyping, nostalgia about apartheid, corrupt governance, child homicide and a culture of silence (Hartley 1999, Huchzermeyer 2004, Mathews et al 2013, de Villiers 2018). The themes are given a background and discussed interdiscursively within the sub-narratives (Jorgensen & Phillips 2002, Fairclough 2003).

### 4.2.1 Derogatory stereotyping

Stereotyping is a form of discrimination where prejudices about traits, expectations and beliefs of a group are expressed in a derogatory manner (Fiske 1998). The Afrikaners at the braais expressed that being stereotyped as racist and conservative was a part of the oppression they experienced (Verwey & Quayle 2012). The issue of oppressive stereotyping (Fiske 1998) against the Afrikaners is ironically (Payne 1997, Corbett 2004) addressed and counteracted in Video 3 by labelling all participants<sup>28</sup>, including the video producers, with stereotypical identities after appearance, race, profession, interest or assumed traits. In Video 3 a black male respondent asks the white female interviewer: "Are you Antichrist or something? You are focusing on people on the shore..getting in the water is not alright.", to which he was retorted by being labelled as *Antichrist accuser* (ENN 2008). This accusation particularizes the anti-feminist religious aspects of South African patriarchy (Musavengane & Leonard 2019) and white supremacy where women are viewed as belonging to a nature possessed by satanic forces (Shiva et al 2014, Cock 2018). Another stereotype involving women in Video 3 is *tannies in red*. *Tannies* is slang for hot high school girls or people who have spent too much time in a tanning salon (Urban Dictionary 2019). Stereotyping two elderly black women as *tannies in red* can be interpreted as sarcasm (Payne 1997, Corbett 2004) regarding their ages and skin colour and is derogatory not just in a racist fashion, but also ageist and is an example of both overt and covert racial rhetoric (Banton 1991, Dovidio et al 2002).

### 4.2.2 Racial melancholia

The years of creation of Video 1(2010) and Video 3 (2008) can be apprehended as peculiar. As DAPP was created in 2016 these videos are not old remnants that have been left there since the beginning of time but are shared in the *present*. "And time is not a friend (no friend of mine), as friends we're out of time", Julian Lennon (1991) sings in Video 2, which is an

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<sup>27</sup> See section 2.1 Racist discourses

<sup>28</sup> All stereotypes in Video 3: surfer, tannies in red, friendly beachgoer, happy paddler, informed fisherman, old ballies, antichrist accuser, sidekick, concerned parent, hot surfer, technophile, technophobe and drunk (ENN 2008).

antithetic<sup>29</sup> antimetabole<sup>30</sup> (Payne 1997, Corbett 2004) that states that time for friendship is over. The Tom Lehrer song Pollution in Video 3 is dated to 1965. The old videos and songs could be an expression of nostalgia, that life was better before when there was no plastic pollution. It could also express nostalgia in terms of racial melancholia regarding the apartheid era (Eng & Han 2000, Verwey & Quayle 2012). The melancholic music by Julian Lennon (1991) in Video 2 and Coldplay (2000) in Video 3 adds to the emotions of sadness, grief and hopelessness. The lyrics: “All that we've fought for. Homes, places we've grown” (Coldplay 2000), “For the world I love is dying and now I'm crying” (Julian Lennon 1991) could aside from environmental grief be narrating the grieving of lost land, language, whiteness, racialization and authority (Verwey & Quayle 2012, Stewart & Ivala 2017, Musavengane & Leonard 2019). “We didn't have these problems before, everything was better before.”, an Afrikaner woman expressed regarding the crime rate in Kwazulu Natal suggesting the lifting of apartheid has caused the crimes to escalate. “I also realized that I was really angry.”, Dianna Cohen says in Video 1 from 2010, which indicates the anger has been building up for some time. Interpreted from an aversive racist perspective (Dovidio et al 2002) this gives agency to the feeling of being systematically oppressed as expressed by the Afrikaner community (Verwey & Quayle 2012).

#### 4.2.3 Corruption, segregation and alienation

Concerns regarding corruption and South African governmental incapacity is addressed in Video 3 by presenting statistics regarding the amount of effluent being pumped into the ocean and complaints regarding deficient funding of environmental projects and lacking governmental acceptance of scientific research, ironically concluded with the question “Are we doomed?” (ENN 2008). In Video 2 DAPP suggests policy changes and law reforms as banning of polystyrene and creating coastal protected zones with associated regulations, directed towards retailers, consumers and “government bodies” (DAPP 2016). The law reform suggestion regarding coastal regulated zones (DAPP 2016) bears conceptual similarity to the segregation of beaches during apartheid, where the north side was for whites only and the south was for people of color (Rogerson 2017). The Afrikaners in Durban were also eager to criticize the corrupt government: “This country is going down the drain.”, “They have no idea what they are doing.”, “He knows he's crooked. Why do you think he drives around in a steel armoured car surrounded by armed forces?” (about Jacob Zuma). In Video 3 Tom Lehrer (1965) sings: “But times have changed, and now a foreigner coming to this country might be offered the following advice..”: During my time in Durban I was advised by the Afrikaners to stay away from the south side of the city and beach because of the risk of being subjected to crimes of violence, whereas the north side was considered more safe. An advice that expresses the whites under threat discourse (McDonald 2002, Verwey & Quayle 2012) and indicates that Durban is still unofficially segregated. Segregation is also metonymic (Payne 1997, Corbett 2004) to alienation and is metaphorically transformed (ibid) as such by DAPP through an unexpected science fiction sub[space]<sup>31</sup>narrative encompassing Star Trek references by for example linking to a stakeholder organization named Assignment Earth<sup>32</sup> and by using the term *quantum leap*<sup>33</sup>. The space narrative ironically (Payne 1997, Corbett 2004) converges with white supremacy in the lyrics: “We're so ingenious we can walk on the moon..send photographs of Mars.” (Julian Lennon 1991). The alienation and apprehended vast racial differences were further addressed by an Afrikaner woman in

<sup>29</sup> An antithesis is a juxtaposition of contrasting ideas, often in parallel structure (Corbett 2004).

<sup>30</sup> An antimetabole consists of repetition of words, in successive clauses, in reverse grammatical order (Corbett 2004).

<sup>31</sup> Subspace is a space-time feature in Star Trek that facilitates faster-than-light transit for interstellar travel or transmission of information (Batchelor 2009)

<sup>32</sup> Assignment Earth is the name of a Star Trek episode: “South African ground control reports no response on boosted destruction signal” (Star Trek 1968: season 2: episode 26: Assignment Earth) and it is the name of an album from 1997 by the Swedish synth-pop band S.P.O.C.K (Star Pilot On Channel K).

<sup>33</sup> “A quantum leap is required to change our economic system to one that is circular and kinder to the environment and health.” (DAPP 2019).

Durban: “Aren’t we the aliens? The white people? We colonialized this country as alien immigrants and if you look at us and compare us to the natives, we must have been like aliens from outer space to them.”

#### 4.2.4 Black orphan pollution

In South Africa there are 3.7 million orphans, most due to parents dying from AIDS (Unicef 2019) and the rating for child homicide are progressively escalating (Mathews et al 2013). More than 2000 infants are abandoned per year in South Africa and left to die wrapped up in plastic bags or towels on the beaches or in trashcans (BBC 2011, Mathews et al 2013). This tragic matter is addressed in all three videos. In Video 1 there is a picture of a white baby being bottle fed featuring the caption: “Bpa in plastic baby bottles” (Dianna Cohen 2010), where the words *plastic baby* and *bottles* are placed on separate lines. Aside from ironizing (Payne 1997, Corbett 2004) that the baby might be plastic itself, this layout gives a typographic *orphan* effect (Hellmark 2004:166). In combination with the spoken words of Dianna Cohen (2010) “You put something in the bin and you don’t really have to think about it again.”, the effect is shocking in relation to the child homicide issue. In Video 2 the issue is addressed more subtly. At the bottom of the vignette in Video 2 there are three warning signs with the exhortation (Corbett 2004): “Please don’t trash our beaches.” (DAPP2016) and upon the signs lies rolled-up towels, accompanied by Julian Lennon (1991) who sings: “We are a billion children rolled into one. Why should one baby feel so hungry she cries?”. As it is common that the abandoned children are found rolled up in towels on the beaches (BBC 2011, Mathews et al 2013), the signs and lyrics are hard to dismiss as coincidences. Video 3 shows sequences with empty trashcans with empty plastic bags beside it accompanied by Don’t panic by Coldplay (2000) and the lyrics “Bones sinking like stones..all of us are done for.” The emptiness of the trashcans might be a sarcastic comment (Corbett 2004) regarding people’s incapability to use them. However, the trashcan is an established iconic symbol for the abandoned infants in South Africa that even orphanages have adopted<sup>34</sup>(Child Welfare South Africa 2019).The use of the term “governments bodies” (DAPP 2016) also emphasizes the black child homicide issue (Child Welfare South Africa 2019) as the South African government consist of a black African majority (Stats SA 2020). Durban beachfront is known as the Golden Mile and black gold is slang for petroleum (Watts 2004), which polystyrene is made of. DAPP uses appositions and exhortations (Payne 1997, Corbett 2004) as “Polystyrene foam is often dumped into the environment as litter”, “Say no to polystyrene” and “Polystyrene has become a blight on the eThekweni Golden Mile” (DAPP 2016). Aside from nudging a renaming of the Golden Mile to Garbage Mile, a metonymy (Payne 1997, Corbett 2004) occurs between polystyrene and the black orphans (Watts 2004) through the term black gold, which makes the complaints about polystyrene sound like complaints about the black orphans. These examples are symbolical metaphors (Payne 1997, Corbett 2004) of the problem with orphans and child homicide in South Africa (Unicef 2019). The reality of the issue was vividly addressed by two female Zulu students who expressed panic and fear regarding the risk of encountering abandoned infants even on campus: “I don’t know what’s worse, if it’s dead or alive, what are you going to do with it? If you find it, it’s your responsibility to deal with it”.

#### 4.2.5 The opinionated muzzle

Racial issues are generally viewed as risky by those in power and are often silenced or diverted to safer premises as culture or religion to avoid uncomfortable discussions or conflict (Stewart & Ivala 2017, Musavengane & Leonard 2019). The whites under threat discourse (Helg 2000, McDonald 2002, Graham 2012) is clearly articulated by the Afrikaner

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<sup>34</sup> Orphanages have containers named baby bins where infants can be placed for caretaking (Child Welfare South Africa 2019).

community by avoiding speaking Afrikaans in public as they fear it would be labelled as racism and put themselves at risk (Verwey & Quayle 2012). A male Afrikaner in Durban expressed the same fear: “I can speak Afrikaans, and sometimes I do when I meet other Afrikaners, but I wouldn’t speak it in public. You could get killed for it.”. This oppressive culture of silence is subtly addressed by DAPP (2016) in Video 2, where the clam shell container serves as symbol for the opinionated muzzle, with a picture of a brown closed clam with a thumbs up emoji and an open white clam with a thumbs down emoji. In Video 3 it is addressed more boldly through an exhortation (Payne 1997, Corbett 2004) in the introduction with the cinematic paraphrase: “Kindly switch to silent. Now.”(ENN 2008). At another point in Video 3 the interviewer distinctly covers her mouth, which is a blunt attempt to hinder oneself to speak (Pease & Pease 2006). In the end the interviewer is stereotypically labelled as *drunk* along with an enacted sequence where she sits alone in a chamber and pours up a glass of Smirnoff in which a cookie is dipped. The sequence can be ironic (Payne 1997, Corbett 2004) suggesting alcohol is the only clean water and a metonym (ibid) for the expression *in vino veritas*<sup>35</sup>, which can be interpreted as a warning not to drink in public and risk being *dipped*<sup>36</sup> as suppressed racist tendencies and native languages typically emerge in combination with alcohol (Loersch et al 2015). A *braai* related connotation is *tjop en dop*<sup>37</sup>, which could insinuate that there are issues only suitable to talk about privately in private chambers or at the braais (Verwey & Quayle 2012).

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<sup>35</sup> In vino veritas is Latin for in wine lies the truth.

<sup>36</sup> Being dipped is slang for being stabbed (Urban Dictionary 2019).

<sup>37</sup> An Afrikaans expression generally referring to food and drink, or precisely lambchop and alcohol (Osseo-Asare 2005).

## 5 Summary and discussion

In this section the results are summarized and the research questions answered and discursively discussed (Jorgensen & Phillips 2002, Fairclough 2003). The research questions were aimed to answer how racism in environmental communication affects socioecological relations by investigating by what rhetoric and narrative strategies the environmental crisis of plastic pollution is utilized to give agency to and amplify preexisting racial tensions and conflicts in Kwazulu Natal.

### 5.1 Talking behind their backs and taking advantage of the situation

At a first glance the communication from DAPP about plastic pollution shows no apparent signs of racism. On their Twitter<sup>38</sup> account a group of black environmental workers are sitting in front of a pile of garbage bags signaling that DAPP are welcoming people of color. A small scratch on the surface shows a different picture. By using rhetorical figures as metaphors, irony, metonymy and paradoxes, which are designed to produce persuasive intent assumptive of the existence of symbolical recognition and agreement (Payne 1997, Corbett 2004), racism has been covertly transformed into the environmental communication about plastic pollution. Irony has been particularly used by ENN (2008) in Video 3, where people of color are directly ridiculed and portrayed in a derogatory manner. In Video 2 by DAPP the strategy is distinctly aversive and focused on metaphors and metonymy insinuating racist agreement covertly (Payne 1997, Dovidio et al 2002, Corbett 2004). Video 1 featuring Dianna Cohen, who is not Durban-based and perhaps unaware of how her TED-talk is used, is strategically shared to indirectly through symbolism and fitting articulations give agency to particular core issues that signify the racial tensions in Durban. The rhetorical strategies have revealed sub narratives where religion, stereotyping, racial melancholia, corruption, child homicide and a culture of silence are utilized to express criticism against the black population and the post-apartheid society and to voice the injustices the Afrikaner community feels subjected to (Verwey & Quayle 2012). Under the umbrella of white supremacy (Bullard & Johnson 2000, Turner & Wu 2002, Shiva et al 2014) racism has been allowed due to the superior intellectual power positioning (Jorgensen & Phillips 2002, Fairclough 2013) of the white population, which DAPP, Dianna Cohen and the ENN Production represent by their whiteness, education and social status (Lovell 2003, Verwey & Quayle 2012, Musavengane & Leonard 2019). The assumed lacking capability of people of color to understand what is said through symbolism, metaphors and irony (Payne 1997, Corbett 2004) is sarcastically addressed in Video 3: “So do you know that maybe there are a lot of things that are being polluted in the ocean that you can’t see, that are happening underwater?” (ENN 2008). If the racism is confronted it would corroborate the whites under threat discourse by the offense of being accused (Helg 2000, Graham 2012, Verwey & Quayle 2012). This gaslighting impasse (Holmes 2001, Steenbergen 2018) serves people of color a catch 22 (Heller 1963) that functions as a strategic prerogative to maintain autonomy (Falkheimer & Heide 2014) of the whites under threat discursive positioning (Jorgensen & Phillips 2002, Verwey & Quayle 2012). The aversive environmental racism and black incompetence (Dovidio et al 2002, McDonald 2002, Musavengane & Leonard 2019) are ironically crystallized by the stereotyped (Fiske 1998) *concerned parent* in Video 3 who refuses to believe the water is polluted: “I think the water is fine, because it’s all water and water is beautiful.” (ENN 2008). People are multifaceted and communicate on different levels simultaneously (Pease & Pease 2006, Milstein 2009, Nolen Hoeksema et al 2009). People are also opportunists who seize the moment to vent opinions regarding what is bothering them within the context available. Environmental communication about plastic pollution is an available context and social arena (Inglis 2012,

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<sup>38</sup> [https://twitter.com/Clean\\_Durban](https://twitter.com/Clean_Durban)



Moscovici et al 2013) where intergroup power struggles (Jaspal et al 2014) within the post-apartheid society are given agency by DAPP. As the power struggles are based upon racist ideologies and racist conditioning the knowledge formation about plastic pollution has been polluted by racism through association (ibid).

#### 5.1.1 Claiming mismanagement of environmental problematics is racially inclined

One of the addressed issues is the corrupt government of South Africa. Circumstancing plastic pollution and environmental injustices as caused by mismanagement from a corrupt black government is indirectly nudging black incompetence and black incrimination<sup>39</sup> (Helg 2000, Dovidio et al 2002, Graham 2012), whereas the Afrikaners are portrayed as victims forbidden to speak about the injustices (Verwey & Quayle 2012). This framing transposes the power relations of environmental racism, where people of color in third world countries are normally seen as victims (Bullard & Johnson 2000, Turner & Wu 2002, Musavengane & Leonard 2019), to entail the self-victimization of the Afrikaner community instead. It also illustrates the historical white upper-class general interpretative prerogative (McDonald 2002, Graham 2012) and privilege in nature conservation management in South Africa (Musavengane & Leonard 2019). The apprehended disability of people of color to adapt to necessary change of consumer behavior (Van Rensburg et al 2020) to thwart plastic pollution is addressed aversively (Dovidio et al 2002) by referrals to the problems with child homicide, corruption and crimes of violence in relation to polluted areas.

#### 5.1.2 Using whites under threat as an excuse for aversive racism in environmental communication

Mismanagement of environmental problematics or omission of corporate corruption can be considered relatively safe issues to openly criticize the South African government for, whereas racial problematics are not (Huchzermeyer 2004, Verwey & Quayle 2012, Musavengane & Leonard 2019). The apprehended dangers of addressing racism in public is probably the cause for addressing it covertly and aversively (Dovidio et al 2002), but it also consolidates the whites under threat discourse (Helg 2000, Graham 2012, Verwey & Quayle 2012). By sharing the videos of Dianna Cohen and ENN, DAPP gives them agency to articulate what they themselves are too afraid express and subsidize this fear by not saying a word in their own video. A more volatile topic than mismanagement of environmental issues is the child homicide problem (Mathews et al 2013, Child Welfare South Africa 2019, Unicef 2019), so it has been transformed into an environmental mismanagement problem through aversive racism with mixed messages regarding the evaluation of children (Dovidio et al 2002). Whilst concern was expressed for white children for being exposed to plastic pollution through their formula (Dianna Cohen 2010), black children were insinuated to be pollution themselves (ENN 2008, DAPP 2016). An evaluation often consolidated by the observed Durbanites. On the Golden Mile many black children were picking up plastic bottles and begging for money, but mostly being rejected, whereas the sight of a white adult beggar just drifting around could trigger heartfelt concern<sup>40</sup>: “Always when I see a white beggar it touches my heart, I wonder what went wrong and who’s child it is. It’s always someone’s child.”, as commented by an Afrikaner woman. Although the aversive racism (Dovidio et al 2002) indicates a sensitivity with addressing racism in the public room (Stewart & Ivala 2017) it is also an abusive provocation (Holmes 2001, Steenbergen 2018) as people of colour are expected to restrain themselves from reacting to disprove their alleged violent nature (Helg 2000, McDonald 2002, Graham 2012, Verwey & Quayle 2012).

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<sup>39</sup> Black incrimination was also nudged in the videos through verbs as cutting, dropping, rolling and revolving. Verbs that would fit a crime genre better than environmental communication (Hyvärinen 2007, Milstein 2009, Salmon 2010).

<sup>40</sup> To express stronger empathy towards people that resemble yourself is also indicating a sense of belonging to and identification with that group (Lovell 2003).

## 5.2 Affiliating with oppressive power structures in society

It is clear that plastic pollution is incorporated in several hybrid discourses (Jorgensen & Phillips 2002, Fairclough 2003) where it must be negotiated towards priority away from racist ideologies and oppressive power structures. When environmental communication becomes associated with racist discourses<sup>41</sup> the adaptation processes necessary to mitigate environmental degradation as plastic pollution are being obstructed (Bullard & Johnson 2000, Hutchins & Stormer 2013, Jaspal et al. 2017, Van Rensburg et al 2020). The aversive transformation of racism (Dovidio et al 2002) within environmental communication represents a normative node (Jorgensen & Phillips 2002, Fairclough 2013) that condition socioecological relations developed in KwaZulu Natal to make sense of plastic pollution in a way that legitimizes preexisting racist social paradigms and power relations (Hutchins & Stormer 2013, Bassett & Peimer 2015). This is done by giving agency to the Afrikaner community and its articulated problems with the post-apartheid society as beggars (Hartley 1999), corruption, land reforms and child homicide (Mathews et al 2013) within the context of plastic pollution and thereby reproducing aversive environmental racism (Bullard & Johnson 2000, Dovidio et al 2002, Musavengane & Leonard 2019).

### 5.2.1 Stagnation in old apartheid identities and shaming new identity formations

The white domination in NGO management and prevalence of racialized mindsets in South Africa communicates a non-inclusiveness of competent people based upon derogatory prejudices about race which is inhibiting engagement and discourages people of color to actively participate in environmental conservation and activism (Musavengane & Leonard 2019). Although DAPP officially welcomes people of color to engage in environmental work, it is incongruous as they also by appealing to conservative values and cultural phenomena significant for the white Afrikaner community (Verwey & Quayle 2012) shown their affiliations and group identifications (Lovell 2003, Inglis 2012, Bassett & Peimer 2015, Bridge et al 2018). Noted in the observations of the Durbanites the restructuring of identities and socioecological relations away from racism has not quite reached the older generations. Older Afrikaners were generally more conservative than the younger and showed a tendency to discredit people of color doing environmental work. “People say they are doing such a great job cleaning up the streets, but I think he’s just crazy. He’s just carrying around that bag to give the impression that he is doing something when he’s just drifting around begging for money.”, as commented by an older Afrikaner woman at the sight of a black man on the street carrying a big bag of empty plastic bottles. This type of racist provocation (Helg 2000, Graham 2012) gives an understanding to why the white population has come to symbolize oppression, hypocrisy, exploitation or even Antichrist (ENN 2008, Miller 2019). The stagnation in old apartheid identities is a significant problem when looking at what could be hindering the development of environmentally sustainable socioecological relations (Hutchins & Stormer 2013) as it creates a resistance towards development due to fear of change and racial melancholia (Eng & Han 2000, Cheng 2001, Verwey & Quayle 2012). Derogatory stereotyping (Fiske 1989, Verwey & Quayle 2012), sarcasm and irony (Payne 1997, Corbett 2004) is used to encourage stagnation in old apartheid identities and shame new identity formations (Cohen 2012, Hutchins & Stormer 2013, Jaspal et al 2017) that are astray from the white supremacy conformity (Bullard & Johnson 2000, Turner & Wu 2002, Shiva et al 2014). A strategy that is a functional distraction (Pinkley 1990, Falkheimer & Heide 2014) that serves to divide the population and maintain a racist society (McDonald 2002), which is profitable for corporate forces as Coca Cola and corrupt political power structures as it comprises a susceptibility of having attention directed away from corruption and costly environmental concerns and towards racial conflict (Falkheimer & Heide 2014, Jaspal et al 2014). An additional perspective of shaming is how the word *shame* was used in

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<sup>41</sup> See section 2.1 Racist discourses.

Durban. It was a trending expression applied as a suffix to emphasize or seek agreement in all kinds of circumstances, often in a contradictory context as ‘The coffee here is so good, shame.’ One could speculate it has originated from religious shame and the idea that it is sinful to enjoy without guilt (Luyten et al 1998) or the national shame regarding the history of apartheid (Verwey & Quayle 2012). The use of the word shame also has Star Trek references and is used several times in the series *Star Trek Voyager*<sup>42</sup> often regarding interracial and interspecies relations or *colorful traditions*. Another Star Trek reference so apparent that it initially escaped being noticed is the homophonic homonym (Payne 1997, Corbett 2004) of Zulu and Sulu<sup>43</sup>. The Star Trek shame references in that sense makes the general use of the word shame corroborate the alienation also expressed in the sub-narratives<sup>44</sup> and could by that also indicate a shaming of interracial relationships.

### 5.2.2 Greenwashing and whitewashing

A company that incorporates the exploitation, oppression, hypocrisy and financial power structures of the white population in South Africa (Verwey & Quayle 2012, Musavengane & Leonard 2019) is Coca Cola. Coca Cola produces 3 million tons of plastic packaging and 108 billion plastic bottles per year (Farmbrough 2019) and are causing a major part of the plastic pollution worldwide (Nace 2019). To exculpate themselves Coca Cola sponsor South African NGO’s as Durban Green Corridor and DAPP who works to reduce plastic pollution. The fact that DAPP is sponsored by Coca Cola is deeply problematic not just because it is hypocritical to accept sponsoring from the company that is responsible for most of the plastic pollution, as founder Steve Cohen (2017) also expressed, it is paradoxical (Payne 1997, Corbett 2004) as it undermines the goal to reduce the plastic pollution and works against the aim of the organization. However, DAPP as many other NGO’s cannot afford to turn Coca Cola down. The acceptance of the sponsorship confirms the tendency of socioecological relations to affiliate with power structures in society in a time of environmental crisis (Hutchins & Stormer 2013, Bassett & Peimer 2015). In essence this positions DAPP as employees of Coca Cola’s greenwashing program, which incorporates DAPP within the white financial power structures in the post-apartheid society (Verwey & Quayle 2012, Musavengane & Leonard 2019) and indirectly turns them into promoters of plastic production. In the same manner that Coca Cola greenwashes by funding environmental NGO’s, the Afrikaner upper classes (Lovell 2003) and perhaps DAPP too in the clean-up events, *whitewashes* by hiring Zulu people to work as their servants<sup>45</sup> under the premises that they are giving back. These circular power co-operations (Jurgensen & Phillips 2002, Fairclough 2013) exemplifies how power positioning and oppressive relationships are maintained with the aim to sustain a normalized hegemony of corruption. The fear of being excluded from society and work opportunities and fear of losing sponsoring or salary endorses cooperation with oppressive power structures, corrupt corporations and societal institutions (Hutchins & Stormer 2013, Bassett & Peimer 2015).

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<sup>42</sup>During and encounter with species 8472, there is a dialogue between the character Chakotay and an alien disguised as a human woman. Chakotay: “For what it’s worth, you made a terrific human.”, alien: “Shame.”, Chakotay: “Hm?”, alien: “It’s too bad our species are so different, otherwise I would ask you for a second date.” (Star Trek Voyager, Season 5, Episode 4: In the flesh). In another episode Ambassador Tomin from the Kadi civilization visited Voyager on a cultural exchange mission and was questioned afterward by his superior The Abbot: “You didn’t indulge in any of their more colorful traditions?”, Tomin: “Of course not!”, The Abbot: “Shame” (Star Trek Voyager, Season 5, Episode 21: Someone to watch over me).

<sup>43</sup> Sulu is a known character in the Star Trek universe and is a helmsman played in the original series by George Takei who is openly homosexual actor (Batchelor 2009), which makes the homophonic homonym (Corbett 2004) between Sulu and Zulu through the Star Trek sub-narrative also representative of homosexual shaming, perhaps directed toward the Zulu community.

<sup>44</sup> See section 4.2.4 Corruption, segregation and alienation.

<sup>45</sup> It was common for Afrikaner families to have several Zulu servants working in the household. In the research of Musavengane & Leonard (2019) it also became clear that white managed NGO’s hire people of color to do the dirty work on the ground and that people of color wouldn’t engage unless paid.

## 6 Conclusions and reflections

Is the environmental arena the latest manifestation of racism in the contemporary world? It might be one of the latest, but not the last. Racism is everywhere and it is naïve to believe there is a workplace or public arena where racism or oppression does not exist and new arenas are forming continuously. Environmental racism is nothing new either, but as shown people in power are afraid to admit its existence. Hence racism when confronted is shunned and often attempted to be silenced (Verwey & Quayle 2012, Stewart & Ivala 2017, Musavengane & Leonard 2019). For the single NGO it is perhaps difficult to openly stand up to the hegemony of corruption and racism as it entails risking their income and social status. Then it is safer to conform to the Afrikaner power structures they seek affiliation with and divert attention towards other societal problematics related to the Zulu community. The aversive environmental racism (Dovidio et al 2002, Musavengane & Leonard 2019) is throwing back the accusation of racism in the faces of the victims as a counterattack that propels the ongoing conflicts and amplifies the pre-existing racial tensions as part of the whites under threat agenda to maintain white supremacy power structures (Bullard & Johnson 2000, Helg 2000, McDonald 2002, Graham 2012). The issue of plastic pollution becomes a second priority and socioecological relations (Hutchins & Stormer 2013, Bassett & Peimer 2015) are compromised into corruption when racism and racial conflict enters the environmental communication.

### 6.1 Is it really racism?

It can sometimes be difficult to differentiate between what is racism and what is *just* criticism of particular occurrences. Is it really racist to criticize a corrupt regime because it consists of a majority of people of color or to criticize child homicide because a majority of the abandoned children are colored (Child Welfare South Africa 2019)? The aversive racist would argue that it is not (Dovidio et al 2002). Nonetheless it is people of color who are criticized for many things that seem irrelevant to the issue of plastic pollution, but still within its context, and because of that it becomes questionable. It is important not to demonize the Afrikaner community because they are also victims of racist conditioning (Musavengane & Leonard 2019) and assuming malicious intent would reproduce conflict (Pinkley 1990), consolidate whites under threat (Helg 2000, McDonald 2002, Graham 2012, Verwey & Quayle 2012) and white supremacy (Bullard & Johnson 2000, Turner & Wu 2002, Shiva et al 2014) and be counteractive towards environmental sustainability goals. In environmental communication it is also important to know your target group and consider their existing values, attitudes and needs (Milstein 2009, Falkheimer & Heide 2014). In their communication it appears that the Afrikaner community is the main target group of DAPP. It is the Afrikaner community DAPP identify themselves with in the material and seek approval from by using target group relatable topics, as exemplified by the sub narratives and their underlying racist tendencies. This can be interpreted as a strategy to establish a trusting relationship with their main target group (Jorgensen & Phillips 2002, Milstein 2009, Falkheimer & Heide 2014) through the effects of interpellation and identification (Gillespie & Toynbee 2006, Sturken & Cartwright 2009). A relationship that can be utilized to negotiate identities away from racism and towards more inclusive, equal and sustainable socioecological relations and worldviews (Hutchins & Stormer 2013, Bassett & Peimer 2015). Ironically DAPP does not need to believe in racist ideologies themselves and could be using racism to promote their organization to their target group (Milstein 2009, Falkheimer & Heide 2014)

## 6.2 There is hope

Plastic pollution has just as the post-apartheid land reforms in South Africa implicated major changes in land use. The land reforms triggered identity conflict (Cohen 2012, Jaspal et al 2017) and disrupted institutional and socioecological practices that defined the Afrikaner communities (Hutchins & Stormer 2013). It seems that plastic pollution has affected socioecological relations (ibid) in a similar manner and possibly that the trauma from the land reforms has been projected upon the issue of plastic pollution. That would additionally explain why racism has been transformed within the context of plastic pollution, as it is apprehended as the last outpost for the Afrikaner community to defend themselves and what they consider to be their land. However, the instability caused by the changes can be an advantage for the development of environmentally sustainable socioecological relations as it opens a window to contextual restructuring of existing socioecological interactions (Hutchins & Stormer, Bassett & Peimer 2015) where racist ideologies has been predominant (Musavengane & Leonard 2019). Within the contingency of environmental work new socioecological relations (Hutchins & Stormer 2013) can be negotiated towards equal representation, ethnical inclusiveness and environmental sustainability (Musavengane & Leonard 2019). To achieve equality in environmentalism it is important to not ignore accidents of birth (Verwey & Quayle 2012, Musavengane & Leonard 2019) and not abide to a culture of silence. Without an understanding of cultural and personal history or origin there is no learning and mistakes are bound to be repeated (Verwey & Quayle 2012, Jaspal et al 2017, Musavengane & Leonard 2019).

## 6.3 Further research

Plastic pollution and climate change are changes in the natural environment and represent external transformative occurrences that originate internal transformation in communities as well as identities (Jorgensen & Phillips 2002, Milstein 2009). Communication about external environmental changes should thus comprise acknowledgment of the internal transformational effect and direct the internal transformation toward environmental sustainability as well. By using the frameworks of sustainable socioecological relations (Hutchins & Stormer 2013) further research of how identity formations (Cohen 2012, Hutchins & Stormer 2013, Jaspal et al 2017) and lifestyle structuration among opposing groups such as environmental activists and climate change deniers are expressed and made sense of would shed light upon which ideologies aside from white supremacy (Bullard & Johnson 2000, Turner & Wu 2002, Shiva et al 2014) that are environmentally dysfunctional and which are environmentally sustainable. Anti-environmentalism (Beder 2000) and ethical veganism (Wright 2015) could be relevant to include and to investigate how those ideologies are allotted among environmental activists and climate change denier. However, as white supremacy (Bullard & Johnson 2000, Turner & Wu 2002) does not only discriminate race, but also gender (Shiva et al 2014, Cock 2018, Musavengane & Leonard 2019), other species and nature itself, it provides a useful framework in the field of investigating discrimination and oppression in a multitude of areas.

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# Appendix 1

## 6.4 Tables and charts

### 6.4.1 Construction schemes

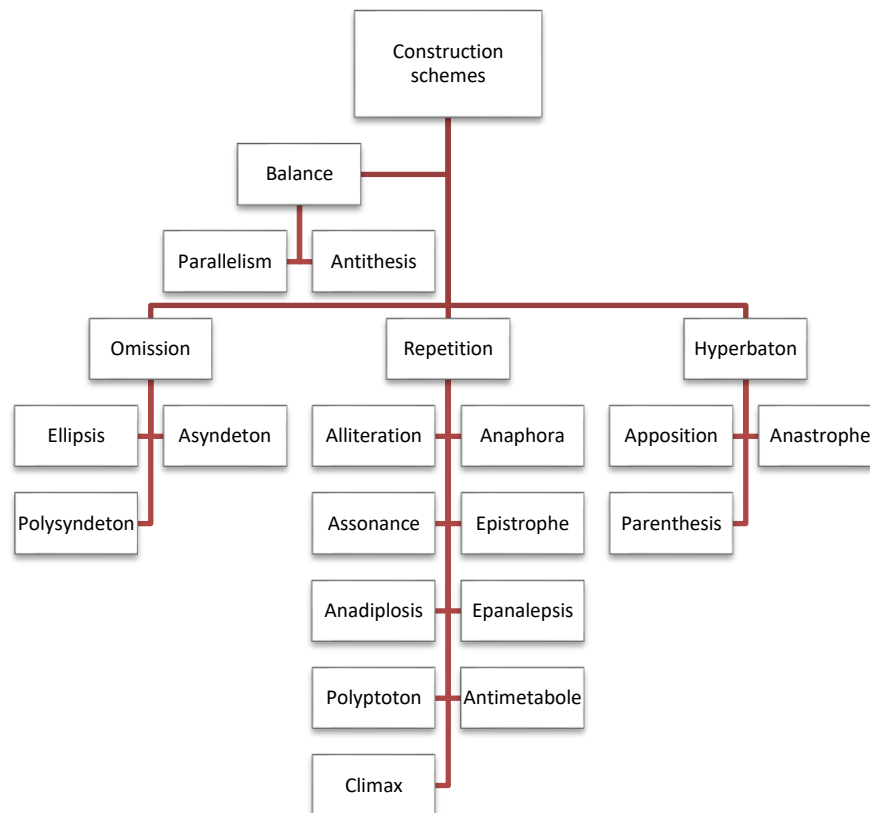


Figure 1. Table of Corbett's construction schemes.

Subcategories	Explanation of subcategories to construction schemes
Parallelism	<i>similarity of structure in a pair or series of related words, phrases or clauses</i>
Antithesis	<i>juxtaposition of contrasting ideas, often in parallel structure</i>
Anastrophe	<i>inversion of the natural or usual word order</i>
Parenthesis	<i>insertion of a verbal unit in a position that interrupts the normal syntactical flow of the sentence</i>
Apposition	<i>placing side by side two co-ordinate elements, the second of which serves as an explanation or modification of the first</i>
Ellipsis	<i>deliberate omission of a word or of words which are readily implied by the content</i>
Asyndeton	<i>deliberate omission of conjunctions between a series of related clauses</i>
Polysyndeton	<i>deliberate use of many conjunctions</i>
Alliteration	<i>repetition of initial or medial consonants in two or more adjacent words</i>
Assonance	<i>the repetition of similar vowel sounds, preceded and followed by different consonants, in the stressed syllables of adjacent words</i>
Anaphora	<i>repetition of the same word or group of words at the beginnings of successive clauses</i>
Epistrophe	<i>repetition of the same word or group of words at the ends of successive clauses</i>
Epanalepsis	<i>repetition at the end of a clause of the word that occurred at the beginning of the clause</i>

Anadiplosis	<i>repetition of the last word of one clause at the beginning of the following clause</i>
Climax	<i>arrangement of words, phrases, or clauses in an order of increasing importance</i>
Antimetabole	<i>repetition of words, in successive clauses, in reverse grammatical order</i>
Polyptoton	<i>repetition of words derived from the same root</i>

Figure 2. Table with explanations of rhetoric schemes (Corbett 2004).

#### 6.4.2 Results of schematic analysis

	<b>Balance</b>
Parallelism	“..cleaning was a very, would be a very small drop in the bucket. “ ( Dianna Cohen 2010), “Over 40 000 bags of rubbish..”, “Over 200 000 cubic meters of effluent..”, “4000 cubic meters of calcium..”, “5000 cubic meters of sulfuric acid..”, “90 000 cubic meters of lignosulfonate..” “Every day. Every month. Every day” (ENN 2008)
Antithesis	“You put something in the bin and you don’t really have to think about it again” ( Dianna Cohen 2010).
	<b>Hyperbaton</b>
Apposition	“I’m a visual artist and also one of the co-founders of the plastic pollution coalition.” , “Alternatives exist, some of them are very old school” , “..this is a huge problem in the oceans, but this is a problem we created as consumers and we can solve.” , “We have many initiatives that we are working on and some of them are very basic.” (Dianna Cohen 2010). “It is notorious for breaking up into pieces that choke animals and clog their digestive system.”, “Polystyrene is quickly broken down into microplastics ( 1mm or less) and is easily ingested by sea creatures in a highly concentrated form. The pollutants move up the marine food chain until they potentially end up being consumed by humans”, “Sugar cane fiber pulp..it’s on our doorstep.”, “ Law reform: stronger regulation of polystyrene.”, “Health risks: Chronic exposure affects the central nervous system.” , “Lobby for establishment of coastal protected zone and associated regulation under coastal management act for the eThekweni’s entire coastline.”, “These products are made with petroleum, a non-sustainable and heavily polluting resource. “(DAPP 2016) “A study conducted by coastal industries utilizing offshore pipelines found “no impact” of their effluent on marine biota. “, “The percentage of the national budget allocated for pollution and waste management is shockingly low.” ( ENN 2008) “Homes, places we’ve grown.” (Coldplay 2000).
Parenthesis	“Strategy can range from targeting select products (such as clam shell containers and cups) to targeting spatial zones for enforcement (such as beaches and estuaries). “, “Toxic chemicals leach out of these products into the food that they contain (especially when heated in a microwave).” ( DAPP 2016) “Over 200 000 cubic meters of effluent (including sewage) are pumped off Durban’s shore.” ( ENN 2008).
	<b>Omission</b>
Ellipsis:	“It is light and easily blows away from consumers and out of bins.”, “It is notorious for breaking into pieces..”( DAPP 2016).
Polysyndeton:	“..it is only downcycled or incinerated or shipped to China.” ( Dianna Cohen 2010).
	<b>Repetition</b>
Alliteration:	“..we added a fourth R on to the front of the <i>Reduce-Reuse-Recycle</i> three R’s and that is <i>Refuse</i> .”, “..begin to <i>pick</i> up the plastic, <i>chip</i> it up into little <i>bits</i> and cold mold it into <i>bricks</i> ..” (Dianna Cohen 2010).
Anaphora:	“ <i>It’s not just the gyre of plastic</i> that I am concerned about, <i>it’s the gyre of plastic</i> in the supermarket.”, “ <i>I am also concerned about the plastic</i> in our refrigerators and <i>I’m concerned about the plastic</i> and the toxins that we get from plastics into us and into our bodies” “..save our oceans, save our planet, save ourselves.” (Dianna Cohen 2010).
Assonance:	“Polystyrene pollution solution” (DAPP 2016).
Epistrophe:	“I go to the supermarket and all of my food is <i>packaged in plastic</i> , all of my beverages are <i>packaged in plastic</i> , even at the health food market. “(Dianna Cohen 2010).
Anadiplosis:	“And I actually needed to back up and look at <i>the bigger picture</i> and <i>the bigger picture</i> is:.” (Dianna Cohen 2010).
Epanalepsis	“It’s a bad thing that <i>plastic</i> breaks down in smaller little bits because it’s always still <i>plastic</i> ” (Dianna Cohen 2010).
Polyptoton:	“So I actually developed a proposal to go out with a cargo <i>ship</i> and two decommission fishing trawlers, a crane, a <i>shipping</i> machine and a cold molding machine” (Dianna Cohen 2010).
Climax:	“We can cut the stem, tie the stem of this into our oceans and in doing so save our oceans, save our planet, save ourselves.” (Dianna Cohen 2010).

Figure 3. Table with examples of how schemes have been used in the video

	<b>Examples of single sentence tropes</b>
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Metaphor	"..drop in the bucket..", "..turn off the faucet..", "..cut the spigot.", "..cut the stem.." (Dianna Cohen 2010) "We are a rock revolving around a golden sun. We are a billion children rolled into one" (Julian Lennon 1991).
Irony	"Beautiful?", "Some of Durban's beaches failed to meet the international standards for waterborne pathogens in 2002. Some beaches? 8 out of 10.", "A study conducted by coastal industries utilizing offshore pipelines found "no impact" of their effluent on marine biota. "(ENN 2008), "We live in a beautiful world" (Coldplay 2000).

Figure 4. Table with examples of single sentence tropes in the videos.

## Appendix 2

Transcripts of text from videos

### 6.5 Text from Video 1

#### 6.5.1 *TED- talk*

“I’m a visual artist and also one of the co-founders of the plastic pollution coalition. I’ve been working with plastic bags which I cut up and sew back together as the primary material for my artwork for the last 20 years. I turned them into 2 and 3 dimensional pieces and sculptures and installations. Upon working with the plastic, after about the first 8 years, some of my work started to fissure and break down into smaller little bits of plastic and I thought; great, it’s ephemeral, just like us. Upon educating myself a little further about plastics, I actually realized that this is a bad thing. It’s a bad thing that plastic breaks down into smaller little bits because it’s always still plastic and what we’re finding is that a lot of it is in the marine environment. I then, in the last few years learned about the pacific garbage patch and the gyre. My initial reaction, I think this is a lot of peoples first reaction to learning about it, is; oh my god, we got to go out there and clean this thing up. So, I actually developed a proposal to go out with a cargo ship and two decommission fishing trawlers, a crane, a shipping machine and a cold molding machine. And my intention was to go out to the gyre and raise awareness about this issue and begin to pick up the plastic, chip it up into little bits and cold mold it into bricks that could potentially be used as building material in underdeveloped communities. I began talking with people who actually had been out to the gyre and was setting the plastic problem in the marine environment and upon doing so I realized actually that cleaning was a very, would be a very small drop in the bucket relative to how much is being generated every day around the world. And actually I needed to back up and look at the bigger picture and the bigger picture is: we need to find a way to turn off the faucet, we need to cut the spigot of single use and disposable plastic which is entering the marine environment every day on a global scale. So, when looking at that I also realized that I was really angry. I wasn’t just concerned about the plastic that you are trying to imagine out in the Pacific Ocean of which I learned now that there are 11 gyres potentially of plastic in five major oceans in the world. It’s not just that gyre of plastic that I am concerned about, it’s the gyre of plastic in the supermarket. I go to the supermarket and all of my food is packaged in plastic, all of my beverages are packaged in plastic, even at the health food market. I am also concerned about the plastic in our refrigerators and I’m concerned about the plastic and the toxins that we get from plastics into us and into our bodies. So, I came together with a group of other people who were all looking at this issue and we created the Plastic Pollution Coalition. We have many initiatives that we are working on and some of them are very basic. One is, if it’s 80 to 90 % we’re finding in the ocean, of the marine debris that we’re finding in the ocean, then why don’t we call it for what it is? It’s plastic pollution. Recycling. Everybody kind of end their books about being sustainable and greening with the idea of recycling. You put something in the bin and you don’t really have to think about it again. What is the reality of that? In the US, less than 70 % of our plastic is recycled and if you really look into it, particularly when it comes to plastic bottles, most of it is only downcycled or incinerated or shipped to China. It is downcycled and turned into lesser thing. While a glass bottle can be a glass bottle again or can be used again, a plastic bottle can never be a plastic bottle again. So, this is a big issue for us. Another thing that we’re looking at and asking people to think about is; we added a fourth r on to the front of the reduce- reuse-recycle three r’s and that is refuse. Whenever possible refuse single use and disposable plastics. Alternatives exist. Some of them are very old school. I’m myself am now collecting

these cool pyrex containers and using them instead of glad or Tupperware containers to store food in and I know that I am doing a service to myself and my family. It's very easy to pick up a stainless steel bottle or a glass bottle if you're travelling and forgot to bring your stainless steel bottle and fill that up with water or filtered water versus purchasing plastic bottles with water. I guess what I want to say to everybody here I know that you guys know a lot about this issue, is that this is a huge problem in the oceans, but this is a problem that we created as consumers and we can solve. So whenever possible chose alternatives for single use plastics. We can cut the stem, tie the stem of this into our oceans and in doing so save our oceans, save our planet and save ourselves. Thank you. " ( Dianna Cohen 2010)

## 6.6 Text from Video 2

### 6.6.1 Text from captions, text-frames and charts

Say "no" to polystyrene. Polystyrene pollution solution. Steve Cohen & Richard McLennan 2016. Please don't trash our beaches. Please don't trash our beaches. Please don't trash our beaches. Polystyrene has become a blight on the eThekweni's Golden Mile. Durban, March 2017, after spring high tides and storm swell. Polystyrene fragments being washed out Mngeni Estuary into the sea. Polystyrene and other packaging litter after a windy public holiday Suncoast Beach. So what's wrong with polystyrene packaging and food ware? Health risk: Chronic exposure affects the central nervous system. Styrene is classified as a possible human carcinogen by the EPA and by the International Agency for Research on Cancer (IARC). Toxic chemicals leach out of these products into the food that they contain (especially when heated in a microwave). These chemicals threaten human health and reproductive systems. These products are made with petroleum, a non-sustainable and heavily polluting resource. Polystyrene is not economically recyclable. Polystyrene is a petroleum based plastic made from styrene monomer. So what's wrong with polystyrene packaging and food ware (continued)? Polystyrene foam is often dumped into the environment as litter. It is notorious for breaking up into pieces that choke animals and clog their digestive systems. It is light and easily blows away from consumers and out of bins. Polystyrene cannot be readily cleaned up once it has broken down. Polystyrene is quickly broken down into microplastics (1mm or less) and is easily ingested by sea creatures in a highly concentrated form. The pollutants move up the marine food chain until they potentially end up being consumed by humans. Polystyrene is a petroleum- based plastic made from the styrene monomer. What can we do? Option analysis. Option: Business as usual: Fragmented, low intensity. Environmental education & recycling awareness. Impact: Low, Implementation time frame: short term. Hard hitting communication campaign targeting users, retailers and wholesales. Impact: moderate, timeframe: short term. Warning & do not litter labelling on packaging and food ware. Impact: low to moderate, timeframe: short to medium term. Discourage retailers, restaurants and wholesalers from producing, using or selling polystyrene products, impact: moderate, timeframe: short to medium term. Enforcement of existing laws, impact: moderate, timeframe: medium term. Biodegradable alternatives for food ware and packaging, impact: moderate, timeframe: medium term. New policy and regulation restricting use of, or banning, polystyrene with strong enforcement, impact: high, timeframe: long term. Law reform: Stronger regulation of polystyrene. International precedent: San Francisco, New York City, New Delhi etc. eThekweni Municipality could lead the way and become first city in Africa to ban polystyrene. Low consumer impact as it is a product of convenience and not necessity- although can expect backlash from groups purporting to represent the poor. Strategy can range from targeting select products (such as clam shell containers and cups) to targeting spatial zones for enforcement (such as beaches and estuaries). Law reform continued. Lobby for establishment of coastal protected zone and associated regulation under coastal management



act for the eThekweni's entire coastline. Link with campaign to protect the littoral zone from litter! Treat the littoral zone as a nature reserve. No packaging allowed. Explore legal mechanisms to hold government bodies to account for plastic pollution in eThekweni's marine environment that has resulted from land based sources. Phase out proposal for polystyrene in eThekweni Product targeting: Clam shells and cups- polystyrene 'peanuts'-meat and fruit trays. Location targeting: Beachfront & public spaces- retailers & restaurants-city wide. Biodegradable v petroleum -based food ware? Sugar cane fibre pulp...It's on our doorstep. Description. Made from plant fibre. 100% biodegradable. Compostable. Water & oil proof. Hot/cold food friendly

### 6.6.2 *Saltwater lyrics*

Saltwater by Julian Lennon (1991)

We are a rock revolving  
Around a golden sun  
We are a billion children rolled into one  
So when I hear about the hole in the sky  
Saltwater wells in my eyes  
We climb the highest mountain  
We'll make the desert bloom  
We're so ingenious we can walk the moon  
But when I hear of how the forests have died  
Saltwater wells in my eyes  
I have lived for love  
But now that's not enough  
For the world I love is dying  
And now I'm crying  
And time is not a friend (no friend of mine)  
As friends we're out of time  
And it's slowly passing by  
Right before our eyes  
We light the deepest ocean  
Send photographs of Mars  
We're so enchanted by how clever we are  
Why should one baby feel so hungry she cries  
Saltwater wells in my eyes  
I have lived for love  
But now that's not enough  
For the world I love is dying  
And now I'm crying  
And time is not a friend  
As friends we're out of time  
And it's slowly passing by  
Right before our eyes  
We are a rock revolving  
Around a golden sun  
We are a billion children rolled into one  
What will I think of me the day that I die  
Saltwater wells in my eyes  
Saltwater wells in my eyes

## 6.7 Text from Video 3

### 6.7.1 Text from text-frames

Esteemed colleagues, beautiful assistants, and especially Boz. Kindly switch to silent. Now. Pollution in the marine environment? Beautiful? Over 40 000 bags of rubbish are removed from Durban beaches. Every month. Over 200 000 cubic metres of effluent (including sewage) are pumped off Durban's shore. Every day. Some of Durban's beaches failed to meet international standards for waterborne pathogens in 2002. Some beaches? 8 out of 10. A study conducted by coastal industries utilizing offshore pipelines found "no impact" of their effluent on marine biota. This waste included: 4000 cubic metres of calcium and sodium salts with trace levels mercury. 5000 cubic metres of sulphuric acid and ferrous sulphate. 90 000 cubic metres of lignosulphate. Every day. The percentage of the national budget allocated for pollution and waste management is shockingly low. 0,005%. In 2002 the Department of Water and Forestry introduced a levy on domestic, industrial and agricultural water usage. None of the funds collected were allocated for management of marine pollution. Are we doomed? An Enn Production. In collaboration with. Our invaluable cast. Surfer, Tannies in red. Friendly beachgoer. Happy paddler. Informed fisherman. Old ballies. Antichrist accuser and Sidekick. Concerned parent. Hot surfer. Inspired, directed and produced by Technophile, Technophobe, Drunk.

### 6.7.2 Don't Panic lyrics

Don't Panic by Coldplay (2000)

Bones sinking like stones  
All that we've fought for  
Homes, places we've grown  
All of us are done for  
We live in a beautiful world  
Yeah we do  
Yeah we do  
We live in a beautiful world  
Bones sinking like stones  
All that we've fought for  
Homes, places we've grown  
All of us are done for  
We live in a beautiful world  
Yeah we do  
Yeah we do  
We live in a beautiful world  
We live in a beautiful world  
Yeah we do  
Yeah we do  
We live in a beautiful world  
Oh all that I know  
There's nothing here to run from  
'Cause here  
Everybody here's got somebody to lean on

### 6.7.3 Pollution lyrics

Pollution by Tom Lehrer (1965)

Time was when an American about to go abroad would be warned by his friends or the guidebooks not to drink the water. But times have changed, and now a foreigner coming to this country might be offered the following advice:

If you visit American city,  
 You will find it very pretty.  
 Just two things of which you must beware:  
 Don't drink the water and don't breathe the air!  
 Pollution, pollution!  
 They got smog and sewage and mud.  
 Turn on your tap  
 And get hot and cold running crud!  
 See the halibuts and the sturgeons  
 Being wiped out by detergeons.  
 Fish gotta swim and birds gotta fly,  
 But they don't last long if they try.  
 Pollution, pollution!  
 You can use the latest toothpaste,  
 And then rinse your mouth  
 With industrial waste.  
 Just go out for a breath of air  
 And you'll..

#### 6.7.4 *Transcripts from interviews in Video 3*

1. How do you feel about pollution on the beaches?

- Pretty good actually.
- Sucks.
- I wish it gone.
- This, the season it's crazy, but generally it's squeaky.
- Well, it's progressively got worse.
- Ay, but it's not that much for the season.
- Very well.
- Durban beaches are cool.

2. How do you feel about the fact that sewage is being pumped into the ocean?

- I'm not particularly happy, I swim in the ocean.
- Wha..aaaa ?
- That's the worst problem, the trenches.
- It's hardly even better than my toilet!
- It's really disgusting in the water.
- Now? Something scary now, you say there's a sewage in here, and there are people in here, ya.
- Given I could take the toilet or the sea, I would still take the sea.

3. Are you aware that there are trace levels of e-coli found in the water?

- Same as typhus? But yes.
- I didn't know that, but I do know that there are various levels of e-coli that are suitable for...
- E-coli?
- What's that?
- I think the water is fine, because it's all water and water is beautiful.
- I certainly don't want to go swimming in anything if it's got a high level of residue.
- You never know what you're gonna go home with (laugh).

- Do I look like I got e-coli?
4. So do you know that maybe there are a lot of things that are being polluted in the ocean that you can't see? That are happening under water?
- Uh, no.
  - I suppose for some organisms it has a positive effect, that they feed on it.
  - Uh, I wouldn't imagine those organisms are much good
  - It kills them.
  - The life in there is good to be , is good to be..some..
  - But I would imagine those organism are not pretty keen on it, including ? organisms
  - Better bet, better bet.
  - Not anymore.
- (laughing)
5. Do you think that from a psychological standpoint that people would be willing to pay more if they knew that the waste and the sewage would be disposed in a more sustainable way?
- Yes, I think for the betterment of the life in the seas, yes.
  - I think they should use it into, what do they be like, say water, and taxation of water, one percent, and then that one percent should go towards cleaning up the beaches, estuaries, the pond...
  - Yes, if there was a potential benefit they could see from it, then if I knew that the cost would be shared amongst the whole community that uses..
  - I don't think they should have to pay more, just that I don't think it should be managed this way.
  - I think only other, or your environmental conscious people, or your people who uses the beaches would be interested.
  - There should be a greater responsibility on the legislators.
  - Our government don't want to spend money.
6. So what do you think we should do about it?
- Teach the people about the environment.
  - If you educate people like that, then maybe they will do stuff that is good for the ocean.
7. How often do you come to the shore?
- I think just every year, for the skill, for the cinemas, for the population, like lottery. In that way it's more sustainable. We can also volunteer, but I think that for the other 19 and a half percent that we may have loads.
  - Are you antichrist or something, because you are focusing on people on the shore, getting in the water is not alright..
8. So could people ...?
- We do too..(incomprehensible)

