

**Responding to Iconic Images of Risk through Reflexive and
Narrative Enquiry represented in a Stratified Text for
Environmental Education Readers**

Thesis submitted in fulfilment of the requirements of the

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by

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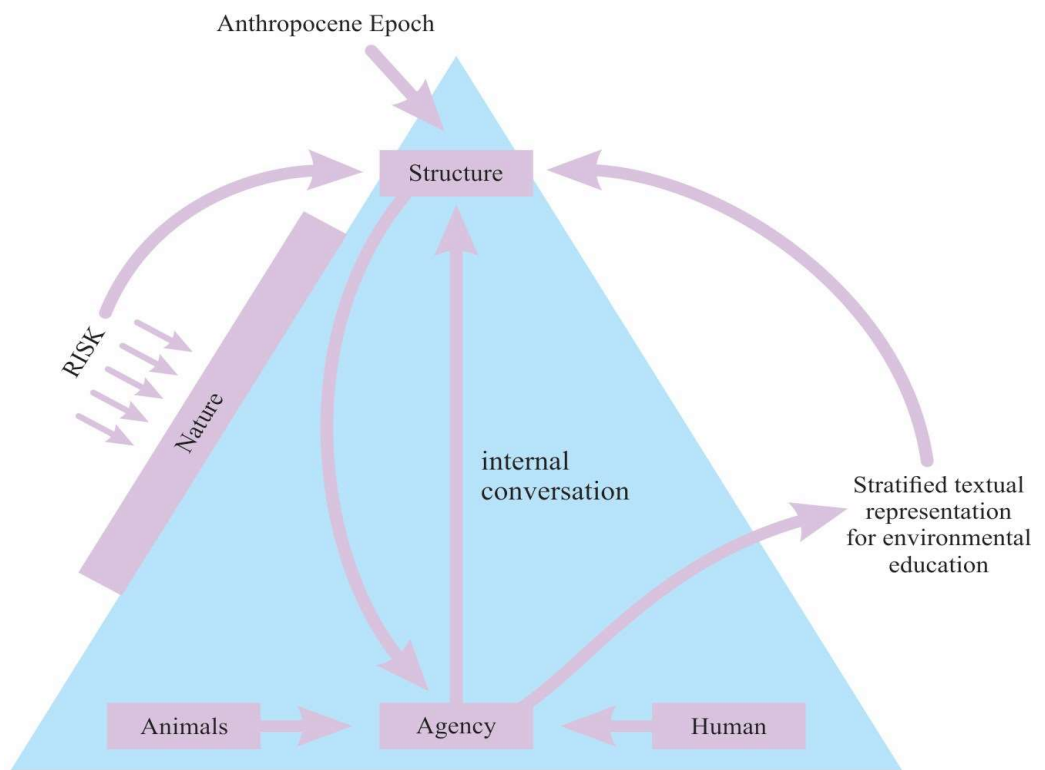
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[MM1]



Representation of development of research interests and thesis structure

Acknowledgments

To all reflexive beings past, present and future.

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Abstract

This thesis presents a stratified textual strategy to represent meaning developed through reflexive and narrative enquiry of environmental risk. Meaning that emerged in responses to iconic images of risk. Umberto Eco cautioned that iconic images over time become conventional taking over from that which they represent. Representations of risk become embedded through cultural coding. Semiotic theory provided access to the contextual and cultural content of environmental education as experienced during professional work as a radio presenter of “Environmental Matters”, as an environmental educator and activist.

Methodological rigour was applied through the application of Margaret Archer's theory of the internal conversation and use of an online content management system. Both the reflexive tool of the internal conversation and the textual mechanism of the blog encouraged commitment to Paul Hart's criteria of trustworthiness and authenticity in the process of building the semiotic structure of the PhD. The Internal Conversation was used as a mediating tool in the PhD process and is presented in practice.

Rethinking environmental risk from other species' perspectives through imagined experience was achieved through narrative enquiry. A noted anthropocentric limitation of the inability to interview animals for their experience of human-imposed risk was mitigated through representing the imagined, possible perspectives through story, which invites the reader to join the meaning-making process and open up discussions for and about environmental issues and action. This noted anthropocentrism was evident in debates among the characters about violence and non-violence as a conditioned theme and topic discussed in previous academic research about terrorism in divided societies. The story illustrates how the main character, a penguin called Polo, navigates through emerging meaning within a structure that confronts him with choices that end with a decision to become an agent for change. This story is a narrative example of the morphogenetic process.

The multi-textual strategy presents possible methods for the exploration of risk (Vol. 1), reflexivity (Vol. 2) and representation (Vol. 3) for the application and contribution in/to environmental education.

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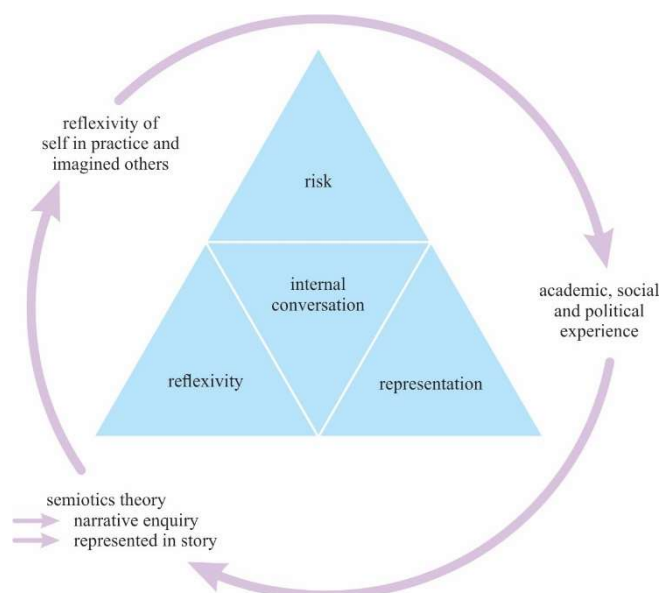
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Research Questions

This thesis seeks to explore the following questions:

1. What is the purpose of a doctoral thesis in environmental education?
2. What agency can I bring to, and through, my research work such that its purpose extends beyond academia?
3. How do I ensure academic rigour while challenging traditional doctoral texts?
4. Is it, and how is it, possible to demonstrate reflexivity in a doctoral thesis?
5. Can personal and political questions of truth form part of my PhD work?
6. Is it possible to write an academic thesis for an undefined number of readers?
7. What role does the reader play in this thesis?
8. How can I include the un-heard voices of animals?
9. How do I overcome my anthropocentrism in animal representation?
10. Could my own internal voice and the imagined voices of others help both reader and writer critically reflect on how we as researchers present and respond to environmental risk?



Representation of research questions

Methodological Framework

“Education has the potential to facilitate catalytic transformation of society through development of understandings and actions that contribute to more sustainable social practices” (Mandikonza & Lotz-Sisitka, 2016, NEED page number).

How do we assist in the facilitation of this catalytic transformation if we ourselves are struggling to understand, cope and act? In the first textual layer (Vol. 1) of this thesis, iconic images of risk are presented as illustration of the complexity and the scattered erraticism of environmental issues. The research explored how the reflexive method of approaching these symbolised issues of risk encouraged thinking from other vantage points. They were also explored in a way that triggered their representation and discussion not as theoretical solution but as methodological access.

Transformation begins with ourselves, rather than with 'the other', and stresses 'emergence' rather than any predetermined 'agenda' (Sterling, 2005, p. 246). This thesis is situated in a personal commitment to transformation and action through continual improvement¹ of my own sustainability practices at home and at work. I considered it unethical to encourage and motivate others to engage in zero-waste-to-landfill policy and practice, for example, without ensuring I was considering and implementing my own zerowaste practices. Applying in practice what I was encouraging in others also deepened my own commitment and communication about environmental action. Some of these practices include:

1. The Plastic Bag Campaign with former Minister for Environmental Affairs, Mohammed Valli Moosa (2000)

¹ *'Continual improvement' is a term used in assessment methodologies in some education and corporate sustainability programmes and systems. For example, the Eco-Schools Programme and ISO14001 Assessment criteria. The former I participated in piloting and the latter I was trained in assessing.*

2. Waste Reduction at Source at a number of hospitality and food production sites in South and Southern Africa (for example, 2006-2017 Mount Nelson Hotel, Grand West Casino, Cavendish Square)
3. 'Clear the Air' – a campaign to raise awareness of retrofittable diesel particulate filters (South Africa 2002, World Summit on Sustainable Development with Mission Antarctica)
4. Water, Waste, Emissions, Pollution reduction tips and ideas shared on *Environmental Matters*, an SAfm radio programme broadcast on Monday evenings from 2007-2009 in South Africa
5. Carbon Footprint Corporate Workshops aimed at exploring ways to reduce carbon emissions practically (2010-2011)

Mandikonza and Lotz-Sisitka, in their paper on emergence of Environment and Sustainability Education (ESE) in teacher education contexts, cited UNESCO, the lead agency in the United Nations Decade on Education for Sustainable Development (UN DESD): “One of the main aims of ESE is to rethink education (UNESCO, 2015a) in such a way that it can help to transform human lives towards sustainability.” (ibid., abstract)

Rethinking education is not a novel concept, it was a key theme of the UN DESD, 2005-2014, which had “at its heart ... a simple idea with complex implications, namely, after being taught over past centuries to live unsustainably, we now have to learn to live sustainably” (Mr Kōichirō Matsuura at the launch of the Decade for Education for Sustainable Development, 1 March 2005 in New York).

This call for rethinking and encouraging thinking also has a long history in education theory: Bertrand Russell, for example, argued that “the real issue is should we, in education, aim at filling the mind with knowledge which has direct practical utility, or should we try to give our pupils mental possessions which are good on their own account?” (Russell, 1966, p. 17). In 2005, Sterling pointed to what he saw as a 'prevailing modernist/mechanist view of education that is essentially instrumental’ (Sterling, 2005, p. 241). The mechanistic education method of 'filling the mind with knowledge' is antithetical to developing thinking citizens. But what kind of education develops thinking?

UNESCO (2006) isolated seven characteristics in response to 'the concern for education of high quality':

- Interdisciplinary and holistic: learning for sustainable development embedded in the whole curriculum, not as a separate subject;
- Values-driven: sharing the values and principles underpinning sustainable development;
- Critical thinking and problem solving: leading to confidence in addressing the dilemmas and challenges of sustainable development;
- Multi-method: word, art, drama, debate, experience, ... different pedagogies for modelling processes;
- Participatory decision-making: learners participate in decisions on how they are to learn;
- Applicability: learning experiences are integrated in day to day personal and professional life;
- Locally relevant: addressing local as well as global issues, and using the language(s) which learners most commonly use. (pp. 4-5)

The characteristics of 'Critical thinking'² and 'Multi-method' are particular characteristics in focus in this PhD for their potential contribution to environmental education.

Critical Reflexivity

Bourdieu presented a more apprehensive view of education eleven years after Bertrand Russell. "Education", he stated, "is complicit in the reproduction of the 'social division of the labour of domination'" (1997, p. 3). One way to break the reproduction of these divisions is to focus on education that enables, encourages and develops critical thinkers. Critical reflexivity might facilitate the catalytic transformation noted by Mandikonzha and Lotz-Sisitka (2016) and potentially disrupt the reproduction of structural domination.

² *Embedded in the notion of Critical Thinking I contend is the notion of reflexivity – the ability to think about thinking, which is discussed in more detail in Vol. 2 of this thesis.*

“ESE ... needs to be critically reflexive and should allow people to think about and consider a view of development and progress that charts new and alternative pathways to reduce human impacts on the earth system, while also seeking out new social progress models that take future generations into account” (Lotz-Sisitka & Lindley, 2014, NEED page number?). But what does critical reflexivity look like in practice? I responded to these questions by first investigating my own reflexivity in my PhD work. Merely thinking about environmental risk, which motivated this thesis, did not move my agency forward so I looked for a way to be 'critically reflexive' as Lotz-Sisitka and Lindley called for.

Reflexivity at its heart is the ability to think about our thinking. Margaret Archer (2003) formulated a theory of reflexivity which she called the Internal Conversation (IC). She argued that the IC is a mechanism/process of mediation between structure and agency. In her book, *Structure, Agency and the Internal Conversation* (2003) Archer begins with the question: “how does structure [like schools] influence agency?”

Through the mediating process of the IC, agents³ engage in internal deliberation in relation to structure whereby they become the authors of their own projects. In her theory, she links the causal relationship between structure and agency, which she calls the morphogenetic cycle. By reflecting on what we know, our world is transformed: new shapes emerge. For to identify one's self, one must compare to an exterior reality. Through a process of moving deeper within, or engaging in Archer's Internal Conversation, we transform the exterior reality. This process of reflexivity leads to change because “there is only one story because we make our lives, at least in part, by deliberating upon all contexts in which we find ourselves, often involuntarily” (Archer, 2003, p. 52).

I wanted to explore what Archer's theory of the Internal Conversation would look like in practice. I decided to open up, declare and share my internal conversation in the PhD work, which could be both a demonstration of reflexivity and a possible tool of enquiry, with potential application in the field of environmental education. It increased the transparency in, and about, my PhD process, by sharing my learning experience, my worldview and bias in my research.

³ I use the term 'agents' as Bhaskar does to mean “anything which is capable of bringing about a change in something (including itself)” (Bhaskar, 2008, p. 109).

This led to thinking about how to represent the internal conversation in text. I explored different textual forms and chose a blog (presented in Vol. 2) that allowed for the conversational style of the IC as well as providing a mechanism for developing meaning created through the theoretical enquiry of semiotics.

According to the University of Manchester's Centre for Excellence in Enquiry-Based Learning, blogs encourage rigour in academic research. I found it encouraged rigour in my academic work. I agree with Chen et al. (2005) that blogs “promote interactivity” and “push engagement”. Research also suggests that “blogs allow a more creative response from students” (Oravec, 2005, p.11).

Although my reading was directed in a linear way through one of the main semiotic texts of the PhD, namely Umberto Eco's *A Theory of Semiotics* (1979), the learning experienced, and depicted in Vol.2, was circular. The blog allowed me reflective and reflexive pauses between the linearity of the reading and reflections on the learning developed through reading.

The 'track and trace' system embedded in the blogging structure eventually encouraged a learning rhythm. It kept me 'on track', focused and somehow heard. The importance of being heard was one of the outcomes that struck me most during work at the Truth and Reconciliation Commission.⁴

The blog also gave me a sense of connectedness and accountability. As a long-distance student, I often felt cut off from my academic community. The blog provided a space where I could report on my work, outside of the traditional methods of direct supervisory engagement.

⁴ *The Truth and Reconciliation Commission was established under the promotion of the National Unity and Reconciliation Act 34 of 1995 [assented to 19 July 1995]. It was to provide for the investigation and the establishment of as complete a picture as possible of the nature, causes and extent of gross violations of human rights committed during the period from 1 March 1960 to April 1994. My role in the Commission was to lead a team of fifteen writers to summarise the stories of those considered 'victims' of human rights. They numbered 22 000.*

Initially, the pattern of writing and 'reporting' on my work was erratic because of personal trauma and loss, including people, home, car and money. There was a long period of disengagement and absence from my PhD work. I did not want to hide these absences and gaps through eliding, editing or convergence of the thoughts into neater packaged language. This would have undermined the honesty and transparency I sought to share. It would also have censored my internal conversation.

Although I found many examples, detailed in the references section, of blogs used in academic research, I could not find an example of a blog being used as a textual tool for the representation of a PhD.

Representation

Calls for critical and reflexive thinking in education also seem to correlate with calls in the past for new forms of representation in education that inspired me during my initial research (Diamond, 2005; Jickling, 2005; Sterling, 2005; Burbles & Torres, 2000; Touraine, 2000; Yorks, 2005; Dunlop, 2001; Hart, 2002). As Hart reflected (2014, p. 480), shifts in research writing “have legitimized, and at the same troubled, new textual forms, as well as more reflexive ways of theorizing than is the convention within foundational research”. These shifts have led to what some have termed “the crisis of representation”⁵ Hart (2014, p. 480). This crisis and turning has not only given rise to “non-traditional forms⁶ of academic research texts” (Nolan, 2014, p. 517)⁷, but also new methods in the dissemination of educational knowledge. Korteweg argued that “in this era of Web 2.0,⁸ central goals of educational research need to include transparency, openness, freedom

⁵ *For other contributions to the representation conversation, see Leggo and Sameshima, 2014; Wiebe, 2014; Yallop, 2014; Pozzer-Ardenghi, 2014.*

⁶ *We continue to be ‘eager’ to “produce forms of knowledge that do not exist yet” (Freire, 1997 cited in Leggo and Sameshima, 2014, p. 539).*

⁷ *These are, as Nolan pointed out, “still viewed with a sceptical eye” (2014, p. 517).*

⁸ *Korteweg defined Web 2.0 as “an Internet of sociable technologies and social software that enable education and research, for organizations, educators, students and laypersons” (2014, p. 560). Some of the more popular social software are wikis, blogs and podcasts (2014, p. 560).*

and authentication in the pursuit of educational inquiry in and for public engagement and interest” (2014, p. 559). For ultimately, as Schostak declared, “representing research in education is a fundamentally political act” (2014, p. 490).

I was concerned not only about how and where we represent, but also whom we represent. I was concerned with “... the struggle for voice, the representation of voice...” (Schostak, 2014, p. 489), and finding “the courage necessary to identify one’s own voice” (Stewart, cited in Hart, 2014, p. 483). In Shapiro’s study of the field of human-animal studies, he noted in 2002 its marginal standing in most disciplines in social sciences and humanities (cited in Russell, 2005, p. 434). Five years prior, Noske pointed to a blatant dichotomy of representation with the natural sciences being “the sole domain for those interested in nature leaving social sciences free to focus on humans” (Russell, 2005, p. 434).

Reingard Spannring suggested in a more recent paper: *Animals in environmental education research* that “over the past few decades, the increase in public and scholarly attention to human-animal relations has inspired an animal turn in a number of academic disciplines including environmental education research” (2017, p. 1).⁹

Although there is more evidence of the inclusion of the more-than-human voices in our environmental education conversations and research, there still remains a problem with representing those voices in significant ways. Animals are reported on, but not represented in. I contend that what Raupp declared as a ‘furry ceiling’ still remains (Raupp, cited in Russell, 2005, p. 434). Ultimately, we have more to do in “learning to converse” with the world beyond humans, which was Haraway’s main contention in her seminal work (Haraway, 2003).

This profound mis/un/under representation of more-than-human voices is first and foremost a result of our “silence about anthropocentrism” (Russell, 2005, p. 434). Inclusion and representation of these voices is further limited by:

1. The inherent difficulty telling stories that acknowledge animals who cannot share their experience.

⁹ *Susanne Gannon (2017) also noted: “Emerging posthuman paradigms are beginning to influence approaches to educational research and pedagogy.”*

2. Who has the legitimate right to tell their stories?

3. The challenge of including them as co-constructors¹⁰ of those stories when they themselves cannot speak?

As Vance reminded us: “giving voice to something that does not speak is a challenge we should not take lightly” (Vance, 1995, p. 183). Although written in 1995, the caution still holds true. When I considered including animals in this PhD as a story presented in Vol. 3, I questioned my legitimacy in speaking for nature. I was motivated by a sense that I had to try.

During talks and tours over many years of work with earthworms, I would often refer to myself as the Public Relations Officer for earthworm species. I have been working intensely with earthworms over the past fifteen years and was commissioned to write a book about their contribution to environmental health by Penguin books (Murphy, 2010). During talks and tours in South Africa, Zimbabwe, Zambia, Ireland, Switzerland and the USA, I focused on what earthworms do for us as a species and how they contribute to the health of the planet we share with them. I considered that by telling their story of their lives (as in what and how they live), their inherent value would become apparent and our appreciation and protection of them would increase.

I used a multi-method approach (one of UNESCO's characteristics of 'education of high quality') when using earthworms as an access point for curriculum-based workshops with children from age 6-12 years (discussed in more detail in the introduction to Vol. 2). We situated earthworms across all learning areas, which we hoped mirrored the characteristic of Interdisciplinary and Holistic Learning in UNESCO's Framework for the UNDESD International Implementation Scheme (UNESCO Education Sector, 2006, p. 5). Art and storytelling, for example, were used to engender relatedness and creative imagining of a cohabited world. In many cases, adults began their engagement with and discussions about earthworms from a distance and used labels like 'dirty', 'slimy' and 'smelly' to

¹⁰ *Fawcett suggested in 2000 that we co-construct/co-author those stories with other animal/beings (cited in Russell, 2005, p. 435).*

reinforce that distance. When the truth of their cleanliness¹¹ and contribution¹² to human and environmental health became evident, perceptions, albeit limited, were notably changed. These workshops and talks inspired a story between an earthworm and an elephant, titled *Alfie the Earthworm and his best friend Nellie* (Murphy, 2007).

With evolving experience of animal inclusion in environmental education contexts, I started to think more deeply about how I could include them in my PhD research. Significant to the way I have tried to represent this thesis is Russell's belief that animal inclusion in our environmental education research is "beyond the grasp of typical academic prose" (2005, p. 437). Doctoral education is inherently risky, given the requirement to produce original knowledge. The Lisbon Declaration (2007) argued that universities "should encourage a culture of risk-taking ... in order to produce an institutional milieu favourable to creativity, knowledge creation and innovation" (cited in Baptista, Frick, Holley, Remmik, Tesch & Åkerlind, 2015, p. 60). Rishma Dunlop pushed the academic norm by writing a novel for her doctoral thesis, the first to be accepted, in 1999, in which she stated: "the novel or literary narrative as a viable mode of representation for research is envisioned in light of the perception that ideas can be reflectively addressed through the arts in order to enlarge human understandings... Fictions are not the unreal side of reality or the opposite of reality: they are conditions that enable the production of possible worlds" (Dunlop, 1999, Abstract).

Emboldened by Dunlop, I settled on an additional textual form: fiction, which opened up space for animal inclusion and representation (see Vol. 3). To paraphrase Milan Kundera: the novel is an investigation of human [and-more-than-human] life (in Dunlop, *ibid.*). "The novel as research provides me with a form to say what I could not say otherwise" (Dunlop, cited in Nielsen et al., 2001, p. 11). But researching and representing knowledge through narrative enquiry and story required as much rigour as traditional forms.

"Methodological rigour within interpretive (including narrative) enquiry seems to be established in two ways, trustworthiness and authenticity." (Hart, 2002, p. 150). It is this

¹¹ *For example, they do not carry any parasites on their bodies.*

¹² *They remove pathogenic bacteria during their digestive process and suppress pathogenic bacteria in soil.*

notion of rigour that Umberto Eco declared as the central criteria on which a thesis is, or should, be judged (Eco, 2015, p. 5). Embedded in Hart's words and Eco's discussions are truthfulness and transparency. This "habit of truthfulness", Bertrand Russell declared decades before, "should be one of the major aims of moral education" (Russell, 1966, p. 87). Calls for transparency in research continue as Korteweg reminds us above (2014, p. 559).

This thesis originates in personal response to multi-textual and iconic images of environmental risk presented in Vol. 1. According to Eco, iconic images become conventional the more we are acquainted with them. "At a certain point the iconic representation ... appears to be more true than the real experience, and people begin to look at things through the glasses of iconic convention" (Eco, 1979, pp. 204-205). I wanted to use the process of research to search for what was/is 'real' and true in the visual representations in Vol.1 and used the process and product of writing as a way to disrupt 'the glasses of iconic convention'. But who was I writing it for?

Reading is a tool used in education. Although this PhD is ultimately concerned with environmental education (EE) as a tool for social transformation, its core interest is the textual strategies we use, and the role of both the reader and the writer in motivating thinking. I explore the 'type' of text that would help my readers understand and engage with the process of their own enquiry into representations of environmental risk through others' perspectives. Could the internal voice and the imagined voices of others help us as readers and writers to critically reflect on the way environmental risk is presented in Iconic imagery? "Texts would be redundant if they changed nothing" (Fairclough, Jessop & Sayer, 2001, p. 2). Could the act of reading into, through and beyond these images through different textual representations assist in a more angled, empowered view of environmental risk?

Because of my work on the protection of the Antarctic, I situated the main character of the EE story, a penguin called Polo, on the continent (see Vol.3). The Antarctic Treaty, which is up for review in 2041, represents the only geographic place in the world that is shared by all and devoted to research and peace. It is not 'owned' by anyone. It provides an example of how humans can co-habitat with each other and nature. And yet, it is not immune to the impacts of human activity. The most recent human threat identified is insect and plant invasions brought in by humans (The Guardian, 17 June 2017).

The Living Planet Report stated that “scientists now consider that we have moved into the Anthropocene Epoch” (WWF, 2016, p.1). This epoch focuses on sustainability as protection of people and planet. I queried why and how we could start to represent how other species might view this new age. Other animal characters joined Polo in his environmental journey. I structured the story in such a way that their imagined voices and views could be heard in Vol. 3. Humans were not represented apart from anthropocentric influences.

I heard three distinct calls in my environmental education reading: critical thinking, representation in form, and representation in content. So began my own reflexive and narrative enquiry in which I ask the reader to join in co-thinking new representations in, and for, environmental education.

There are many ways to read a book. Good readers are perhaps as rare as good writers, and, authorial intentions aside, there is only so much a writer can tell. Reading is also a creative act and perhaps a far more creative act than we have to date recognised. Reading is the third moment of ethnography and it may be, dear reader, the determining one. [Please] read on. (Van Maanen in Dunlop, 1999, p. 6)

Volume 1: Signs and Symbols of Risk

Introduction

I was aware that this multi-textual thesis is a risky endeavour.

Anthony Giddens in his study, *Runaway World*, talks about the concept, definition and history of risk. 'Manufactured risk', he suggested, refers to risk that we have very little historical experience of confronting. Environmental risk, such as that connected with Global Warming, for example, fall into this category of risk – “created by the very impact of our developing knowledge upon the world” (Giddens, 2003, p. 26).

According to Byrnes, Miller and Schafer (1999, in Baptista et al., 2015), risk is closely associated with goals, values and outcomes, hence, the importance of debates about the purpose of a doctorate in “a risk society full of uncertainties and changes” (Hart, Barrett, Schostak, cited in Reid, Hart & Peters, 2014). How do researchers convey meaning and knowledge? And “how are we ... able to portray the complexity of the world, of people in place and time?” (Hart, 2014, p. 480).

Without our ability for language, we could not express and share our thoughts and knowledge. “Everyone knows a language” (Fromkin & Rodman, 1983, p. 4), and it is the particular form of this attribute that distinguishes humans from animals.¹³ “Knowing a language means being able to produce new sentences never spoken [or written] before and to understand sentences never heard [or read] before” (ibid., p. 7). It is language that provides us with an endless reserve of creative ways to learn and to communicate what we have learnt. Language is also a key link in the generation of knowledge as it gives expression

¹³ *It is not my intention to subsume the evidence and work that clearly shows the existence of language in animals other than humans. But our particular way of communicating through language is peculiar to the human species and tends to set us apart from others. This is not to say that communication between species does not exist. Quite the contrary. My aim here is to point to one possible way that we hold ourselves apart. I acknowledge Bell and Russell's work in looking beyond just words.*

to the 'life of the mind', which is, according to social ontologists, the basis of social investigation (Schatzki, 2003; Hayek, 1952).

The purpose of this thesis is to respond to the complexities of environmental risk by communicating both 'the life of the mind' and the life of other animals in creative imagining and representation.

The mind is the site of our reflections, thoughts and feelings about the structures that surround us. "The membrane between the life of the mind and the life of the group is highly permeable", Archer argued (2003, p. 167). How we mediate between them is through a mechanism of reflexivity she calls the 'Internal Conversation', a process that leads to morphogenesis.¹⁴

Conversation implies language. Language provides the code for the expression and generation of knowledge between, among, and within, individuals. Language carries forward over many generations and often changes with time. Giddens (2003), Beck (2005), and Diamond (2005) pointed to new words in our language to express emerging knowledge of the environment. The words 'risk' and 'globalisation', Giddens pointed out, are examples of our changing language. But who defines, who benefits and what do we mean by terms like 'risk', 'globalisation' and 'sustainability'? It is my belief that there is unequal access to linguistic and social resources, resources that are controlled institutionally. For example, the

¹⁴ *Margaret Archer described morphogenesis as "a process, referring to the complex interchanges that produce change in a system's given form, structure or state (morphostasis being the reverse), but it has an end-product, structural elaboration..." (1982, p. 458). It is characterised by a "sequential, dualistic perspective that deals with endless cycles" of "structural conditioning/social interaction/structural elaboration" (1982, 458). These three phases of "(1) structural or cultural conditioning, (2) social or sociocultural interaction, and (3) social or cultural elaboration" (Zeuner, 2000: 79) have a sequential logic that assumes, and apparently prefers and emphasises change embedded in the notion of structural and/or social elaboration. But I argue that the alternative 'end-product' of morphostasis, the antithesis of morphogenesis, is also a necessary and valuable condition in stabilising and grounding structures during complex social and cultural upheavals. For example, I note at times the necessity of contiguous, duplication of bureaucracies in divided societies as a key source of stability during political transitions. For the purpose of this textual theoretical discussion, I too emphasise a desire for social change.*

Bush and Blair administrations' definition of risk emphasised 'terrorism' as a key characteristic. How does this definition of risk impact on our understanding of power, use of language, and education practice? How does it lead us towards or away from environmental education that is as much shaped by global structures as it is by local contexts?

In Hinsley's 'modern theory of sovereignty', he recognised that The Treaty of Westphalia of 1648 shaped the relationships between nation-states and the doctrine of sovereignty (Hinsley, 1966, p. 104). The sovereignty of the nation-state declared a state's domestic conduct and institutions to be beyond the reach of other states. Education was a structural device that helped maintain the sanctity and sovereignty of the state. The concepts of 'risk' and 'globalisation' pose direct challenges to this notion of sovereignty. As Beck pointed out: "Proponents of the national are idealists because they view reality through the obsolete lenses of the nation-state and thus cannot see the profound global changes that are transforming reality (Beck, 2012, p. viii). Global domestic politics challenge the truths of the nation-state.

Emerging environmental challenges, although not the only driver, are part of a re-sculpting of the definition of sovereignty. John Burton argued that the unit of identity on which international relations is based – that of the nation-state – is being "replaced by the identity group to which the individual owes allegiance" (Burton, 1985, p. 47). I contend that there is a growth in 'direct politics' that is indicative of a shift in sovereignty from the state to the individual. This shift results from the fact that we now live in a World Risk Society that requires new forms of political action, as is evident in the growing proliferation of environmental groups and campaigns (Beck, 2005; Giddens, 2003).

According to Ulrich Beck, this proliferation of direct politics coincides with "profound contradictions and perplexing paradoxes; and experience embedded in despair" (Beck, 2005, p. 1).

On 9 November 2016, Donald Trump was elected the 45th President of the United States of America. He poses a risk to our collective understanding and action to mitigate against climate change. His open denial of climate change and considerations of the use of nuclear weapons as first strike options in foreign policy reduces the amount of 'hope' to be found 'embedded in the despair' that surrounds us (Beck, *ibid.*). Included in this volume (1) is a bibliography of visual texts that capture some of the 'perceived' and 'objective' risks that

confront me as an individual, and which prompted this thesis. They are examples that validate my contribution to the discussion of risk as a 'risk expert' (Adams, 2000, p. 1).

These visual images also reflect issues that are critically discussed through/as 'story' in Volume 3 of this thesis. Managing risk, Adams (ibid.) reminded us, is a balancing act. We learn to cope with risk through 'trial and error' as part of our growth and development as human beings. As we develop from childhood to adulthood, "responsibility" is "progressively handed over" (Adams, ibid). This developmental process is illustrated in Polo's development from young adult to engaged citizen in the story in Volume 3. Adulthood alone does not imply agency. The constraints and enablements of agency in the context of risk form part of the plot in the story.

Engaging in action to manage risk is challenging politically and socially. 'Risk' is in many ways subjective and eludes the scientific rigour of objective treatment. It leads to uncertainty. "Risk is constantly in motion and it moves in response to attempts to measure it" (Adams, 2000, p. 29). Adam's statement is a social scientific reflection of the *uncertainty principle*, one of the tenets of quantum physics that illustrates challenges in measurement and objectivity. The *uncertainty principle* that was formulated by Werner Heisenberg in 1926, tells us there are limits to our ability to simultaneously measure certain data "such as the position and velocity of a particle" (Hawking and Mlodinow, 2010, p. 71). The 'gist' of the theory, Stephen Hawking and Leonard Mlodinow explained, is "simply: the more precisely you measure speed, the less precisely you can measure position, and vice versa" (ibid.).

Within the context of a critical realist perspective (Archer, Bhaskar, Collier, Lawson & Norrie, 1998; Fairclough et al., 2001; Sayer, 2007; Bhaskar, 2008), there is a high correlation between the 'actual' and the 'real' in social discourse about risk. The images of risk that follow in this volume were not sought out as examples to support my theoretical assertion that risk has been socialised. They are included as signs and symbols of risk that formed part of my personal agency and experiences that set me off on my academic journey. Whether conscious or not, engaged or not, we live in a risk society. To advance a path of action that reduces risk requires reflexive societies. But to what degree can our engagement in the reduction of risk be enough to actually reduce risk and "the commonality of anxiety" that has "exchanged an interest in attaining the good for a concern to prevent the worst" (Adams, 2000, p. 181). The 'complexity and sophistication' of Beck's theory of reflexive

modernisation and cultural theory (Beck, 2005, 2009, 2010, 2012) are opened up and out into the conversations between and among the characters in the story in Vol. 3.¹⁵

The representation and meaning of environmental knowledge and the identification of risks are dealt with in the 'unified approach' afforded by semiotics. "Semiosis is the process by which empirical subjects communicate" (Eco, 1979, p. 316) (see also Vol. 2 of this work where Eco's thesis is elaborated). This PhD is a display of what Eco describes as semiotic labour. Expressions that are correlated to the content of risk (illustrated in Vol 1) also permit the segmentation of that content and an opening up of conceptual discussions about the term 'agent' – "who is both formed by their sociality, but also has the capacity partly to transform their society" (Archer, 2000, p. 11) (Archer's work is elaborated in Vol. 2).

We all live with risk in our lives and in "one way or another, we have to find ways to orient ourselves in a world that is in a state of turmoil" (Beck, 2012: viii). Our ability to reduce risk on a practical level is constrained by our philosophy. If risk is viewed as a problem beyond our personal and practical powers, then risk is more a philosophical question than a practical one. As Beck argued, "the category of risk opens up a world within and beyond the clear distinction between knowledge and non-knowing, truth and falsehood, good and evil. The single undivided truth has fractured into hundreds of relative truths resulting from the proximity to and dismay over risk" (Beck, 2009, p. 5). But it is not good enough to collapse under the weight of this dismay. Society cannot fracture along with it. An adequate philosophy of science must find a way to grapple with what Bhaskar calls the "two sides of knowledge: knowledge produced through social activity and knowledge of things" (Bhaskar, 2008, p. 21). Exploring how knowledge is constructed does not imply acceptance of what is understood. To borrow Bhaskar's representation of his stratified theory of reality (2008,

¹⁵ For example, "the semantics of risk refer to the present thematization of future threats that are often a product of the success of civilisation" (Beck, 2009, p. 4). It is this associated link between future risks and human progress that motivates the animal characters in Vol. 3 to direct action against humans.

p. 56): the real, the actual and the empirical,¹⁶ I present in the table¹⁷ below how I stratified and structured my PhD reality in an attempt to distinguish between knowledge based on my practical, political and academic experience. By experiencing risk in the domain of the real, actual and empirical, I studied risk reflexively in the domain of the empirical and expressed it in the domain of the real. I presented a representation of my emerging PhD knowledge and agency through an imagining and inclusion of ‘unseen’ and ‘unheard’ voices. This was an attempt to grapple with my own ‘non-knowing’ described by Beck in his 2009 work on World Risk.

	Domain of Real	Domain of Actual	Domain of Empirical
Risk	x	x	x
Reflexivity		x	x
Representation	x		

A change agent is a person who is aware of their behaviour and relationship between themselves as individuals and the structure of society. They can reflect on their actions in such a way that they cause change (Archer, 2000, 2003; Bhaskar, 1998, 2008; Fairclough, Jessop, Sayer, 2001; O’Brien, 1999; Sayer, 2007). Change agents¹⁸ are capable of

¹⁶ *Bhaskar argued that there were three overlapping domains of reality “...viz. the domains of the real, the actual and the empirical” (2008, p. 58). He devised a stratified theory of reality based on these domains, which, he contended, prevents the “collapse of reality into one” (2008, p. 56) and prevents “presupposing a closed world and a completed science” (2008, p. 58). This stratification allows for clear identification of “causal structures and generative mechanisms of nature” that exist independently and outside human access to them (ibid.). “Structures and mechanisms then are real and distinct from the patterns of events that they generate; just as events are real and distinct from the experiences in which they are apprehended” (2008, p. 56). For more information, see Bhaskar (2008, pp.49, 56-62).*

¹⁷ *Based on Bhaskar’s Table 1.1 depicting his theory of a stratified reality (2008, p. 56)*

¹⁸ *Bhaskar broadens the definition of Agents “simply as anything which is capable of bringing about a change in something (including itself)” (2008, p. 109). Change agents are not just confined to the social world.*

producing change because they understand the causal relationship with the physical and social which they achieve through a process of reflexivity. “In systems, like social ones, which are necessarily open, the problem of constituting an appropriate (that is, explanatorily significant) object of inquiry becomes particularly acute” (Bhaskar, 1998, p. 49). The object of enquiry of this thesis is environmental risk.

The images, which follow in this volume, are representations of Risk that I have experienced as a social and environmental activist. They are eclectic, erratic and apparently disconnected. I have structured them thematically rather than chronologically. They come from photographic clippings and articles gathered over many years that in some way inspired me to act, or threatened to overwhelm me, and in some cases did. My own agency pushed me to enquire and learn more about the issues the images represent. It was only when I started to engage with them, reflect on them, and study them that I started to shift from a process of simply gathering information to “the critical elaboration of an experience” (Eco, 1977, p. xx). The process of producing this PhD provided the tools and skills to transform the despair they ignited to a sense of inspiration for change.

This thesis is ultimately an elaboration of my experiences interacting, processing and making meaning out of/from these symbols and signs of risk. At first I attempted to ‘choose’ one or two to work with, and through this, I realised their complexity and diversity struck at the very heart of the challenges I faced while engaging with them. My reflections also found resonance in Beck’s identification of “the fracturing of truths” (ibid.). I concluded that the only way I could make sense of them as collective representation, and my interpretation, of world risk was to try and find unconventional vantage points from which I could view and learn from, as well as share, them.

Frick, Albertyn and Bitzer (2014, cited in Baptista et al., 2015, p. 60) argued that “risk is intrinsically linked to originality, creativity and innovation, and is thus an unavoidable element of doctoral education” (2014, p. 4). I contend that the most appropriate way I could respond to risk academically was to make the process of the reflexive engagement transparent, to open up my internal conversation about its social and political effects, and to explore alternative ways of including and representing the un-heard voices that are often silenced by the resounding turmoil that surrounds us all.

Hot and Cold

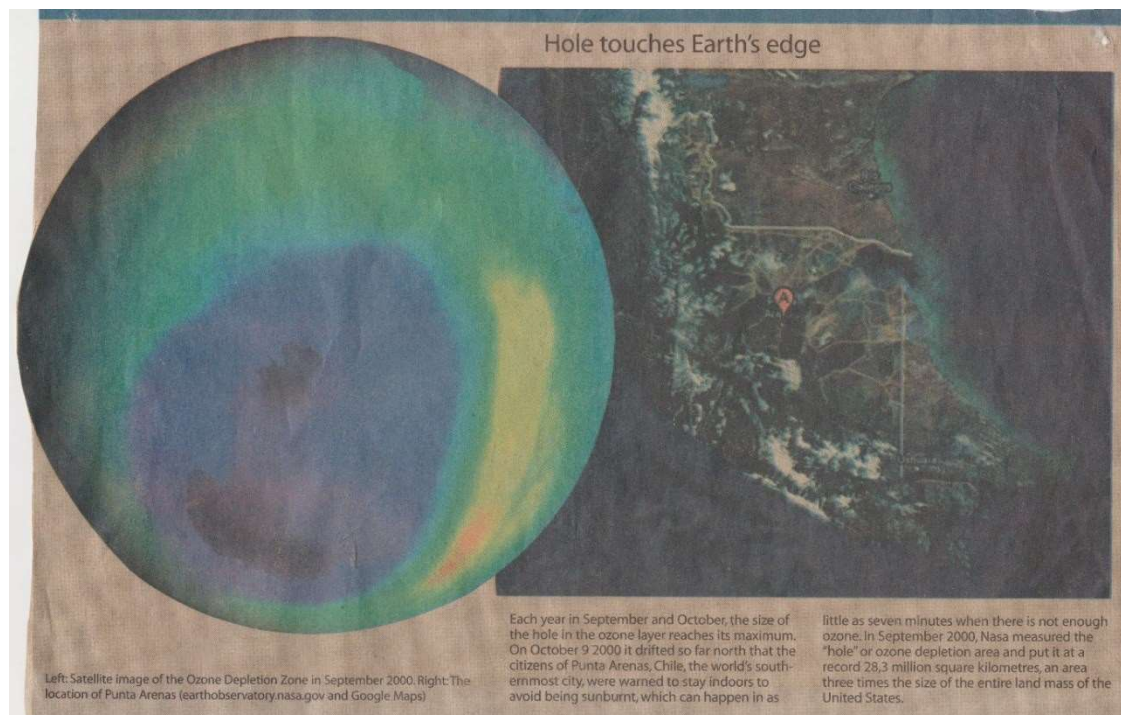


This entire edition of National Geographic seemed a monumental call to action. But how should I act?

The despair is summed up in the article headline “Survival Guide 2, Higher heat, wilder weather, warmer water. Face it, things are changing, and we will have to adapt.” (2015: 86) So I reflected: that’s it, we can’t do anything, we just have to live with it?

There has to be something we can do.

Punching Holes



While working on Mission Antarctica with Robert Swan, I was struck by his retelling of his experiences during his walk to the South Pole, which he did by following Robert Falcon Scott's footsteps. Swan studied Scott's diaries to guide him in his preparations. Unbeknown to him, he could not have adequately prepared for the skin damage he received because it was caused by the hole in the Ozone layer. During Scott's exploration of the Antarctica, the hole in the Ozone did not exist. I believe human exploration of the Antarctica and Arctic are destructive practices. Although Swan highlighted the human induced degradation of the Antarctica, explorations add to the very degradation he aims to avoid.

There's Only One Home



My first thought: animals should chuck us off this planet now. The degradation of the planet is a species problem. We are the problem. This reaction inspired the debate in the story in Vol. 3 around annihilation of humans. Through reflexivity some animals and characters realised it would be repeating the same pattern of destruction imposed on them.

The persecuted become the persecutors. The duality would continue.

There's Only One Home Continued

October 30 2011 *Sunday Times*

WORLD



MORE MOUTHS TO FEED: As the world's population hits seven billion, this global milestone presents both an opportunity and a challenge for the planet. While more people are living longer and healthier lives, says the UN, gaps between rich and poor are widening, and more people than ever are vulnerable to food insecurity and water shortages Picture: REUTERS

World hits 7 billion
The world's population is projected to pass 7 billion tomorrow and top 10bn by the end of the century

People, people everywhere ...
Now it's a race between technological innovation and finite natural resources

POPULATION DISTRIBUTION (%)

Asia	55.8
Africa	13.9
Latin America	10.6
America	10.4
Europe	11.9

World Population Growth:

Year	Population (bn)
1804	1bn
1927	2bn
1960	3bn
1974	4bn
1987	5bn
1999	6bn
Oct 31, 2011	7bn
2025	8bn
2043	9bn
2063	10bn

Text from article:

THE number of people on earth could double by the end of the century, the UN has warned.

The world population milestone of seven billion is due to be passed after midnight tomorrow, according to the UN Population Fund (UNFPA). And hospitals around the world are being asked to mark the event by celebrating the birth of a "symbolic child".

The UNFPA, which is in charge of monitoring world population, said the seven-billion mark would be passed earlier than expected because people were living longer, more babies were surviving and more children were being born in the developing world.

Although the world population is not growing as fast as in the mid-1990s, because developed countries have a lower birth rate, the number of people in 58 countries, including India, continues to grow.

Previously, the UN had kept to the conservative estimate that the population would grow to more than 10 billion by 2100. If birth rates in developing countries continue to grow, the total could reach 10.6 billion by 2050 and 15 billion by 2100.

Much of this increase is expected to

than numbers, was the real issue.

He said seven billion people "in a group photo" would take up only as much space as the city of Los Angeles.

"The population question is not about the amount of space people take up," he explained. "It is about equity, social justice, distribution and consumption."

for the nine-billion mark by 2050, economists are pinning their faith on continued technological innovation and the invisible hand of market prices to lead to a more efficient and sustainable use of finite natural resources, instead of a deadly race to the end for the last barrel of oil or drop of water.

economist, put it, the world would have been doomed long ago if it had been stuck with the largely artisanal modes of production familiar to Malthus.

"There is always a Malthusian scenario that will cause the world to collapse. It has been a race between the exhaustibility of resources and

the wrenching changes to prices and consumption patterns that rapid growth in emerging economies will bring about.

Asia will remain the most populous area, with 4.2 billion people today, rising to 5.2 billion in 2062 before falling. Africa is gaining ground, rising from one billion today to 3.6 billion

I did wonder why the picture chosen for this article mainly depicted people from/living in Asia. Although it was probably chosen because Asia is the most populous area on the planet, it could produce a naïve and dangerous solution to environmental risk, namely reducing the population of Asia. I believe the focus on population growth is a distraction. We should be looking at equity and justice among people, economic distribution, political and educational access, as well as our collective consumption patterns and lifestyle choices.

Quit While We're Ahead



You don't rescue the Antarctic by walking on it! The Antarctic is home to the main character in the story in Vol.3. He is a penguin named Polo.

He only becomes aware of the threat to the Antarctica when he is swept away from it by a change in current caused by global warming.

Drive by Destruction



Everything about this image reeks of environmental destruction, social exclusion and marginalisation. To call driving 4x4 vehicles over/near/around the polar region an 'adventure' at a time when human activity have ensured half its destruction appals me. This image looks like well-funded rich people out playing only a rich-man's game. How is money spent on not just frivolous but symbolically and directly destructive practices, sanctioned when so many remain poor and disenfranchised?

Who Is Really Green?

Sunday Independent 13 DECEMBER 2015 P22

Every single one of us will be affected by the Paris agreement

Environment Editor
Paul Melia explains what this deal will mean for us



THE Paris Agreement will have wide-reaching implications not only for the well-being of the planet but for business, households and governments.

Business as usual is no option. The deal means that countries, big and small, developed or developing, will have to radically transform their economic models and consumption patterns to bring about decarbonisation over the coming decades.

This is a profound shift in thinking, and the only fear is that it is too little too late. Average global temperatures have risen 1C over the past century, and levels of greenhouse gas in the atmosphere are at their highest in 800,000 years.

The deal is a good one for the planet, which the deal notes is referred to by some cultures as Mother Earth. By committing to long-term ambitious targets, we may yet avoid the worst ravages of global warming.

Countries have committed to provide \$100bn (£91bn) to developing nations from 2020, and this will create business opportunities. As the We Mean Business group noted, "it will take billions to unlock the trillions".

It sends a positive signal on where investment should be focused in the coming years. With a global commitment to clean energy and renewables, it means investment in fossil fuels should reduce. Oil, gas and coal companies can expect to see their values fall.

But the deal also sends a signal on future employment and manufacturing opportunities. As the world moves to renewables, including wind, electricity grids will have to be adapted to deal with an intermittent power source.

Employers group Ibec noted that more ambitious cuts would be delivered as low-carbon solutions were developed and as the green economy grows.

The agreement will require concerted action by the Irish Government to move to the new world order, and will test the wit and ambition of whichever party takes office after the General Election.

It will have to commit to long-term strategic thinking, and in particular explore how electricity production will be ramped-up without using fossil fuels. This is because electricity will play a major role in decarbonising the economy, but it will have to be from green sources such as wind, wave, tidal and solar.

Given that the polluter-pays principle is a key part of environmental policy, both at national and international level, the Government will also have to make unpopular choices.

Motorists already pay a carbon tax on fuels, but there is nothing in place for food production, which is a major source of emissions. Will we see a government introduce a carbon tax on food producers, or slap a levy on a burger to encourage less meat-eating?

For the consumer, there will be profound changes. We will have to look at dramatically increasing deployment of electric vehicles and remove ourselves from our car and switch to public transport.

Buses will have to be hybrid-electric and train lines electrified. We will have to look at the quality of houses we build and where we build them.

There are many reasons to be positive about the changes. There is no shortage of solutions already out there that can be immediately implemented, and children are already learning about sustainable living, with 97pc of schools involved in the Green Schools Programme.

We face EU sanctions if we don't reach our 2 targets, which require cut in emissions. They rapidly accelerating to 18.4pc by 2030, 60pc 2040 and 80 to 95pc by 2050.

if we don't reach our 2 targets, which require cut in emissions. They rapidly accelerating to 18.4pc by 2030, 60pc 2040 and 80 to 95pc by 2050.

Historic deal paves the way for a greener future for all

PAUL MELIA
Environment Editor

WORLD leaders have struck an historic deal to combat climate change after almost a fortnight of intensive talks.

Almost 200 nations have agreed to sign the Paris Agreement, which paves the way to a low-carbon future and limits global temperature rises to no more than 2C.

Following 12 days and three nights of intense discussions, the final text from the French presidency of the Parties (COP21) was accepted. The decision was greeted with applause from thousands of delegates across the Le Bourget conference venue, just north of Paris.

After formalising a number of technical amendments, shortly after 7.25pm local time (6.15pm in Ireland), COP president Laurent Fabius opened the floor to comments, but none were forthcoming.

"I see no objections. The Paris Agreement is adopted," he announced.

Just moments later, he added that a formality had yet to be completed. "I'm reminded I'm supposed to bang the gavel," he said. "It's a small gavel but it can do a great job."

Main points also include:

- A commitment to keep average temperature rises to no more than 2C, with a goal to reduce these rises to 1.5C.
- Emissions will peak "as soon as possible" and reach neutral levels in the second half of the century. This means emissions must be balanced by developing forests and other carbon sinks, which absorb greenhouse gases.
- Countries will have to increase commitments, which will be reviewed every five years.
- There is also a commitment to food security, indigenous people and gender, which were not in earlier drafts. Human rights are also referenced in the preamble.
- Countries must provide "transparent" information on emission cuts delivered.
- Forestry is given also special mention, as is protecting all ecosystems including oceans.

There is no reference to emissions from shipping and aviation, which account for some 8pc of global emissions.

There has also been criticism about clauses surrounding 'loss and damage', which involves mechanisms to protect the most vulnerable countries including small island states. It also rules out compensating countries affected by climate change.

Friends of the Earth International said it was a "bad deal" and a "sham", while aid agency Trócaire said it should be regarded as a road map for urgent action, as opposed to a definitive solution.

Environment Minister Alan Kelly last night paid tribute to Irish officials who played a leading role in the talks.

"As a country we should be genuinely proud of them. At key moments late in the night they were crucial in maintaining political momentum behind a deal and lead the EU team. I was very proud to have them with me as Minister. They have served their country and department well."

'The deal says that developed countries like Ireland must play their part too'

become international law. It follows 20 years of negotiations at UN level.

"The final agreement is a real achievement for everyone involved in the negotiation process," Green Party leader Eamon Ryan said.

"No one should underestimate its significance. We now have a new consensus, where every country agrees to ramp up actions to avoid dangerous climate change. This means leaving fossil fuels in the ground and switching to a more sustainable economic model."

"Greener Future for All"

 What does that mean? Every single one of us will be affected and every single one of us is responsible.

 Responsibility for action is a theme in the story of this PhD.

Are Media Images Helping?

FRONT PAGE SUNDAY TIMES 27 Sept 2015 SA

Pharrell happy as we embrace green

FOR the first time in our history, all the Sunday Times mastheads are green this week.

This is because we are serious about the future of our planet.

The Sunday Times is known for many things, and you, our readers, will attest to this. Any of our readers would offer myriad characteristics that represent the paper. But none will readily offer covering the environment, and all that it encompasses, as a key area that we write about.

And yet it is such a vital subject because it is about us and how we engage with our planet and ensure there is a viable, sustainable future for those who come after us.

What kind of planet would we like our grandchildren to inherit?

So how does this subject manage to elude us and many other media organisations? The answer is fairly simple: it is all about the challenge and our failure to deal with these subjects with flair and imagination. It is also a question of resources — covering what we consider to be the important beats.

We were, therefore, fortunate when we started talking to Woolworths about collaborating with the company — and the face of its campaign, Pharrell Williams — on an editorial project that would include every section of the paper.

This conversation led to many positives: original content driven by our newsroom and, of course, this historic colour change to our traditional red masthead.

Ian Moir, Woolworths group executive, summed up the focus of the company's campaign: "Pharrell is a global icon for social cohesion, advancement through education and environmental awareness — these same values lie at the heart of the Woolworths business and form



the foundation on which this partnership is built.

"With this collaboration, we are aiming to raise R100-million for schools in need across the country, and to make sustainability cool for the next generation of South Africans. Together, we want to show how small changes can make

a big difference because, as Pharrell said, we only have one home, we need to look after it."

For us at the Sunday Times, the challenge in the future is consistency: to treat our planet and its environmental challenges as an ongoing subject worthy of our interest and concern.

POSTER-BOY: Pharrell Williams in Johannesburg this week

go there and say, look, I am guilty, all that has to be recorded is your guilt and findings.

"The other thing of how it happened may come out in the hearing of McBride and Sesoko because he [Khuba] will be asked," Mokhari

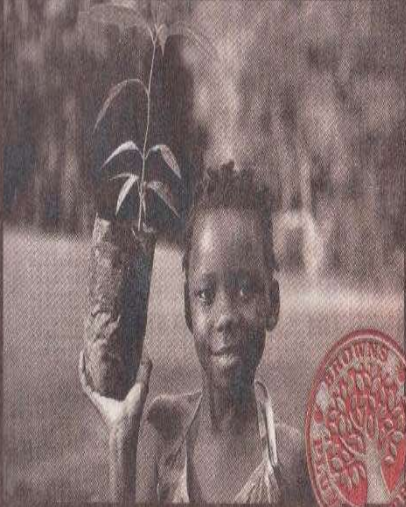

the charge, and I plead guilty, freely and voluntarily." And he signed the guilty plea. From there it was taken to the hearing. It was read out by the chairperson who asked him, also through his lawyer: "Do you understand what it is you are pleading

Mokhari said.

Khuba yesterday declined to comment, saying: "I am not allowed to speak to the media."

McBride and Nhleko have been embroiled in endless court battles since they fell out over the bid

PLUM TREE PROJECT

67 HECTARES OF FRUIT TREES


The Browns Plum Tree Project is aimed at providing fruit bearing trees in low-income communities.

These trees have sequestered a total of 812 tonnes of CO² and created 55 hectares of urban forest. Our goal is to plant 67 hectares.

This project is particularly close to our hearts because it directly affects the lives of our children.

BROWNS

THE DIAMOND STORE



Who cares if Pharrell Williams is happy with The Sunday Times first green issue? Their stated aim in the article is to make “sustainability cool for the next generation.” They describe Pharrell as a “global icon for social cohesion, advancement through education and environmental awareness.” He is a rapper, judge on “The Voice” and a fashion designer.

Given the challenge I have made to Woolworths regarding their Good Business Journey,¹⁹ I found Ian Moir’s statement that Woolworths shares the same values as Pharrellhypocritical.

I also asked why are all the kids black? Does this mean only black children relate to Pharrell, only black children need to adopt a cool attitude to sustainability. I found the use of depictions of animals on the children’s T-shirts gimmicky and cheap.

The use of the little child in the ‘Browns” advert is unethical and appalling. I surmised that ending the mining of diamonds would be far better for the planet and that child.

¹⁹ *During letter exchanges and questions posed face-to-face with Woolworth’s CEO, I listed a series of inconsistencies and hypocrisies in Woolworth’s declared policy, that I had experienced as a business owner and researcher, by concluding the choice of the word ‘journey’ was chosen over ‘destination’ because it suggests that Woolworth’s has no real commitment to environmental, social and customer justice.*

Honour and Hope?



Barrack Obama's presidency of the United States was a remarkable and spectacular symbol of progress, in my opinion. A black man holding the most powerful position of a country that claims to be the most powerful state on our planet. But is the position of presidency so iconic and symbolic that the personalities associated with it are merely arbitrary, fleeting and limited?

I felt such hope initially and during Obama's presidency. I did feel safer. He did make a difference, he opened up new pathways for others and provided representation and inclusion to excluded voices. But he is not perfect. He could not change everything and we should be cautious about bestowing iconic status on individuals.

It is not fair to expect him or any other individual to do the change for us.

The Millennium Development Goals

Mail & Guardian February 15 to 21 2013 29

Comment & Analysis

Ask the poor what they really need

The people directly affected by the Millennium Development Goals were not involved in drafting them. This must not happen again

DEVELOPMENT
Hugh Masekela

Last September, the ONE Campaign released a report titled *What Does the World Really Want?* Astonishingly, the report showed that the world's poor were not included in the process of determining the global development agenda. They have had no prior opportunity to raise their voices to articulate their interests and needs.

The main finding in this report is that household income is the number-one concern for people all across the developing world. Families are most worried about income stability and having enough money to put food on the table, pay for their children's education, cover necessary health clinic visits and to start a small business.

When collecting and collating views about what matters most to the poor, the high-level panel needs to ensure that it brings the poor to the table. It needs to hear the voices of the poor, and to put their views at

own, champion and dictate their own development priorities.

It is important to seek expert, political and other organised groups' opinions. We need to be careful, though, that we do not have a battalion of people masquerading as representatives of the poor. The poor can speak for themselves. I am hoping to see a report that involves the poor, is by the poor and for the poor.

If this doesn't happen, there is a real danger of having a report void of credibility or of no use to those it is intended to benefit.

Global discussions on a post-2015 development framework will help

open development agenda: openness in terms of the design of the post-2015 framework, openness in the monitoring of investments and outcomes, and openness in terms of making sure that monitoring information is widely available and accessible.

Along with civil society organisations around Africa, I am asking for the following: first, that the post-2015 goals reflect people's needs and priorities; second, that governments collect information about what they spend and what they achieve in pursuit of the goals; and, third, that such information is made available so that citizens, par-

in the past decade, Africa has made tremendous progress in the battle against HIV/AIDS, there has been an increase in child enrolment into school (which speaks of better education access), and hunger, although still prevalent, has been significantly reduced.

As we celebrate these achievements, however, let us not lose sight of the challenges ahead. The high-level panel has a critical role to play in building on the strengths of the Millennium Development Goals to enable people to take charge of their own development and to accelerate progress towards the eradication of poverty.



Sudanese women from Sharga village in North Darfur, which runs its own food projects, demonstrate how to stamp grain for a European Union delegation in 2012. Photo: Albert Gonzalez Farran/Unamid/AFP

Sure, yes, let's ask 'the poor'? But, let's not continue to patronise 'them'. I agree, poor people are never really consulted because their power is marginalised and suppressed by daily, desperate, distractions for survival. But isn't it obvious what 'they' need? It's exactly the same as what 'we' all need: health, shelter, security, clean water, nutritious food, education, healthy clean environments, access to opportunities, skills to progress, support, kindness, friendship...!

I know a young man who tried to increase his potential for security and education by enrolling for a degree in electrical engineering. During the writing of this thesis in 2017 he was about to sit his first exam of his first year. His dreams for a future were shattered when on his way to the examination he witnessed a murder and was threatened at gunpoint and told to leave the area by bullies carrying guns. He is so traumatised by that experience he is content now "to survive with odd jobs"! I asked him what he needs, but that question remains unanswered.

The Millennium Development Goals Report 2015



According to the Millennium Development Goals (MDG's) Report of 2015

“Extreme poverty has declined significantly over the last two decades. In 1990, nearly half of the population in the developing world lived on less than \$1.25 a day that proportion dropped to 14 per cent in 2015.

“Globally, the number of people living in extreme poverty has declined by more than half, falling from 1.9 billion in 1990 to 836 million in 2015. Most progress has occurred since 2000.”

Is this report a sign of hope? It doesn't feel like much has changed. The MDGs have not been met and have been overtaken by the Sustainable Development Goals (SDGs). Shifting goals (MDGs/SDGs), shifting targets (2015/2030)?

SOS

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BIGGEST CULPRITS ARE THE RICH

City is drowning in waste

MELANIE JOSLING
Environment Writer

CAPE TOWN is facing a major crisis in managing the growing mountain of waste the city generates every year and, at the current rate, all available rubbish dumps will have been filled within three to five years.

City officials and councillors, who convened the Cape Town Waste Minimisation Summit yesterday, told delegates that despite their "best intentions", the city would be unable to manage the escalating tons of waste in future, and called on the private sector and NGOs to forge partnerships to reduce and recycle waste to help stave off the crisis.

Delegates were told that Cape Town's 7% annual increase in waste generation was outstripping both annual economic growth (4.5%) and population growth (2%).

The biggest waste generators are the city's richest people, who account for 14% of Cape Town's population but generate between 40% to 50% of all municipal waste.

The building boom was also filling up rubbish dumps and last year 800 000 tons of builders' rubble, which should have been recycled, was dumped at the city's landfill sites.

The city said it would not be able to accept the tons of rubble from the old Green Point Stadium, which is being demolished.

Rustim Keraan, director of solid waste in the city, told delegates that local landfill sites, designed to last 30 years, were filling up in half that time.

"The harsh reality is that the city is running out of holes in the ground to bury your waste. We're spending hundreds of millions on trying to create landfill capacity for the future. We're in trouble and we need your help. The city is not in a position to fund all the waste requirements. Waste minimisation is an absolute necessity," Keraan said.

Councillor Lionel Roelf, mayoral committee member for utility services, told delegates: "Even with the best intentions, the city will not be able to provide all the services required to manage and reduce waste."

He said many people wanted to recycle, but there seemed to be "a stranglehold" on releasing city land for recycling centres, while the environmental impact assessments took up to two years to complete.

The summit was organised by Barry Coetzee, the city's manager of integrated waste management, who said the intention was not to discuss theory of waste management, but to come up with solutions that could be put into practice.

"Our current waste management is not sustainable. The city has three landfill sites and they are filling up. We probably have three to five years before we have a crisis. We are planning one north of the city but that is not sustainable. We actually have to reduce our waste. This summit is about initiating partnerships between the private sector and municipal services," Coetzee said.

Only 14% of the city's waste was recycled. This had to be increased.

Coetzee said consumerism was increasing, which was pushing up the amount of waste generated. Much of municipal waste was discarded packaging. "Littering is only part of the problem. A major problem is how to get packaging back to industry."

The packaging industry had a vital role to play in reducing and recycling packaging.

Mark Swilling, head of the

To Page 3



WASTE CRISIS: The city's three landfill sites will be filled within five years. The council has said it is vital that industry helps to reduce and recycle Cape Town's waste. Picture: CITY OF CAPE TOWN

I was approached to work as communication liaison in the department of waste management in the City of Cape Town in 2004. I would accept if I could present the facts of the "Waste Crisis" openly and honestly to the public. This was denied. The status quo superseded the need to activate engagement and action with the citizens of Cape Town. Why control the information and deny access to knowledge about the waste issue?

I ended the engagement and took a different view and strategy by establishing a worm farm at the Mount Nelson Hotel to ignite discussion, debate around solutions.

The story of the first hotel to use earthworm farms as a waste reduction tool was picked up by many media nationally and internationally, including CNN, The Guardian, Carte Blanche, eTV.

What was it about this story that ignited so much enthusiasm and action?

Too Much and Too Little



The title of this photograph was pretty dire and the effect of the floods far reaching and damaging. In fact, two pages further into the publication, the floods are described as a 'humanitarian crisis'. Despite that, the image represented a feeling of connection and inter-species harmony.

At least the swans seemed to be enjoying the water and attention.

Too Little and Too Much



From floods to drought.

When will we ever learn?

Water is a precious resource that we should be using with care and wisdom at all times.

On the 8 January 2018, Cape Town is on the brink of Day Zero – a reference to all taps being turned off. All aspects of life, including education are being affected.

Verdant Meadows

Sunday Times | September 27 2015

THE GREEN ISSUE

NEWS | 17

Human Nature | Bobby Jordan and his nuclear family do battle with their carbon footprint at Africa's greenest hotel

As the frog said, it's not easy being green




It was the worst possible start. Nine kilograms of carbon dioxide emitted just driving to Africa's greenest hotel — plus another 90kg detour to pick up my laptop.

My mission? Spend a carbon-neutral night at Hotel Verde — myself, my carbon-obsessed family and a suitcase filled with non-biodegradable nappies. All packed into a wheezing 1400 Polo.

I was surprised they even let us in the front door.

The check-in went well. We would be staying in room 234 with a view of Cape Town's airport and a disused parking lot. If we reused our towels we would earn a "verdino" — hotel currency worth R5. If we didn't turn on the aircon we would earn another verdino.

A friendly sign urged us to use the stairs. We used the lift (0.006kg of CO₂), schlepped our ergonomic suitcase down 160m of carpeted hotel corridor and flopped into zero-energy horizontal on a generous king-size bed — not (wooden) included — to contemplate our good fortune.

At first glance, Hotel Verde looks like a giant spaceship that overshot the main runway at Cape Town International.

And in a sense the two-year-old establishment has its own orbit, as becomes clear when you draw near. Two metal towers dwarf a boxy building painted purple and green. Solar panels, a roof garden, "living walls" flanking the main restaurant and an eco swimming pool complete with water lilies and bat-rushes are some of the eye-catching features.

But it is the finer details of the attention lavished on its guests that have earned the hotel several awards and the cachet of being Africa's greenest. Rooms are fitted and designed for maximum energy efficiency, with smaller kettles, low-flow water fixtures, LED lighting and double-glazed windows.

Herbs and vegetables are largely home-grown, bedding is 100% allergen-free and the hotel restaurant lists its main produce suppliers by their distance from the hotel. The menu is printed on untreated wood.

It's so green that after a while you don't even want to think dirty.

With so much intriguing energy saving, you also don't want to waste it.

where fitness freaks can tune their saggy carbon footprints and offset them at the same time.

I managed half an hour on the exercycle, then bounded up the stairs (saved 0.27kg CO₂) to reward myself with a cup of tea (0.09kg CO₂).

By boiling the kettle I used up four times the energy I had just generated. I found out later.

To make up for it I set off along the hotel's jogging track around a quaint wetland (former storm-water sink). To my horror, I discovered when I came back that my wife had boiled the kettle again.

We were into serious energy

to, although we did our best to keep things friendly: seafood risotto (sorry, prawns) and veggie lasagne (about 5g carbon kg). We skipped dessert. Up to the rooms again (0.27kg CO₂), half a toddler DVD (0.1kg) and nine hours of sleep (times four =

the ozone with fiery four-star accommodation breath.

Carbon for breakfast again — a lot of it, poached and scrambled — and another slug fossil burn along the N3 in the Polo.

Never has a nuclear family seemed so fossil-fueled.

But we needn't have stressed at all. Hotel Verde subsidises each guest's stay by purchasing CO₂ offsets — 27.35kg per guest — via an offset certification project in Zimbabwe.

Turns out we were actually planting trees near Lake Kariba all along.

Comment on this: write to telisa@saundaytimes.co.za

From wasteland to verdant wetland

Miso Delicio spent so much time at hotels, he figured he might as well open his own. He alights beverages (every business man travelled And look half the year and 10k per kg in the style he would give.

When a colleague suggested he invest in a hotel (Pret in Bulawayo, he saw an opportunity to do things his way for a change.

It there were a few raised eyebrows when Delicio chose. What one would in an airport (up and out on the site of the

Town does not have a decent hotel close to the airport," Delicio said. "That is what made me decide there must be a market here."

As if the site weren't curious enough, Delicio opted for a "green hotel", partly inspired by his travels in Africa and his experience growing up in Germany, where recycling is widespread.

"If you travel to countries like Nigeria and see how nature is treated — unfortunately people aren't concerned," he said. Government a case of smart

I always wondered why Cape Town does not have a decent hotel close to the airport

Delicio and Harms combined to turn the site into a wetland showpiece, complete with a jogging track, natural pool, weaver nests, beehive and 130 trees.

Another notable hotel feature is its energy saving incentive scheme, where guests can reduce their bill by saving energy by turning hotel "verdinos" — each one equivalent to R5.

Said Delicio: "Every hotel tells you please save the environment, but nobody takes the next step. We want the

POUNDERING: Leela Jordan, aged three, contemplates the eco swimming pool at Hotel Verde, lush with water lilies and reeds

FIGURES: RUSMAN SCS/GETTY

TAKING OFF: Hotel Verde, near Cape Town's airport

When I read the title and subtitle of the article and tried to integrate it with the image of the child I was struck by four thoughts:

Verdant Meadows Continued

1. To which frog did the author refer? If it was the micro frog, it was likely they were already dead/extinct.
2. Who is “being green” and what does that mean? The term green when used as a verb to connote a person living and working sustainably made/makes me angry.
3. I was concerned by the kid’s potential entry into the pool – was this a wasteland or the transformed verdant wetland? If the former, I had an urge to warn the kid. If the latter, a stone-walled circular pond did not make a wetland.
4. The words “Frog, Green and Wetland” together generate images of an idyllic ecosystem. The meaning behind this image suggests it is not so idyllic.

I had also done a small consultancy project at “Africa’s Greenest Hotel” so I had some knowledge of their practices, they still served buffets of food and after dinner mints wrapped in plastic. Buffets are notorious for creating post-consumer waste and there is far too much plastic packaging in the world. But still they are trying, and we all have to start somewhere, I reasoned. But I could not escape from the thought that the way we live is inherently harmful. Embedded in the hospitality industry is a culture of excess.

They opened in 2013, the same year I had bought a car after four years of taking public transportation. So it was ironic that I could drive to the “Greenest Hotel”.

Terrorism – a Planetary Distraction



The relationship between violence and environmental degradation is a theme in the story of Vol. 3. Debates about violence between the fictional Endangered Species Society (ESS) and their arch-imaginedrivals, the Pied Platoon are representations of personal experience as a mediator in Northern Ireland and researcher into gang violence on the Cape Flats.

Exploration of the way labelling can create dualities and division form part of the represented discussions.

Terrorism – a Planetary Distraction Continued



Terrorism is not often discussed in relation to environmental education and activism. But it seems to be a constant theme and source of risk in the world. Terrorism was a focal point of my previous academic work at master's level. It seemed wherever I looked there were images of risk that were multi-layered and disjointed.

I started to develop a semiotic structure that moved away from the aesthetic texts of risk, documented as Vol. 1, into reflexive deliberations about the semiotic process in Vol. 2 that were expressed in Vol. 3 as a story.

A multi textual strategy to hold discussion about multi layered issues. Terrorism and violence explored.

It's a Boy



This gendered view of "Ivy Mike's" detonation increased my personal anxiety and fear. Why be concerned with environmental risk when humans have developed bombs with the capacity to destroy the planet, eliminating all notion of risk? How, I thought, could World Risk Theory help alleviate the anxiety?

Why did Edward Teller, who helped design the bomb, lay a male claim to it? Is that because of its power of annihilation? Despite my loathing of the male term used, why did I feel excluded by it? Perhaps I am excluded because my agency is also constricted by the structure of the "glass ceiling."

Power is an underlying theme in all social discourse including education. Power is represented in the story in Vol 3 through the leaders of the ESS and Pied Platoon. There are intra and inter species exclusionary practices of power.

Whose War?

Green Section SUN TIMES 27 Sept 2015

How to win the war for our wildlife

Rhino poaching rages undiminished, but South Africans should not lose hope, writes **Yolan Friedmann**. Globally, crime involving wildlife is being taken far more seriously than in the past

DESPITE a decrease in media coverage of rhino poaching, the scourge has, tragically, not declined, with more than 50 rhinos having been poached in South Africa this year by the end of last month. If anything, the statistics tell us that poaching remains on the increase. One can sympathise, then, with public frustration that despite millions of rands and man-hours going into fighting this scourge, it appears as if little has been achieved. This is not entirely true, I believe that quite a lot has been achieved, although perhaps with too little impact on the ground at this stage. It is obvious that we still have a long way to go before we see the trend reverse that we all so desperately want to see.

Elephant and rhino poaching in our modern world is not without context. The poaching happening today is the result of a lethal cocktail of poverty, inequality and discontent in local rural communities on the one hand, and growing demand for wildlife products from increasingly affluent Asian markets on the other.

The problem has been compounded by the emergence of sophisticated transnational crime syndicates and highly developed black-market trade networks; the militarisation of poaching in Africa; the strategy of stacking up "bunk on extinction"; and the global terror groups that, according to the Elephant Action League, make more than \$800 000 (about \$8.5 million) a month from the proceeds of elephant poaching alone.

A market that is both demand- and supply-driven is difficult to measure or manage, a difficulty exacerbated by not knowing who all the role-players are or what vested interests they have. Wildlife trafficking is today among the five most lucrative illicit trades globally, estimated to be valued at around \$18-billion a year. The complexity of the supply chain is multiplied by the urgency of the need to act, because many species face imminent extinction within our lifetimes.

What we may know, to some degree, is why local communities are driven to poaching. It is their burgeoning population of unemployed young people, who have no prospects of earning an income legally, combined with the outrageous sums that are paid in cash for wildlife products.

These young people have no passion for conservation with or sense of responsibility towards wildlife. For many, wildlife is in fact a symbol of the lack of restitution and service delivery in South Africa. It adds up to an attractive environment for criminal syndicates.

Say that you will from the comfort of your armchair, many thousands of people who live along the borders of our national parks were born into strife-ridden communities and learnt to use a weapon before a calculator. They witness violence and conflict every day – live, and not through newspapers and TV.

Without job prospects or a sense of joint ownership and benefit sharing in the wildlife heritage that belongs to us all, they are easy targets for those with big wallets and clients who will stop at nothing to get what they want.

On the other hand, we do not fully understand the details of an evolving supply chain that now incorporates a multiplicity of vested interests and role-players. These include rapidly emerging markets and uses for these "products" that we cannot yet quantify; fluctuating market forces, complex trade routes; widespread corruption; the role of global terror groups; "investors" who stockpile and control market flows; and how this all feeds into the trends we see on the ground every time a rhino is killed, which, horrifyingly, happens more than three times every day.

The trouble with having these pages in our knowledge is that any solution has to take into account these external factors because the trouble did not magically cut off the local problems, and certainly will not be ended by addressing these problems alone.

Solutions must be found that involve communities in genuine co-management and true benefit-sharing options for wildlife conservation. South Africa is about 20 years behind where we should be by now. Poachers should be turned into conservationists and all South Africans should share in valuing wildlife. But this alone will not address the current crisis of wildlife crime as the context has changed.

Modern wildlife crime occurs within the context of all other socioeconomic, criminal and ideological global trends; solutions cannot be developed in a bubble that does not address the chain of events into which wildlife products are pulled.

This poses serious challenges for the conservation community, which, by its own admission, is largely out of its depth, but sweeps for every dead rhino as if a child has been lost.

Perhaps the most important of conservation achievements is the growing recognition of the complexities and the need for an integrated strategy – globally, regionally and nationally – to manage wildlife crime as a facet of transnational organised crime.

It is now being addressed at high-level government meetings, in anti-terror forums and at dedicated intergovernmental meetings. Conventions and declarations are being signed. Legislation is being enacted under which wildlife crime will be regarded in a far more serious light and prison is being made to prosecute criminals across an array of activities. Measures are being sanctioned authorising both investigators and prosecutors to confiscate the proceeds of wildlife crime, so that criminals do not benefit from it.

Local, regional and global task forces are being developed to tackle the syndicates on all fronts. Law enforcement agencies are being strengthened, with significant amounts of training invested in police, border control and customs officials, prosecutors and magistrates. Rangers and anti-poaching teams have been equipped and trained.

Community projects are being established to develop sustainable, inclusive and balanced economic development based on the recognition that wildlife crime is not only threatens biodiversity but is a major impediment to good governance and the rule of law, and reduces the revenue from wildlife-based tourism and sustainable utilisation of the resource base.

The active engagement of local people and their right to co-management of our wildlife resources have been identified as being essential to effective monitoring and law enforcement in neighbouring parks and reserves.

Much-needed support for the protection of our wildlife heritage has been provided through generous public and private donations, which have allowed equipment and man-hours to be pumped into systems weakened by declining budgets, inadequate capacity and poor priority-setting.

Despite the apparent pessimism among many South Africans that we can win this war, arrests have been made (nearly double last year's number in 2015 thus far), prosecutions are becoming more successful, and mounting global pressure will stimulate more momentum to disrupt crime networks.

We have to win this war, not for the sake of the rhino and elephant alone, but for the sake of the human lives that are lost due to related activities – drug dealing, human trafficking, terrorism and arms trading.

Our rhino, elephant and pangolin are commodities in the same dark underworld that makes no distinction between ivory, human life or a weapon. So losing is simply not an option.

Yolan Friedmann is CEO of the Endangered Wildlife Trust.

Comment on this: write to: reactions@times.co.za or SMS us at 33971. www.timeslive.co.za

Number of rhino poached in SA

Year	Number of rhinos poached
'07	13
'08	83
'09	122
'10	333
'11	448
'12	668
'13	1 004
'14	1 215
'15	749*

* AS AT AUGUST 27
PHOTO: SETTY IMAGES
GRAPHIC: MATTHEW MOSS

Source: SOUTH AFRICAN DEPARTMENT OF ENVIRONMENTAL AFFAIRS (DDEA)

BIGGER PICTURE: SANParks official Marus Kruger helps during a rhino relocation operation aimed at saving the animals from poachers. Winning over local communities is a key part of the anti-poaching effort, the author says. PHOTOS: JAMES DAYWAY

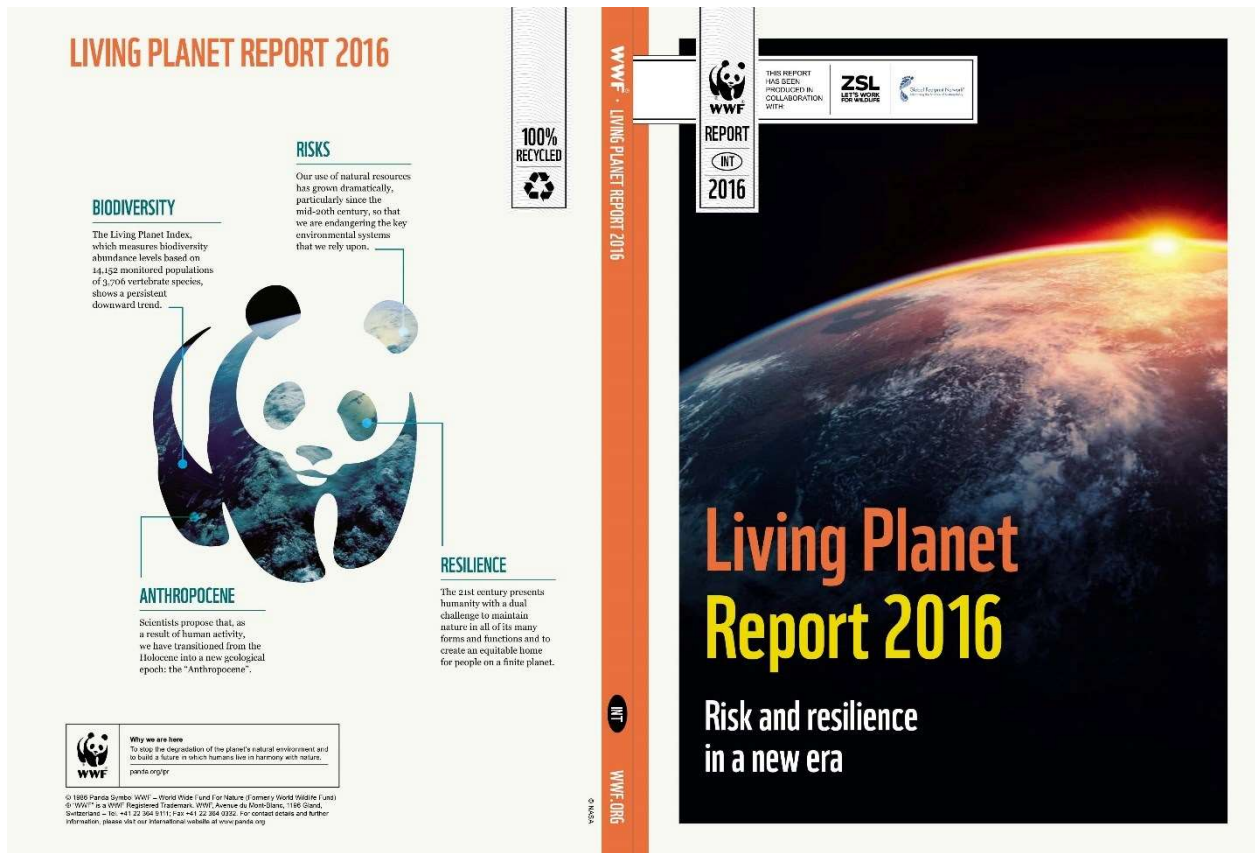
Without job prospects or a sense of joint ownership, they are easy targets for those with big wallets

CHAIN OF BLOODSHED: Two suspected poachers, their hunting rifle equipped with a silencer, under arrest in Kruger National Park last year

These images and article were one of the triggers for the idea that animals could/should go to war with "us" humans. "Our Wildlife" is an oxymoron, judgmental and possessive.

Capturing, hobbling and incarcerating the "poacher" will not solve the destruction of poaching, which is linked to social issues encapsulated by the previous images and text about the Millennium Development Goals.

Living Planet Report 2016



Here is a perfect example of how we ‘use’ animals by reporting on them, but not really representing them.

I do not claim to have captured the voice or perspective of the animals in Vol. 3, but I did want to try.

The most striking text for me in this article is the scientific belief that “as a result of human activity, we have transitioned from the Holocene into a new geological epoch: the “Anthropocene”.

The World Upside Down



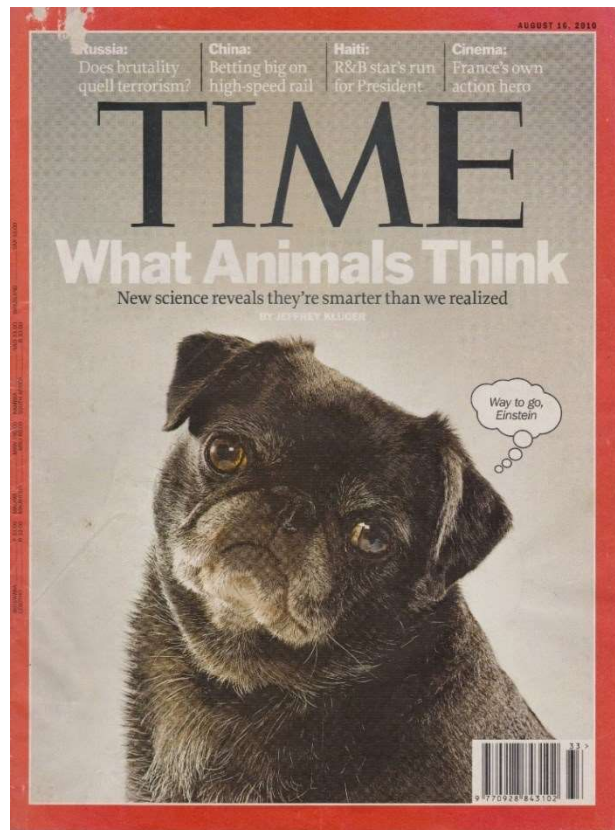
This image created a deep sadness and despair. There was no available text to explain why this rhino was being moved upside down.

I reasoned that, at best, it was being trans-located and the movement was motivated by a desire for its protection. The worst case scenario was that it was dead and being moved for scientific enquiry.

Nonetheless, the image of the rhino was unsettling and disturbing. It inspired the character, Charlie, in Vol. 3, a young rhino who shares his story of the murder of his parents..

This anger is a catalyst for the ESS adopting a strategy of violence.

Pity Humans Don't Think



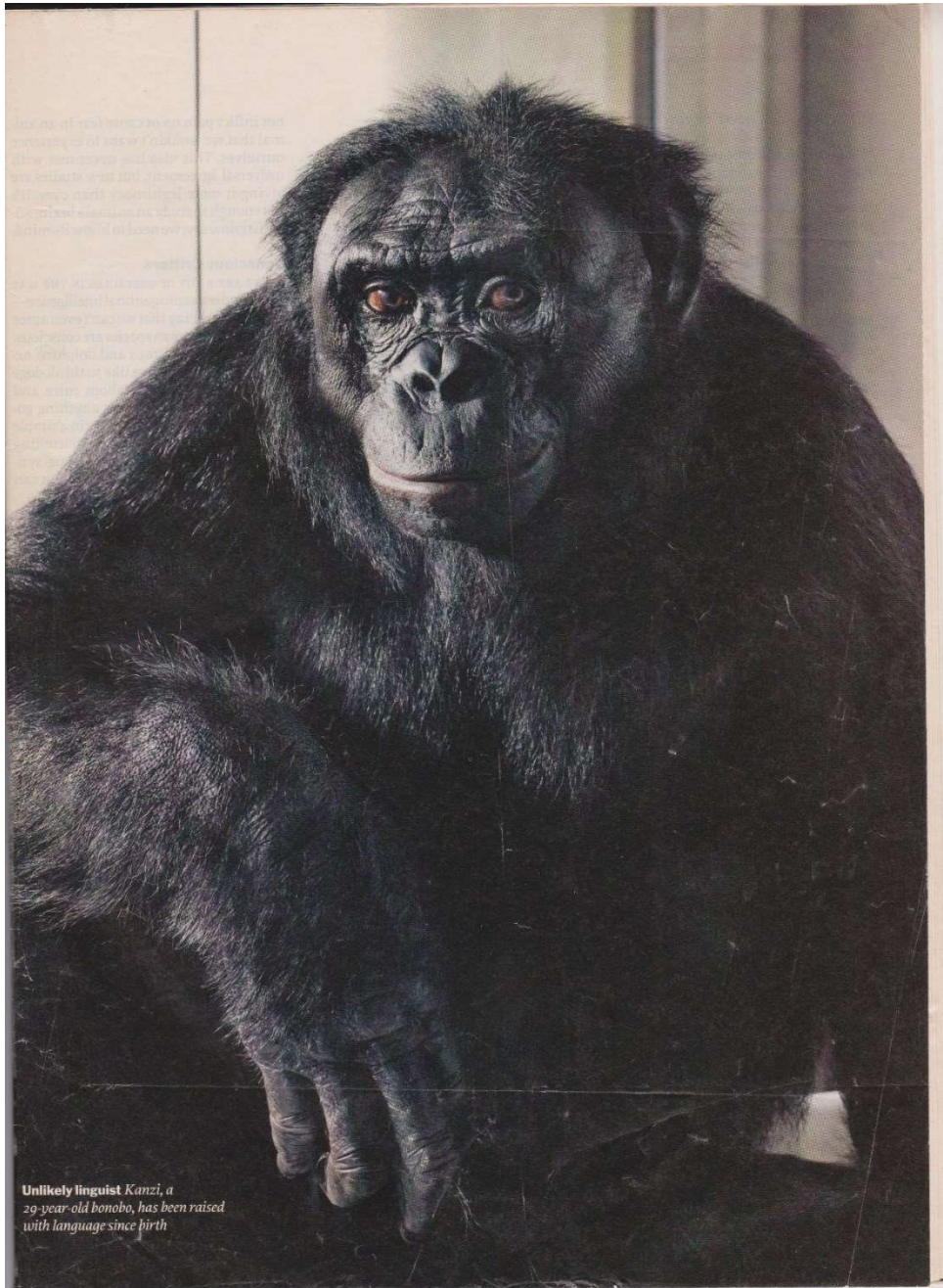
My activism is motivated by a desire to co-habit and share the environment with others – human and animal. I was encouraged by this cover image and the internal article of Time Magazine and its conclusion that animals are smarter than we think (p. 22). I was concerned that the animal chosen for its cover was a domesticated animal and not a wild one.

The concern is the influence of humans on animals. Domesticated animals are bred at our whim and will. Animals in general are marginalised and excluded from environmental discourses and social sciences. Or as Raupp describes it, they are curtailed by “The furry ceiling” (cited in Russell, 2005, p. 433).

These dualities between animals and humans and between wild and domesticated animals emerged in the story of Vol. 3 as two opposing animal factions: the Endangered Species Society (ESS) and the Plied Platoon.

I was interested in what animals think about? Despite my anthropocentric limitations, I reflexively imagined their thinking based on some personal experience, scientific insights and from media stories of animal communications. I hoped this knowledge would deepen my appreciation, activism and representation of them.

You are in Denial



Page 23 Time Magazine

Was “Kanzi”, the name given this Bonobo, really pensive and thoughtful the way I thought she was or did the photographer happen to capture a fleeting sense of my own projected view of her?

As the Crow Flies



Page 25 Time Magazine

In Irish mythology crows symbolise harbingers of death. I wonder, do humans belittle, control and mythologise animals as a way to deny their value and worth?

This crow certainly looks intelligent enough to challenge our view of him/her. If only he/she could!

Not My Problem



Page 26 Time Magazine

This is a clever image. How did the photographer get this cute, adorable, little orang-utan to pose for the camera? Is it because the subject is resigned by her human constraints? So what we are 'seeing' is a beleaguered acceptance of fate? Why do I relate so much to the feeling it evokes?

In the story, the animal characters discuss which animals to use for symbolic and propaganda purposes.

Feed Me



Page 28 Time Magazine

Knowing that elephants can reason and understand what we humans do to them, I can only imagine their trauma!

Death of Innocence



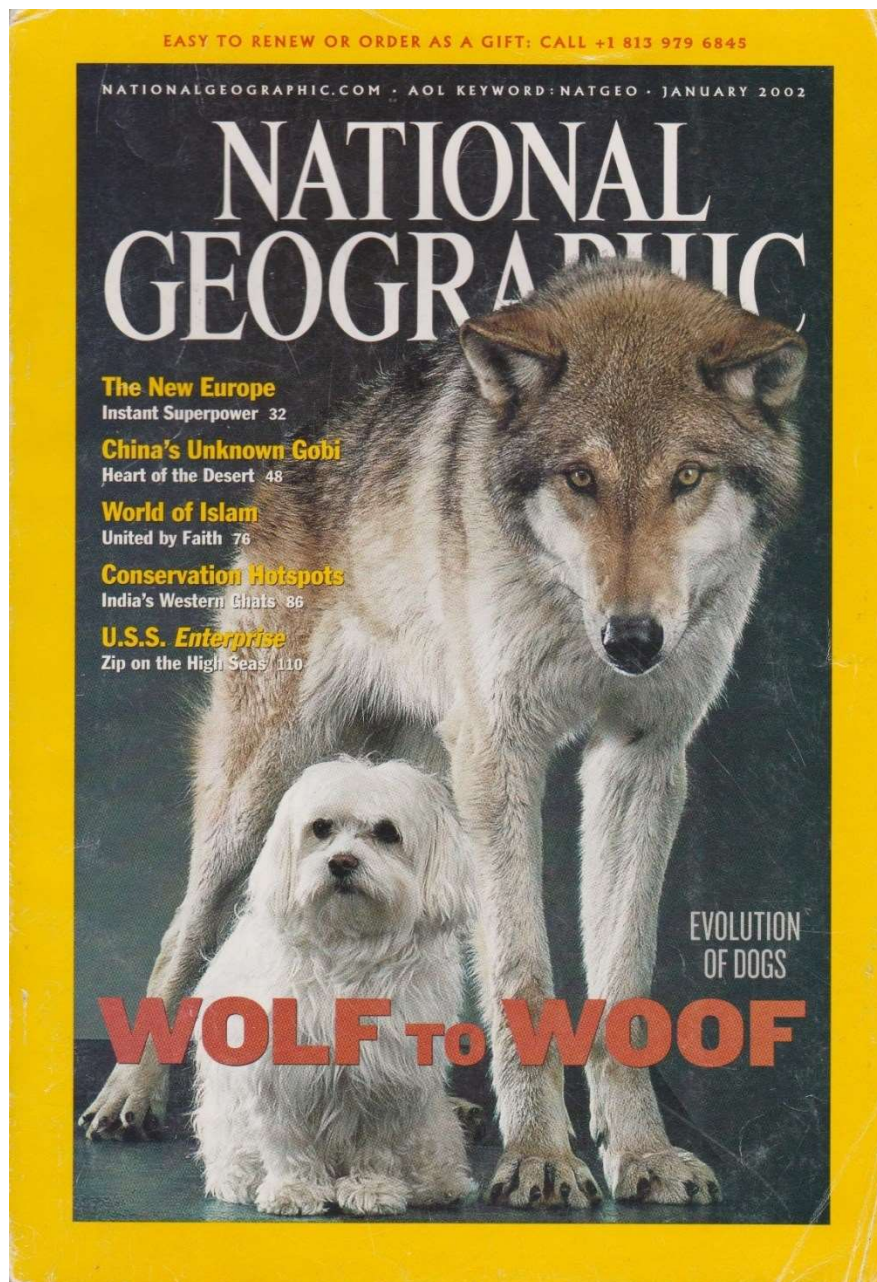
This photograph stimulated debate amongst friends and acquaintances. The cow is clearly in physical distress. Despite the obvious trap of thinking I know what the animal is feeling, I felt immense compassion and a shared horror for the cow's imminent death.

But what the cow symbolised within this photograph was in my view an unopened hypocrisy. The majority of those with whom I discussed what this image evoked thought the men in the photograph were barbaric. I believe the direct killing of the cow for a ceremonial feast was more honest than buying pieces of cow on styrofoam trays wrapped in plastic. The latter pointed in my mind to a lack of personal responsibility. I also sensed that those who only saw barbarism, also only saw the barbarism being committed by one particular group.

"Myrtle" is a cow in the story in Vol. 3. She embodies some of these social debates I have experienced about meat eating. She is an idealist and sees only the good in the world. Her character symbolises a fragile naivety about the relationships between domesticated animals and humans.

Through her death, Polo is awakened.

Woof! Woof!



This image inspired two main characters in the story:

Lycaon Pictus, a wild dog that leads the ESS and Mr Smith, a dalmatian (also known pejoratively as Spot) that heads up the Pied Platoon.

I noticed the caption "Evolution of Dogs" was not what I considered evolution at all but rather imposed regression.

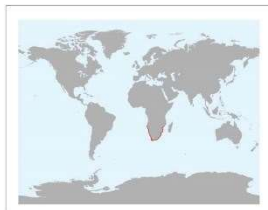
So Sad



This is a profoundly disturbing image, but beautifully captured. It provoked a feeling of shame in my humanity and a deep sense of loss. Anger and powerlessness are themes in the story of this PhD. I also wondered what the editor thought was "green" about this image. Why is this included in The Sunday Times first "Green Section"? Its inclusion seems so insensitive and cruel.

The image inspired the 'animal congress' in the story of Vol. 3 of this PhD. It is an imagined gathering where animals share their "experiences" of brutality imposed on them by humans.

The Great African Penguin – *Spheniscus Demersus*



Geographical range

Knowledge
Experts
Get Involved

Amazing Species: African Penguin

The **African Penguin**, *Spheniscus demersus*, is listed as Endangered on The IUCN Red List of Threatened Species™. It is confined to southern African waters and breeds at 25 islands and four mainland sites in Namibia and South Africa. It has been recorded as far north as Gabon and Mozambique.

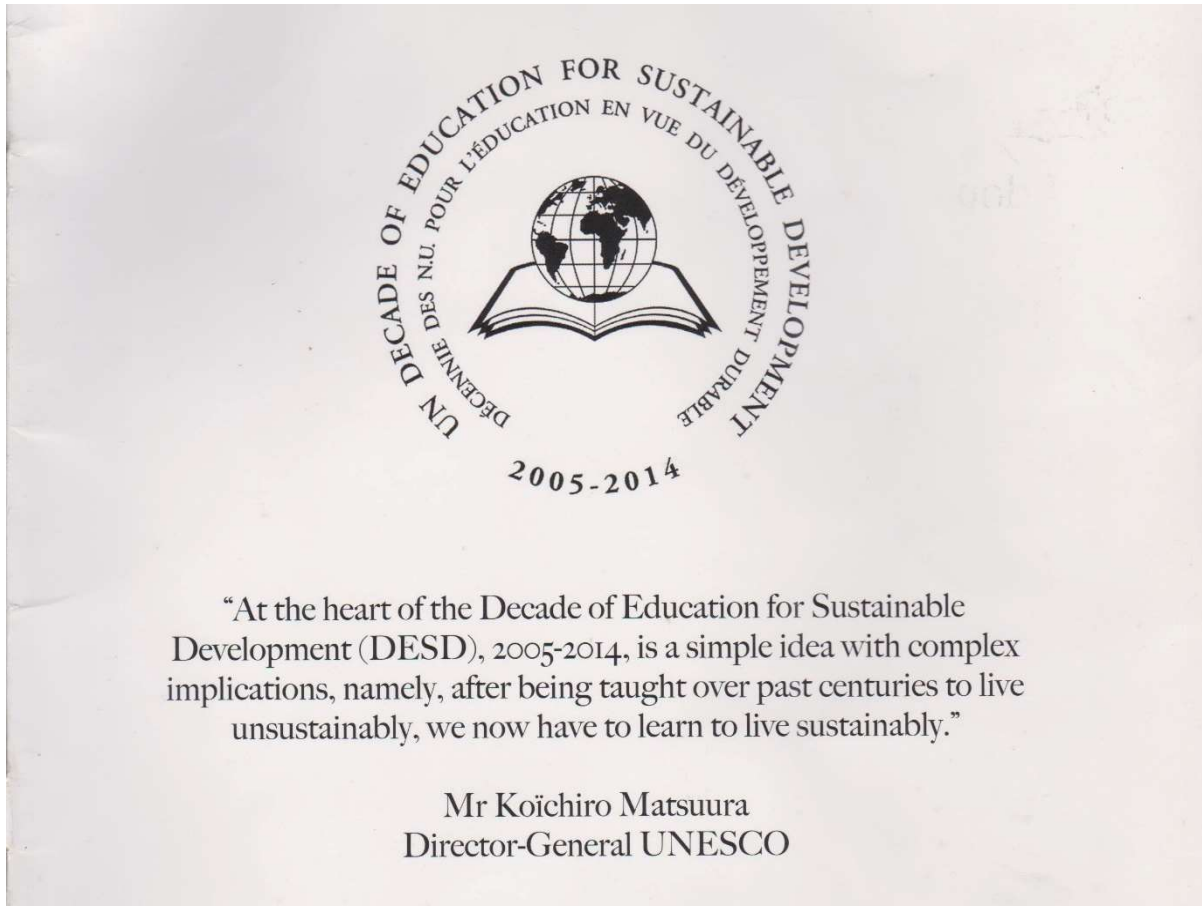
This species of penguin is undergoing a very rapid population decline, which led to its uplisting to Endangered in 2010, largely attributed to food shortages due to commercial fishing and environmental fluctuations. Other threats include: egg collection, guano collection, oil spills, competition with Cape Fur Seals, *Arctocephalus pusillus*, for food and displacement from breeding sites (and is a periodic predator), mortality from fishing nets and predation by sharks, Kelp Gulls, *Larus dominicanus*, and feral cats.

The African Penguin is protected by listings on Appendix II of the Convention on International Trade in Endangered Species (CITES), and on Appendix II of the Convention on Migratory Species (CMS). In South Africa, all breeding localities are national parks, nature reserves or otherwise protected. Collection of guano and eggs is also prohibited. The SANCCOB oil spill rehabilitation centre also needs to be continued and maintained.



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Decades and Decades of Education for Sustainable Development



The logo and text of the UNDESD above have been scanned from the inner back cover of a children’s story I wrote during the decade (Murphy, 2007). I was particularly interested in Mr Matsuura’s call to broaden the concept of education beyond schools and other institutions of learning.

I also interpreted his quoted words above as pointing to failings in teaching methods, or that the very notion of ‘teaching’ creates tension with learning. Some of these conceptual and theoretical tensions are discussed in the next section, Vol. 2. ²⁰

²⁰ *The written captions to the images ultimately add up to a position and conclusion that humans are central to the destruction of all species. They become the undercurrent in the story in Volume 3. I do not attempt to analyse how these positions came to be, but rather use the story as a way to further elaborate and enquiry on their origin and their impact and influence on this PhD.*

Volume 2: Developing Meaning Reflexively

Introduction

[SS] When do we introduce ourselves?

[OS] I think we should do it right away.

[SS] Good thinking. After all, that's the purpose of an introduction: to set the scene early on.

[OS] We're not writing a play but I understand what you mean. I think I should start. I am the Objective Self [OS] of this author's Internal Conversation.

[SS] Excuse me, aren't you the representation in a text of the [OS] of this author's Internal Conversation and, why do we Title Case the 'internal conversation'?

[OS] Step back from the rabbit hole and let us go at this slowly. Our aim here is to provide clarity and guidance. We have readers to consider. The Internal Conversation is title-cased because it refers to a specific theory of another author we are working with. Her name is Margaret Archer.²¹

²¹ Margaret Archer is a Professor in The College of Humanities (CDH) in l'Ecole Polytechnique Fédérale de Lausanne, Switzerland. While she was Professor of Sociology at Warwick University she developed her 'Morphogenetic Approach' to social theory. She was elected as the first woman President of the International Sociological Association at the 12th World Congress of Sociology. She is a founder member of both the Pontifical Academy of Social Sciences and the Academy of Learned Societies in the Social Sciences and is a trustee of the Centre for Critical Realism. "My theoretical work over the last twenty-five years has been devoted to the problem of structure and agency. Related to this is the problem of objectivity and subjectivity." Archer, Margaret, <https://cdh.epfl.ch/page-55774-en.html> Downloaded 18 September 2017.

[SS] Why do we need to guide? There are 'objective' readers reading this text, can't they take responsibility for their own objectivity and subjectivity? Isn't it their problem to figure out the meaning of all of this?

[OS] I know you like to butt in (a lot) and what you have to say is valid and important. Despite that, there are many possible interpretations to consider in this process and we have a responsibility to present ourselves as neatly and clearly as possible. We have to help the reader navigate through the pages that follow; otherwise you and I may end up sounding like gobbledy gook. So please refrain from debate for now until we get started. Umberto Eco's work on the role of the reader, writer and text will make it clearer.²²

[SS] Heh, without me you wouldn't be able to sound so self-righteous and sanctimonious. You need me! I am the Subjective Self [SS] of the Internal Conversation. And, I think it's up to the reader to figure this all out. Also, how can it be possible to think of many readers at once?

[OS] We can't just write anything and expect the reader to figure it out. It's not as simple as you think it is. But you are right about your integral role. Perhaps how we are referenced is misleading. I too wonder why Margaret Archer dubbed us the Objective Self [OS] and the Subjective Self [SS] when she herself is concerned with "...transcending the divide between objectivity and subjectivity" (Archer, 2003, p. 8)?²³

²² *Umberto Eco was an Italian semiotician, philosopher, literary critic, and novelist. I first read his creative work *The Name of the Rose* during my undergraduate studies in Peace Studies in Northern Ireland. I remember relating to the main character, the monk. I also remember a strong feeling of being led by the writer. I had a real sense that if I committed to the story, I would get to the end, that there would be meaning at the end provided I was open to it. At that time I only knew Eco as a novelist. It was only much later that I started to read his theoretical works on reading and writing, and semiotics. He is the principle author I refer to in the meaning I have developed and present about semiotics. His work *A Theory of Semiotics* is the main focus of Vol. 2 of this PhD.*

²³ *Pierre Bourdieu was also concerned with the "classic subjective/objective antinomy" (Swartz, 1998, p. 9).*

[SS] That seems very Buddhist – the notion of paradox is clear: to transcend the divide one has to first know it! When do we bring the author into this and how?

[OS] Well, if we use footnotes to put her on the page they might become too long (she does like to talk). Let's ask her?

[SS] OK, but we need to be ready to cut her off if she starts to ramble.

Thank you, OS and SS, you come from a long line of theories and thoughts about reading and writing, structure and agency, critical realism, semiotics and reflexivity. Maybe my role is to give the historical background to your discussions, introductions to these theories, concepts and social studies as a way to guide our readers into, and through, the texts that follow?

[SS] Aha. So now we start to get into roles and responsibilities. The author will take responsibility for the writing of the text. You and I, OS, will make meaning of what we are reading in other texts, which will help explain, shape and formulate this macro text.²⁴

[OS] What about the reader? How many readers can you imagine?²⁵ Is it possible to write for an infinite number of readers? And can the relationship between readers and writers be

²⁴ *This PhD is written in three volumes. The theory behind this textual strategy is predominantly based on Eco's (1984 and 1989) and Crosman's (1980) theories on the role of the reader and Harvey and Jickling's (2002) work on narrative texts that are "ontologically layered and historically open" (Harvey, 2002, p. 165). I also drew on Leggo and Sameshima (2014), Hart (2014) and Nolan (2014) for inspiration and confidence in the exploration and expression of different textual strategies.*

²⁵ *I referred to Nagel's philosophical work, 'What is it like to be a bat?', where he presents the process of imagining thus: "We may imagine something by representing it to ourselves either perceptually, sympathetically, or symbolically... To imagine something perceptually, we put ourselves in a conscious state resembling the state we would be in if we perceived it. To imagine something sympathetically, we put ourselves in a conscious state resembling the thing itself. (This method can be used only to imagine mental events and states—our own or another's.)... Where the imagination of physical features is perceptual and the imagination of mental features is sympathetic, it appears to us that we can imagine any experience occurring..." (Nagel, 1974, p. 8).*

defined as logically as calculus can define time and motion? Most importantly, what role do 'they' play in this PhD?

Reading into what you are asking about the Reader, OS, is one of the central questions of this thesis. The relationship between the writer and the reader is one of the reasons this thesis is being written. Representing and interpreting meaning from speech acts to narrative texts²⁶ are some of the challenges addressed by semiotics and discussed in detail by Umberto Eco, whose *A Theory of Semiotics* is the central anchor of Vol. 2 of this PhD.

Maybe the best approach is to give an overview of the evolution of this thesis and how it came to be. Let's start with Reading and Writing.²⁷ I remember being told that you can't write unless you read.²⁸

Before I set out on this PhD journey I was aware of the importance of the texts I was reading but early on, I was not quite sure what texts would become particularly relevant. As questions started to formulate in my mind, as I was reading, I was reminded of the statement I had read by Robert Crosman early on in my reading: "The act of writing includes reading"²⁹ (Suleiman & Crosman, 1980, p. 162).

²⁶ "Given the outrageous elasticity of recent uses of the term 'narrative' (Sayer, 2007, p. 140), I refer to the term as a way of constructing a text in such a way that "the depiction of events... gives the appearance of a causal chain or logic and the sense of movement towards a conclusion (ibid., p. 141). In the case of the narrative in volume 3 of this text, there is movement toward a conclusion but it the ending is neither resolved nor fixed. The conclusion is left open to the reader.

²⁷ The main text I referred to in my initial explorations about reading and writing was Eco's *The Role of The Reader, Explorations in the Semiotics of Texts* (1979).

²⁸ This statement seems universal and I cannot remember where it originates, but I have a clear memory of it being stated by Amanda Patterson while attending one of her Writer's Write workshops in Cape Town, 2014.

²⁹ Crosman's (1980) and Patterson's (2014) statements display an integral connection between reading and writing and reader and writer. It's both obvious and common-sense as the connection between structure and agency. It's the space in between, and beyond, the reader and writer and

[SS] I notice as you write, you tend to want to read, and as you read, you often want to stop and write. It seems like a circular process, especially maybe when writing a PhD?

[OS] Good observation. I am also aware of the distraction of reading. It's not just the cross-referencing and re-checking of texts, but I am also aware that I want to go back to some of the readings I read early on. It's easier to by-pass the readings that I had tagged with coloured-coded notes declaring a reading that had been read more than twice. But when I saw some carded notes and first time readings, they seemed to call me back in. At times I seemed to lose awareness of time and had a sense of being lost in the reading.

[SS] Do you know the way swimming freestyle requires 70% upper body work and 30% leg work do you think there's a similar equation between reading and writing a PhD, maybe 50/50 of both?

My reading raised many issues and concerns for me. I started to wonder would my writing ease or resolve those concerns. For example, I wondered why I was being drawn to particular texts and if and how they might fit together. Why was I becoming deeply embedded and interested in Risk Theory, Semiotic Theory and theories about Reflexivity?³⁰ Was I giving all the texts that I engaged with the same kind of attention, the same level of commitment? I reflected on whether my own unawareness and 'habitus'³¹ was leading me to certain texts and away from others. I wondered if I might be choosing texts because of my epistemological leanings.. Early on in my readings I felt like a

between and beyond, structure and agency that are motivated by theoretical and methodological searches.

³⁰ *The concept of Reflexivity, or thinking about thinking, caught my attention and started to open up a new framework for engaging with texts and my own agency, particularly Margaret Archer's theory of the Internal Conversation (2003).*

³¹ *I use the definition of Bourdieu's habitus as "understood... [by Roy Nash] as a system of schemes of perception and discrimination embodied as dispositions reflecting the entire history of the group and acquired through the formative experiences of childhood" (Nash, 1999, p. 177).*

honeybee flitting from word to word, sentence to sentence. It took quite some time before I could really settle on a reading and sink in.

My reading strategy was in many ways a simple matter of wanting to understand more. I wanted:

1. To read enough so I felt like I fitted in/belonged to my academic community;
2. To explore and understand my academic identity;³¹
3. To understand the meaning of semiotics particularly Eco's (1979) *A Theory of Semiotics*;
4. To understand more about the relationship between reader and writer, reader and text, writer and text and their interrelationships;
5. To experience and record my internal conversation. To test Archer's (2003) theory of the internal conversation as a mediating tool between structure and agency;³²
6. To explore risk theory from my own social and political perspective;
7. To give voice³³ to animals.

³² Upon further reading and growing understanding I reasoned, and agreed, with LiPuma that "habitus... [is not.] a bridge between the social and the psychological, the system and the agents, it cannot make the connection because the relationship of individual agency to social classification is not developed" (cited in Nash, 1999, p. 177). The concept of Bourdieu's 'habitus' in this research was overtaken by Archer's theory of the internal conversation as a tool for/of reflexivity.

³³ During a presentation of a paper at the Association for Sociology in South Africa's (ASSA) Annual Congress in 1991, I was asked in the Q&A why I thought my safety was not in jeopardy during the six-month period in which I had hung out with gang members on the Cape Flats. I believe it was because as one gang member put it: "you are the one who can tell our story, so our voices can be heard". (Murphy, 1993). Many years later while working at the Truth and Reconciliation Commission, I concluded that its success predominantly hinged on the fact that victims of human rights abuses as defined by the TRC were given an opportunity to speak, to tell their stories and for their voices to be heard.

8. To try and understand the damage humans were doing to other animals and to imagine how that might be experienced by animals.³⁴
9. To figure out my Ultimate Concern³⁵ or purpose as an academic and environmental activist and educator; for “it is only in the light of our 'ultimate concerns' that our actions are ultimately intelligible” (Archer, 2003, p. 1)
10. To assess my own agency and motivations and ability to act.

I started thinking about my experience as a reader and how texts had shaped me politically and socially and also influenced how I wrote. For example, when I wrote my Master’s thesis in International Relations (2001), I spent a great deal of time submerged in texts on political theory, theories on and about terrorism, international law and negotiations. I spent most of my research interviewing individuals involved in the negotiation processes in Northern Ireland and South Africa.³⁶ They all had very distinct voices that I needed to weave into the theoretical framework I was building. In some instances, those voices were simply quoted in the text, or at times, by structuring the text in a certain way 'opposing' voices became conversational and often highlighted

³⁴ *I had no idea how I could overcome my own anthropocentrism, but I wanted to try. I was encouraged by Thomas Nagel's philosophical paper on consciousness, “What it is like to be a bat” (1991) as well as Bell and Russell's work on Disrupting Anthropocentrism in Language Arts Education (1999). Narrative texts, as understood through Eco's Theory of Semiotics discussed in detail in Volume 1 of this PhD, opened a possible methodology to imagine beyond my own human construction and socialisation.*

³⁵ *'Ultimate Concerns' are a critical realist concept, which, according to Margaret Archer “...are concerns which are not a means to anything beyond them, but are commitments which are constitutive of who we are, and an expression of our identities. Who we are is a matter of what we care about most...” (Archer, 2004, p. 18).*

³⁶ *See Murphy, 2001.*

what I consider a fundamental duality in the management and resolution of terrorism in deeply divided societies.³⁷

[SS] Oh no, please tell me she is not going into those gruesome memories and past political activist speak?

[OS] I don't think we need to delve too deeply into her political and academic past but it's important to get a sense of why she writes the way she writes, how she writes, and why the way she writes has changed.

Precisely. My experience as a reader of texts in the research phase of this PhD was influenced by:

(a) My previous interactions with academic texts.

(b) My 'habitus'³⁸, which developed growing up in Ireland, studying and living in Northern Ireland during The Troubles³⁹, emigrating to the USA as a teenager, researching and

³⁷ *Eco referred to as textual strategy in his examination of the role of the reader; Fairclough described texts as "...both socially-structuring and socially-structured. We must examine not only how texts generate meaning and thereby help to generate social structure but also how the production of meaning is itself constrained by emergent, non-semiotic features of social structure" (Fairclough et al., 2001, p. 4). This thought seems to echo in Bourdieu's language of "structured structures" and "structuring structures" to describe his two central features of habitus (Swartz, 1998, p. 103).*

³⁸ *For a grounding discussion of the evolution and definition of 'habitus' I referred to David Swartz's book Culture & Power, The Sociology of Pierre Bourdieu, in which he states "Habitus results from early socialization experiences in which external structures are internalised". 'Habitus' became one of Bourdieu's "conceptual trademarks" (Swartz, 1998, p. 9). It was a valuable theory in my understanding of how socialisation occurs but it did not fulfil my search for how international experiences impacted my agency.*

³⁹ *"The Troubles" is a term often used to describe the violent conflict in Northern Ireland from the onset of the civil rights movement in 1966 to 1995 when the Downing Street Declaration signalled a genuine hope for lasting peace.*

living in South Africa during 1991, and moving permanently to SA just before the first democratic elections in 1994. I was particularly interested in how I internalised my political and academic experiences and how I could bridge the gaps between my own structure and agency.⁴⁰

(c) The subject matter which had shifted because of my move towards environmental activism.⁴¹

[SS] Labels. Labels. Labels. You just can't seem to escape them. She's called an environmental activist even though we all know she doesn't really do much!

[OS] That's not really fair. She did explain, quite neatly, I thought, on radio and during public talks at the Mount Nelson Hotel in 2006, that in some sense we are all environmentalists because nobody can deny that they need fresh air to breathe, clean water to drink, healthy food to eat and the beauty and bounty of plants and animals!

⁴⁰ *Giddens identified as one of the central problems in contemporary social theory, the relation of agency and structure (2003). According to Swartz, "Bourdieu's theory of practice may be seen as a probing reflection on one of the oldest problems in the Western intellectual tradition, namely, the relationship between the individual and society" (Swartz, 1998, p. 94). Margaret Archer declares in her biography that her "theoretical work over the last twenty-five years has been devoted to the problem of structure and agency" (op cit). The complexity of structure and agency still endures.*

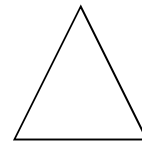
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[SS] If it is as simple as that, why do we need all these environmental organisations, programmes, committees, protocols, assessments, reports, announcements, agreements, targets ... etc.

[OS] Although this might sound like something you would say, SS, most people seem not to carry an awareness of their/our/human impact on the environment.

[SS] What's the point then of developing our agency for social change while others are contributing, through unawareness, to an increasingly destructive and degraded structure?

It is a much messier question than asking where's the point in this triangle?



[OS] That sounds like a strain of postmodernist defeatism⁴² – just because you feel periodically, or momentarily, defeated, it does not mean that the reasons for environmental education do not exist, nor does it mean that other agents don't exist whether you do or not. Our naive, innocent friend writing this has a gnawing suspicion that if we could raise awareness about the relationship between ourselves and the environment, then we would all want to act in ways that ensure its health and our survival.

I own up to the notion that with knowledge comes awareness⁴³ and if the first leads to the latter then it may encourage action.

⁴² For discussions on postmodern defeatism, see (Sayer, 2007, pp. 3, 6, 30, 31, 62, 67-80).

⁴³ Although I am aware now that I used to think that there was almost a linear logic to the relationship between knowledge and awareness: the first leading to the second and repeated ad infinitum [OS: or at least to the limits of our awareness!.] I now acknowledge the philosophical leap that knowledge definitively leads to awareness, which ultimately leads to change. I propose a sticky circularity between knowledge and awareness: knowledge triggers and stimulates awareness, which in turn pulls/has pulled/will pull me back into seeking more knowledge, which continues the circle back to awareness. It also led to a type of paralysis and circularity because neither knowledge nor awareness is fixed and complete. Thoughts I find echoed in Lotz and

[SS] Poor thing. Where does she get that idea from? Maybe she has gotten stuck in her own 'habitus'?⁴⁴

[OS] Tricky territory we are hiking through. Psst, I think she thinks her awareness was stimulated by a lot by reading!

[SS] Are you saying that the act of reading was/is a mediating tool between structure and agency? Is writing also an act?

[OS] I will give neither a definite yes, nor a definite no, which does not imply a maybe. If there is nothing to read then are we forced to conclude there can be no reader? I think it's reasonable to assert that there is a causal relationship between reading and writing.

[SS] So the reader doesn't exist outside of the text? Was the first reader then also the first writer? How does this fit into our Critical Realist view of the world, whose 'defining feature' rests on "the belief that there is a world existing independently of our knowledge of it..." (Sayer, 2007, p. 2)

[OS] By adopting a critical realist approach to this PhD we are accepting "a both/and rather than an either/or position" (Sayer, 2007, p. 3)

Anthropologists consider five basic behaviours that evolved in humans to ensure their survival. Collectively they were known as the Five F's: freeze, fight, flight, fornicate, and

Janse van Rensburg's transformational discussions where Janse van Rensburg talks about the "...debilitating effects of mass production of research...or...the globalization of knowledge production?" (Lotz-Sistika in Jickling, 2002, p. 103). Thinking about the circularity as concentric rather than closed loops assisted me to resolve the stickiness. Similar questions and concerns led me to Margaret Archer's theory of the morphogenetic cycle (1982).

⁴⁴ *Swartz claimed that because of Bourdieu's emphasis on the "leftist politics on the 'society' side of the dichotomy" between structure and agency, he became "embedded in the very antinomy he hopes to transcend" (Swartz, 1998, pp. 97-98).*

feed.⁴⁵ But they do not explain why it is that that humans were motivated to read and write? What is the motivation for these behaviours? I wonder if they are new forms of behaviours that we need in order to survive in an ever more complex and risky world.⁴⁶

[SS] Relevance? Does it matter why we read and write? Isn't it enough that we do?

[OS] Of course it matters! I am on her side on this one. It matters because reading and writing are indispensable tools for the development and sharing of knowledge, which we all seem to agree are maybe the primary, and perhaps only, way we have to reduce the growing disconnection we have with the environment.⁴⁷

[SS] You just sneaked in a footnote about something Weston said. He says its lack of 'experiential contact' that causes this disconnection with our environment. He doesn't mention reading or writing. And another thing: you are supposed to be objective here and not take sides! Also, like seriously also, what about oral traditions used to disseminate knowledge? Not all knowledge is embedded in texts, it's not all written down and it's not all accessible through reading.

⁴⁵ *Personal conversations with Professor Emeritus David Warwick Brokensha. University of California, Santa Barbara. Anthropology Department Chair 1969-1970. Retired 1989. Died 15 June 2017.*

⁴⁶ *For theories on Risk I referred to: John Adam's book Risk 1(995), Ulrich Beck's World Risk Society (2005), Anthony Giddens Runaway World (2003), Gabe Mythen's book: Ulrich Beck, A Critical Introduction to the Risk Society (2004) and Mythen and Walklate's (2006) edited book Beyond the Risk Society, Critical Reflections on Risk and Human Security.*

⁴⁷ *Weston (cited in Jickling, 2014, p. 10) argued that "the environmental crisis is a disconnection from the earth that many people experience. " Through this disconnection, he argued, "schools and other public institutions often cut people off from knowledge and inspiration that arise through an experiential contact with the world".*

[OS] I am aware of the recursiveness⁴⁸ of this text and I hope at some point it will end. Your last point is valid and I am not sure how to answer it, because it raises many other issues about linguistics, semiotics and the making and representing of meaning. I do think though that a lot of knowledge about the oral dissemination of knowledge has been written down. So those who do read generally become aware of the distinction between oral and written records precisely because ethnographers⁴⁹ recorded, in writing, their stories.⁵⁰ With regard to Weston, he is stating that we are cut off from 'experiential contact'. That disconnection seeps right through our social structures, which then institutionalises the disconnection. But, it is our author's working contention that a text can inspire action and can increase the connection we feel with ourselves, with each other and with the environment that sustains us. Bob Jickling agrees by the way!⁵¹ I have a nagging, persistent thought that the evolution of semiotics in some respects mirrors the disconnection.

⁴⁸ *Recursion as a linguistic term is described by Arika Okrent as “a core essential feature” of Noam Chomsky's theory of a Universal Grammar. It is “the capacity to embed phrases within phrases ad infinitum, and so express complex relations between ideas (such as ‘Tom says that Dan claims that Noam believes that...’)” (Okrent, 2017, p. 1). It was refuted by Daniel Everett through the discovery of an Amazonian language, Pirahã, which does not have recursion (Everett, 1988). Chomsky, with colleagues Fitch and Hauser, maintained in their joint paper (2005) that just because recursion is not used by one group does not prove its non-existence. Recursion “offer[s.]... a plausible, falsifiable hypothesis worthy of empirical exploration” (Fitch et al., 2005, p. 7).*

⁴⁹ *Although there is growing awareness in this author of social devices and mechanisms that sustain colonising attitudes and behaviours towards minorities, it is felt that the bounded limits of this thesis does not provide a full reading and discussion of these concerns. However, they are noted.*

⁵⁰ *This deserves a much broader discussion than this introduction can permit. But the example of Antjie Krog's selection of /Xam poetry of Dia!kwain, Kweiten-ta-//ken, /A!kunta, /Han~kass'o and //Kabbo would certainly never have come into my awareness if I hadn't read her book. In addition, without books like Krog's there would be no record of their language as “sadly, there are no longer any speakers of the /Xam tongue left today...” (Krog, 2004, p. 7).*

⁵¹ *Jickling's view is that “good stories can do work, enable relationships, and connect people to real-world every day issues” (Jickling, 2005, p. 12).*

[SS] You mean the focus on the 'object' in semiotic theory in the 1960s that coincided with our first trips to the moon that produced images of planet earth, which in turn brought its singularity into focus and precipitated the birth of the environmental movement... [OS] In your opinion? It's so poorly formulated but there's something there.

According to Eco there were three stages of evolution in semiotics between 1960 and 1980. During the 1960s, semiotics predominantly focused on the object: "its central problematic consisted in the recognition and definition of the sign" (Eco, 1981, p. 35). The second stage Eco described as a "violent shift" from signs to texts. The third stage, which continues, is a move out of the text to the reading of the text. It's not so much the interpretation of the text, Eco cautioned, as it is "a more formidable question of the reader's response as a possibility built into the textual strategy" (Eco, 1981, p. 35).

[SS] Golly. Layers, strategies, possibilities... where will this all end? What is our textual strategy and is our poor reader still with us do you think?

[OS] Well in a very real sense, I surmise, one of Eco's points is that these written words are only truly meaningful because of how the reader responds to them. At some point soon we will have to explain ourselves in more depth and with a bit more gravitas. But for now dear reader, as T.S Eliot opened in The Love Song of J. Alfred Prufrock: "Let us go then you and I..."⁵²

As I was thinking about who I was writing this thesis for⁵³ and how that would affect how and what I was going to write in this PhD, I had an interesting response to the reading of

⁵² *Finuala Dowling argued that the phrase 'you and I' sums up "all the shades and nuances of the relationship between writer and reader". Presented by John Maytham at the McGregor Poetry Festival, McGregor, Western Cape, Wahnfreid Theatre, 26 August 2017. Dr Finuala Dowling is a Senior Lecturer at the Centre for Extra-Mural Studies at the University of Cape Town where she is co-convenor of the annual Summer School.*

⁵³ *In the third interview of a series on Standpoint Epistemology with Daniel Kodzi of the Oxford Review of Books, Kwame Anthony Appiah stated that it is a reasonable question to ask "What are the political effects of representing things in a certain way?" (Appiah, 2017). A persistent question in this thesis is what are the academic effects of representing a thesis in a certain way?*

Umberto Eco's writing(s). The three main texts that pillared my writing strategy, and how I wrote, were ([SS] Excuse me? Still are!): *The Theory of Semiotics* (1979), *The Role of the Reader* (1984), and *How to Write a Thesis* (1977).⁵⁴ Why for example, did it take me over seven months of fine-tooth combed-reading to grasp an understanding of Eco's *A Theory of Semiotics*, whereas it only took me a few hours to understand his *How to Write a Thesis*?⁵⁵ There were a few possibilities:

- My experience as a reader had evolved and grown through the reading and writing PhD process.
- The language of the second text was familiar due to previous experience in writing a thesis. It is a much older (1977) text within a more established academic culture of reference and representation, which this thesis aims to disrupt.
- The subject matter itself was more methodological/technical and didactic rather than the theoretical script in semiotic theory.
- Eco's brilliance as a writer is such that he chose specific texts for a potential array of readers. So, his textual strategy already took into account a wide readership.
-

His understanding of the breadth and depth of his readers is borne out in his own introduction to his book, in which he states: "Today the Italian university is a university for the masses. Students of all social classes arrive from a variety of high schools."⁵⁶ According to Francesco Espamer, Eco "understood that the writing of a thesis forced

For how I write will be guided by the reader(s) I am writing it for.

⁵⁴ *The three texts are referenced in the bibliography.*

⁵⁵ *A copy of 'How to Write a Thesis' was loaned to me by my PhD supervisor Heila SisitkaLotz towards the end of the writing phase of this thesis.*

⁵⁶ *Eco, 1977, reprint 2015, p. xix of book, or first page of his introduction.*

many students outside of their cultural comfort zone, and that if the shock was too sudden or strong, they would give up.” (Eco, 1977, Foreword, p. xii)⁵⁷

[SS] Shock? I am still reeling from the shock of writing this one!

So he wrote *How to Write a Thesis* knowing that many students from different cultural, social and linguistic backgrounds would read it. Or, more to the point, he wrote it with many readers in mind so he could maximise the accessibility of the text.⁵⁸

I wonder, by comparison, how many people have read Eco's *A Theory of Semiotics*?

[OS] This is not really a comparison. It's more like a note to self. Is it worth trying to find out how many read the two?⁵⁹

[SS] Well it's hard to compare exactly, but Eco himself declared that there is a universality to his text on how to write a thesis because it focuses not on theory but on his 'personal university teaching experience' (Eco, 2015, Foreword) through which he discovered that

⁵⁷ *'How to Write a Thesis' was first published in 1977 in Italy where it remains in print. It has been translated into seventeen languages. "Its durable rules and sound advice have remained constant" (Foreword to Eco, 1977, p.ix).*

⁵⁸ *When he originally wrote the first edition of How to Write a Thesis in 1977, semiotics was still primarily focused on the 'object'. It is noted that at the time Eco wrote his first edition, he stated that "writing a thesis...requires a student... to build an 'object' that in principle will serve others." (p xii) Yet his own awareness of his readers in that text seems to be the antecedent of his later writings on readers and writers, which signified a shift away from 'object' to textual strategies and readers' responses.*

⁵⁹ *Eco's A Theory of Semiotics has been described as "... the greatest contribution to [semiotics] since the pioneering work of C. S. Peirce and Charles Morris." -- Journal of Aesthetics and Art Criticism. "[It is.]the most significant text on the subject published in the English language that I know of." -- Arthur Asa Berger, Journal of Communication. Retrieved from Google Books, https://books.google.co.za/books/about/A_Theory_of_Semiotics.html?id=5ns5PwAACAAJ&redir_esc=y&hl*

“the methods necessary to conduct high-quality research, at any level of complexity, are the same all over the world.” (ibid.).

[OS] So you seem to be concluding, or confirming, that you think that you find it easier to read his book on how to write a thesis because of the writer's intentions behind the text, namely that it is more technical and universal than his more conceptually driven book on his theory of semiotics?

[SS] Yes. I guess.

[OS] As we started this discussion on the evolution of semiotics and its present focus on the reader, it is perhaps a good way to introduce this writer, who was (and still is) a reader who became the writer of this text.

[SS] Why don't you just ask her why she chose to write this thesis in the way she has? It's a much simpler way to ask the question. Alora...

In his first major essay collection, *The Open Work* (1962), Eco argued for the reader's freedom to interpret a book as they choose, regardless of authorial "intentions" - a view that is now a literary commonplace.⁶⁰

Although I had not discovered this comment from Eco when I started out with this PhD, I was already grappling with how to structure my thesis as I was reading in preparation for it. At first I wasn't sure I was capable of it.

Although it is considered a primary text in semiotics, I could not establish the number of copies sold.

[SS] Should she really be declaring that?

[OS] Yes. I think she should. Because in many ways it was the fear of doing it that forced her to conquer it.

⁶⁰ Cited in an article in *The Guardian Online* written by Maya Jaggi, Saturday, October 12, 2002 <https://www.theguardian.com/books/2002/oct/12/fiction.academicexperts>

[SS] A little ahead of yourself don't you think? Considering that we haven't quite finished and we have yet to receive feedback from our readers and as Eco reminds us s/he/they are free to interpret this PhD as they choose!

[OS] That's true. So let's go back to the "I" of this thesis and discover why it has/is been/being written.

It all began when I was working on the ground/in the field trying to 'teach'⁶¹ kids about the environment, while also grappling with my own learning and understanding of environmental issues.⁶² My first real encounter with theories about education happened when I read Paulo Freire's *Pedagogy of the Oppressed* (1972).⁶³

⁶¹ *The word teach is used here in a general sense to impart/share knowledge and used loosely to describe my informal engagements with children in formal schoolroom settings about environmental issues during the piloting of the Eco-Schools Programme into South Africa, as coordinator of EE Friends (Environmental Education Friends), during the Plastic Bag Campaign and while working during, at and after the World Summit on Sustainable Development in Johannesburg, 2002.*

⁶² *I produced and presented a radio programme on SAfm called Environmental Matters over a two-year period. The aim of the programme was to highlight environmental issues and present organisations, programmes and projects that were addressing those issues.*

⁶³ *When I read Paulo Freire's book Pedagogy of the Oppressed (Penguin, 1985) in which he stated his belief in the liberating power of education, it inspired me to think about mine. I had moved to New York when I was seventeen after finishing my Leaving Certificate when I was sixteen. I emigrated because I had felt overwhelmed by Irish structure and powerless as an agent. Although I did not define the distance and oppression I was experiencing as an individual in Irish society in those words (Structure and Agency), the awareness of separation and distinction was there. [OS: We all remember how the feelings of the awareness of separation and distinction led to feelings of difference.] When I read Freire's book it gave me confidence to return to Ireland and apply for an Honours degree in Peace Studies in Northern Ireland five years later as a 'mature' student at twenty-two years of age.*

[SS] She's chuffed with herself because after spending a few minutes rooting around her bookshelf, she found that old friend again – the 1985 edition of Freire's book. The same year she read it!⁶⁴

[OS] Yes, but she's just realised she needs to re-read it because she can't remember its details.

[SS] But isn't it the feeling that she had when she read Freire's book that counts? Do we really have to read the whole thing again?

[OS] Probably not. Just enough to get the conversation on education started, particularly what motivated her journey to learn and continue her education.

What Freire ignited in me was the notion that we could revolutionise the world through education (Freire, 19725)

[SS] A noble concept, but has education revolutionised the world?

[OS] The 'world' is a large and dynamic place and 'education' is a broad and far-reaching concept with numerous competing theories. I am not sure we can generate a definite answer to that question.

Almost twenty years after Freire wrote his book on education, Touraine argued that “the classical model is falling apart before our very eyes, and outlining a new conception of education is therefore a matter of urgency” (Touraine, 2000, p. 274). Sterling seemed to agree with the basic logic of Touraine's argument by stating that “education itself needs to change” (Sterling, 2005, p. 246). But if we take Bourdieu's notion that education itself is complicit in the reproduction of the “social division of the labour of domination”(Bourdieu, 1977), then what kind of education do we need?

⁶⁴ Freire's concluding words: “...just as the oppressor, in order to oppress, needs a theory of oppressive actions, the oppressed, in order to become free, also need a theory of action.” (1985, p. 150), inspired me to act.

When this PhD started, it was being formulated during the United Nations Decade for Education for Sustainable Development (2005-2014). UNESCO declared that “there is growing international recognition of ESD [Education for Sustainable Development] as an integral element of quality education and a key enabler for sustainable development” (UNESCO, 2017).

[SS] But what is meant by “quality education” and how can that enable sustainable development?

UNESCO (2017) pointed out: “With a world population of 7 billion people and limited natural resources, we, as individuals and societies need to learn to live together sustainably. We need to take action responsibly based on the understanding that what we do today can have implications on the lives of people and the planet in future”. Twelve years earlier, Sterling argued that the purposes or objectives of education largely fail to take into account sustainability, many participants and actors in the system are disengaged, which produces widespread ecological illiteracy (Sterling, 2005, p. 240).

[OS] I too tend to agree that ‘we need to’ but I would like to know how we ‘learn to live together sustainably’?

UNESCO also declared that “Education for Sustainable Development (ESD) empowers people to change the way they think and work towards a sustainable future” (2017).

How do we educate when, as Lotz-Sisitka highlighted, we have a “limited capacity to accurately predict or determine exactly what our impact on the environment might be” (Lotz-Sisitka, 2004, p. 38)? How “do we as [educators] deal with our unawareness or (ability to know)?” (Beck, 2005, p. 132). In addition, Giddens added to this set of challenges by stating that “along with ecological risk, to which it is related, expanding inequality is the most serious problem facing world society” (Giddens, 2003, p. 16) These problems are compounded according to Sterling by “a prevailing modernist/mechanist view of education that is essentially instrumental, and that views the relationship between education and its social and political context as linear” (Sterling, 2005, p. 241).

[SS] I too agree with the 'why' we need ESD, and I also agree that we need to encourage independent thinkers, but I am flummoxed as to 'how' we do it?

“UNESCO aims to improve access to quality education on sustainable development at all levels and in all social contexts, to transform society by reorienting education and help people develop knowledge, skills, values and behaviours needed for sustainable development. It is about including sustainable development issues, such as climate change and biodiversity into teaching and learning. Individuals are encouraged to be responsible actors who resolve challenges, respect cultural diversity and contribute to creating a more sustainable world.” (World Heritage Report, 2017, opening statement).

But as Freire and Bourdieu argue discussions about education are tied to discussions and reflections on ideology, politics and power. Transforming society by reorienting education seems an obvious approach to adopt, but if education itself is complicit in the reproduction of these divisions (Bourdieu, op cit) then how and what can bridge the social divides that cut through education?

Recent studies have shown for example, that “in most advanced economies, educational preferences are an ideological issue. In much of Western Europe, North America and Australia, there are significant differences in how those on the political left and right believe children should be taught. Those on the left tend to prefer that schools focus on teaching creative and independent thinking while those on the right tend to value academic skills and discipline more. The gap is especially large in the United States, where liberals (67%)

In most advanced economies, individuals on the ideological left prefer creative education

It is more important that the schools in our country teach students to be creative and think independently



Note: In U.S., ideology is defined as conservative (right), moderate (center) and liberal (left). Only statistically significant differences shown.
Source: Spring 2016 Global Attitudes Survey, Q56.

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are twice as likely as conservatives (33%) to favour education that emphasizes independent thinking” (Silver, 2017).⁶⁵

Although Bourdieu is presenting an ideological critique on divisions of society based on class, and Silver is describing vertical lines among ideological thinking and educational choices, both historically distant positions highlight the difficulty of a unified approach to education, generally, and education for sustainability, specifically. “Schools consecrate social distinctions by constituting them as academic distinctions” (Bourdieu & Passeron, 1977, cited in Swartz, 1998, p. 204). Bourdieu’s theory of social reproduction exposed

⁶⁵ This notion of independent thinking is also found in Eco’s theories on the role of the reader.

The “author’s role is only part of the more universal truth that readers make meaning” (Crosman in Suleiman & Crosman, 1980, p. 151), or as Harry Levin concluded: “the great responsibility for discrimination rests with the reader” (Suleiman & Crossman, 1980, p. 348).

educational institutions' ability to enhance social injustices not attenuate them (Swartz, 1998, p. 191).

[SS] Does that imply that the 'quality education' that UNESCO stipulates is necessary for education for sustainable development cannot be met because education is differentiated based on class and it hasn't really reoriented towards 'a learning to think' approach that the UNDESD espoused and UNESCO repeats?

Giddens asked in his book, *Runaway World*, "Is the world in which we live...really any different from that of earlier times?" (Giddens, 2003, p. 1).

Is this PhD, which aims to address part of the 'how to' educate for sustainability, really any different, less or more valuable, than any other environmental education text? Does the way we represent environmental learning through alternative textual⁶⁶ forms assist in our educational programmes for sustainable education? Do they produce morphogenesis or reinforce morphostasis?

[SS] I also want to know: are we just repeating the same calls for a different approach and when the difference is analysed, will we realise it is just the same as what went before? Are we set to repeat the same mistakes and patterns?

According to Fairclough et al. (2001, p. 4), "texts are both socially-structuring and socially structured, we must examine not only how texts generate meaning and thereby help to generate social structure but also how the production of meaning is itself constrained by emergent, non-semiotic features of social structure."

[SS] Is this similar to Bourdieu's theories on socialisation that captures the two central features of habitus, namely "The language of 'structured structures' and 'structuring structures'" (Swartz, 1998: 95)?

⁶⁶ *It's not just a case of 'Telling Our Stories' as discussed in the Canadian Journal of Environmental Education (Volume 7(2), Spring 2002). In Volume 3 of this PhD, an environmental risk story is represented specifically in a narrative text.*

[OS] I am not entirely sure because we didn't spend a lot of time comparing both but I think Fairclough is saying that texts can both structure the world we live in a way that affects our agency, which in turn can shape structures. In the same way that "habitus tends to shape individual action so that existing opportunity structures are perpetuated" (Swartz, 1998, p. 103). The process of the internalisation of individual aspirations or expectations that is externalised into action, Bourdieu considers "a system of circular relations that unite structures and practices..." (ibid.).

[SS] Eco also spoke about the circularity of semiotic theory. This writer also uses the semiotic image of concentric circles to describe her knowledge and awareness, whereas Eco's circles are more closed circles within closed circles. Back to Fairclough's reference to non-semiotic features of social structure quoted above, that seems to directly contradict Eco's view that "death is the only non-semiotic event" (Eco, 1979).

[OS] True, but Fairclough is discussing features not events. It may seem antithetical but I don't think it is. In essence, there seems to be consensus that there is a relationship between individuals and society, but the debates, discussions and analysis centre on how those relationships influence and impact on one another. But it's a good start: to be able to agree on what 'is'. That's what attracted me to Critical Realism.⁶⁷ The philosophical debates are not so much about what is, but how we can change what is.⁶⁸

[SS] I still don't understand? If there is no semiotic event, how can there be a semiotic feature? It's like saying there can be a reader without a writer even if the inverse is not true. I also don't understand why you turned one writing event: the writing of this thesis into three texts with different features?

⁶⁷ As Bhaskar reminded us at the IACR presentation at Rhodes University in 2012: "There are issues of inclusion in Critical Realism. The test of Critical Realism is if you can go out and make it your own. Critical Realism is a revolutionary doctrine, practical, wise and long term."

⁶⁸ I relied on Andrew Sayer, Margaret Archer and Roy Bhaskar's work on critical realism referenced in the reference list. Bhaskar is considered the founder of the critical realist movement in the social sciences.

My choices were determined by the rationale for writing this thesis. As Eco advised in his summary of four rules for choosing a thesis topic: "Write the thesis that you are able to write" (Eco, 1977, p. 8).

[SS] Seems like a simple rule but that's loaded with all sorts of cultural and access issues. Isn't it?

[OS] What do you mean?

[SS] Well how do you know prior to writing a thesis what you are capable of writing? And how do you know if anyone will read it?

[OS] Well, at least we know that we have at least one reader: our supervisor.

[SS] Hurrah, we hope. But are we only writing it for her?

[OS] No. We are not. Why she is not the only reader we have in mind needs to be explored further.

When I thought about 'my' reader(s) they seemed to be a jumbled lot. I thought about the kids I had met and engaged with. I thought about the adults they, and I, would/had become. I thought about those I might impress. I thought that completing a PhD would prove my capability. At times I thought about finding a reader to write for just so I could pass the PhD. At times I just wanted to be finished with it. The latter was not my biggest concern, but there were times when the cultural impact felt too great for me.

[SS] Is she whining about the distance she started to feel with her family? For example, with her Mum, the eldest of fifteen children who had left school unfinished at fourteen to support her 'working class' family?

[OS] Cut her some slack. She's not whining; she is explaining, which is sometimes all one can do!

I also wanted to read this text and see if I, myself [OS: she means all of us], had learnt anything. If I had been motivated to act? If I could find my Ultimate Concern by going through this PhD process.

[SS] So in essence, you wanted to be the first reader to learn through the process: the writer as reader, and the reader as writer? By the way, have you found your Ultimate Concern? If it was simply a matter of finding it, does that suggest it was always 'there'?

[OS] In part, yes, but I think our ultimate concerns are fluid and dynamic. My Ultimate Concern when I started out with this thesis was to first prove that I could complete one in a way that I felt increased, even incrementally, access to the knowledge about the environment that I had developed through learned experience. I wanted it to be a form of action, a tool that could be used productively and creatively to inspire others. I have no idea if this will be achieved, simply because it has not yet been read, but I do know that the main character in Volume 3 of this PhD has inspired others.⁶⁹

⁶⁹ *Xoliswa Fuyani, for example, regarded workshops we created together over fifteen years ago around the character of Polo (the central character in the narrative text in Vol 3) as instrumental in inspiring her to become an environmental educator. She continues to work full-time in schools in Kahyelitsha and Gugulethu 'teaching' kids about the environment. We estimated that when she was part of the Barloworld Outriders Team we imparted Polo's message about saving the Antarctica through local action to over eleven thousand children and youth in nine provinces in South Africa (Murphy, 2002). I have also created and used other fictional animal characters to share environmental messages. One story has been published as a children's story titled 'Alfie the Earthworm and his Best Friend Nellie' (an image of the book's cover is included as Annexure 3). 5 000 copies were sold in South Africa, Ireland, Canada, USA, and Switzerland. This character also became the main focal point of a four-hour curriculum-based schools programme, which we conducted from 2008 to 2013 with approximately 8 000 schoolchildren in the Western Cape, who were between six and twelve years of age.*

[OS] Well Eco did remind us that “the rigour of a thesis is more important than its scope.” (Eco, 1977, p. 5) But you seem to be interested in the scope of this thesis and how far it can reach?

[SS] “Ah, a man's [sic] reach should be farther than his [sic] grasp”⁷⁰ Is the process through which we aim to reach our readers more important than the outcome to you? Are we allowed to have fun along the way?

[OS] Well, Eco definitely had a good sense of humour, or at least understood the importance of it. As he said: "Man [sic] is the only laughing animal because, unlike other animals, we know we have to die. Laughter is a way to tame death, a way not to take our death too seriously, by not taking too seriously our life." (Jaggi, 2002, unpagged) [SS] But you do have to take a PhD seriously? Just not death!

[OS] Well there are serious things to consider. Starting with the opening sentence, which can be a harrowing place to begin.

[SS] Isn't the opening sentence the only place to begin?

[OS] Clearly! But it's deciding who that opening sentence is for that creates the challenge and requires serious consideration.

[OS] As the American poet Daisy Collins said, “stepping from the title to the first lines is like stepping into a canoe. A lot of things can go wrong.”⁷¹ [SS] Because you can't control the outcome?

[OS] Yes and to continue his metaphor, you can fall into deep and muddy waters and never get to the boat that will carry you safely and clearly through the rapids. Not everything we write is profound and meaningful, even if we feel it is for us.

⁷⁰ Line 97 of Robert Browning's poem 'Andrea del Sarto'.

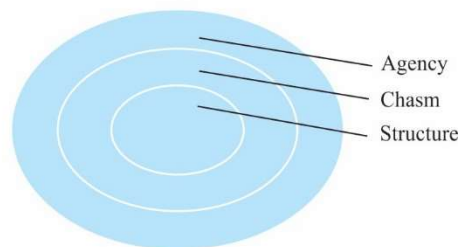
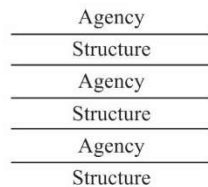
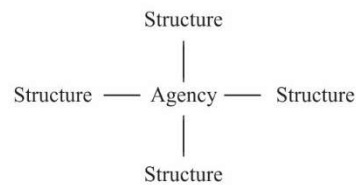
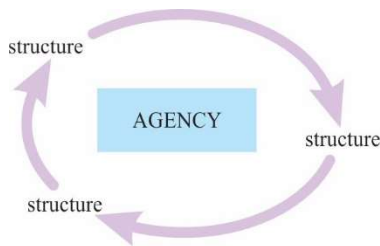
⁷¹ Finaula Dowling cited Daisy Collins and referenced this quote but did not provide full reference details at the McGregor Poetry Festival, 26 August 2017, McGregor, Western Cape.

[SS] But like the boat, the meaning can get lost in the long tedious thinking doldrums.

Similarly, starting the reading process can be a 'bit wobbly'. When I think of some of the readings I have read in the past about the environment I wasn't encouraged to read on, I just felt I had to because I was researching for one of the Radio Slots for Environmental Matters, or was doing background work for an educational programme. It was hard labour. My motivation was to extract data and move on. Some of the texts I read largely instilled fear in me. Many I didn't really understand.⁷²

Visual representations of environmental risk seemed to be representations of a/the structure that surrounded me. These visual texts mainly inhibited and constrained me as I felt they belied a deeper structural problem as touched on in Vol. 1.

[OS] I wonder has anyone tried to theorise about the shape of the structure in structure and agency? Maybe the way we think of it affects our agency? I, for example, see structure as something that 'surrounds' me. I am sure there are other ways to represent⁷³ the relationship:



⁷² For example, the UNESCO World Heritage Reports, partially cited on the next page, although appreciated technically and structurally, depressed me as I could not see progress or resolution.

⁷³ Andrew Sayer described 'the social world' as having "many-sided, forms" (Sayer, 2007, p. 5).

Possible ways of representing the relationship between structure and agency

Several readings contributed to the development of meaning and understanding of the structure that surrounded me.

“Despite many successes, the poorest and most vulnerable people are being left behind. Although significant achievements have been made on many of the MDG targets worldwide, progress has been uneven across regions and countries, leaving significant gaps. Millions of people are being left behind, especially the poorest and those disadvantaged because of their sex, age, disability, ethnicity or geographic location. Targeted efforts will be needed to reach the most vulnerable people” (UN Millennium Development Goals, 2015, p. 8)

[SS] It is worth reiterating: they are not talking about thousands but millions of people in danger. How do we cope with that?

“Under the current trajectory, the future of many living organisms in the Anthropocene is uncertain; in fact several indicators give cause for alarm. The Living Planet Index, which measures biodiversity abundance levels based on 14 152 monitored populations of 3 706 vertebrate species, shows a persistent downward trend. On average, monitored species population abundance declined by 58 per cent between 1970 and 2012.” (WWF, Living Planet Report 2016, p. 8)

[SS] Motherf@%\$k!

[OS] That it is so unacademic.

[OS] Well here's another taste of that ...which you and I fear – rigid, fixed texts like the following:

“Decision: 41 COM 2

The World Heritage Committee,

1. Having examined Document WHC/17/41.COM/2,

2. Taking into consideration Rule 8 (Observers) of the Rules of Procedure of the Committee,
3. Authorizes the participation in the 41st session, as observers, of the representatives of the international governmental organizations (IGOs), international non-governmental organizations (INGOs), non-governmental organizations (NGOs), permanent observer missions to UNESCO and non-profit-making institutions in the fields covered by the Convention, listed in Part I of the above-mentioned document.”
(UNESCO, World Heritage 41 COM, WHC/17/41.COM/18, Krakow, 2-12 July 2017)

[SS] That is as inspiring as a long chain of radioactive isotopes.

“The energy footprint of the IT sector is already estimated to consume approximately 7% of global electricity. With an anticipated threefold increase in global internet traffic by 2020, the internet's energy footprint is expected to rise further, fuelled both by our individual consumption of data and by the spread of the digital age to more of the world's population, from 3 billion to over 4 billion globally.” (Greenpeace International, *Clicking Clean, Who is winning the race to build a green internet?*, Online Publication - 10 January, 2017)

[SS] I can see what she means. The above is data rich but, as Eco explained earlier, it doesn't open the reader up to a world of possibilities.

[OS] On the nineteenth of September 2017 at 10:21 a.m. close to the writer's writing end, Katie Rife filed a report via Associated Press on Newswire about 'President' Donald Trump's visit to the United Nations the day before. During an address in the institution that was set up to prevent future wars, Trump made “statements that could very well start another war”. He said: “we will have no choice but to totally destroy North Korea should the US have to defend itself”. He said this to a country that has nuclear weapons and

seems quite openly willing to use them. 326,474,013⁷⁴ people live in the United States of America; a country considered by some to be the most developed state on our planet. They voted for Trump! They have voted into power an individual that threatens to annihilate us all. A group of supposed literate, educated people are responsible for deepening my sense of risk. I am angry, distraught and feel powerless. Margaret Archer thinks that “the global creation and geographical re-distribution of new *opportunities* [is] (almost occluded by the current unilateral preoccupation with risk)”.⁷⁵ I am certainly preoccupied.

[SS] Heh, I've never heard you so upset. I was almost going to say 'seen' you so upset. But that's impossible to comprehend because I can't see you. I only know you through our writing. Perhaps the occlusion can be opened with one tiny offer of hope. “One of the biggest cross-national tests is the Programme for International Student Assessment (PISA), which every three years measures reading ability, math and science literacy and other key skills among 15-year-olds in dozens of developed and developing countries. The most recent PISA results, from 2015, placed the US an unimpressive 38th out of 71 countries in math and 24th in science. Among the 35 members of the Organization for Economic Cooperation and Development, which sponsors the PISA initiative, the US ranked 30th in math and 19th in science”, reports Pew⁷⁶ researcher, Drew Desilver.

[SS] So are you saying that if Americans were better educated they wouldn't vote for a nihilistic, self-absorbed, lying, megalomaniac to represent them. So maybe education can revolutionise and transform? Maybe there's hope if we persist with our commitment to education and learning?

[OS] I am upset. I am freaked out and frightened. What kind of education? Who will educate? How will they learn? It's not just education per se, it's creative, independent

⁷⁴ *United States Population (1950-2018)*, <http://www.worldometers.info/world-population/uspopulation/>

⁷⁵ *Professor Margaret Archer, the College of Humanities (CDH) in l'Ecole Polytechnique Fédérale de Lausanne, Switzerland. Retrieved September 18, 2017 from <https://cdh.epfl.ch/page55774-en.html>*

⁷⁶ <http://www.pewresearch.org/fact-tank/2017/02/15/u-s-students-internationally-mathscience/>

thinkers we need to develop. How do we do that? How can this PhD help? And, while we ponder these considerations, I am painfully aware we are running out of time.

Karl Popper stated that “if you go out looking for confirmation of a theory or hypothesis you will find it. Good theories allow you to search for contrary evidence” (cited in Okrent, 2017, p. 2)

The theory that I was searching to confirm was Margaret Archer’s theory of the Internal Conversation.⁷⁷

[SS] Finally you are going to discuss us in more detail.

On many occasions throughout my life I have been aware of ‘talking to myself/inner dialogue’, of the presence of me, myself and I, particularly when presented with a challenge. Fairclough, Jessop and Sayer (1998, p.4) associated “the intersubjective production of meaning” with “inaccessible mental processes”. The Internal Conversation named the process I experienced within and noticed in others. Challenged by the question “how does structure influence agency?” (Archer, 2003, p.19), Archer put forward the reflexivity of what she calls the ‘Internal Conversation’ as a mediating tool between structure and agency. Archer (2003, p. 100) described the Internal Conversation as “the *alternation* between subject-self (SS) and the object-self (OS)”.

[OS] Just to point out our choice not to use (brackets) to signal conversation between ourselves, [OS] and [SS], was based on the need to differentiate ourselves from other uses of brackets in the text (for example, reference notes).

We are all reflexive beings, Archer claimed (2003, p. 167) and “were we humans not reflexive beings there could be no such thing as society”⁷⁸ (2003, p. 19). Archer’s book, *Structure, Agency and the Internal Conversation* (2003) was primarily based on interviews with 20 respondents. Her decision “to investigate a very small group in depth was jointly prompted by the topic itself and by feasibility” (Archer, 2003, p. 157). The subjects were

⁷⁷ For a full account of Archer’s theory see ‘*Structure, Agency and the Internal Conversation*’, 2003.

⁷⁸ I do not believe that only humans create societies, but for this particular discussion on Archer’s work, I contain the discussion to human society.

neither randomly selected nor representative (2003, p. 159) and interviews were tape recorded.

Her main conclusions, based on the specific research outlined above, was that there are four types of 'reflexives': Communicative reflexives, Autonomous reflexives, Meta reflexives and Fractured reflexives (who seem not to be reflexive beings at all). I was particularly interested in what I perceived as a hierarchy within the reflexive typology that Archer described. At the bottom of this hierarchy, Fractured reflexives, were cast aside because although they do employ 'self-talk', their "self-talk provides them with no instrumental guidance about what to do in practice" (Archer, 2003, p. 299). Their personal powers were rendered "inoperative" (2003, p. 298). I was particularly struck by Archer's conclusion about one 'examined' respondent in her study, described as a young man, "whose life of the mind is so bare that it only allows for rudimentary reflexivity".

[OS] It also smashed a theoretical worry in theories of structure and agency, for change to occur at a structural level we would all need to be involved. Although Archer did state that there "is no reason to assume that [fractured reflexivity] is a permanent condition" (2003, p. 298) she did not explain how it could be reactivated and indeed if it could at all. If it couldn't be, then by her logic, reflexivity=society, then society would also be fractured.

[OS] Maybe Archer was looking too hard for what she wanted to find?

I wanted to find out more about the Internal Conversation by my internal conversation, and reasoned the best approach was to record it in, and partly as, this PhD. I was concerned that Archer may have not had full access to the 'mind' of her respondents. I surmised that the Internal Conversation (IC) by its nature is personal and private and may not readily be displayed through her methodological use of interview and voice recordings.

Some questions I was 'searching' and aiming to explore:

How long is the IC?

What triggers it?

Is it consistent, active and always present in the mind of the reflexive?

How is it connected to thought and speech?

Can an IC be expressed in the alternating dialogue between [SS] and [OS] in different languages?

Is the IC in speech different from the IC in writing?

How would I protect against an instinctive tendency toward censoring my own IC?

How could evidence of the/an Internal Conversation be formulated?

Why did the experience of my IC seem heightened during the emergent understanding of Eco's semiotic theory (explored in detail in Vol. 2), while 'quieter' in the writing of the narrative story (presented in Vol. 3)?

Is IC universal, in the way Chomsky speaks of 'universal grammar'?

Or is IC a more generic and general label for our highly individualised and peculiar forms of communication?

I concluded that at the very least, I found the IC to be a valuable tool in helping me to structure my PhD thinking. For as Eco pointed out "a thesis teaches one to coordinate ideas" (Eco, 1977, p. 19). My IC certainly assisted in the coordinating of mine. Representing it as a blog strengthened the re-contextualising of my work. This ability to review content Oravec (2003) suggested, is because of the way blogs are structured in a way that posts can be isolated by category or date.

The story of this PhD started in the introduction as a conversation about why and how the story was structured in the way it is. Visual texts are represented in Vol. 1 because they triggered the thinking about the thinking about the story. Vol. 2 emerges as a story about the thinking about the structuring of the story. Vol. 3 is a narrative imagining of how we construct meaning through a world of voices and conversations in a fictitious space. The main character, Polo, although fictitious, is a representation of some features of the life of penguins. This fiction-realism combination applies to other characters. The plot is fictional but the characters embody meaning I have developed of environmental risk through my work as an environmental educator (and tentative activist). This work is briefly touched on

in Vol. 1 and through short references to my prior experience across the text. Polo and the other characters become my internal conversation. The internal conversation becomes the story. The story becomes a manageable way to explore and confront environmental risk.

[SS] So you want to categorically state that the Internal Conversation exists?

[OS] Yes I declare that my IC exists. From my critical realist perspective, I think the internal conversation exists independently from our awareness of it in the same way Chomsky argued, language exists beyond our experience of it.

[SS] So then that surely means that this attribute applies to the readers of this text as well? Their OS(s) and SS(s) in their own internal conversations will add new dimensions to the reading.

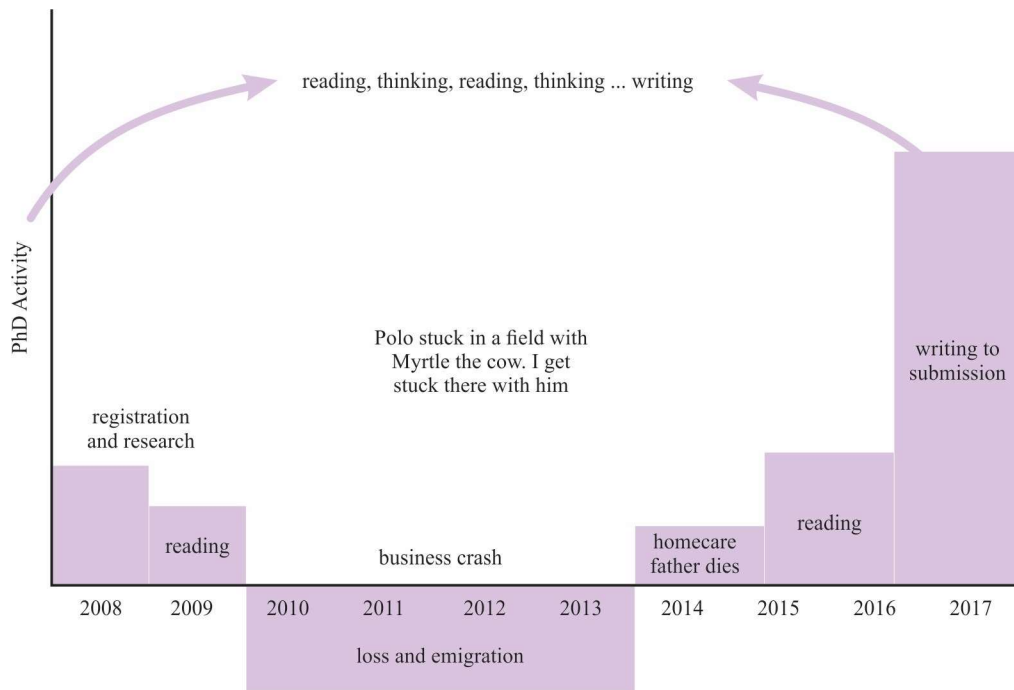
[OS] And it will ultimately be up to s/he/them, in all their stratifications to interpret and make meaning from the text s/he/they are reading, and about to read?

[OS] Well dear reader, let us go, you and I, through this text and hope when we come out the other side, we may discover some new possibilities for environmental education. Possibilities that promote arguments for social change, structural elaboration and contribute to the empowerment of agents of change.

[SS] Amandla!

[OS] Awethu!

Giving Voice to my Academic Journey



A graphic representation of the pattern of my PhD process

“Wolfs to Woofs” – What does it Mean to be Human?

(The ‘Start’/Finish time signals in these PhD posts refer only to time I sat to actually write the posts, not the reading/thinking/or other text writing time weaved in and out, and around them).

Posted on 15 October 2008 by Polo⁷⁹

Start 1.59 p.m.

I’m sitting with five texts: Russell (2005), Bell (2003), Bell and Russell (1999), a National Geographic article “Wolf to Woof”, (2002), and a Sunday Dispatches (Sunday

⁷⁹ I called the blog ‘Polo’ after the main character in the story. The author’s Internal Conversation is recorded, but eventually the character Polo becomes the internal voice of the author.

Independent, Oct 12 2008) article that begins with, “If we carry on consuming resources like there’s no tomorrow, there won’t be one”. The article, written by Tony Davenport, is pretty bleak. He follows up his opening statement with the hope that, ‘It’s not as bad as you [I] might imagine [and I do all the time imagine how bad it is] and then quickly dumps me [the reader] back into the vivid imaginings of gigantic holes in the ozone layer, arid landscapes, parching lips... with the words: “it’s worse”!

[SS] Not fair.

[OS] Not fair.

So here I am stuck in this strange triangle that I started to think about yesterday. Each of the triangle’s three points forces me to stop and look at what and why I am writing this PhD. The tip (because it’s an equilateral triangle) is Polo’s story. The second is angled by my sense of responsibility as an ‘activist’, ‘educator’, ‘citizen’. A responsibility that comes from desperation to do something about what Davenport (2008) described as the ‘tipping point’.

[SS] Does anyone really care? Do I really care?

Shouldn’t I just get a delicious dinner, bottle of wine, and drink with friends and forget it all?

What in heaven’s name can I do?

Why do I still use the word ‘heaven’ when I don’t believe there is one?!

Need to get out of my head and back onto the page.]

[OS] You use the word ‘heaven’ because it is an example of the cultural use of the language that shaped me.]

I do not need to take the ‘retreat response’ that Russell cited in her piece about McKenzie’s writing on the “post structural turn in social sciences and education research” (ibid., p. 433).

[SS] Why is it a turn?

The word suggests to me some kind of 'fit' or, 'blackout'⁸⁰.

Some level of unconsciousness.

A polite parlour way of saying someone has lost it in the head.

Back onto the page.

That is why I am stuck in the triangle because no matter which way I move I can't find a way to satisfy this need to 'make a difference' to 'do something'. The story will help, but only so far. I also need to be 'out there', being active, vocal and 'teaching' others

[SS] How smug.

I find academia, the third point of my triangle, comforting at the moment. It's soothing knowing that there are individuals grappling with "counter acting negative and repressive attitudes that fuel discrimination and injustice...[and] the systemic iniquities that threaten humans and other animals alike" (Bell & Russell, 1999, p. 69).

After reading that, I went to back to read the National Geographic "Wolfs to Woofs" (op cit) article and will come back to discuss:

- Human non-human – particularly the choice of words used to express the relationship.
- Feminist dominance of narrative inquiry and CR
- Language, voice and representation
- Critical realism as a centre point of my triangle.

Finish 4.56 p.m.

⁸⁰ *During a sixteen year period when I had epilepsy sustained from a head injury, I remember people around me, including family members, referring to my seizures as 'fits', 'blackouts', 'turns'. The language just added to the trauma. My use of those terms in this text are not an attempt to embed the language but rather point to language effects.*

Margaret Archer and the Internal Conversation

Posted on 23 October 2008 by Polo Start

1.41 p.m.

[OS] I read Conservation International's newsletter yesterday. More really bad news: 1000 species extinguished annually.

Back to Margaret Archer and *Structure, Agency and the Internal Conversation* (2003). I have been re-reading the structure of the Internal Conversation and how the 'object-self is presented as recording the gist of the subject-self's utterance' (ibid., p. 101); something seems very structured and rigid about it. The key to the confusion for me is the notion of the meta-reflexive being able to reflect on their reflexivity. My experience of trying to record my own internal conversation doesn't seem to work in such an orderly way. It's less a conversation and more a stream of consciousness sitting just underneath the surface of this page. I'll keep working with it and see how it progresses.

I ended the last session after reading from "Wolf to Woofs" in a January 2002 edition of National Geographic. They also refer to dogs, in relation to humans, as 'non-humans'. This term makes me uncomfortable. It reminds me of a lot of the language in many texts on apartheid that I read during my Masters research.

[SS] I am so hungry; don't know where I am going with this?

[OS] They are just thoughts.

[SS] I want to eat.

[OS] Shall I deduct time off my time log to account for my sandwich?

14:19 I'm back. Going to sit with Margaret for 20mins.

OK, it's clearer. The object-self [OS] and subject-self [SS] should not be reified, as they 'are terms of convenience' (ibid., p. 100). Archer simply used them to differentiate between the 'self as speaker and the self as listener, but both refer to the same being – a single person' (ibid., p. 100).

The internal conversation, according to Archer, is the “process through which structure is mediated by agency” (ibid., p. 93). Questioning and answering form ‘a central part of those internal deliberations that make up the internal conversation’ (ibid., p. 100). The idea of ‘alternation’ is still a bit confusing and I will no doubt return to it again, particularly because I want to record Polo’s Internal Conversation throughout the story.

It just struck me that the use of ‘sequels’ in novels is the tool that a writer uses to express the reflexivity of his/her characters.

[OS] I need to drop Margaret and get back to Bell and Russell

[SS] But there’s so much in Bell and Russell.

[OS] I know, but there’s also so much in Archer!

[SS] Are you running away from Archer?

[OS] No, just trying to pick up the Russell threads before they shred.

Bowers (cited in Bell & Russell, 1999) “stresses the importance of educating students about the ways that language shapes our taken-for-granted patterns of thought and behaviour, with potentially adverse consequences for the rest of nature” (ibid., p. 71). As I continue to read this page to try and find out more, I am struck again by the use of the term ‘non-human’. I am particularly aware of it because it is written in a text about ‘educating for life ties’, whose aim is to give consideration’...’create space’...’to voice and explore alternative understandings of [human] relationships with ‘non-human beings’ (ibid., p. 71). “Language is centrally implicated in notions of genocide and in tolerance with regard to non-human beings” (ibid., p. 71). Although the addition of the word ‘beings’ softens the term ‘non-human’, it is still creating tension in me.

I agree with Bowers about ‘language being centrally implicated’ but then, is it not important to choose the appropriate language to make sure that the exploration is well charted without perpetuating the myths behind the dualities? Social psychologists mention the importance of creating the notion of ‘other’ to justify violent conflict. Genocide could not have occurred in Germany if people did not believe that certain groups of people were inferior while others were superior. Apartheid survived on the dominant class’s ability to use language in such a way that anyone who was not ‘white’ was considered as

non/other/less than They were labelled 'non-white'. Just as animals are referred to as 'non-human'.

[SS] Getting irritated.

[OS] Why?

[SS] Feeling irritated with all the words, the thoughts and the labels.

[OS] Why?

[SS] Because they're all mixed up and unclear.

[OS] Why?

[SS] Oh, now you are irritating me!

[OS] That is stupid, childish and a bit of a cop out.

[SS] Explain why you make such a big deal over the use of the word non-human?

[OS] Because it seems central to the story and central to me!

[SS] Your fixation on words is disturbing me!

[OS] Get over it!

[SS] No! I will not.

I stop to re-read, "Life Ties: Disrupting Anthropocentrism in Language Arts", not seeing the disruption yet. The old argument that "the boundaries implied (in culturally produced dualisms) can best be investigated if they are acknowledged rather than ignored" (ibid., p. 72), is obvious, but it also seems to be a trap. The moment we start to use language that emphasises dualisms: human/nature, men/women, blacks/whites, old/young, we have already, in a sense, fixed the duality and can't escape just because we spend time analysing it. I've struggled for a long time with this issue as a student in Northern Ireland, a

resident in New York during the rising tide of AIDS activism, and as an environmental educator and activist. I can't seem to escape it. It is a key theme of the story.

For example, in Vol. 3 of this PhD, Wild Dog, as leader of the 'Endangered Species Society' (ESS), stresses the importance of maintaining the distinction between endangered species and domesticated animals. She thrives on the boundaries. But because of the anthropocentric trap and our 'mastery' of language as a communication tool, I can't find a way to switch the emphasis on the 'human' in the human/non-human relationship because there isn't a word that exerts as much power and influence. How does *Wild Dog/Lycaon Pictus* express this duality from her point of view? Should she refer to the relationship between humans and non-human as animals and non-animals, animals and lesser animals, creatures of nature and creatures of concrete? Obviously the word 'animal' won't work because it includes humans. In fact, every word I can think of choosing is inclusive of humans. I don't know how to overcome this, but will continue to look at this issue next sitting.

Finish 5.52 p.m.

It's all too 'Mutch'!

Posted on 15 November 2008 by Polo

Start 11.25 a.m.

I have been travelling in Zambia and took Alistair Mutch (2004) with me. I'd read his article "Constraints on the Internal Conversation: Margaret Archer and The Structural Shaping of Thought" when preparing my proposal but had written a note to myself to read it again. I read it another three times. There's a lot packed in there, from Bourdieu to Bernstein and, the huge space and debates in between Structure and Agency. It seems once there's a dichotomy of any kind, it's near impossible to re-integrate. Tension is inherent in the human experience! The philosophical pendulum swings through eliding (Giddens), dissolving (Bernstein), and upholding (Archer) the distinction between structure and agency.

Again, it seems the biggest critique of Margaret Archer is that she did not place enough emphasis on structure. Mutch also pointed out that Bourdieu gives "...no description of its [habitus] particular formation". It seems Mutch, similarly 'accuses' Archer of 'leaving things out'. So where does the conversation begin and how do the debates reconcile the tension between structure and agency?

The distinction between the two is 'central to critical realism' and, the tension between them is addressed through reflexivity. Reflexivity is a key concept in Archer's Internal Conversation but, Layder (cited in Mutch, p. 431) argued for a balanced "...appreciation of the sense in which the human being continuously operates at the edges of the requirements of the social world".

The more I remember what I read in the article, the more I realise how much Mutch managed to pack in there. I've written notes on the pages. For example, I was reading it during the 2008 US Presidential elections and almost as the election results were announced I read the following sentence in particular:

"The emphasis once again, is on the creative role of the person with their ability to pursue personal projects and to use emergent powers of reflexivity to pursue such projects in the context of the enduring and objective social properties" (ibid., p. 435). I thought of Barack Obama and how he epitomised the sentiments of the statement. When I continued my reading, Mutch followed by stating that "structural factors shape the conversations that we can have and so place limits on the projects that we can pursue at source" (ibid., p. 435).

Is that why Jesse Jackson did not succeed in his attempt to become the United States first black President, because the prevailing political and social climate impeded his ability to achieve his 'ultimate concern'? I think the notion that structure blocks us/impedes us must be dissolving. Barack Obama's victory is surely an example of how Agency and their creativity can indeed change structure? As for the story (see Vol. 3), Polo uses the "I can't do anything because of..." a lot to escape the reality, and responsibility, of his own power to achieve his goals. Banu, the Albatross (another character in the story), is a perfect metaphor for Archer's meta-reflexive and indeed the power and ability of Agency to impact Structure.

I'm going to read Mutch again!

Finish 12.40 p.m.

Barack Obama. A point in my triangle

Posted on 6 March 2009 by Polo

Start 11.19 a.m.

[OS] It has been a while since I wrote about/on my dissertation.

Life intervened.

[SS] In a big way

[OS] Not for recording here!

[SS] Censor!

[OS] We have to!

I have continued thinking about triangles and when I first became conscious of them. I went back to Jung's book *Man and his Symbols* (1965) to see if I could find any references to triangles. He hardly mentions them. I was a bit miffed that most of his geometric references were circles. This divergence into symbols was inspired by a search for semiotic references in social structures. Freud, Jung, Klien and Symington⁸¹ worked on the triangulation of the self in their psychoanalytic studies. Although the theory of the mind forms part of the theory of Agency, this is a sociological study and the symbols for discussion will be confined within a semiotic framework.

I remember been profoundly struck by Johan Galtung's (1969) representation of structural violence when I was studying Peace Studies in Northern Ireland. He used/uses a triangle to show what is needed, structurally, to build and maintain peace. Peace Building, Peace Keeping, and Peace Making formed the points of the triangle. All were needed to build a

⁸¹ For example, see Sigmund Freud's (1976) work, 'Volume 4: The Interpretation of Dreams'; Carl Jung's 'Man and His Symbols' (1964) and 'Modern Man in Search of Self' (1933) and Neville Symington (1986).

peaceful society. Peace was not just the 'absence of violence', but the absence of structural violence.

The missing piece for me, however, was how the coordinates of all three helped find 'lasting' peace?

[SS] And so? What relevance now?

[OS] I don't know, but can feel the connection.

[OS] ... lost a bit of the bond with my notes.

[SS] It'll come back.

[OS] Hope so. Often thoughts criss-cross, I notice, I think I'll remember the connection but they sometimes move across never to return.

"Hope is the thing with feathers that perches in the soul" (Emily Dickinson, in Franklin 1999).

[SS] How did Emily Dickinson get in here?

[OS] Stop. Stop. Return.

The reference to Johan Galtung's model of structural violence triggered thoughts about the enablements and constraints of structure and agency. Some of the psychoanalysts mentioned previously believed that due to the internal structure of the self, an absence of external structural violence was impossible. To some the establishment of the League of Nations, for example, which it was hoped would prevent other world wars, was bound to fail: violence had to be dealt with internally. To some the League of Nations – established to prevent world wars – was bound to fail because to them (Freud, Jung, Symington, *ibid*) because violence was in the mind.

[OS] Still feel those pulls to/toward psychoanalytic theory. Create a boundary and keep the reference focused on Agency and Structure.

Barack Obama is now President of the United States of America. What kind of triangle is he building? What coordinates is he using as a reference to find a new political dispensation?

[SS] Triangles! Why am I so keen on them?

[OS] They help you find yourself, they point to where you are, they point to where you want to be. In trigonometry and geometry, triangulation will help you find a point.

[SS] Like a focus in a PhD?

[OS] I am not so sure of that yet. Why ask me?

[SS] Because you're writing this thing?.

Pythagoras' Theorem – the square of the hypotenuse is equal to the sum of the squares of the other two sides!

[SS] It is so hot here where I am working, 38 degrees Celsius, and my super-energy-awareness-persona doesn't allow me to have an energy guzzling air conditioner.

[OS] Heat rises. I'm in a loft. We will be cooler downstairs.

Finish 12.34 p.m.

Thinking about Triangles

Posted on 26 March 2009 by Polo

Start 8.44 p.m.

Still on the geometry theme: why are academic institutions built around quadrants? Harvard, Cambridge, Oxford, Rhodes... Why not triangles? Why aren't triangles suitable connection points for thinking? Asked somewhat facetiously, but still university architecture

seems to be built on squares. Would our thinking change if they were built a-'round' triangles?

Been working on the fact sheets for my characters. Trying to figure out how to 'publish' my notes and research on the website?

[SS] very tired very stressed running a business can cause such a mess with my research, my dog, my dinner, my life: would love to be focused on the story of triangles and my academic life.

[OS] My friend Dirk pointed out that Doric and Ionic order buildings have triangles but on the roof, not on the base. When I looked at a few, I can see how imposing those structures are.

Finish 8.49 p.m.

A Critical Break

Posted on 10 June 2009 by Polo

Start 11.08 p.m.

I can see Critical Realist thinking all round me.

I feel such relief, such a feeling of belonging within this new home, called 'critical realism'.

I've taken a long writing break, but have continued to watch, listen, observe, think and integrate this growing understanding of this philosophy I've stumbled upon. It resonates. It makes me feel connected.

Finish 11.10 p.m.

Meeting with Wild Dogs

Posted on 15 June 2009 by Polo

Start 10.10 a.m.

I met with Wild Dogs for the first time. It was good to be up close and get a sense of them. The guide at De Wildt Cheetah and Wildlife Centre said they've been a very difficult species to conserve as people consider them 'ugly' and 'brutal', in the way they kill their prey.

I met with Ann Van Dyk⁸² afterwards and we spoke about her work and how it connects to other environmental 'issues'. She seemed tired and disillusioned with people.

[SS] Do you blame her? Finish

10.16 a.m.

What Story am I Telling?

Posted on 14 July 2009 by Polo

Start 8.37 a.m.

Last night someone said that "academia is very dry and without story". I immediately understood what he said, although I couldn't really confirm or deny his assertion. When I asked him what he meant, he responded by speaking about his work. "I tell stories through the lenses on my cameras. I want people to understand and to see the world as it is and as it could be. I think the way the world is shown in universities is different."

⁸² Ann Van Dyk established De Wildt Cheetah and Wildlife Centre in 1971 as a cheetah conservation project. The centre is also known by her name. It is also now dedicated to survival solutions for wild dogs as well as cheetahs.

There were two key concepts and words that struck me in the conversation, 'story' and 'see the world'.

[SS] This is beginning to feel a bit messy, Mary.

[OS] Why do you say that?

[SS] Because this enquiry is going to lead you in circles: you are trying to get references/base points/coordinates for your triangle!

[OS] Ooh, circles are helpful too!

What my friend was saying made me wonder what we mean by story? Intuitively I can sense and 'know' the difference between a story (assuming the written form of communication) and an academic text. My immediate outcry is; yes, you are right, the latter does tend to feel 'dry' and without 'feeling'.

[SS] Feelings, nothing more than feelings...

Trying to forget my feelings of (work).

[OS] Oops, I'm lost.

The first thing that I learnt at school about writing a story from Mrs English was that it had a beginning, a middle and an end.

[SS] yep, that was my English teacher's name

[SS] So does every text have a beginning, middle and end.

[OS] You are now interrupting me.

Mrs English would say that the beginning must give the reader an idea of what is to come, the middle must share the details of the story, and the end must sum up what was shared in the middle.

[SS] Unlike PhD notes, Mary, that go and on and on and on and...

Finish 8:56 p.m.

The Distance between Cause and Effect

Posted on 26 October 2009 by Polo

Start 9.30 a.m.

On page 119 of Andrew Sayer's *Realism and Social Science* (2007) he says that "The ever increasing distance between cause and effect in so many aspects of human activity increases the obstacles to the recognition of its social and ecological implications".

So supermarkets, cities, schools, roads, office blocks are taking us further and further away from our understanding of how it all works? Does that mean that we have to 'tear down the walls that hold us inside'? (Irish Pop Band, U2) and start growing our own vegetables, teach under trees, and walk on rocky pathways to work? Is the very structure of our 'world' causing this 'ever increasing distance between cause and effect'?

I remember going to visit the Southern Cross school in Hoedspruit and expecting to see a different way of teaching and 'schooling' kids. The school is built on the premise that everything is taught through 'nature'. The 'environment/nature' is the foundation and text on which, and through which, all subjects (learning areas) are taught. So, for example, a mathematics lesson might take place under a tree (for shade) and the learners/kids/students/children would be asked to count, multiple, add, and divide the leaves and boughs of the tree.

[SS]"...O chestnut tree, great rooted blossomer,

Are you the leaf, the blossom, or the bole?

O body swayed to music, O brightening glance

How can you tell the dancer from the dance?" (*Among School Children*, William Butler Yeats.)

They, or another class, may also 'study' the tree and outline the shapes of the leaves, the length of their veins, and the colour of their branches.

[OS] The teaching model sounds fantastic.

But the school was still a school and looked like a school. Does the shape and structure of the building itself create distance? After all the kids still had to leave a 'classroom' and walk to the tree? Isn't there always distance between cause and effect?...

[OS] I just read Sayer (2007) again. He is not saying we caused the distance, but that the distance is 'ever increasing'.

[SS] Ok, but I still don't understand how we are causing the 'ever increasing' distance? Did we create it? What started it? How do we reduce it? Where do the obstacles come from? How do we turn it round and increase the recognition of the implications of human activities on society and ecology?

Pop.

[OS] I'm crossing over to another page to write a paragraph on earthworms.

Finish 9:50 a.m.

Post Modernism – I Think, Therefore I am Single

Posted on 26 October 2009 by Polo

Start 1.57 p.m.

I've thoroughly enjoyed Sayer's book and feel supported by it. Although it raises lots of questions, it certainly does a good job at critiquing postmodernism, which has dogged me for years.

[OS] Some of the whizzy pseudo postmodern terms I have heard over the years:

'we all live in different realities'

'your movie is different to mine'

‘there is no truth, only different versions’

I’ve heard these statements so many times

They smack of *%#@#**~\$! Now Sayer has clearly shown why.

Sayer’s contention that realist social science requires reflexivity sounds right and I know it is a fundamental concept that comes up through all the academic readings, but I don’t really understand the difference between reflexivity and just thinking about something?

[OS] “I think, therefore I am” (Descartes, 1641)

[SS] Nah, ‘I think, therefore I am single!’

[OS] I remember hearing and quickly paraphrasing Descartes when I was 19 and living in NY.

[SS] Young and carefree?

[OS] No, just wishful thinking. I liked the sexual independence implied in the words.

[SS] But now it’s about interdependence because you’ve grown up?

[OS] Or getting older and more fearful!

[SS] Feel a lecture coming on...

Finish 2.06 p.m.

The Reality of Writing

Posted on 27 March 2010 by Polo

Start 6.30 a.m.

WEEC July 2011 is my self-imposed PhD deadline. I want to be at the World Environmental Education Conference to present my research.

“You can have a [PhD]. You can have excuses. But you can’t have both”, so states Amanda Patterson of “Writers Write”, a company that teaches how to write creative texts.

But the ‘reality’ – and it is a Critical Realist *Reality* – is that I am overwhelmed with work and finding it very difficult to focus on my PhD. I have another window open with a draft of a book I am writing with Penguin books. A book that will keep me financially sustained for another little while.

[SS] I have such a headache.

[OS] OR an excuse?

[SS] I don’t know where I begin and where I end. Need to get to completion.

The END

[OS] Just for the day!

Finish 6.51 p.m.

The Cost of a PhD

Posted on 30 March 2010 by Polo

Start 11.12 a.m.

I called the Fees office at Rhodes University. The person who answered the phone said that ‘the computers are down’ so there was no way to look up my account. I have to get back into the swing of work and keep plodding on regardless of the stress.

[SS] Short and sweet.

Finish 11.14 a.m.

Kicking a PhD into Touch

Posted on 11 June 2010 by Polo

Start 3.00 p.m.

Only one hour to kick-off of the opening match of the 2010 Soccer World Cup. I have just sent through my manuscript to Penguin books. I am aware of the countdown to completing my PhD. My target is still to present at the WEEC in July 2011. A page a day over 365 days and my book will be complete. I'm dreaming of critical realism!

Finish 3.05 p.m.

Semiotics – A Tool to Lie!

Posted on 13 August 2010 by Polo

Start 3.00 p.m.

I was reading about the political boundaries of semiotics (Fairclough, Jessop & Sayer, 2001; Harvey, 2002; Archer, 2003). I was thinking about reincarnation and I was feeling very sad. The boundaries of semiotics include 'academic', 'co-operative and 'empirical' limits. As I was reading how Umberto Eco defined all of these boundaries, while sitting at the Vineyard Hotel, Cape Town, I looked up to see an 'older' couple seated close to me.

[SS] Beware the lurching movement of time

[OS] Temper the age definition to slow your own movement of time.

They were sitting on the other side of the window perpendicular to my outside view. They were/are a handsome couple.

She was wearing a black trimmed green cardigan. Rectangle shaped glasses barely parting a few strands of her neatly blow-dried hair. I can feel myself wanting to rush through the description so I can get to this realisation:

They will die. But somehow to me they had captured a moment where they cheated all sense of time.

[SS] When are you going to tell them that you have cheated time?

[OS] Why because I'm only typing this now?

[SS] Yes. And, I might note, changing things as you write. So are these really notes from Friday the thirteenth?

[OS] It's the day that I reflexively recorded my notes from Friday the thirteenth.

Will that do?.

I will die too. Right now I don't feel I have enough time to read and understand the theory before me. Specifically the book before me: *A Theory of Semiotics*. I like Umberto Eco, but he is hard to understand. I'm only seven pages in. In the middle of the seventh page I have been stopped in my tracks because Eco says that 'semiotics is in principle the discipline studying everything which can be used in order to lie'!!

[OS] He also tells us that Death is the only non-semiotic phenomenon. Maybe that's why you are feeling sad – because you won't be able to represent it, or study it!?

Finish 3.50 p.m.

Discipline and my PhD

Posted on 22 August 2010 by Polo

Start 3.09 p.m.

[SS] Better known as the day I actually wrote my PhD notes.

[OS] Discipline. This is what I commit to doing every day until Umberto Eco's book, *A Theory of Semiotics*, is finished:

I will read a minimum of two pages a day and write my notes on what I understand and what I have learnt.

[SS] Hang on – today is A day!

[OS] Oh, we can't today

[SS] Discipline?

[OS] No, I really can't. I've got so much work to do.

[SS] Discipline!?

[OS] I can't. This discussion about discipline will just have to do.
Finish 3.13 p.m.

Field, Discipline or Chicken Coop

Posted on 26 August 2010 by Polo

Start 6.46 a.m.

Read pages 7 – 13 of *A Theory of Semiotics*.

[OS] I don't quite understand what I have read for the past three days.

[SS] Why haven't you written the past three days? Avoiding justifying your lack of discipline?

[OS] I'm ignoring you.

So, it looks like it's going to take me a while to get into the *A Theory of Semiotics*.

I can't yet tell if semiotics is a field or a discipline.

[OS] I built a chicken coop today with the cutest little chicken hatches

I love it. I can't wait for fresh eggs.

Finish 6:49 p.m.

Elevator Speech – Semiotics. Not!

Posted on 4 November 2010 by Polo

Start 11.45 a.m.

“Can these diverse problems and diverse approaches be unified”, Saussure Peirce asks? (Eco, 1979, p.14).

[OS] Can anything be really unified?

[SS] What does unification mean?

My brother Dave asked me for the ‘elevator speech for semiotics’. The problem is that I am not confident, or knowledgeable enough, to give him one. Not yet. I have to read and understand more.

Semiotics is, as simply as I can put it: the making of meaning. It is about the symbols and tools we use to interpret and understand the world around us. Of course, as a critical realist, I don't believe there are ‘many worlds’, as Modernity may [crudely] suggest. There is something about the world and its reality that we all share.

[OS] Bro, hope this is a start. I'm learning. I'm only on page 14 of Umberto Eco's, *A Theory of Semiotics*. In the meantime, I could tell you lots about worm farms!

Finish 12.01 p.m.

Blog Take 2

Posted on 28 March 2011 by Polo

Start 6.30 p.m.

I am struggling with consistency and discipline. My PhD is taking a back seat, again. Lots of excuses. Valid. Reasonable. Explainable. Sincere. Believable. Unbelievable. However, at the end of the day they are excuses! Remember what Amanda Patterson warned: "You can have your PhD. You can have your excuses. You can't have both!"

I am now on page 34 of Eco's, *A Theory of Semiotics*. I am reading this in parallel with Blackburn's ethics book *Being Good*, as well as daily readings about World Risk captured in these headlines: 'Japan's 8.9 Earthquake'; 'Nuclear meltdown'; 'Radioactive water released into the sea'; 'Sixty die in floods in Namibia'; 'Floods in the 'Free State' (a province of South Africa). It's getting worse!

[SS] These images and texts create such anxiety in me.

[OS] So what is the point?

Will this PhD help?

Shouldn't I be out planting trees?

Growing vegetables?

Building ponds for Leopard Toads?

Pickling anything I can find?

Packing a backpack for escape?

The fear and sense of urgency continues. It is almost paralysing. My Internal Conversation is very noisy, messy and full of fear.

I am trying to focus on Eco's 'Elementary Communication Model' for a watershed. The engineer sets up a code to communicate a message to and from the watershed, which would indicate the status of the water levels. There are many possible messages he can receive.

[SS] I am lost. Completely lost.

He calls these messages 'codes'. Eco explains that a semiotician ([OS] clearly, I am not) would ask the engineer 'all sorts of questions' such as, "What do you call a code? Who is the code for – you or the apparatus?" (Ibid, p. 35)

[SS] Aargh.

Finish 6.42 p.m.

Code (name)

Posted on 29 March 2011 by Polo

Start 6.35 a.m.

Under the 'name of code', the engineer is considering at least four different phenomena:

1. a set of signals.
2. a set of states
3. a set of possible behavioural responses (Eco, 1979, p. 36)

[SS] Back hurts.

Really hurts.

[OS] 80% of all back complaints are emotional.

[SS] No kidding?

[OS] Want to talk about it?

[SS] No.

A rule.

Only **one** of the four that the engineer is considering can **properly** be called a **code (ibid)**.

[SS] There is a puff adder in my garden and a *Charaxes* butterfly that should not be found in this area!

[OS] Climate Change

Finish 6.45 p.m.

Proper Codes are Systems of Couples

Posted on 30 March 2011 by Polo

Start 4.30 p.m.

What does a proper code look like? According to Eco, only the complex form of a rule coupling some items from system (a) with some from system (b) or (c) may properly be called a code (1979, p. 37).

[OS] I think, I got it!

[SS] Reading till I understood felt like being tied to a desk in a sombre, cold school.

Information has two basic senses:

The statistical property of its source. In other words, the amount of information that can be transmitted;

And a precise amount of selected information, which has actually been transmitted and received.

[SS] There are a total estimated population of **three septillion** stars and planets across our **hundred billion** galaxies. We barely seem to get our messages across to each other. What hope do we have of transmitting complex couplings of selected information and possibly imagine it will be received?

Language is a coded system. How much information gets lost because of the rules that the system, by its nature (as defined by Eco) needs to exclude?

Finish 5.30 p.m.

Increasing Messages by Decreasing Information

Posted on 3 April 2011 by Polo

Start 4.00 p.m.

We need codes to make information more manageable. The binary transmission of information produces “an extremely large number” of possible messages, the transmission of which would require an impressive expense of time and energy” (Eco, 1979, p. 43). Binary transmissions are what Information Technology is concerned with.

So in the case of the watershed and the engineer, without the s-code there would have been an infinite array of events that could have taken place. The engineer needed only to understand if the system was stable or in danger. The latter would require a response. The s-code regulates and in the Watershed example is a ‘reductive network’ that isolates a ‘few pertinent events’ (ibid.).

Eco uses the example of a typewriter to illustrate the difference between transmitting information and transmitting messages. The number of binary choices of information on a typewriter is ‘extremely large...with an astronomical number of combinations possible’. The information, although possibly informative, would require too many binary choices to make the transmission of messages possible (ibid, p. 44).

“Shannon (1949) defined the information of a message as N choices among h symbols as $1 = N \log_2 h$...*In order to make it possible to form and transmit messages, one must reduce the values of N and h . It is easier to transmit a message, which is to provide information about a system of elements whose combinations are governed by a system of established rules. The fewer alternatives, the easier the communication*” (Shannon cited in Eco, 1979, p 44)

[OS] Hang on. Then what gets lost if possibilities are reduced?

[SS] The limitations of language. You can feel it.

[OS] The endless possibilities of information. You cannot understand it.

“Although the original information diminishes the possibility of transmitting messages increases” (ibid., p. 44).

Therefore, semiotics (the ‘lower threshold’ at least) is bringing ‘bits’ of information under control using a structure. Grammar in language provides such a structure.

[OS] I am going to the pub now to see if I can explain it to someone else.

[SS] You are only going to the pub because you want to explain what you have learnt about semiotics?

Chapter One/47 pages of Eco’s theory covered. [Phew!] Finish
5.00 p.m.

Understanding Signs

Posted on 4 April 2011 by Polo

Start 6.09 p.m.

If Eco is right, as he asserts in the opening of Chapter 2 of his *Theory of Semiotics*, then “[I am] now in a position to recognise the difference between a signal and a sign” (1979, p. 48).

[SS] I can certainly recognise the Ingrid Bergman rose in front of me.

I recognise Bette Midler belting her heart out beside me.

I can recognise the tears in my eyes.

I can recognise the worry I feel for my sick Dad.

What are these signs of?

[OS] Sadness!

[SS] I am hungry. My menu is: carrot and butternut soup accompanied with raw carrot tortillas.

[OS] That should help. Come back though!.

Writing restarted 6.29 p.m.

[SS] I am back, but barely

[OS] Just keep going.

A sign is always..

[SS] I am noticing rushing thoughts of my work at the Truth and Reconciliation Commission where I wrote the summaries of victims’ experiences of apartheid. I remember feeling angry at the imposed constraints of grammar. Each individual story was confined to two sentences. The structure of the English language, and the TRC’s editorial choices, reduced their meaning, shortened the expression of their experience, and cut their voices.

[OS] That was only one context.

[SS] Yes. However, it was the context I was working in. It was my responsibility to ‘summarise’ their stories.

[OS] You had to end it. You had to bring closure to each story. That was what was asked of you. However, the end of their story was not necessarily the end of their life.

[SS] It was on the page. When you are writing, the page is all that counts. If a comma could extend years, or a colon could bring them to life; then I wouldn't be so frantic about the full stop I face tonight.

Finish 6.46 p.m.

Semiotics Needs a Theory of the Origins of Language

Posted on 4 April 2011 by Polo continued...

Start 11.13 p.m.

Eco acknowledged that [we] do need to develop a theory of the origins of language “as a matter which has up to now been avoided by linguistics”. He went on to say, “We also need a theory of intelligence... [because]... semiotic enquiry must continuously emphasise the entire range of its possible correlations with it” (1976, p. 46).

The importance of language is manifold, not least because of its relationship ‘to self-modification’ that Archer discussed in her book *Structure, Agency and the Internal Conversation*. She recited Peirce, who developed the conceptual framework of semiotics: “Language is not something to which I conform myself; it is something by which I transform myself” (Archer, 2003, p. 70).

[SS] Hurrah. Maybe I might be a semiotician after all?

[OS] Something is obviously resonating. But these are just baby steps on our theoretical journey.

[SS] OK. I will take that on the chin!. Finish
11.22 p.m.

Stop if the Signal Tells You To

Posted on 5 April 2011 by Polo

Start 6.00 p.m.

To summarise, the first lesson from Chapter One of Eco's book is the ability to recognise the difference between a signal and a sign.

A signal is "a unit of a system that may be an expression system or a physical system without any semiotic purpose...A signal can be a stimulus that has no meaning but causes something...[A sign]"is always an element of an expression plane conventionally correlated to one (or several) elements of a content plane" (Eco, 1979, p. 48). [OS] Not much understanding shown here. A bit of regurgitation perhaps?

[SS] Yes, but if there was a danger signal on a train track I'd know to stop, if there was a sign in a newspaper about why the train was going to stop, I'd be able to take an alternative route.

[OS] So, we have learned something!

Finish 6.15 p.m.

Indices of Change: Hope that Disclosure does not go up in a Puff of Smoke

Posted on 5 November 2011 by Polo

Start 3.53 p.m.

[OS] I have cut off completing the first blog and moved quickly to the second.

[SS] Already planning another blog to slot in between the two.

[OS] Honesty is the best policy – blog principle 1]

Ironic, that the buzz around is not coming from the 'beehive' constructed by SANBI at the botanical garden, but from a whole host of well-heeled business people eagerly awaiting the presentation of the Carbon Disclosure Project's 2011 report at the Durban Convention Centre in South Africa.

[SS] Buzz, buzz, buzz.

Finish 2.04 p.m. (because the presentation is about to begin)

Copping out on a COPpuccino

Posted on 5 December 2011 by Polo

I arrived in Durban airport at 12:10pm yesterday. I was looking for signs of change and the hope that will drive it. An extreme windy landing reminded me of the growing impact of Climate Change. On the road from the airport, I saw newspaper headlines on electricity poles stating the cost of the recent two-day flood in Durban exceeded R81million. These were local stories of the impact of climate change. A young woman and her children were literally flooded knee high in their house in Morningside as a result of the deluge. I stayed with John and Joan Keane, who have lived in Durban for 37 years. John was quick to state on our arrival that 'the weather is just not the same. We can feel and see the difference'. Joan picked up on the topic and said: 'I thought you would need a jumper, it got really cold the last few days, but today it has warmed up again'.

[OS]: Signs. Signals. Meaning?

[SS] Universal signs, and the universe sending us a sign.

[OS] Are we listening?

My colleague and I, both Carbon Footprint Assessors, went to the Holocaust museum, the chosen site of the Nedbank-funded Oasis and venue for "COPpuccino's". The latter was the title given to informal panel chats that were organised by the Cambridge Institute for Sustainability Leadership (CISL). My initial feeling is one of disappointment. Seedlings in

plastic bottles line the corridors, as do people with banners and TV screens exhibiting their wares. There is an absence of energy and vitality. I know we are trying to move to a low carbon economy, but it doesn't have to be a boring and humourless one!

Finish 2.25 p.m.

Margaret Archer in my Story

Posted on 20 May 2012 by Polo

My story – or more appropriately Polo's story (see Vol. 3) – is about how he reflexively deliberates on the social circumstances he confronts. He begins his story with his 'Ultimate Concern', and at first stubbornly sticks to it – his need to get home, back to the Antarctica.

Banu, the Albatross, 'teaches' Polo how to mediate his newly found social circumstances and helps him to develop his personal identity and explains how the structure around him and his Agency are ontologically different. He has to find a way to mediate between the two.

[SS] Right now I don't really care if he gets home.

Let's face it, what difference does it make if one little penguin gets to return home?

[OS] Damn it. Don't they get it: We don't have a spare planet?

International Association for Critical Realism (IACR) 15th Annual Conference, Rhodes University, Grahamstown, 18-20 July 2012

Posted on 12 July 2012 by Polo

I am traveling to Grahamstown to present a paper on my PhD at the International Association for Critical Realism's 15th Annual Conference 2012 at Rhodes University, Grahamstown, South Africa

'Documenting my Internal Conversation to reflexively make meaning of the structure and inspiration behind my PhD in Environmental Education.'

[SS] Margaret Archer will be there.

[OS] I hope she does sit in on my presentation as much as I hope she doesn't.

Margaret Archer did attend my presentation and described my plan to share my Internal Conversation in my PhD as an 'interesting application of her theory'.

[SS] Coel!

Finding Signs in Cultural Units

Posted on 11 December 2015 by Polo

Start 9.15 p.m.

[SS] I am butting right in before she can really start talking about Eco and Semiotic-botics. I am so irritated by being thrown into dealing with the complexity of two opposing contradictory semantic fields of my own: tenants in my house in South Africa, and the woman who is caring for it. Man I am pissed having to deal with this from afar. One party 'thought' that the other would notify them of arrival time; the 'other' thought the 'other' should just appear!.

[OS] nobody reading this – if indeed anyone ever does read it – gives a toss about your cultural challenges. Although, it does tie in with what Eco is saying. Get out of your head, and back onto the page.

Eco used the example of 'images interpreting books' to show how cultural units can be materially testable. They are, he claimed, 'physically within our grasp' (1979, p. 71). Music, books, colours are physically, materially and materialistically testable. The three main semiotic categories are: the MEANING of the sign-vehicle; the INTENTIONAL or componential analysis which allows for the segmentation of the cultural unit; each UNIT

composing the componential tree of a sememe. "Semiotics is simply the science of this culturally performed (if unexpressed) competence." (ibid, p. 72).

[SS] Did you really understand all of that?

[OS] No, but neither did you cause I see how you just glossed over the definition of 'interpretant'

[OS] Ditto.

Finish 9.40 p.m.

Interpreting Interpretants

Posted on 13 December 2015 by Polo

Start 1.55 p.m.

For a time, the theory of meaning was sidestepped because the form of content was so imprecise that linguistics and semiotics in general concerned themselves only with:

1. The universe of objective referents;
2. The universe of psychic events; and
3. The social universe of uses.

It is the idea of the interpretant that allows for entities in cultural life the ability to become independently both meaning and sign-vehicle. A definition of interpretant, Eco explained that functions within the framework of a code of theory, should cover the three semiotic categories noted previously.

[OS] I opened the post at 1:55 and closed it at 14:41. What happened in between was a lot of interruptions: mince pies; the setting of a chocolate cake; a hen pheasant visiting a chilly lawn; and family coming to visit.

Writing resumed 5.13 p.m.

Although I sense the importance of Eco's idea of the Interpretant, its meaning still eludes me. It does appear, from what I read, to be important and almost the focal point to the theory of content. Its development is part of the broader development of 'content-form'. Developing a general system for content-form is/was elaborated within the field of Structural Semantics and its 'subsystems, fields and axes" (1979, p. 75). This came out of prior discoveries within modern linguistics that a given term triggers associations.

[OS] In Volume 3 of this PhD (Polo's story), these developmental threads are illustrated in debates within the ESS.

The next stage in the developmental path came from combined work between lexicographers and anthropologists who isolated systems of highly structured cultural units, for example, in the field of colours and terms of kinship (Conklin, 1955; Goodenough, 1956, cited in Eco, 1979, p. 75).

Structural Semantics went further by creating semantic axes and fields for semantic units that do not correspond to names of objects. Therefore, 'meaning' as a cultural unit was not just applicable in categorematic terms but also syncategorematically (Eco, 1979, p. 76).

[SS] I had to repeat the spelling of that a few times and still can't quite say it. But strangely I understand its meaning. I feel obliged to use the same word as Eco, because he obviously took a lot of time and thought choosing it. But I wish there was another word. It will be fun and interesting bringing these words, ideas, theories and content to life on the other pages of this PhD.

As with semiotics, structural semantics is also challenged by the layers of infinite regression in Pierce's work "semiosis explains itself by itself" (cited in Eco, 1979, p. 69). And in the continual circularity, there are points where the semantic space gets stuck. For example, in the framework for Rresearch in the semantic space, structuring is achieved in very restricted subsystems: for example, colours, botanical classifications and meteorological terms. Eco points to a second obstacle in the framework of research. That of the movements within culture and critical revisions both of which are enough to upset a semantic field (ibid., p. 76). Whereas phonological systems tend to remain stable and unchanged for long periods of time within the history of language, the life of semantic fields are briefer.

A semantic field can show a 'world vision' of a culture. Eco exemplifies the European way of analysing the colour spectrum and compares it to the Hindu, Russian and Greco-Roman naming categories. Naming is a visual experience and not 'real'. We name because it is pertinent to our biological survival. So according to Eco's view in 1979, an Eskimo's (sic) division of snow into four categories has a significant and pertinent role in their cultural life in a way that a European's single naming of 'snow' does not (Ibid, p. 77)

Another example of the challenge of structural semantics is shown in the semantic fields of rodents. In Latin, *Mus* covers both the structural fields of Rat and Mouse found in English. When both the naming of the colour spectrum and the naming of rodents are contrasted, it points to another challenge for structural semantics. The first (*Mus*) is culturally dependent, whereas the latter (Rat and Mouse), zoologists argue can be identified as objects that can be analysed by properties and function.

The segmentation of semantic fields points to how content determines world vision of a certain civilisation.

[OS] I am not sure I got that exactly right, but it's feeling closer. Just realised, I am only on page 79 and I am not yet supposed to understand everything!

[SS] But aren't you supposed to 'represent' the 'meaning' of Eco's A Theory of Semiotics as if you do understand everything!.

[OS] Oh, get lost!]

Finish 5.55 p.m.

Cultural Units and the Signs of Climate Change

Posted on 14 December 2015 by Polo

Start 6.35 a.m.

Finally, 200 nations have come to a deal that commits them to combat Climate Change.

COP21 was accepted after 12 days and three nights of intense discussions. It was ironic that Paul Melia, the journalist covering the historic Paris agreement for the Irish Independent, noted that “it sends a positive signal on where investment should be focused in the coming years” (Sunday Independent, 2015, p. 22). Although Eco distinguished in the early pages of his *A Theory of Semiotics*, the difference between a signal and a sign, I hope that the outcome of COP21 is a real ‘sign’ that humans are taking Climate Change seriously.

The Sapir-Whorf hypothesis questions whether the form of communication systems determines world vision. There is, as Eco explained, a “fairly close interaction between world vision of a civilisation and the way it makes its own semantic units pertinent” (Ibid p.79). Is the COP21 an example of how the semantic field of climate change is expanding in a way that will lead to a reduction in climate change? Although he also makes it clear that ‘material conditions of life’ (represented as Y); ‘units of perceived experience’ (represented as X); their ‘corresponding cultural units’ (represented as U) and ‘the sign vehicles which denote them’ (represented as SU) do not follow a particular order of influence (ibid.).

From a purely theoretical perspective, Eco explains, semiotics concerns itself with:

“1/ Within which civilisation a semantic field functions,

2/ At what point it dissolves to make room for another,

3/ How two or more semantic fields co-exist, although in opposition, in the same civilisation” (ibid, p 80).

[SS] I am concerned with whether all these signs of climate change awareness and understanding actually lead to change?

Semiotics, according to Eco, ‘must’ take into consideration complexity and he illustrates why through the examples of Aulus Gellius’ *Noctes Atticae* (a perplexing and incoherent text on the definitions of colour), as well as Carnap’s double classifications according to which “animals are divided on the one hand into fish, birds and others”. With these classifications, “a cultural unit such as <whale> can then occupy different positions in the

two semantic fields without the two classifications being incompatible” (Carnap, cited in Eco, 1979, p. 80).

[OS] The Endangered Species Society (ESS) will have fun with Carnap’s classifications. It will be fun teasing that out and playing with it in Polo’s story.

[SS] I am hungry and need to stop.

Finish 7.05 a.m.

“PhD vs Story”

Posted on 16 December 2015 by Polo

Start 10.17 p.m.

It’s interesting that the concepts I am digesting today in Eco’s *Theory of Semiotics*, are about the contradictions in semantic fields. Specific examples he used to illustrate this are antonymous terms. In Volume 3 of this PhD thesis – the representation of my understanding, worldview, and research ‘findings’ are built around the Pied Platoon and the ESS (Endangered Species Society). They are antonymous. Although in the early stages of the story they are probably antonyms by converseness, the third of the three classifications by Lyons (cited in Eco, 1979, p. 81), their classification may change with possible mediation through the entire semantic field of the story and the cultural units within it.

Eco concluded from the classifications of Lyons and subdivisions of Katz that ‘a superficial glance’ of antonyms reveals:

1 That the same term can entertain different relationships. For example, bachelor can be considered contrary to spinster, as it [bachelor] can also be considered contrary to married.

2 The same term can entertain a “contradictory or converse or contrary antonymous relation depending on the rhetorical (and ideological) way in which these relations are viewed” (ibid, p. 81). In Volume 3 of the story, <animals> are antonymous to <humans>

from the ideological viewpoint of wild animals. But domesticated animals have a 'relation of contrariness' to wild animals with the latter sharing the same 'semantic space' as humans.

Antonymous terms, Eco reminded us, are 'fuzzy concepts' and 'fuzzy concepts' exist in 'every kind of semiotic phenomena' because cultural units are seldom univocal entities (Lakoff, 1972, cited in Eco, 1979, p. 82).

[OS] This reminds me of conversations I have witnessed, not been part of, where individuals have used clear antonyms when describing 'us and them'. In those instances of what are often blatant discrimination on an ideological level, the language is usually fuzzy enough that there is an assumed shared 'culture' without an honest use of shared language. It's usually enough to ask for clarity on the definition of 'them' to elicit at least a change in language. It takes a lot more 'critical revision and movements of acculturation' (ibid., p. 76) to upset these kinds of semantic fields.

[SS] You mean when 'white' people are together and someone says 'they' when they mean 'black' people, but you know that the mere fact that they hide behind a fuzzy 'they', there's trouble?

[OS] Yes. But in those 'types' of conversations where the antonymous 'us and them' are used, it's very hard to even be sure what is really being said. You can only sense it. But I usually take terms like 'they'/'them' as signals, signs even, that there's an ideological misfit. Alas even Eco cautions that 'the study of the semantic system requires 'many' precautions' (ibid., p. 82).

[SS] And even less easier (not harder) because I have a bloody itchy, irritating, driving-me-mad, water-in my right ear.

[OS] Just in time for Eco's big whopping knock out philosophical statement.

This contradictory nature of semantic fields begs "whether or not semantic fields really exist?" (ibid., p. 83)

[SS] Fab. Great. Super. Now I am not only feeling lost within the structure of the world around me and drowning in paroxysms of fear, I also have to read whether the ‘thing’ (that’s all it deserves to be named right now) really exists?

[OS] This was never going to be easy.

Eco equates this core question and states its equivalent to asking:

“Is there something in the mind of the person understanding the content of an expression which corresponds to a semantic field”? (Ibid, p. 84)

[SS] That’s it. He is playing with my semantic fields, sememes, cultural units and my mind, which has a lot of content begging to be expressed.

[OS] But doesn’t it EChO some of Archer’s theory on reflexives?

[SS] Frankly my dear objective self, I don’t give a damn!

Finish 11.10 p.m.

Denoting a Connotation

Posted on 16 December 2015 by Polo

Start 11.58 a.m.

As I am beginning to sink into the semiotic depths, I notice a lot of Eco’s discussions connote associations with Archer’s theory of the Internal Conversation. On page 83, and partially discussed in previous post, Eco asked whether there is ‘something’ in the mind of the person understanding the content of an expression that corresponds to a semantic field. When I read that I was reminded of Archer’s statement on p.167 of *Structure, Agency and the Internal Conversation* that the “membrane between the life of the mind and the life of the group is highly permeable”. Everyone, she claims, is a reflexive being. Communicative reflexives initiate internal dialogue but complete it interpersonally (ibid., p.167).

[SS] Is that why you/we/I keep jumping in and out of different frames and in and onto different pages?

[OS] I think so. I am not sure yet, but there's something connecting our emerging meaning of Eco's theory of semiosis and Archer's theory of the internal conversation as a mediating 'tool' between structure and agency.

[SS] I don't know about you but sometimes I feel I just understand, but can't explain how I do.

[OS] Me too. That's why we are using Polo's story in Vol. 3 to help make the understanding clearer to simple folk like you and me.

The connection between Archer's and Eco's works, although theoretically in its infancy, is obvious given the fact that semiotics is a form of social practice (Eco, 1979, p. 298) as is reflexivity. Both are forms of social criticism. Can a connotation be made from the theory of semiotics to the theory of agency? I am drawn back to Eco's caution about precautions within the field of study.

Misunderstandings exist and need 'elimination'. Before delving into his compositional theory of sememes, Eco used the following clarification as a foundation: "Denotation is the content of an expression. Connotation the content of a sign-function" (1979, p. 86).

For example, in logical literature 'proper names' do not have denotatum, and therefore extension, because there must be corresponding content. To show what happens in cases of proper names referring to historical personages and the presentation of a sign-vehicle of a proper noun known personally, Eco used two examples: /Napoleon/ and the name /Stefano/.

Napoleon denotes a cultural unit that is well defined and "finds a place in a semantic field of historical entities" (Eco, 1979, p. 87). The denotation of /Napoleon/ does not change but there are many connotations attributed by different cultures to the culture unit <Napoleon>. Thus, the sememe <Napoleon> has several markers including that of human person. Within Volume 3 of this thesis, the attributions of these markers will be explored by the opposing cultural units of the ESS and the Pied Platoon.

However, when a sign-vehicle of a relative is presented, there is a much more limited code than the one by which the message /Napoleon/ is received. Eco used the example of /Stefano/ which given a field of cultural units that includes his own relatives and friends, is a proper noun that denotes his son. Although the codes are more varied in the former, and limited in the latter, the semiotic mechanism does not change (ibid., p. 87).

Homonymy often occurs in language use, as the examples of proper nouns show. This is the case because “the universe of proper names is simply linguistically a poor universe”. However, the semantic universe of connected cultural units is quite rich. The connected universe of the cultural units of named human beings, for example, is isolated by very precise systems of opposition.

A proper name out of context does not denote anything whereas a common noun out of context always has a lexematic meaning. But “no sign-vehicle denotes unless referred (on basis of context) to a specific code in which it appears primarily as an element of a repertoire of sign-vehicles” (ibid., p. 87). To illustrate this point, Eco used the example of the sign-vehicle /cane/ which, if communicated out of context, can be:

1/ A latin imperative; 2/ an Italian common name <dog>; and 3/ an English common name.

[SS] Speaking of dogs, isn't it time to waddle off this page and go to the part where /Mr Smith/, the <dalmatian>, and <Wild Dog>, named /Lycaon Pictus/ try to wreak havoc in Vol. 3 on /human beings/... Woof. 'Woof' does not inspire connotations of the jaw breaking, blood dripping canines of these canines!

[OS] Do you know we spent the entire 713 words of this post on only one page of Eco's work? Specifically page 87.

[SS] Well, we did read around a bit as well. But now we are spending more time talking about spending time on page 87 of Eco's work.

[OS] I am going over to see what's happening in the story in Volume 3.

Finish 1.13 p.m. GMT (from here on time measured by GMT unless move into another zone)

Notes, Names and Iconic Signs

Posted on 17 December 2015 by Polo

Start 7.05 a.m.

To continue Eco's point: proper names of unknown persons connote but do not denote. For example, the name /David/ must refer to a man (sic) (an imprecise connotation) without knowing whom (no denotation). There is not much difference between receiving the message /David/ and the message ascorbic acid. It is not difficult to intuit that ascorbic acid is a chemical compound (an imprecise connotation) without knowing which chemical compound (no denotation). Both these examples illustrate the imperfect possession of the codes of a group. They also illustrate assumptions underlying our choice of names: for example Eco believed that the name 'David' must refer to a man. But there are examples of how those gendered boundaries are changing.

But signs in semiotic systems that are purely syntactic and have no apparent depth pose a different challenge of denotation and connotation. Music is a typical example. Defining the meaning of a graphic representation of a note of music is clear as it denotes a position, class of sound, mathematical values, and oscillographic and spectrographic measures. The problem is instead what and whether it denotes the note the graphic represents.

To recognise //Note C// a musician must hear it in relation to another/other note/s. So the position of the note in relation to some other note is key to its recognition (ibid, p. 89). A sign is present if it is interpreted, according to Eco. This definition reverses Hjelmslev's assertion that for a sign to be present it needs to be two planes and not conformal. Hjelmslev's insistence on his point of non-conformal disregards the entire range of 'iconic' signs, including the hammer and sickle as symbol of communism and the scales as symbol of justice. According to Hjelmslev these iconic examples are depictions and emblems. But, "to deny the nature of signs to conformal systems is to disregard a large portion of semiotic phenomena" (ibid., p. 89). It is possible to consider these iconic symbols as signs because the 'expression form' coincides, to some extent, with the 'content form'. This brings us to the combinational rules of codes.

[SS] I am so tired today I didn't even really listen to what was being said but I have been wondering generally if you can refer to animal persons? Or does a person denote and connote human?

Finish 7.50 a.m.

Lines of Distinction

Posted on 20 December 2015 by Polo

Start 9.35 p.m.

[SS] AAARRERDGETE. So irritating. For the last half hour I have been trying to find the copy of the post I was editing. Instead I find a copy of the last edit with a whopping chunk cut out. I am now attempting to recreate it. So the 'begins', is an historical memory and reconstruction of what I wrote a few hours ago. Aaaargh!

There are two definitions of a sign-function: in itself, and its relation to combinational possibilities within a context. Drawing lines of distinction between the two aids in solving problems in semantic analysis.

The second type of definition – a sign-function's combination within context – is a matter of sign production. Sign production has rules governed by a set of codes. Codes not only conceived as a correlational rule but also as a set of combinational rules. Eco made it clear that the double definition of sign-function does not imply double definition of the code (ibid., p. 89).

[SS] I bet you and I have a combined view of these combinational rules. And unusually there are very few lines of distinction. We didn't blog yesterday because it took hours to read and re-read, and read again pages 90 – 105.

[OS] We pushed the reading and comprehension because to break up the analysis of the KF model would have been foolhardy. But, yes I agree, we all found this section hard.

The illogical expression /Johnny found sad/ is considered acceptable or unacceptable depending on interpretive decisions connected to the practice of sign production. The codes of sign production are not concerned with isolating meanings of individual words but combinational possibilities. Therefore, /green colourless ideas sleep furiously/ although semantically anomalous may be permitted if viewed within the context of a different text, for example as a poetic device.

[SS] Does that mean /we/ are a poetic device and legitimised by the combinational definition of a sign-production?

[OS] Sort of but our credentials are mainly given in Archer's Internal Conversation to be discussed later. I think that's planned after Eco!

A theory of the interpretation of sememes relies on theory of compositional nature. A review of the example Eco used on page 78 of /Mus/ when analysed by its compositional nature highlights a few meanings. /Mus/ can denote living being in respect to the antonymous, or oppositional axis, animate vs inanimate. It can denote <<rodent>> in respect to zoological field. <<Harmful>> in respect to axis harmless vs harmful. Therefore a sign function may denote positions on different axes and because of those varied denotations can connote contradictory positions.

Katz and Fodor (KF) developed a model for compositional analysis that Eco used as a point of departure for a needed revised model (ibid., p. 98) The KF Model can explain if and why a sentence has many senses but not in what circumstances it will lose its ambiguity nor in what sense

Eco pointed out the inadequacy of the KF model by drawing up a *Cahier de Doléances*, literally a list of grievances. The term was originally used at the start of the French revolution. He sweeps with dismissiveness through the KF model as if he is at war.

The first reason he gives is that Katz and Fodor adopt an almost 'dictionary-like rigidity' and failed to take into account the 'factual beliefs that people share about things' (ibid., p. 99). Whereas the KF model gives too much focus to the ideal competence of the ideal speaker. "Meanings are common social beliefs, sometimes mutually contradictory and historically rooted, rather than undated and theoretically fixed constructs" (ibid).

[SS] for some reason that makes me think of images of penguins wrapped in red scarves in protection against the cold that I see used as festive images for Christmas. Don't they justify the ignorant view that penguins live in the Arctic?

[OS] I can't really explain your associations, but it made me think about how Climate Change has 'come a long way' in the social mind. Imagine 200 nations actually got together to agree to a plan to do something to reverse the effects. That's something to be happy about. Eco would probably say that the KF model would not be able to explain the social competence of climate change in all its living contradictions as it isolates meaning. His second grievance, which he calls the Platonism of markers, is its inability to manage complexity. It proposes semantic markers, for example, as purely theoretical constructs. A marker, once identified, does not need further analysis within the KF framework. But as Eco pointed out, further semantic analysis of each component of a sign function will indirectly raise the question of the interpretation of the interpretants. This will lead to the 'continuously self-renewing set of semiotic products that Pierce suggested' (discussed on p. 71).

Third on the list of grievances is what Eco believed was the KF's disregard for connotations (ibid., p100). It offers the semantic theory of a purely denotative language. One that provides rules for a basic dictionary that may aid a tourist in their choice of menu for lunch, but would not help if they really wanted to speak a language. It fails to take into account the 'infinity of ramifications' (ibid., p. 101). For example, subcodes can exist in which /bachelor/ connotes <dissolute> or <charming young man>. There are also additional possibilities of emotive connotations of sympathy or antipathy.

Another critique is that the model 'explains the simpler by the more complex' (ibid).

[OS] Didn't he also say that one of his grievances is that Katz and Fodor can't manage complexity. Well, not them, but their model. This feels slightly contradictory.

Although Katz is aware of the problem, the model only comes up with provisional solutions and uses 'distinguishers' to cover certain weaknesses. It seems when analysis is too difficult, there is a 'lack of articulation', for example, and in particular, the notion of the interpretant (Eco, 1979, p. 104).

According to Eco, “A sign stands for something to the idea which it produces, or modifies... That for which it stands is called the object; that which it conveys its meaning; and the idea to which it gives rise its interpretant” (Eco, 1979, p. 68) The KF model lacks articulation of the notion of the interpretant. This is the final grievance of the list of six that Eco concluded were reasons why the KF model is “not suitable for a semiotic theory of codes”.

[SS] Why do I get the feeling that only Eco’s theory will be suitable?

[OS] Well he is the main dude in the field!

[SS] My mother just said “I am fecked and I am going to sleep”. After an extremely (can that meaning be super-sized?) irritating session, I am “fecked and going to sleep also”.
Finish 11.40 p.m.

Complex Connotations

Posted on 23 December 2015 by Polo

Start 9.20 a.m.

Eco made it clear that the KF Model was not an adequate theory to resolve the problems of semantics. His response was a revised model that “aims to insert into the semantic representation all coded connotations depending on corresponding denotations as well as contextual and circumstantial selections” (1979, p.105).

The revised model distinguishes different readings of the sememe and the selections are not just ad hoc knowledge of the referents but semantic units like others with a distinguishing ‘switching function’. Eco presented a ‘hypothetical sign-function so encyclopedically complex that it can show various types of differently organised readings(ibid, p. 107).

Its complexity is facilitated by analysing denotative markers, referential and contextual presuppositions, and metaphors as substitutions of sememes; and the process of catachresis, which takes place when the metaphor becomes customary. The model is

presented as a complex tree that takes into account metaphorical and catachresical homonymies. The tree can be reduced to several more simplified trees while allowing consideration for the rhetorical parenthood (ibid., p. 110).

[SS] Geez Louise!

[OS] We just found out we have no turkey for Christmas.

[SS] Can't we use Robert Lee Jefferson the Third from the story?

[OS] He has already escaped the plate through his US Presidential pardon.]

Finish 9.50 a.m.

Making Meaning of Eco

Posted on 24 December 2015 by Polo

Start 6.15 p.m.

[SS] Do you understand what Eco means in the last 110 pages of his *A Theory of Semiotics*?

[OS] You mean the first 110 pages of his theory, but the last 110 pages that we have read?

[SS] You sound like Eco. You know what I meant!!

[OS] Well it is important to be clear, otherwise it could cause misunderstandings. Eco is saying that Semiotics is a term used to understand how we make meaning through the use of signs and symbols.

[SS] I thought all semiotics is about the making of meaning?

[OS] Yes, that's true and meaning is also part of the study of Linguistics. Linguistics is the study of the structure and meaning of language. But semiotics is the study of meaning outside, and even 'beyond' language. Eco doesn't shy away from the complexity of understanding the meaning of signs and symbols. He embraces it.

[SS] Why can't he make the meaning of his understanding of Semiotics clearer?

[OS] We would have to ask him. But my guess is that the subject itself is so difficult and complex that it's hard to make it simpler.

[SS] But if it's not so simple is it worth understanding?

[OS] Oh yes. Just because it's hard doesn't mean it won't be superbly rewarding when our understanding of the meaning grows. After all, it's part of anthropology. Of understanding and making sense of the culture that surrounds us?

[SS] But we are just degrees of the self-inside this author's head. Why should it matter to us?

[OS] Because the relationship between the structure of the world that surrounds us is critical to understand how we operate. It's about how we communicate and articulate the world around us so we can take action. We wouldn't be having this conversation, for example, if semiotics wasn't something we were grappling to understand.

[SS] I am not grappling with semiotics. Seems clear enough. I am just struggling with Eco and 'markers', 'interpretants', 'referents', 'denotations', 'connotations', 'infinite regression'..... and on and on. I mean he does go on and on. He adds more and more words and bits of theory to the 'big' theory with every page we turn.]

[OS] Well he does make it clear that because 'semiosis explains itself by itself' it is continually circular. Remember that on page 71?

[SS] You are more precise than I am. All the pages are a blur to me. Not sure what words are on which page.

[OS] Well. Don't give up. We will just keep going. Umberto Eco will help us get a little closer to understanding the outside world and Margaret Archer will help us understand the mind of the individual. Between the two, we should have a better understanding of how we can make the world a better place.

[SS] Hold on there. I never signed up for the goody goody stuff. I am happy to just quip every now and then. I am just piping in whenever and wherever I feel like it. After all this PhD is starting to take over. It's my job to remind us all of the important stuff: eating, sleeping, drinking and a little bit of feeling. Like right now, I would like to remind us that it's time to have dinner and get warm.

[OS] OK. That sounds like a good ending to this evening.

Finish 6.40 p.m.

Testing the model

Posted on 30 December 2015 by Polo

Start 2.34 p.m.

Katz and Fodor object to a theory of settings that embraces complexity because "it would be required that the theory represents all the knowledge speakers have about the world" (ibid., p. 110). But Eco pointed out that it was not necessary to list all possible occurrences, only those that are culturally and conventionally statistically possible. There is a certain amount of common sense in language and its cultural meaning. When speaking about alligator shoes, for example, the semantic property of shoes would suggest they are worn by humans. Therefore the perplexity that Katz and Fodor show over the expression /our store sells alligator shoes/ is shown to have only one 'correct' solution: shoes worn by humans made from alligator skin.

[OS] It is so strange how we use examples of our dominion over animals so flippantly. The use of animals for our pleasure is so common that we just slide over it.

It is “always” possible to isolate a cultural framework where some conventional and circumstantial selections are coded (ibid., p. 112). So, for example, an image of a skull if placed on a bottle would mean poison and if placed on an electrical pylon means high voltage (ibid).

A <whale> can have many readings depending on the contextual settings. These may be contradictory and require a choice between ‘an array of non-coordinated connotations (ibid., p. 114). Whether a whale is to be considered fish or mammal will depend on the context: scientific, medieval or contemporary. There is also a componential spectrum that allows for varied readings (ibid, p. 115).

Eco’s revised model ‘even’ allows for the semiotic representations of non-verbal signs including the previous example of <skull> as well as red flag, which if used in a political context connotes communism, if seen on a road would mean caution and on a railroad would mean stop (ibid).

Eco’s revised model allows for the disambiguation of many verbal, non-verbal and iconic signs through the theory of settings: their context and composition (ibid, p. 116).

[SS] Your heart’s not in it today. That’s all I am going to say. Finish
3:29 p.m.

Border-lines

Posted on 12 January 2016 by Polo

Start 1.50 p.m.

Interpreters of texts, according to Eco, are ‘obliged’ both to challenge existing codes and to put forward interpretive hypotheses ‘that work as a more comprehensive, tentative and prospective form of codification” (ibid., p129). There is a need for continuous extra-coding that creates what Eco described as a border-line situation in uncoded contexts (ibid).

An example of an uncoded context is /he follows Marx/, which was used by Fodor and

Katz to highlight the possibility of ideological, physical and theatrical interpretations. So, /he follows Marx/ could refer to a 'disciple' of Karl Marx; a person that 'postdates' Karl Marx; or one who 'imitates'/'agrees' with Groucho Marx (ibid, p 130).

Logically, establishing an interpretation of this example requires more of an inference that Pierce called at times, abduction and at times, hypothesis (ibid).

At first an abduction appears to be "a free movement of the imagination, more endowed with emotion, than a normal decoding act" (ibid., p. 132). There is a certain amount of probability and guess used in 'making an hypothesis' (ibid), which can either be inducted or deduced. There is a certain general rule that forms the basis of deduction which allows for supposition to be posited. A result is produced from a rule and case. Whereas, in the process of induction, a rule is inferred from a case and a result.

Eco reminded us that: "A semiotic theory must not deny that there are concrete acts of interpretation which produce senses that the code could not foresee, otherwise the principle of the flexibility and creativity of language would not hold" (ibid., p, 133). The notion of continuous movement in sign production continues.

[OS/SS] We are very quiet today because dear Lucelle has passed away xxx

Finish 2.16 p.m.

Over and Under [coding]

Posted on 13 January 2016 by Polo

Start 7.05 p.m.

[SS] I want to tell them why it has taken so long to get to the page today.

[OS] Because you spent most of the day observing the legal codes of Irish society as you waited for a judge to decide if you were going to be fined.

[SS] Yeah, I think it is a valid reason why it took so long to write and why you don't really feel like writing now. I do want everyone to know that the judge saw fit not to fine me.

[OS] Are you afraid of what people might think of you?

[SS] A bit, but more to set the record straight and confirm that the legal codes work!

Eco argued that Pierce in his use of Abduction has subsumed two different hypothetical movements and he has complicated the code (ibid., p. 133). The two hypothetical movements, Eco suggests, are overcoding and undercoding (ibid).

Cases of overcoding in verbal language includes all stylistically and rhetorical rules. And outside the range of language all iconological entities are the result of overcoding. Overcoding Eco explained, is an innovative activity and overcoded rules allow the 'social exchange of signs' (ibid., p.134). There are also cases of undercoding where "...macroscopic portions of certain texts are assumed to be pertinent units of a code in formation" (ibid).

Overcoding = process that proceeds from existing codes > to more analytical subcodes.

Undercoding = process that proceeds from non-existing codes > to potential codes (ibid).

Over- and undercoding signal a borderline between innovation and convention. There are also examples of extra-coding, which cover movements of both at once. But communication would be very tiring, Eco pointed out, if every expression was analysed item by item. In a way, there is a continuous process of overcoding as we are "...continuously anticipating expressions, filling up the empty spaces in the text..." (ibid., p. 136).

[SS] Like the way I fill the empty spaces marking our internal conversation!

So there is a degree of discursive competence that can range in scale from 'socially defined procedures' (as in a hero's death in a tragedy) to anyone's ability to guess a phrase spoken in the context of a conversation.

Overcoding and undercoding are halfway between a Theory of Codes and a Theory of Sign Production. The difference between the two “permits one to define correctly...the difference, proposed by Lotman, between *grammar-oriented* and *text-oriented* cultures” (cited in Eco, 1979, p137).

Grammatically oriented cultures are ‘content’ oriented societies that have ‘handbooks’ of rules. Textually oriented cultures are expression-oriented societies that have ‘the book’, which is a text, produced by as yet unknown rules. This difference can be exemplified in the methods of language introduction for adults and children. Adults are introduced to language through a set of rules. Children learn language through continuous performance of texts, even if they are not entirely conscious of the underlying rules (ibid., p. 138).

It is therefore conceivable, Eco contended, that the process of language acquisition in a child for its native language is:

- 1/ Acts of undercoding,
- 2/ Successive coding,
- 3/ Acts of overcoding, which become a continuous process into adult life (ibid).

This process is at the heart of the Theory of Sign Production. The activity of extra-coding, however, is a category of a theory of codes. “Thus the criss-cross play of circumstances and abductive presuppositions, along with the interplay of various codes and subcodes, makes the message (or text) appear as an *empty form to which can be attributed various possible senses*” (ibid., p. 139). Thus, the informative impact of a sign, such as the skull-on-bottle example used in previous discussions, will grow according to the information of the bottle’s location (op cit).

The basic denotation of the sign-vehicle can be understood just as the sender intended, but can also have different connotations simply because the addressee takes different paths. Both can exist. Sometimes there are aberrations, or betrayal of a sender’s intentions, because of the possibility of different interpretations unforeseen by the sender. The sociology of mass media widely recognise these phenomena as the ‘boomerang effect’, and ‘two step flow’, which explains the passage of information from mass media to the wider population through the filtering effect of ‘opinion leaders’ (ibid., p. 141).

Messages circulating from 'centres of communicational power to the sub-proletariat peripheries of the world' are not decoded by the addressee and then the message is received as pure noise (ibid).

[SS] Like the noisy screams of Myrtle just before she realises she is about to die in the story.

[OS] Yes. Poor Myrtle certainly didn't decode the signs and messages all around her of her impending death. But in our 'semiotically oriented sociological study' (Eco1979, p.142) we may develop an understanding of her and animal culture.]

[SS] Seems like lots of people are dying lately. And I don't just mean Myrtle. Finish 8.16 p.m.

Labouring through Semiotic Labour

Posted on 15 January 2016 by Polo

I am halfway through Eco's *A Theory of Semiotics* [SS and OS: Thank #@&£!.]

Start 9.45 p.m.

[SS] You did not start writing at 9:45.

[OS] But we did start thinking at 9:45. And, what's with the reference to 'you'?

[SS] Because I am not responsible for the unfocused, fuzzy attempts at writing. And, what good is thinking if it's not expressed?

[OS] Well the thinking was expressed, just not at/on this page?

[SS] What page, by the way? This is writing in cyberspace. Is there really 'a page' that we can even talk about?]

[OS] Thankfully we are Critical Realists. So, the page exists!

[SS] What page...?

[OS] Tut. Tut. Sssh! Umberto utters words of wisdom to guide us through our semiotically oriented study...

[SS] Cut the philosophical wham: we are chasing a midnight deadline so we can keep our commitment to a 'piece' a day. In the hopes that our/her supervisor will accept, with exception, this expose.

Producing signs and signals is laborious. First, there is the physical stress of uttering. Although usually associated with sound emission, Eco enlarged the notion of utterance to any production of signals (ibid., p. 151).

This act of uttering presupposes 'labor/labour'. Labour increases because there are different types of signs. For example, instead of uttering words, the production of an image to convey a word's meaning implies extra work. We 'labor' [labour] when we 'utter' to ensure semantic acceptability and its understandability (ibid., p. 152).

There is also 'labor' [labour] in receiving a sentence because it requires interpretation. A sender has to foresee what is received, and the 'addressee' has to "isolate a complex network of presuppositions and possible inferential consequences" (ibid).

Many of these acts of labour are already studied by existing disciplines, but Eco argued that they "have to be included as branches of semiotics" (ibid., p. 152).

[SS] I no longer understand our role in this PhD!

[OS] We are just the conversation in the space-in-between!

Finish 11.38 p.m.

Note from SS and OS: Eco uses the spelling LABOR, we prefer LABOUR

Types of Labour

Posted on 16 January 2016 by Polo

Start 10.06 p.m.

The second half of Eco's book, *A Theory of Semiotics*, looks at the theory of sign production, which is concerned with all the types of labour needed to produce and interpret signs, messages or texts. Also the type of labour used in the physical and psychological effort in manipulating signals; the labour of time needed, degree of social acceptance or refusal and the labour of the pressure exerted by the sender on the addressee and so on (ibid., p. 152).

Eco used a series of interconnecting arrows in a table of the labour presupposed in sign production to try and correct the oversimplification of the bi-dimensional format of the diagram. There are eleven types of labour he identified in the sign production process.

1. The physical labour needed to produce signals.
2. Labour used to articulate expression-units.
3. The labour of code making.
4. Labour when both sender and addressee emit or interpret messages observing the rules of a given code.
5. Labour performed when changing the codes of a given society.
6. Labour performed by many rhetorical discourses.
7. Labour performed in order to interpret a text by means of a complex inferential process.
8. Labour performed by both sender and addressee to articulate and interpret sentences whose content must be correctly established.

9. The labour performed in order to check whether an expression refers to the actual properties of things one is speaking of.

10. The labour of inference.

11. The labour the sender performs in order to focus the attention of the addressee on his attitudes and intentions and in order to elicit behavioural responses in other people (ibid, p. 153-154).

[SS] Gosh it sounds like a lot of hard work.

Finish 10.25 p.m.

Different Signs

Posted on 18 January 2016 by Polo

Start 2.50 p.m.

So the labour of sign production brings “into evidence the fact that there are different kinds of signs” (ibid., p. 157). Different types of signs suggest different modes of production that are linked to a triple process:

1. The process of shaping the expression-continuum;
2. The process of correlating that shaped continuum with its possible content; and
3. The process of connecting these signs to factual events, things of states of the world.

Sign production does not suggest a singular or linear process. All three are interconnected and intertwined. Through this understanding of the process of sign production, a realisation emerges that “some signs are better adapted to the expression of abstract correlations like symbols, and others that would be more useful in direct reference to states of the world, icons or indices” (ibid., p. 157).

Eco concluded that the notion of “sign is a fiction of everyday language whose place should be taken by that of a sign-function.” (ibid., p 158)

[SS] If only I could replace my flatness with motivation. The more I become aware of how I am communicating this thesis, the more I can hear my Internal Conversation. Sometimes the internal threatens to take over the external recording/representation/interpretation of my PhD.

[OS] Maybe we are being too reflexive?

[SS] You are supposed to be the objective one. How can we be too much of anything? We just are. Aren't we?

Finish 3.12 p.m.

Semiotic vs Factual

Posted on 19 January 2016 by Polo

Start 5.10 p.m.

[OS] Do you remember when ‘the’ professor asked how I could call something a ‘fact’? Even though I knew he was being pedantic and could feel his arrogance, I found it hard to explain exactly what is meant by ‘a statement of fact’. Even Umberto Eco, seemed to struggle to explain as this blog will show.

[SS] It is not Eco who was struggling but us!

[OS] Maybe, but to make it really objective we can quote exactly what Eco states and see how clear it is to everyone else.

[SS] But we won't know what the reader felt!

On page 158 of his theory, Eco (1979) stated that “semiosis lives as a fact in a world of facts”. It takes place among events and many events happen that no one could have anticipated. Similarly, as Eco previously explained, messages can be interpreted in a way that could not have been anticipated by its sender. Sometimes an innovatory statement can upset the structure of codes when they do not fit with the order of content. When this happens it raises an age-old philosophical distinction between analytic and synthetic judgments. Eco argued that the focus on distinction should not be between analytic and synthetic but rather on the “semiotic distinction between semiotic and factual judgments” (ibid., p. 158).

Particular examples of judgments are statements that can be either semiotic or factual.

This is how Eco explained the difference between these two kinds of statements:

- a) /This is a one dollar bill/ is not a statement: it is a mention (see 3.3).
- b) /One dollar is worth 625 lire/ was a semiotic statement in 1971, thereby expressing a coded signifying relationship.
- c) /One dollar is worth 580 lire/ was an astonishing factual statement emitted in a given day during 1972.
- d) /One dollar is worth 580 lire/ became a semiotic statement of type (b) during 1972 (ibid., p. 160).

It seems the notion of change is the key to the difference between a factual and a semiotic statement as is acceptance and change. To be semiotic, something factual when stated must be accepted by a society and remain so until “the arrival of another code-changing meta-semiotic adjustment” (ibid., p160).

Therefore, to mention something is to refer to something. To present something as fact, not only has something been referred to, but it has been given meaning. That ‘something’ is semiotic when it is coded and accepted.

[OS] You see there is some basic common sense to all of this.

[SS] But what about statements that come from people with no common sense?

[OS] Oh dear, that’s quite a judgment!

Finish 5.55 p.m.

Statements of Fact

Posted on 20 January 2016 by Polo

Start 5.48 p.m.

Generally speaking, logic is concerned with verbal expressions. But discussions about statements and judgments, Eco 'stated', are also concerned with non-verbal expressions. For example, the Encyclopaedia Britannica is a text with meta-semiotic and semiotic statements because it 'uses verbal definitions of semantic units and uses drawings and photographs to analyse components of semantic units' (ibid., p. 160).

Eco distinguished different types of statements that use verbal and non-verbal expressions through the following examples:

1. The visual demonstration of Pythagoras' Theorem is a *semiotic statement*.
2. A road signal announcing danger is a *factual statement*, with a mention.
3. Other road signals that command action as in <stop> are *communicational acts*.
4. A drawing of a horse with a caption /horse/ represents an *index-sensitive semiotic judgement*.
5. A portrait/photograph of a Nobel Prize winner with a caption /this man [sic.] has won the Nobel Prize/ constitutes an *index-sensitive factual judgement* (ibid., p. 161)t.

Factual statements are an example of creativity permitted by the rules of the code. The creativity of language has double aspects: rule-governed creativity and rule-changing creativity. Creativity of language has as its basis the dialectic between codes and messages (ibid).

[SS] I thought you needed people to have a dialectic? When we are chatting in her head are we 'having' a dialectic between subjective creativity and objective codes? I am definitely having a conversation with my stomach, because it is shouting hunger and I am listening. Only time will tell at what point I will be moved to act.

Signs are factual statements. "Signs are used in order to name objects, to describe the states of the world, to point toward actual things, to assert that there is something and this something is so and so" (ibid., p. 162). They are used so frequently in this way that 'philosophers' have maintained that a sign is a sign only when it is used to name things.

Eco argued that meaning has autonomy and is independent from its referent. In the example, he used of the index-sensitive fact /This is a pencil/ the meaning does not depend directly on the 'actual' thing because this assumption would negate the independence of meaning from the referent (ibid., p. 162).

[OS] This sounds like a philosophical discussion not a methodological one. Critical Realists (CR) wouldn't take the philosophical approach that meaning is 'tied' to a thing. One thing I appreciate about CR is that meaning has independence. There is 'truth' that stands alone. That is not dependent on things or us! These are hard concepts to grapple with, but as Eco reminded us on page 163 there is 'still a problem to be solved' (ibid).

Finish 6.21 p.m.

Mentioning a Point

Posted on 23 January 2016 by Polo

Start 5.45 p.m.

[SS] I just ran out of ink in my pen. It took me less than four weeks to use it all up. It was mainly used in writing notes that supposedly helped me understand what I was reading in Eco's *Theory of Semiotics*. I think it's worth mentioning that fact, even if I don't quite know why?.

[OS] Because you sometimes want others to know what happens before you get to the page. You/We want there to be a sense of what goes on underneath, before, behind, around this PhD.

[SS] Yeah. It's not this neat process that unfolds with precision and clarity with each day. Some days it feels bleak and I feel we are in a deep, dark hole where there can be no escape.

[OS] Kind of like today? We are going round in circles on just one page digesting 'pointing' and 'mentioning'. It is also a hard day emotionally. The PhD is caught in the middle of a whole life consumed with questions about purpose, cause, future, desire, survival, pleasure, commitment and responsibility. Eco is not a great distraction from all of that. In fact, he can muddy the waters. Today is a day to just keep going. Right now is the moment to get back out on to the page...

Indexical devices or pointers apparently are "characterised by the fact that they have, as their meaning, the object to which they are physically connected" (ibid., pp. 163-164). This definition although rejected by Eco 'as not true' is used by him as the basis for analysing the process of mentioning (ibid).

For example, a pointing finger at a cat accompanied by the statement /This is a cat/ would generally be accepted as true. In order for that to be true it must be translated as follows: the perceptum of the cat must systematically correspond with the semantic properties of the cat. Both are in that process represented by the same sign-vehicle. The cat at this point is no longer just a physical object. "It has been transformed into a semiotic entity" (ibid., p. 164).

[SS] But how can it be true and transformed, if Eco himself bypassed what he himself stated as untrue, namely the definition of the meaning of the object to which the 'pointing finger' is connected?

[OS] The common sense version of the pointing finger pointing toward something else helps to build the more transformative definition of pointers beyond the object to the perceptum, which can then lead to the idea of 'ideas as signs'.

[SS] Why don't we just say all that on the page? And by the way, I have noticed that when you quote Eco, you change the spelling of his words from American spelling to English spelling. Doesn't that point toward some kind of judgement of yours?

[OS] This is internal, because on the page we have to be certain. Whereas an Internal Conversation is just a conversation that shows we are thinking about what we are putting on the page. And what it takes to get there.

[SS] You are clearly starting to go round in circles. And, you don't really answer my questions.

[OS] Zzzzzzz!

Finish 5.05 p.m.

Ideas as Signs

Posted on 26 January 2016 by Polo

Start 1.11 p.m.

"Ideas are the first logical interpretants of the phenomenon that suggest them" (ibid., p. 165). This assertion returns us to the 'vast problem' of *perception as interpretation of sensory disconnected data*. When confronted with experience we arrange and make sense of data through what Eco described as a 'complex transactional process' that allows the formulation of a hypothesis that is based on previous experience (ibid., p. 165). There are not only contemporary, but historical, roots to Eco's proposition that 'ideas are already a semiotic product' (ibid., p. 166). The entire history of philosophical tradition associates linguistic meaning with perceptual meaning. Eco uses Husserl's assertion that 'knowing is a dynamic act'. To name and recognise are the same process (cited in Eco, 1979, p. 167).

[SS] Do you know who Husserl is?

[OS] No. Either we both weren't paying attention, or this is the first time he has been dropped into the text. We can look him up.

[SS] I admit I lost the train of thought when we had to reset the TV so it could be viewed by an 81 year-old soap lover. Really borderline soap addict, but that's a moral judgement not necessarily relevant to this chat, nor fair to the person watching the soaps. And, it's a

distraction from the confusing attempts to figure out who Husserl is and the other author Goodenough? Anyway, we don't have to explain him, isn't it 'goodenough' that Eco did! So funny.

[OS That's *enough* of the wise-cracks! There is a huge gap between wise-cracks and wit, and both are a long way from wisdom.

Although Eco illustrates the long philosophical history supporting his claim that 'ideas are signs', he acknowledged that the extent to which the idea of meaning agrees with the semiotic notion of cultural unit is a study requiring further depths. Depths that signify 'another of semiotics limits' (ibid., p. 167).

[SS] Are we back in one of Eco's circles again? Do you notice the way Eco has organised his theory in chunks of analysis. For example, he ends one point in a neat paragraph and often without resolution, and then continues his analysis with a new paragraphed and numbered section. Two and a half pages closed off with "This is not the place to study this in greater depth" (ibid., p. 167), then begins with a new title: 3.3.5 /*Is/ as a metalinguistic device*(*ibid*). And we have to keep up with his analysis and follow him?

[OS] Yes I am aware of what you notice. But follow him we must.

To recognise something, for example /*cat/*, presupposes a previous semiotic process. I recognise a cat as a cat because I apply an idea or concept to it. There is already a perceived semiotic component to the object being referred. The example of referring /*This is/* suggests a comparison between two semiotic objects: "the content of a linguistic expression with the content of a perceptual act" (ibid., p. 168). The coupla /*Is/* is a metalinguistic sign meaning <possesses some of the semantic properties of>. The process of comparing the semantic properties of the linguistic expression and the perceptual act can either be accepted or refused (ibid).

So, Eco claimed, semiotic index-sensitive judgements are clear: A cat is a cat. But the nature of 'factual' index sensitive judgments remain obscure. For example, adding the property 'one-eye' to the cat in the example leaves 'wondering' properties and points to a host of free variants. But predicating new properties cannot be incompatible with its type. It

is possible that the cat can have one eye, but /a one-eyed pencil/ is not an acceptable factual sensitive judgement (ibid).

The difficulty arises when the added property is close enough to have possible merit, but not established in the code. Eco uses the example of a four-foot long cat. After checking the truth of what I see (not just assigning inappropriate words to the living expression); checking if the cat was mistaken for another member of the cat family, like a panther; I would have to reformulate the factual statement from /this cat is fourfeet long/ to /some cats are four-feet long/, “after which, by means of a meta-semiotic judgement, I can change the code” (Eco, p. 169).

[SS] Well there is a lot of code changing and code breaking going on around Polo. At the moment in Vol. 3 he has reached the moral judgement (after witnessing Myrtle’s slaughter) that humans are cruel. He has also reached a limit – he is stuck and desperate for death.

Finish 2.15 p.m.

The Four-Foot-Long Cat

Posted on 30 January 2016 by Polo

Start 10.40 p.m.

The case of the four-foot-long cat, although puzzling was/is still based on a perceived subject. Puzzling properties of subjects are common. However, there are cases where the subject itself causes problems. Eco presented the infamous case of the sentence /The present King of France is bald/ that caused a semantic whirlwind around the subject that is still not settled. He believed the statement may help resolve the ‘problem of mentioning’ in semiotics (ibid., p. 170).

The problems are threefold:

1. /is bald/ can only have meaning if it is a description of a single object.

2. /King of France/ is a cultural unit, not a person, and therefore it “can or cannot correspond to somebody who actually existed and who could continue to exist”.
3. /present/ is a pointer and a pointer is a shifter. /Present/ could be meaningful and true if used to mention a specific individual who is the King of France. It suggests a ‘precise spatial environment’ (ibid).

[OS] Thesis interrupted 11:10pm-11:50pm

[SS] So, you could watch S2:E1 of House of Cards. Tut. Tut.

The word /present/ in the notorious sentence in the example above forces the question:

“What does it mean?” (ibid., p. 170). It is ambiguous because of two semantic devices – 1/There is a King. 2/The king of France is bald. Although /the present King of France is bald/ is “an example of a misuse of sign production”, it is a meaningful sentence if ‘considered as a mention.’ Without /present/ the sentence /the king of France is bald/ is simply useless, according to Eco: “The proof is that, when hearing it, people will ask: “which one?”, thus demanding an indexical circumstantial marker” (ibid., p. 171).

[SS] Pipped at the post. Missed the marker. Ran out of time. More haste less speed.

[OS] What?

[SS] You should have had this post published yesterday. It’s now two/2 minutes into today. The present is now further away...

Finish 12.02 a.m.

A Discourse over Content-Nebulas

Posted on 9 February 2016 by Polo

Start 6.00 p.m.

A large number of content-units whose combination has yet to be coded are a type of discourse. Discourse challenges conventional sign-functions because they require new combinations of cultural units, or 'content-nebulas' as Eco called them, that either have pre-coded content, or require new code generation (ibid., p. 187).

Eco divided discourse into two types: factual statements of un-heard of events; and undefinable content units. The first refers to new combinations of existing cultural units (content-nebulas) of which the content system is recognisable and classified. The content is identifiable, but the form is not. For example, a /golden mountain/ or /red elephants/ living on the moon. Individually, these content units are recognisable, but the fact that they are put together requires a new worldview (ibid., p.188).

[SS] Why are you doing this?

[OS] Because we have to prove our worthiness to write what we want to write in the other text? To prove that there is meaning to what we write.

[SS] Isn't that another form of *%#@*&^^*? Aren't you just playing a game? Does it really matter whether we understand Eco?

[OS] Yes it does. In the same way it 'matters' that we understand anyone, including ourselves.

[SS] But why? Why is it that our understanding only grows when we read, re-read and read again? Can't anyone then understand the meaning of this text we are supposed to be analysing?

[OS] Of course anyone can understand anything. Well, maybe that's not a given. But, certainly if we choose, we can. The brain is capable of getting used to anything.

[SS] But not everyone has the time, or the luxury, to be able to give attention to understanding and reflection.

[OS] I think we should move on with our goal/challenge of finishing the analysis of pages 187-188, otherwise we could also get bogged down in repetition and circular confusion. Let's keep the vector pointing forward.

[SS] Like, Eco's bloody /pointing finger/?!

The second 'type' of discourse is that which has undefinable content units. Unlike factual statements, these discourses pose a new set of problems, according to Eco. The content nebula cannot be analysed into recognisable and definable content units. These are rule changing creative processes where codes and content have to be invented. This leads to a paradoxical situation where "the sign producer has a fairly clear idea of *what* he would like to 'say', but he does not know *how* to say it; and he cannot know *how* to do so until he has discovered *precisely what* to say" (Eco, 1979, p. 187).

[SS] Oh no, not another one of Eco's paradoxes!

[OS] There are only two he has mentioned so far. Don't be so melodramatic.

[SS] Life is a paradox. Life is death. Death is life. And writing this PhD feels like a case of life and/or death. I need to get out of here.

Finish 7.17 p.m. [minus five minutes for a call from the US]

He/She, She/He!

Posted on 11 February 2016 by Polo

Start 8.45 a.m.

[SS] I have decided to step in and take control of this post because I am fed up and not allowed to address the issue in 'her' text. We are just a conversation in her head. We are

just a concept in Archer's head, about what might be going on in her head – her Internal Conversation. But I am getting fed up with the overwhelming reference to 'He' in Eco's theory. /He/ has meaning in semiotics. /He/ <He> is a cultural unit that has meaning. I am fed up with the gender biased 'he's' in Eco's work. It is distracting from what we are supposed to be focusing on – the bigger meaning of how we make meaning. I feel excluded. We are supposed to be discussing Iconic properties with specific mention of portraits of Queen Elizabeth. I am just not interested right now in pretending that all quotes are from the 'he's' of the world, and I am just not particularly interested in a PhD that has to discuss the meaning-making of portraits of Queens.

Finish 8.55 a.m

Opposing Oppositions

Posted on 20 February 2016 by Polo

Start 9.10 a.m. [after a very strong black coffee.]

Eco reminded us that we have learnt through the kinesic pointers [like but not limited to 'the pointing finger'] that signs can exist that are replicable and motivated. But these are not features of signs but rather modes of production (ibid., p. 189).

This, he claimed, is also the same in the case of oppositions. An opposition such as 'arbitrary vs motivated', for example, dominated the 'whole history of philosophy of language'. A history so evidently based on experience that its position became accepted. But, according to Eco, in recent years, its position demands more rigorous examination because a third opposition has been coupled with it and its associated 'conventional vs natural'. The third opposition 'digital vs analogical' completes a 'whole system' that is presented in an 'apparently logical form' (ibid., p. 190):

- digital vs analogical
- arbitrary vs motivated
- conventional vs natural (ibid)

The vertical columns are supposed to list synonymous categories, which at a glance do not, Eco asserted. This points to the general problem of the “so-called iconic signs”. These have become all-embracing terms that cover many semiotic procedures. We sense a difference between the word /dog/ and the image of a dog even if we are asked to accept the iconic symbol. This difference is “not the trivial one between iconic and ‘arbitrary’” (ibid., p. 190). It is a complex array of modes and production of the process of sign production, which are bound in our cultural conventions (ibid).

Suspended 9:40am

[SS] Oh where, oh where has the little girl been?

[OS] I have been to the hairdresser!

[SS] Is there only one?

[OS] You know what I mean? The hairdresser that is the one for me.

Resumed 11am

So, Eco continued, “... iconism covers many semiotic procedures and many ways of producing signals ordered to a sign function” (ibid., p. 191). There are codes that provide rules for the generation of signs and their functions, but Eco claimed, the process of correlating a word or an image to its content is not the same thing. Therefore to prove that an image signifies a dog, a few – six to be exact – naïve assumptions have to be challenged. He names all six ‘so-called- iconic-signs’ as:

(i) same properties as its object;

(ii) similar to its object;

(iii) analogous to its object;

(iv) motivated by its object;

(v) arbitrarily coded;

(vi) subject to multiple articulations (ibid).

Eco qualified the arbitrariness of assumption (v) by asserting that they are culturally coded without being arbitrary. Introducing this flexible view of the coded convention allows 'discrete' analysis of their expression. This unhinges dependency of assumption (vi) therefore allowing the naivety of all six assumptions to be challenged, each in turn (ibid). .

Finish 11.30 a.m.

(i) All the Same

Posted on 20 February 2016 by Polo

Start 11.15 a.m.

In 1946 Morris claimed that a sign is iconic "to the extent to which it, itself has the properties of its denotata" (cited in Eco, 1979, p.192). On the level of common sense Eco agreed, but with deeper examination, Morris's statement is shown to be 'tautological and naïve'. And one that does not satisfy semiotics (ibid., p. 192).

Later in his study, Morris himself qualifies this 'rigidity' by modifying his original statement to "any sign which is similar in some respects to what it denotes" (ibid., p. 192). The qualification therefore produces a definition of iconism as one of degrees and exposes an elasticity that permits the notion that "certain perceptual mechanisms in iconic experiences are the same ones that function when involved with the perception of an actual object" (ibid., p.193). But they are not the same; rather they produce two different perceptual results.

Using an example of iconic signs to advertise beer detailed on page 193 of his theory, Eco asserted that the stimuli in the beer advertisement are not the same as the stimuli of the actual beer. Iconic signs do not possess the same properties as actual objects being represented. They do, however, rely on the same perceptual structure. A line on a page that outlines a horse clearly does not share the same properties as a horse. It is previous learning that leads an addressee to accept a line on a page as a horse. A line that is precisely a property that a horse does not address (ibid, p. 193).

How does this occur? In part through “surrogate stimuli that, within the framework of a given representational convention, contributes to the signification; they are sheer material configurations that simulate perceptive conditions or components of iconic signs” (Kalkofen, 1973, commenting on Eco, 1968, cited in Eco, 1979, p. 194).

Another example to debunk the icon-as-same-properties notion is the way saccharine is quoted as resembling sugar. Neither are the same chemically as chemical analysis clearly shows. Nor are either similar visually, in fact sugar resembles salt more than saccharine. Sugar is also demonstrably different to saccharine in the culinary field. This led Eco to conclude that it is not a relationship of ‘form’ but of ‘effect’ (ibid., p195).

Finish 12.00 p.m.

[OS] The allocation of arbitrary time slots to depict the actual time of writing is being used in the previous two and the next four academic-blogs, to instil a perception of daily work, as opposed to mad-catch up-all-day-long-hours session. But, it is hoped, the effect of the blogs will be the same.

(ii) Similarities

[OS] All I got from this is that similarity is a ‘complex notion’ and one similarity will point to another in an endless progress. Therefore,” the meaning of a sign is in fact the sign for a further meaning” (ibid., p 196-199)

Posted on 22 February 2016 by Polo

(iii) Analogies

Posted on 22 February 2016 by Polo

Start 11.55 a.m.

Eco asked whether iconic signs can be called analogous on page 200 of his theory of semiotics. In some sense it appears as though analogy and similarity are synonymous terms (ibid., p. 200). Functions of analogous computers provide an explanation of analogy as a relationship of proportionality. But for it to be analogous there must be ‘constancy in the proportionality between two series of entities’ not just a constancy in the entities themselves (ibid) This relationship of proportionality may be defined as a type of analogy but Eco cautioned “not all definitions of analogy reduce themselves to that of proportion” (ibid)

When analogies are not proportional but ‘resemblances’ between entities then that supposes an iconic relationship (ibid).

[SS] I feel another mushy, muddled, complexity coming on.

A notion of iconism that is not based on a proportional analogy leaves us “with the absurdity of having semiotics resort to analogy to explain iconism, while invoking iconism to explain analogy” (ibid., p. 201). We thus have a proposition based on a premise that itself requires proof – a ‘peitio principii’. This leads to circular reasoning, which Eco avoided by concluding that an analogy is “a procedure instituting the basic conditions for transformation” (ibid., p. 201).

[SS] Well caught Eco.

[OS] What is well caught?

[SS] The boomerang of potential confusion.

[OS] There is a glimmer of hope: these arguments/discussions/definitions/debates/ explorations are not just circular, they are increasingly feeling like concentric circles.

[SS] You mean there is movement outwards instead of round and round on the same lines?

[OS] Yes. With training we too are starting to recognise a line of reasoning in his theory. Just have to keep following it.

[SS] Keep 'trucking', like Thomas the Tank Engine. Just keep moving. Keep rolling, rolling, rolling: keep that PhD rolling along!

Finish 1.05 p.m.

(iv) Reflections

Posted on 23 February 2016 by Polo

Start 3.00 p.m.

The fourth naive assumption regarding iconic signs is that of 'Reflections, Replicas and Empathetic Stimuli'. So far in the development of his theory, Eco has claimed that transformation seems to be the best operational explanation of the impression of iconism (ibid., p. 201).

Similarity and analogy are the vehicles of the operational transformation of iconism. But there are some 'embarrassing' phenomena, requiring elimination, that may be included as subheadings of similarity. These are:

1. Specular reflections;
2. Doubles and replicas; and
3. Expressive signs (ibid., p. 201).

The first, 'specular reflections', Eco categorically stated, are not signs. They are a virtual image that stand in front of something, not for something, as signs do. They exist because of something not instead of something, as signs do. Specular reflections disappear without a trace as soon as the image of reflection disappears (ibid., p. 202).

The second, 'doubles and replicas' are also excluded in the definition of similarity as iconic transformation. A 'double' is only an icon of its model-object in very specific cases and its lack of constancy and consistency is close to the problem of specular reflections. Replicas are excluded because: "The very notion of a sign and of its replicability (and thus of its social nature) depends on postulating that such recognition is possible" (ibid., p. 203).

The third exclusion is that of 'expressive' properties of certain signals. For example, the artist Kandinskij studied and claimed that a single line could evoke/express a range of feelings from weakness to force. But their expression is not worthy of confirmation or denial as they belong to the realm of physiology and nervous system responses. They are not, Eco claimed, based on the properties of the 'universal' human mind and do not deserve consideration within a semiotic framework. With two exceptions: 1/ When the precise effect is culturally recorded. 2/ When there is a conventional coded link between signal and feeling (ibid., p. 204).

[OS] Note. An analyst of the current leadership debates in the Irish political campaign described one leader's use of 'his pointing finger' as 'iconic and symbolic'. He then went further in his analysis suggesting that the 'pointing finger' in this instance was a representation of a gun. I first thought, was this analyst aware that he was referring to semiotics. That it was semiotics that points to her understanding of pointing fingers? I also thought that it was clear that he was trying to create a feeling from this iconic gesture and sway audiences into interpreting it as a violent gesture and an historical marker. The leader was Gerry Adams of Sinn Fein. I think Eco would reject the conclusion the 'body language analyst' drew: that pointing fingers are extensions of guns (The Late Late Show, Presented by Ryan Tubridy, Friday, 20 February 2016, 11pm).

[SS] I think Eco would be proud of your analysis of the analyst's analysis of the pointing finger!

Finish 3.45 p.m.

(v) Convention

Posted on 26 February 2016 by Polo

Start 2.05 p.m.

[SS] I spent at least 30 minutes in a jaw breaking bruxism because the six naive assumptions Eco listed on page 191 of his *Theory of Semiotics* – that have to be challenged in order to get to ‘real similarity’ – have now been lost in a string of thoughts in subsequent pages. Specifically page 204. I could follow the analysis of the first four naive assumptions, he refers to in roman numeric as (i), (ii), (iii), (iv) and now when we arrive at (v) (Eco, 1979, p., 204) I can no longer follow his ‘train of thought’. Just when I was feeling happy that I/we were only ninety pages away from the end of the long semiotic tunnel, Eco’s thought train is almost derailed in my head.

[OS] Just ‘be cool’. Keep calm and move on. We will call this post ‘convention’ because it is almost an antonym of ‘arbitrary’ that is the main point he was making in his challenge of the fifth naive assumption.

[SS] For feck sake, you are almost as confusing as Eco is.]

[OS] I am not getting stuck in here with you. Let’s just get back out onto the page and try to make sense of Eco’s thoughts on iconism and convention.

With potential mistakes eliminated from pages 192 to 204, Eco moved onto describe ‘real similarity’. There has to be a cultural convention that allows something, an image for example, to be similar to something else (ibid., p. 204). There is a codified ‘system of expectations’ that allows us to enter into the realm of an artist and accept and understand what it is they may be representing. Eco cited Ernest Gombrich’s explanation of how the famous artist Constable developed techniques that captured the contrasting tones of light that were so new that people felt “he was taking a strange liberty” (ibid., p. 204). Constable produced almost photographic representations of landscapes and “had invented a new way of coding our perceptions of light, and of transcribing it onto canvas” (ibid., p. 204).

[OS] It is amazing to think that Constable’s painting, *Wivenhoe Park*, is nearly an exact image of the field in which Myrtle-the-cow lived/lives. It is similar to the field in my mind’s eye where Polo, the main character in Volume 3 of this PhD, meets Myrtle. It is also ironic that Constable loved nature. Ironic because he thinks [man] is ‘sympathetic’ to nature. If he was alive today, would he be a Climate Change Activist, and appalled by what [man] has done/is doing to nature?

BREAKS 3.10 p.m.

- “There has never been an age... in which the love of landscape has not in some way been manifested.... [Humanity’s] nature is congenial with the elements of the planet itself, and he cannot but sympathise with its features, its various aspects, and its phenomena in all situations.” (John Constable, lecture, 1833)

(v) Conventions continued

Posted on 27 February 2016 by Polo

Start 2.47 p.m.

What the Constable painting example from the previous post shows is that when proposed, iconic ‘solutions’ are not conventional, but rather become so ‘step-by-step’. This is so the more the addressee becomes acquainted with it. But at certain points the iconic representations can overcome the real experience (ibid., p. 205).

An example of this is Durer’s portrayal of rhinoceros with imbricated plates that represented the scales of rhinoceros skin. His representations remained constant despite zoologist’s and explorer’s knowledge and interactions with ‘real’ rhinoceros. Despite Durer’s drawings looking absurd in comparison to photographs of rhinoceros, they were considered more realistic as they were able to portray the skin more accurately. “Thus one could say that Durer’s rhinoceros is more successful in portraying, if not actual rhinoceroses, at best our cultural conception of a rhinoceros” (ibid., p. 205).

Finish 3.46 p.m.

Lines, Horses and Helicopters

Posted on 29 February 2016 by Polo

Start 6.20 p.m.

Extending the example of the line drawing of a horse, Eco proposed that to change the perception of the line from horse to zebra requires simple additions of a few stripes for it to be recognised as a zebra. Recognition is a key component of similarity in iconism.

Recognition of a zebra through a line drawing is different across cultures. In a western context a line that traced the broad outline of a horse with stripes, would be recognisable as a zebra precisely because recognition codes exist associating zebras with horses. But, Eco explains suppose there was an African community where zebras were associated with hyenas because of shared stripes. Then it would be important to highlight the shape of the muzzle and length of legs for a zebra to be distinguished from a hyena in that culture.

Pertinent features of the content being represented must be expressed. From this Eco concluded there “must exist an iconic code which establishes the equivalence between a certain graphic device and a pertinent feature of the recognition code” (ibid., p. 206).

[SS] I am hungry and recognise the smell of the yellow dahl stewing away. Going to make a ‘bee line’ to it shortly.

According to Eco, it is easy to imitate the movement of a helicopter’s blades using the human body. It is more difficult and complex to draw the movement of a helicopter’s blades because movement has to be suggested. This difference between objects seen and objects known became evident to Eco when he witnessed his four- year-old son imitating a helicopter (ibid., pp. 206-207).

The public, Eco claimed, only recognise on canvas those features that can be seen not those that are known. Thus iconic signs may possess optic, ontological and conventionalised properties of the object. A Renaissance artist reproduces properties they see, a cubist painter reproduces that which they know (ibid., p. 207).

[OS] But couldn’t a cubist painter claim that what they are reproducing is what they see? I don’t get the absoluteness of this statement.

Conventionalised properties are those that “catachresized the previous creative rendering of an actual perceptual experience” (ibid., p. 207). A typical example is how we represent the sun as a circle with lines radiating outward. It is likely this representation occurred because we viewed the sun through partially closed eyes, which produced an image of a ball of radiant light with rays. It so happens that this corresponds to our scientific experience of the sun as “an incandescent sphere from which emanate ‘rays’ of light” (ibid., p. 207). In this instance there is a relationship between the iconography and the scientific idea. But the relationship, Eco explains, is not one between the image of the sun and the sun as object. It is rather a relationship between the image of the sun and the abstract model of the sun as a scientific entity. “Thus a schematic representation reproduces some of the properties of another schematic representation” (ibid., p. 208).

Finish 7.23 p.m.

[SS and OS] It is with great respect, admiration and awe that we acknowledge Umberto Eco’s death today. A great person has passed away.

The Fallacy of Signs

Posted on 10 March 2016 by Polo

Start 3.55 p.m.

There is a fallacy in attempting a typology of signs. What can be achieved and isolated, according to Eco, are “modes of sign production” (ibid., p. 217). Even classifying modes of production produce challenges and problems in developing a theory of sign production (ibid).

Eco created a table (ibid., p. 219, No. 39) that showed the classifications of modes of production and their inter-relationships. He isolated four broad classifications that have been discussed in part before.

1. The physical labour needed from sign recognition to sign production.

2. The type-token ratio discussed from p. 183 – p. 184.
3. The type of continuum to be shaped.
4. The mode and complexity of articulation from precise combinational units, coded or over coded, to texts not yet fully analysed (ibid., p 219).

Finish 4.20 p.m.

Sign Lookalikes

Posted on 14 March 2016 by Polo

Start 5.22 p.m.

[OS Now that Eco has pointed them out; I have become aware of just how often the term Icon is used. When visiting Newbridge Silverware, there were posters about 'Style Icons'. In the book I am reading by Lawrence Anthony with Graham Spence called *The Elephant Whisperer (2010)* the word 'icon' is used multiple times. I am starting to see the 'signs' of what

Eco called the 'umbrella usage of 'icons'.]

On page 218 of his semiotic theory, Eco developed a 'Typology of Modes of Production' that he sets out in detail in Table 39 that records the way expressions are physically produced (ibid., p. 219). The table does not help find 'types of signs', only lists productive activities that give rise to sign-functions. The typology and approach exposes the fact that things that may look like signs are not signs at all. These include 'imprints', 'examples', 'vectors' and 'projections', none of which are types of signs (ibid., p. 220).

The vertical columns of Table 39 are given the headings:

- Physical Labour
- Recognition

- Ostension
- Replica
- Invention

Physical labour is one of the four parameters identified in column one and outlined in more detail in a previous post. Recognition occurs when an object or event, regardless of how it is produced, comes to be viewed by the addressee. The 'act of recognition' may reconstitute the object or event as an 'imprint' a 'symptom' or a 'clue' (ibid., p. 221). An imprint, however, is distinct from the other two in that it "represents both a metaphorical and metonymical operation" (ibid., p. 221).

We must learn to recognise an imprint. Imprints are usually coded such that it is possible to recognise the difference between footprints of rabbits and footprints of hares. In some sense there is an oppositional element to imprints (rabbit vs hare). At the time of his study in 1979, Eco believed that semiotics had not completed its explanation of imprints. But it had developed a 'provisional boundary' which pointed to imprints as objects inserted into a sign function. They were not signs (ibid., p. 222).

Eco also recognised some vectoral qualities of imprints, which are similar to the vectoral quality of a 'trace' that is interpreted by its direction. But direction can be falsified. He used the example of shoeing a horse backwards to give the impression of movement in one direction. An impression that is false. These lead to very complicated texts and projections. He confined his discussion of imprints to *coded* imprints that are analysable into "pertinent elementary features". Eco considered coded imprints as doubly motivated:

1. The first motivation is the form of their content;
2. The second is the presupposed relationship to the cause.

A paw mark found in mud does not mean the same as the cause of that cat's mark.

Finish 6.30 p.m.

[SS and OS], as a combined unit, we hereby declare our unified gratitude to the glorious, wonderful Prof Heila Lotz-Sisitka for her willingness to read the three texts of my PhD. I am now doubly motivated in my continued work.

Clues about Imprints

Posted on 15 March 2016 by Polo

Start 10.30 a.m.

Imprints are motivated by previous experiences and are, like any recognition procedure, conventionally coded. They are not arbitrarily established.

“In the recognition of symptoms, the expression is ready-made.” The referent is not required. Symptoms can be falsified. Eco used the example of the possibility that there can be smoke without there being a fire (ibid., p. 223).

[SS] Let's face it ... you have no idea how this can be true. Doesn't the saying go *there's is no smoke without fire?*

[OS] According to Eco, when the smoke is correlated to a fire then that is when it's a symptom used for mentioning. In the case of mentioning then, if there is smoke, then that means fire. I think he is using the example of there can be smoke without fire to show that smoke and fire are distinct and one does not have to suggest or mean the other. They both have different semantic markers. Anyway, discovery of gold particles in eucalyptus leaves discredits the idea, and expression, that money doesn't grow on trees! (Reported by Steve Connor, The Independent, Friday 25 October 2013). Semiotics question. Maybe the saying '*there is no smoke without fire*' is an example of an over-coded convention such that we no longer even bother to question its meaning!

Clues work in the exact opposite way to symptoms. A clue stripped of any possible imprints, suggests ownership: the presence of someone can be abduced. Clues are seldom coded (ibid., p. 224). Imprints and clues refer back to an agent. An imprint, however can rarely be connected directly to an individual. Eco used the example of Robinson Crusoe's discovery of a footprint. He could connect the footprint to that of a

'human being' but not directly to the actual human being. Who was in this instance, the person 'Friday'? After seeing the other human being Crusoe would likely have connected that individual to the footprint, but only through inference. This is similar to the process of recognising a clue. If a set of false teeth is found, it is safe to assume they belong to a human being. However, connecting them to a specific human being must be done through inference or abduction. What can only be truly known is that someone's false teeth have been left behind. ... (ibid., p224).

But many clues are over-coded objects. For example, if a pipe was found at the same place it is likely that we would assume a man had been there precisely because, through convention, pipes are associated with men. The pipe is over-coded (ibid., p. 224).

[OS] I wonder is that the same process that happens in stereotyping and gender bias? I used to hate hearing how women had to play off a handicapped tee in golf. Why? The explanation, or justification, given was because men can drive the ball farther than women. This answer infuriated me, especially when accompanied by a stated fact that golf was about skill, technique and practice; not brute force and strength.

The second column in Table 39 deals with Ostension. Ostension is an act or process whereby an object is picked up and shown. Eco described it as 'active signification' (ibid., p. 225). It is often used, for example, by two people who do not share a language. It sometimes includes a pointer, but generally the object itself is picked up and "shown as the expression of the class which it is a member" (ibid., p. 224). Eco claimed that there is always a 'stipulation of pertinence', whether this is explicit or implicit. For example, if someone picks up a bar of chocolate and shows it to someone about to go shopping it can mean one of two things: please buy me chocolate, or please buy me this particular type of chocolate (ibid).

Eco mentions that much has been written on signification by ostension, including Wittgenstein, and Swift, who invented an ostensive language (cited in Eco, 1979, p. 225). Ostension can be used as an entire discourse as seen in the example of someone showing their shoes not to simply point to shoes as an object, but to tell a story about the shoes: how dirty they are, or as a request to have them cleaned (ibid., p. 225).

Ostensions can be taken in two ways:

1. a conventional expression of a cultural unit: the chocolate bar, the shoe.
2. “intensional description of properties recorded by corresponding sememe”: a cigarette can be shown to describe the properties of a cigarette (ibid., p 226).

The latter, Eco states, is the only example of how ‘doubles’ can be used as signs (ibid., p 226). Eco classified ostensive production halfway between the two ratios that classify the second parameter of his typology of modes of sign production (ibid., p. 225).

[SS] Is that because all cigarettes have the same recognition markers: cylindrical, long and white? Does he literally mean only cigarettes can double up as signs?

Ends 12:00pm

A Personal Example of Ostension

Posted on 16 March 2016 by Polo

Start 3.17 p.m.

[SS] My stomach is grumbling that’s why I butt in first, even though there is a queue of things/thoughts to be said. There is an anxiety mulling about in my gut. I think there’s a growing feeling of urgency as I am pushing the three texts of this PhD to a conclusion. In the rush, I fear I will miss the joy of it. In the end, I fear I will miss it. The journey. The gut still grumbles, but the other conversationalists are pushing forward with their thoughts.

[OS] During yesterday’s post I was remembering a time when I was sixteen years old working in my friend Margaret’s sister’s shop on Patrick Street in Cork City, Ireland. Just outside the shop was a bus stop for an area called Gra na Brathair. It was considered a ‘working class’ area with a friendly bunch of people with the thickest accents my little brain had ever heard. Thick is not an accurate description. Their voices wrangled in a rhythm that seesawed up into high oscillating waves and then sharply downward into blips of noise strung out in bitty, almost inaudible, hums. I couldn’t understand a thing that was said as people ran up to the counter to make their purchases, usually minutes before their bus pulled in. Sometimes seconds before. Strangely, it was usually the same one, two,

three or combination of the following items: “10 Majors, an Icelol and a bag of Taytos”. I still cannot recite the accent, let alone write it. What triggered the memory was the method I used to resolve the transaction was Ostension. I would literally pick up the items and with hurried, excited nods of assent I would be given dirty rolled pound notes, so I could turn them round in time to get the shoppers on the bus and home. It seemed like the whole shop would be crammed with these indecipherable demands that threatened to crush me. I still tire thinking about it. Here I am many years later, finding out the ‘meaning’ of Ostension in Eco’s *Theory of Semiotics*. How great is life! *Gra na Brathair* means ‘love of the brothers’ in Gaelic by the way. And I am lucky that I do have brothers to love.

In expressions produced by ostension it may appear as though it is complicated and tangled distinguishing expression from referent (ibid., p. 226). But Eco produced an example that illustrates the clarity of such a distinction. Suppose, he asked us to imagine, that there is a crowd of people with each individual holding a piece of bread, each of different shapes and sizes. The crowd are all calling out for more. What Eco noted is that the differences between the people disappear. The pieces of bread are stripped of their physically detectable properties and the bread becomes a sign (ibid., p. 226).

“When an object is selected as a whole to express its class, this constitutes a choice of example” (ibid., p. 226). When an object is selected as a part of the whole then it is considered a sample. An example of this kind of sample is a tailor who presents a piece of fabric that will be used in the total garment he/she produces.

Goodman (1968) discussed in his work the idea of a sample being a “sample of samples”. For example, in linguistics, “a polysyllabic word can be taken as the example of the general class of polysyllabic words” (cited in Eco, 1976, p. 226).

[SS] OK. Too many people walking in telling me ‘they are sorry they are distracting me’. I will take these multiple meanderings as a sign it’s time to call it a day.

[OS] But we must remember: “There’s a long way to go. And a short way to get there.” (Anonymous man overheard in a coffee shop in Clonakilty, Co Cork, 16 March 2016).

[SS] Back to my opening feelings: urgency and anxiety grumbling like an elephant's stomach. Sometimes I feel as though my whole head is one PhD thought – an example of a general class of PhD thoughts. In short, it seems, it's all I really think about.

Finish 4.29 p.m.

Fictive Samples

Posted on 17 March 2016 by Polo

Start 11.55 a.m.

In Table 39, which he called Typology of Modes of Sign Production, Eco listed another type of sample that falls jointly under the headings Ostension and Replica. He called them 'fictive samples', which Ekman and Friesen (1969) called 'intrinsically coded acts' (cited in Eco, 1976, p. 227). A 'fictive' sample is the replication of part of a gesture as a sample of an entire gesture that is not completed. There is no follow-through. A clenched fist that is used to communicate the possibility of hitting someone is a fictive sample (ibid., p. 227).

Fictive samples are coded by a unit-to-unit correlation. This is a convention shared by other coded productions including examples, imprints, clues, symptoms and replicas (ibid).

Replicas form the third of the four headings in Table 39, under which Eco included the following:

- verbal devices,
- ideograms, emblems,
- alphabetic letters,
- coded kinesic features,
- musical notes,
- traffic signals,
- graphic features,
- symbols in formal logic, • symbols in mathematics,

proxemic features. Replicable expressions listed above (but not limited to) have different *“pertinence levels* and may be subject to two, one, or no articulation” (Eco, 1976, p. 228).

But this layered articulation with its possible combinations was disregarded because of the dominance of ‘verbocentric dogmatism’ that existed in semiotics throughout the sixties (ibid., p. 228).

[SS] I wouldn’t want to meet Eco on a battlefield waving a white flag – he’d be sure to ask me what I meant by it and would probably question the iconic symbol and my frantic gestures for peace.

[OS] Are you still going to wear shamrock and your green scarf as symbols of solidarity on St Patrick’s Day?

[SS] Yes. No. I can’t answer that. For nostalgia I may, but I recall my retort when I wore no shade of green in the US on St Patrick’s Day and was chastised for it. In an attempt to limit the attacks on my Irish identity I would say: ‘aren’t I green on the inside’. Still haven’t quite wrapped my mind around how to show how good I feel about my origins, but not so good that the pride becomes a blinding sense of superiority. And how that can be shared by my love for South Africa. It seems we’re only ‘supposed to’ have one national identity. I will continue to muddle through my issues of identity.

[OS] Well you can reflect on that on your own time. We are getting off track. Back to articulating our reflections on Eco’s text.

Eco believed the system of double articulation as an absolute correlation of coded sign production is a fallacy. Eco did not dispute that meaning in language arises out of the interplay between first and second articulations. But he was absolutely denying that “every semiotic process must come about in the same way” (ibid., p. 228).

His refutation and its proof are found in his analyses of Levi-Strauss’ work in 1961 on linguistic properties in paintings and tonal music (cited in Eco, 1976, p. 229). Strauss, for example, rejected possible autonomous meanings of colour and shape in non-figurative paintings. Despite acknowledging his ‘elaborate perceptive observations on the problems of tonal music’, Eco refuted Levi-Strauss’s conclusion that:

1. There is no language without double articulation; and
2. Double articulation is not mobile (ibid).

There are many possible musical combinations from an orchestra, as there are many possible games in a pack of cards. There are sub-systems within a system that is better understood as a diverse matrix. The matrix itself Eco implored “must not be identified with one of its surface manifestations” (ibid., p. 229).

Levi-Strauss, Eco claimed, confuses an event (a game of bridge) with a structure (a pack of cards) with multiple combinational units that can make possible many events (ibid., p. 230).

Cards highlight another area in need of investigation around the issue of double articulation. Take a particular articulation of a set of cards that produce a good hand in a game of poker. This game is one of many games that could be played out of one set of cards. The particular articulation that produced the hand of poker is one of many possible combinations that could be expressed out of a pack of cards for that particular game. The question Eco asked is: are the cards that form the combination of the poker hand elements of a second articulation? There is in this ‘play’ of cards a twofold position and element of opposition in one the hierarchical sequence of the same suit, and they are opposed as hierarchical values attributed to the four sequences of the four suits (ibid., p. 230).

A further related question Eco asked as he explored the problem was “Does articulation stop at the single card?” (ibid., p. 231). The articulation of the unit of the card and its combinations are not inherent in the card itself but changes according to the game being played. From this we can assume that “(i) semiotic systems do not necessarily have two articulations; (ii) the articulations are not necessarily fixed” (ibid., p. 231).

[OS] I am going to use this Levi-Strauss quote I just found on the internet: “Art is capture of nature by culture”. Wow. That probably sums up how Lycaon Pictus, the leader of the ESS in Volume 3 views it also.

[SS] I have decided I am going to wear the symbol, shamrock, not as a sign of my identity but because today I want to feel I belong, I want to fit in. I will worry, or not, about

its meaning another day. Happy St Patrick's Day. Great excuse for the consumption of a creamy pint of Guinness.

Finish 1.45 p.m.

Alternative Articulations

Posted on 21 March 2016 by Polo

[SS] Written in a rush. Have to get into a car and drive for four hours. My 'To Do' list growing and my ability to keep up dwindling. Writing to keep my threads sewn.

Start 11.15 a.m.

Eco listed six possible forms of articulation with twelve sub-sets:

1. Systems without articulation
2. Codes with second articulation only
3. Codes with first articulation only
4. Codes with two articulations
5. Codes with mobile articulation
6. Codes with three articulation

Eco listed these to show that we do not need to "bow to the linguistic model". There is nothing fixed about articulation (ibid., p. 232) .

Finish 11.22 a.m.

Easter Bunnies – Super-Signs

Posted on 29 March 2016 by Polo

Start 11.50 a.m.

[OS] Working off-line over the Easter holidays. Over 60 million Easter Eggs sold in Ireland over Easter! That is phenomenal for a population of 4.5 million. The Easter Bunny is growing more materialistic every year. The symbols, signs of Easter are/were everywhere. It was overwhelming. The Easter Bunny is the Godzilla of Spring, rising out of the marketing departments of retailers. It has grown since my childhood and has grown in the cultural 'mind' of Ireland. It is also the centenary of the 1916 Rising in Ireland. Flags flying everywhere. Lots and lots of semiotic phenomena to observe.

Given the diverse range of semiotic systems...

[SS] This sentence is incomplete because I feel I can't move forward. Someone dropped down to give me one of the fecking Easter Eggs I was talking about earlier. The kettle in my Mother's kitchen, which is the noisiest boiling pot ever, was pressed on. Find a quieter place to work, I hear myself say. But the rising of the daffodils does not a warm house make. This is the only warm room in which to work. With all these interruptions, I have spent almost one hour trying to sound like a decent PhD candidate by coherently analysing the content of page 235 of Eco's work. I am going to try again.

Writing Restart 12:40pm

The diverse range of semiotic systems with multiple levels of possible articulations, reminds us that semiotics is wider and far reaching than language. Hence, Eco's reminder, and repeated here, that "...there is no reason to bow to the linguistic mode" (ibid., p 234). He seems to imply that there is a degree of complexity in other semiotic systems that are not apparent in the linguistic one. Eco uses an example of how a scanner decomposes and analyses an image that it transfers to a computer through binary signals (ibid., p. 235). The complexity of the image is constrained only by the technical limitations of the equipment. In theory, he claims, it is possible to reproduce a scanned image of Lenoardo's Mona Lisa (ibid).

Eco cites Huff's work (1967) on his analysis of the composition of images and mapping of their combinational possibilities and continuous gradations. He isolates minimal graphic units into: "colour, density, form, position of the elements...configurations of the lattice" (ibid., p. 236). Huff posed "the [formidable.] problem of a binary reduction", Eco claims (ibid.). This problem is best summed up in the difficulty of maintaining a continuous surface in a graphic realisation of a reproduced image by photomechanical devices. Eco refers to other works in this area by Moles (1968), Soulis and Ellis (1967), Cralle and Michael (1967), Knowlton and Harmon and concludes that reproductions are limited only by time and economic means (ibid., p236).

Finish 1.05 p.m.

Iconic Reproductions

Posted on 29 March 2016 by Polo

Start 3.00 p.m.

[SS] Started on the dot of 3.

[OS] An old oval shaped clock encased in a rectangular metal frame does not provide an accurate time frame. The best we can do is to say we are starting this post at approximate time 3pm GMT]

[SS] Well I know, because I have been watching, counting and comparing time, that you have spent three minutes explaining why we may/may not have started at exactly 3pm GMT.

Experiments on iconic reproductions will, according to Eco, grow in sophistication and complexity as our technical equipment grows (and, I believe, as machine intelligence grows). But he questions whether these are really examples of codes governing the replicated sign and not simply codes governing the transmission of information, which he discussed in the opening chapters on his *A Theory of Semiotics*. A scanner replicating an image is better analysed within a framework of codes governing communication

engineering. A computer transferred image plotted out as a copy involved procedures connected to the production of doubles and partial replicas (ibid., p. 237).

The discussion changes significantly when the reproduced image is that of a dense oil painting being translated into a raster image that is quasi-dense. This would render the oil painting into a 3D form thereby giving more depth and layers to its surface (ibid., p. 237). So in a sense the translated image would be more 'like' the original painting. Eco asked, but did not conclude, if this 3D representation would change its status to 'icon' as opposed to a double or partial replica as the 2D translation would presume (ibid.).

What it does show, he stated, is that, "...even in cases of non-replicable super-signs, there is the possibility of rendering them replicable using mechanical procedures that institute a 'grammar' there where was only a 'text'" (ibid., p. 237).

A 'super-sign' is a 'non-verbal sentence', whose content can be an entire proposition (ibid., p. 231). So a person's photograph can tell much more than the obvious description about gender identity or facial features. It can tell as much about the subject as a verbal sentence might. Deciphering the messages of iconic signs through digital analyses further helps to uncover the 'mystery of iconism' and "can help to promote a further enquiry as to their semiotic nature" (ibid., p. 237).

Finish 3.55 p.m. [SS] approximately!

Kings or Queens

Posted on 29 March 2016 by Polo

Start 4.30 p.m.

Eco returned to the problem of replicas on pages 238-241. There are three 'things' that can be replicated:

1. Features of verbal language,
2. Features of stylisations, and
3. Features of vectors.

Features of verbal language and their two fixed articulations Eco discussed in more detail in previous sections of his theory. Stylisations are 'iconic' expressions that have a shared similarity to a content-type that is not compulsory and has many possible variants. A 'typical' example of a stylised replica is the King and or Queen in card packs. We don't first interpret a man or woman in order to be able to recognise the denotation of King or Queen respectively. We immediately accept the denotation. We understand their representation without having to interrogate its semiotic markers (ibid., p. 238).

In the same way we accept the coding of 'iconograms' like the Virgin Mary or the Devil. In these cases, Eco argued, the denotation is based on established codes of the female or male body out of which the iconography is invented. "Their full signification ... is due to the presence of over coded replicable features (stylizations)" (ibid., p 238).

Eco stated that a painted image of a/the Devil is a super-sign.

[OS I intuitively understood 'iconography' to mean a representation of something much bigger than the actual image it represents. The gold embossed, very particular, Slavic images of the Virgin Mother for example, are not only about the figure herself and what she meant, but there is an assumed acceptance of, and reverence for, Catholicism. I have seen other images of the Virgin Mother, like Damien Hirst's and it is almost mocking. Or at the very least it is uncertain as to whether the artist has any shared belief with the icon of which he/she represents. Maybe it is this sense that we grasp the bigger ramifications and meaning of iconographic expressions that prompted Eco to state: "The iconogram is a label" (ibid., p. 239).

Finish 6.10 p.m.

[SS The clocks have gone forward so does that mean we are one hour behind?]

Large Scale Stylisations

Posted on 31 March 2016 by Polo

Start 12.05 p.m.

There are also 'large-scale stylisations' which Eco listed on page 239 of *A Theory of Semiotics*. The list of ten range from literary and musical genres to kitsch art. A symphony, for example, once experienced as a complex text with exposure and time is eventually received simply as music. The need for analysis and scrutiny is reduced by repeated 'listenings'.

[SS Is that even a word? It seems a really clumsy way to say that something becomes easier to understand the more times you hear it.]

Distinguishing between a large-scale stylisation and an invention is 'a decision' that is made not by the sender but the addressee (ibid., p. 239).

[OS Well the sender of this inventive blog/blogged invention needs to leave to collect someone from the train. Writing a PhD does not run as smoothly as a European train timetable!]

Suspended 12.14 p.m.

Continued two days later at 1.05 p.m.

[OS I was thinking about the way I am reading Eco's *A Theory of Semiotics* and notice that when I approach it page-by-page, I 'get' the detail, but 'feel' I miss something. When I approach it in blocks, then detail fades a bit but something larger is grasped. This is not a question about research methods, but more about the 'role of the reader'. Eco has written at length about this subject in his book *The Role of The Reader* (1984). Texts are not only generated, but also interpreted. I am becoming aware of the various roles through this PhD process. What I am noticing is the way I generate this text (one of three for my PhD) will affect how it is interpreted. The way I read Eco's work does, and is, affecting my understanding and formatting choices in how I present my interpretations. Eco's *A Theory of Semiotics* is formatted over 354 pages (including notes, references and bibliography). It is not only 'divided' into four chapters, but it also has sub-headings within each. Chapter 2 has 15 sub-headings. It's a chunky work. Blogging is a format that seems to fit.]

Eco summed up his section on stylisations by saying: "Thus stylizations are *catchreses* of previous inventions, super-signs that could and should convey a complex discourse (being

a text) and indeed almost take on the function of proper names”. With time, experience and successive exposure, a ‘text’ that was once received as difficult (*a ratio difficilis*) can be acquired simply (*a ratio facilis*) (ibid., p. 240).

Vectors, on the other hand, have features that combine with features of other systems to make up an expression. Their features are not combinable with features of the same system. The examples of the ‘pointing finger’ and ‘arrow’ were used by Eco to illustrate how kinesic configurations and spatial dimensions can combine to provide a feature of movement and direction. A pointing finger and an arrow suggest a direction and movement toward something. But the addressee does not physically move or follow the direction (ibid., p. 240).

Eco suggested that we ‘free’ the term ‘direction’ from spatial connotations so we can see the other features of vectors. There is also direction in an increasing or decreasing vocal pitch. The way a question is intoned can produce a vectorialisation. The meaning of the phrase /John Beats Mary/ is changed completely if the direction in the system is changed by repositioning the proper names. In this sense, the vector of the phrase makes its meaning understandable. Vectors are neither signs nor complete expressions, but are “productive features” that, combined with others, contribute to expressions (ibid., p. 241).

Finish 2.26 p.m.

Keep Smiling

Posted on 7 April 2016 by Polo

Start 4.18 p.m.

Smiles, perfumes and symphonies are examples Eco used to illustrate the intertwined nature of modes of sign production. Paintings are also complex and multi-faceted but they are texts not signs. They involve many types of activities “practically covering the entire range of semiotic labour [discussed previously] in Tables 31 and 39” (ibid., p. 259).

[OS] I want my eulogy to be about smiles. “Mary came into the world with a smile on her face and left with an ever bigger one!”

[SS] Bet you are not smiling now. I am ragged tired today and glad we had the foresight to have all our notes gathered and ready so writing up is easier.

The range of activity can move from “a coded detectable unit (<Mr. So and So>) to an infinite discourse or a content-nebula” (ibid., pp. 259-260). In the case of a painted portrait, a type is created as the portrait becomes accepted and recognised within a culture. What starts in one historical period as an invention becomes a *stylisation* with time (ibid.).

Although apparently obvious, Eco argued that it is important to recognise that the degree of textual complexity results in a more complex relationship between the expression and the content. But even so we must always isolate precise sign-functions where and when possible (ibid., p. 260).

Eco advised semiotic examinations of aesthetic texts as they offer a “sort of summary and laboratory model of all aspects of sign-functions” (ibid., p. 261). The importance of aesthetic texts can be viewed in five levels, the last of which produces new types of “*awareness about the world*” (ibid., p. 261). There is full engagement from the sender who focuses on the possible reactions of the addressee, who in turn attends to a “complex labour of interpretations” (ibid., p. 261). It is the ability of aesthetic texts to produce new awareness about the world that inspired Vol. 3.

Aesthetic texts also offer clues to unsolved philosophical theories!

[SS] He really does cover a whole range of disciplines in his theory. I hadn't realised that semiotics, at least Eco's theories of it, also include philosophy, sociology, anthropology, logic. He is full of surprises!

Suspended 4.39 p.m.

Resumed at 6.18 p.m.

Aesthetic definitions of art notoriously rest on what is felt. The effect of aesthetic art is well documented and its cosmic reach extends to the universe. According to Croce (cited in Eco, 1979) “the whole of the cosmos breathes within the artistic representation, the individual pulsates with the life of the whole, and the whole is revealed in the life of the individual” (p. 262).

[SS] Wow. Is this guy for real?

We know aesthetic art elicits strong feelings, but we do not know why that is so?
According to Eco, semiotics may provide us with an answer (ibid., p. 262).

[SS] Eco always seems to ask a question, promises an answer, but then never quite gives one!

[OS] “Keep Smiling. Keep Shining. Knowing you can always count on [Eco.].. for sure!
That’s what [semiotics] is for” (Lyrics from *That’s What Friends Are For*, by Dionne Warwick)

Finish 6.31 p.m.

Self-focusing Ambiguities

Posted on 7 April 2016 by Polo

Start 6.49 p.m.

According to Eco, aesthetic texts are ambiguous and self-focusing. Ambiguity is defined semiotically “as a mode of violating the rules of the code” (ibid., p. 262). Although this disruption of the codes may produce anything from nonsensical texts to stylistic ones, ambiguity is an important device because it “focuses attention” and “urges” an interpretive effort (p. 263).

The sentence /colourless green ideas sleep furiously/ produces an instant shock because it breaks the rules of sentence structure and grammar, but it also “forces the hearer to reconsider the entire organization of the content” (p. 263).

Russian formalists such as Šklovskij (1917) and Elrich (1954) characterised aesthetic texts as “device[s] of making it strange” (Eco, p. 264). The way the expression is organised can change the content. We experience bewilderment and our judgement of a text’s meaning is challenged. This violation of the norm both on the expression and content plane, and

their correlational relationship, produces a self-focusing shape – a form that we have to pay particular and focused attention to (ibid., p. 264).

[OS] Eco seems to violate many of the normal rules in his text. Is his text complex because of the content or does the complexity arise out of his expressive devices? I read *The Name of the Rose*, another text of his. When honestly confessing my difficulty in reading and interpreting it, Carin Krahtz, a literary friend, said Eco wrote it so there would be no real meaning or resolution to the plot. These were not her exact words, but the gist is there. Eco himself chose the title seemingly because a rose is so imbued with meaning that there is no meaning left. I think Eco's circular-never-concluding texts and theories are an insight into his philosophy. I think it might be different to mine.

[SS] Maybe it is no coincidence that the next point in Eco's theoretical agenda is **3.7.3 The manipulation of the continuum** (ibid., p. 264). Remember I have felt from the start that he is messing with our heads. I know that doesn't sound very professional or smart. But it is what it is. Just like art is art.

Apart from the self-focusing ambiguity of aesthetic texts and the labour involved in their production and interpretation, there is more happening at the *lower levels* of the expression plane (ibid., p. 264). Eco considered it important to provide a semiotic explanation to the qualities of an aesthetic sign vehicle.

/I like Ike/ was a famous political slogan during Dwight Eisenhower's 1952 US Presidential campaign. The slogan revealed in a study by Jakobson (cited in Eco 1979, p. 265) that apart from the everyday linguistic understanding that Ike is liked, there is also another quality to the sentence that "falls very easily upon the tongue" (ibid., p. 265). The phonic quality grabs our attention.

Similarly some architectural experiences absorb us, taking us 'time to comprehend', as in the 'shifting angles' imposed on us by a direct viewing of a Renaissance place with 'an ashlar-work facade' (ibid., p. 265). Both these examples show how aesthetics "becomes the philosophy of the unspeakable" and how it concerns itself with both hypersystems and hypostructures (ibid., p. 265).

All features of aesthetic texts, Eco argued, are semiotically relevant. Whereas the physical aspects of a signal becomes "the matter of the sign-vehicle", the matter of the sign vehicle

in an aesthetic text “becomes an aspect of the expression-form” (ibid., p. 266). For example, the significance of a red flag at a rally can be manipulated and grasped at an expression level without any relevance given, or needed, to the quality of its material or colour. Inserted into a text, however, the chromatic quality of the flag becomes an important aspect of signification.

In many instances, the materials of aesthetic works of art are “charged with cultural signification” (ibid., p. 267). There is a threshold to the signification, however, that may be exceeded by emotional and perceptive effects. But the ‘material’ of art has empirical limits (ibid., p. 267). Beyond this threshold and limits, “art seems to stimulate reactions but not to communicate contents” (ibid., p. 267). Which may explain the common notion that there is more to art than language and further confirms the philosophical notion of the unspeakability of art.

But, Eco reminded us, semiotics can give voice to the unspeakable in aesthetic texts. Increasingly, Eco explains, studies show how these phenomena can be analysed on a micro structural level through advances in information theory and techniques: scanning and plotting devices, oscillographs, detailed sound recordings – a range of semiotic disciplines now able to analyse what Stankiewicz (1964) called ‘lower levels of communication’ (cited in Eco, 1979, p. 268).

[SS] I wonder are my lower levels of communication within range?

Finish 7.59 [wait] 8.00 p.m. [on the dot!]

Feeling Poetry

Posted on 8 April 2016 by Polo

Start 1.35 p.m.

“It is dangerous to establish a theoretical distinction between ... the intellectual and the emotional use of language” (ibid., p. 268). This warning by Hjelmslev in 1928 is confirmed,

Eco asserted, by studies in the Soviet Union on levels of poetry (Toporov, 1965; Kolmogorov, 1962) (cited in Eco, 1979, p. 268).

[OS] “i do not know what it is about you that closes and opens;
only something in me understands the voice of your eyes is deeper than all
roses)
nobody, not even the rain, has such small hands”
from: *somehwhere i have never travelled*, ee cummings.]

[SS] Feelings. Nothing more than feelings... Trying to forget my feelings of loooooove.

[OS] Don't be so smug and smart. This is a beautiful poem

The emotional effects of aesthetic texts and extra-grammatical elements are evident but not yet isolated and coded (ibid).

[SS] Do you, does Eco, does anyone think it possible to isolate and decode that piece of the ee cummings poem you quoted?

[OS] I think Eco thinks that eventually we can, or at least we should keep trying and that with time, an ee cummings poem, even though initially a radical invention, will become conventional.

[SS] Yeah right. I doubt that!

Eco believed that the study of aesthetic texts called for ‘a semiotic civil rights’ so that the segmented continuum is neither segregated into a linguistic or other semiotic approach. Hjelmslev, who is known for the segmentation of the expression continuum, believed that segmentation required another approach other than the linguistic one (ibid). It seems to me that Eco was advocating a theoretical inclusivity where there is room for philosophical, linguistic, anthropological, logical and other semiotic activity on the same continuum. He presented a new version of Hjelmslev’s continuum diagram in Table 46 (ibid,p. 269). **Note** Eco cited ‘2.2.3’ of his text as the point where he recorded Hjelmslev’s original diagram. But the author could only find a heading reference for 2.2 and 2.3, the latter appears on pages 54 to 57 of Eco’s text. Under this heading Eco discussed Hjelmslev’s connotative semiotics.

Table 46 (ibid) shows an infinite sequence of possible segmentation on the expression plane because “As long as semiotics continues to develop, the continuum will be further segmented and therefore *better understood...*” (ibid., p. 269). It is the self-focusing demands of the aesthetic texts that force us into more and more detailed segmentation. The semiotic process has consequences for aesthetics and art criticism, Eco claimed, in that it “... removes many phenomena from the realm of the individual ‘creativity’ and ‘inspiration’ and restores them to that of social convention” (ibid., p. 269). But the flip side of this assertion is that the more we develop and understand and code all that can be, and is, the more innovation there will be.

[SS] More paradoxes! So the more we know something the more we can break the rules, but the more we break the rules, the more we need to understand, and as soon as we understand something, there’s more to know! Giant roundabouts. Like an electrical circuit. It’s a quantum roundabout. Aargh.

[OS] Yes. Paradoxes seem infuriating. But they are not meant to be. I used to get exasperated when smiley-tooth-fairy-like people would drone on to ‘let it go’. What does that even mean? How can you let something go? Then I realised that in order to let ‘something’ like the Buddhist notion of ‘the ego’ go, requires fully knowing ‘it’. Then once known, we really can let it go. I think Eco was saying something similar. To create an innovative plate of food, for example, requires a full understanding of the chemistry, physics, mechanics, architecture and art of cooking.

[SS] OK. But there’s something fishy about Eco saying that an individual’s creativity and inspiration is ‘restored’ to social convention. Sounds like the collective ‘owns’ the work of the individual. That ee cummings guy ain’t owned by nobody. I can sense more of Eco’s philosophical leanings.

[OS] I don’t think Eco wasn’t suggesting such a radical proposal. I think he was trying to show the relationship between structure and agency (although he wouldn’t say it in those terms). ee cummings struck out and broke many grammatical and syntactical rules in language. And what an effect his writing has had. Certainly on me. But he is ‘part of something’. That something is culture. He did not create in a vacuum. His creations are in part because of the ‘structures’ around him. Just like our little friend Polo, we may appear

to act alone, we may appear, and sometimes feel, we are alone, but we are part of a whole.

[SS] I feel another never-ending-circle coming on. STOP.

Finish 3.02 p.m. [with one tea, two calls, and four poem readings in between.]

Expressing Content

Posted on 9 April 2016 by Polo

Start 1.21 p.m.

As Eco pointed out, aesthetic texts produce overcoding on the expression and content planes. The expression continuum has a direct effect on the content continuum such that an increase in the organisation of the former leads to an increase in the latter (ibid., p. 269).

According to Eco, someone looking at a work of art has a two-fold impression of what they see. They 'guess' that there is a 'surplus expression' but cannot fully analyse it (although there are a few who may). At the same time, there is a vague sense of a 'surplus of content', the latter aroused by the surplus on the expression plane (ibid., p. 270).

The often cited quote: "A rose is a rose is a rose" (Gertrude Stein), although grammatically correct, stimulates a sense that new meaning is created with each rendering of the word 'rose' (cited in Eco, 1979, p. 270). The sentence deviates stylistically from the norm and produces ambiguity because of "excesses in redundancy". But it is these excesses which "increase informational possibilities" (ibid., p. 270).

[SS] There's that rose again!

[OS] Sorry, but I love that rose.

[SS] Yeuch. The three most overused words in the English language: sorry, love, rose. Which specific rose do you love?

[OS] Exactly Eco's point – the /rose/ in Stein's quote brings to light more and more meanings that "might be connected with different connotative subcodes" (ibid., p. 270). So there are many roses all wrapped up in one. I like them all!

[SS] Why are you quoting Eco in our private/ 'internal conversations'?

[OS] Because it is this 'internal' conversation which helps us process the content of Eco's work so we can present it on the 'expression plane'. His text is hard to understand and we use our conversation to decode it. Maybe the mediatory role of our conversation is starting to show results?

[SS] Maybe. But for Eco's grand-slam comment on aesthetic art, let's get back on to the page.

"A work of art communicates too much and therefore does not communicate at all" (ibid., p. 270).

[SS] I don't agree!

Finish 2.51 p.m.

Impermeability of Art

Posted on 9 April 2016 by Polo

Start 3.03 p.m.

In the last line of the last section on page 270 of Eco's *A Theory of Semiotics*, he stated that a work of art is "radically impermeable to all semiotic approach" (ibid., p. 270). But then opens the next section, 3.7.6 titled *Aesthetic Idiolect* that "it is not as radically impermeable as might seem to be the case" (ibid., p. 271).

[SS] Upside down. Inside out. Back on Eco's roundabout.

Eco established a semiotic test, which concluded that if a 'contextual element' of a work of art is changed, then it loses its balance. If there is 'contextual solidarity', which he believed there was, then there must be a 'systematic rule' (ibid., p. 271).

Art, Eco claimed, has the same structure as 'langue'; it just cunningly masks its semiosis. Art is a way of interconnecting many messages to produce a text, which has similar rules to other sign-functions. But because of its 'deviational matrix', Eco elevated the status of aesthetic art to the status of "super sign-function" (ibid., p. 271).

Art, although organised ambiguously, is not a random structure but rather follows a 'precise design' (ibid., p. 271). It's the ambiguous arrangement that pulls the art into a self-focusing shape that uncovers a different structural form causing a rearrangement of the codes. In this way, art opens "new coding possibilities" (ibid., p. 272). These aesthetic codes are not open to all society, just a small 'semiotic enclave'. This restricted understanding is called an idiolect (ibid., p. 272).

When one individual can apply the idiolect to a series of his/her individual works, then it becomes recognised as the artist's *personal style*. If that 'style' then becomes accepted in a wider community, it becomes a '*movement-idiolect*' or a '*period-idiolect*'. If it produces new norms accepted by an entire society then the "idiolect may act as a meta-semiotic judgement changing common codes" (ibid., p. 272).

Eco pointed to the way James Joyce's idiolect was so pervasive that certain pun techniques in everyday use are now referred to as 'joycing', or manners of speaking referred to as 'Finneganian' (ibid., p. 272).

[OS] Eco used only the last name to refer to Joyce, unlike our full reference. I think that is another subtle example of how widespread James Joyce's reach is. Eco also pointed out that detecting aesthetic idiolects is not easy.

[SS] When is it ever easy?

[OS] I detect a certain leaning toward the belief that this/it/life is hard?

[SS] I am supposed to be the one-sided, uncensored one. I don't think. I feel. And yes, today I don't feel that things across all aspects of life are easy. In fact, I feel cross and angry.

[OS] That's OK. Let's take a break and think about this later.

[SS] A break won't change the feelings.

[OS] True. But a walk might help cope with them. Finish
3.33 p.m.

Idiolects

Posted on 9 April 2016 by Polo

Start 6.05 p.m.

[OS] Did the walk help?

[SS] We may have climbed to the top of the mountain, but the mountainous weight remains on me.

As Eco explained, the detection of idiolects is difficult because it can hide behind/within societal influences. Specifically, Eco pointed to the submission of aesthetic work to 'commercial' influences, which produces an effect of a seeming connection to 'previous idiolectal experiences' that results in the work becoming "immediately recognizable as 'true art'" (ibid., p. 273). But, he argued, that does not mean that the ability to isolate an idiolect will produce an aesthetic work. The only thing its isolation will permit is another work "absolutely identical to the first" (ibid., p. 273). The sooner an imitator understands the idiolect, the more likely they will reproduce the model to show they understand what they've isolated (ibid., p. 273).

Neither reproduction nor criticism of aesthetic art can take full account of the form's work on *lower levels*. The addressee not only 'senses' the surplus expression and content but

also its correlating rule. The process of recognising the rule produces three results that Eco mentioned on page 271 of his *A Theory of Semiotics*. Most importantly, a “new type of ‘conversational’ interaction is established between the sender and his addressee” (ibid., p. 273).

The aesthetic text produces a continuous process of transformation where denotations are converted into new connotations. The contents of the aesthetic text are sign-vehicles for something else. Pierce recognised that the tension provoked by viewing works of art released feelings similar to those experienced when listening to a piece of music (cited in Eco, 1979, p. 274). This release of feelings was considered a form of ‘intuition’ by aestheticians. Eco considered the intuition-label applied to the aesthetic text as a form of ‘philosophical laziness’. Art, he claimed, not only produces feelings but also *further knowledge*. By forcing us to rethink the codes, aesthetic ‘readings’ provide an opportunity for ‘semiotic training’ (ibid., p. 274). As the knowledge of the code increases, our view of the history of aesthetic messages changes, which in turn suggests a possibility for an alternative ordering of the semantic system. “But to change semantic systems means *to change the way in which culture ‘sees’ the world*” (ibid., p. 274).

[SS] Wow. So works of art can be very powerful.

[OS] It depends on what is meant by power. But they certainly can have a pervasive influence on how we think and the way we see the world.

A text that may have seemed extraneous to the norm starts to open up the possibility of challenging notions of ‘states of the world’. It affects how we acquire knowledge about the world. It is not that an aesthetic text “tells the truth”, but poems, plays and paintings can produce a feeling that “maybe ‘things’ are not quite as they usually seem” (ibid., p. 275).

To understand the epistemological nature of art, Eco proposed a thorough analysis of “the semantic shifting of aesthetic texts”. This is because, if they can alter our view of states of the world, as Eco certainly believed they do, then they are “of great importance” to that branch of a theory of sign production that is concerned with the labor of connecting signs with the states of the world” (ibid., p. 275).

[SS] So it is the feelings aroused by art that pushes us to find out more? Does that mean every feeling is a marker to/for something else?

[OS] Aesthetic texts are communicational acts. There are elements of feelings in all acts of communication. I think when we have a strong emotional response to something, it does trigger thoughts, which can lead to action. Art is a representation of the world we live in and sometimes makes suggestions of other ways to live. It tests our boundaries.

One peculiar aspect of aesthetic texts is that it produces a labour that is intended to produce pragmatic relations between communicators. The labour in aesthetic sign production is achieved through induction, abduction and deduction (ibid., p. 275). The addressee, while trying to maintain loyalty to the sender's message, may have to abduce meaning based on hypothetical testing. The ambiguity of the text – a feature of aesthetic works – has to be interpreted by the addressee (ibid., p. 275). An addressee may believe they are interpreting the sender's message correctly but may get caught between *fidelity* to the author's inducement and the inventive *freedom* needed in the labour of interpretation (ibid., p. 276).

This interactive process between fidelity and initiative produces two kinds of knowledge: combinational knowledge and historical knowledge (ibid., p. 276). This explains why art can neither be reduced to 'a definite formula' nor 'foreseen of all its possible outcomes' (ibid., p276). Thus a collaborative approach is required whereby an addressee has to fill gaps, reduce or complicate multiple readings, choose interpretive paths, consider, re-read and test presuppositions (ibid).

Finish 3.47 p.m. [with a just-collected-free-range-boiled-egg-on-homemade-bread sandwich in between]

Art of Persuasion

Posted on 10 April 2016 by Polo

Start 3.59 p.m.

According to Eco, the labour performed to overcode and to switch codes is 'registered' under the heading 'rhetoric'. Rhetorical labour must form part of a theory of sign production because it raises questions about:

1. How traditional rhetorical categories can fit into a semiotic framework;
2. At what point new 'semiotically oriented rhetoric' or 'new and autonomous branches of semiotics' are needed to address the problems associated with over-coding and code-switching;
3. In what sense 'ideology' and 'ideological discourse' can come within the scope of a semiotically oriented rhetorical framework (ibid., p. 277).

Eco first established a schematic diagram on Table 47 (ibid., p. 277) that includes a summary of classical, modern and rhetorical objects he felt, either are, or should be, included in a semiotic analysis. In this table, rhetoric has three definitional sub-headings: *Inventio*, *Dispositio*, and *Elocutio* – or the three rhetorical levels (ibid.).

[SS] It sounds like a spell from Harry Potter.

Eco considered rhetoric as one of the "more complex manifestations of sign production" (ibid., p. 278). Traditionally, rhetoric was considered 'the art of persuasion' (ibid., p. 277). Rhetoricians did not consider this an underhanded device. Instead, it allowed for a complex intertwined mix of reasoning, emotion, historical evaluations and pragmatic motivations (ibid., p. 278).

But there are 'aberrant' performances of rhetorical modes of sign-production, examples of which Eco listed as "fraudulent propaganda, mass persuasion and so-called 'philosophical' statements" (ibid., p. 278). Eco assigned them the heading 'ideological discourse', which he defined as a one-sided argument that presents only a partial section of the semantic

field that results in a covering up of the contradictory nature of the Global Semantic System (ibid., p. 277).

But the first challenge of rhetorical work is to get the attention of the listener. The device used for this purpose was what is commonly called 'a figure of speech'. Unfortunately, over time rhetoric has been given a bad rap (ibid., p. 279).

[SS] That is a nifty and relevant use of a 'figure of speech'!

To 'ancient theorists', a figure of speech was a schema of unexpectedness. But over centuries, rhetorical figures of speech have become over-coded (ibid., p. 279). The element of unexpectedness has been replaced by a basket of *ready-made sentences* and figures, such as /fatherland/ and /free world/ with their fixed, pre-established meanings (ibid., p. 279). These particular results of rhetorical over-coding, Eco believed, should not be considered within the theory of sign-production but rather viewed as examples within the theory of codes that deals with over-coded ready-made expressions (ibid.).

When used creatively, rhetorical figures can change the way we consider content (ibid., p. 279). Typical rhetorical figures include metaphor and metonymy. Metaphor is a 'substitution by similarity' and metonymy is a 'substitution by contiguity' (ibid., p. 280). Eco discussed examples he gave of both and develops a more detailed explanation of forms of substitutions, particularly distinguishing metonymy from another closely related form of substitution: *synecdoche*. He concluded that the dichotomy proposed is 'poorer than the traditional classification' (ibid., p. 281). But these distinctions are noteworthy because of their direct concern with the 'semiotic entailment' or 'meaning inclusion' (ibid., p. 281).

The system of semiotic inclusions calls for a 'hierarchisation' that denotes sememes as "the genus of which it is a *species* by *hyperonymy*, and connotes the *species* of which it is a *genus* by *hyponymy* (ibid., p. 281). This allows us to record the fallacy of false causes and false forms (ibid., p. 281).

[SS] Oh my goodness.

Finish 5.01 p.m.

Semiotic Enclaves

Posted on 10 April 2016 by Polo

Start 5.57 p.m.

Eco showed a representative case of 'substitution of the instrumental cause by the effect' in a discussion of Virgil's poem the Aeneid (ibid., p. 281).

He then gave an exemplary use of a 'semiotic enclave' while illustrating the difficulty of distinguishing between the rhetorical figures 'metaphor' and 'metonymy'. A reference to a 'bachelor' known to the author could be substituted by the term /that unlucky seal/. But as Eco made clear, understanding the substitution can only come about if Eco's "audience has read Katz, Fodor and Postal (and in the circle that I move in everybody has)" (ibid., p. 282).

[SS] Well we haven't moved in that circle, so now what?

[OS] Well Katz, Fodor and Postal wrote about semantic theories in the discipline of linguistics. That we know. And maybe for now, that's all we need to know!

[SS] So we have to remain excluded from the inner semiotic circle? I mean, he doesn't even give a note with information on where we can find out more about the reference. Why would he do that?

[OS] Because he can. And he probably doesn't want to or need to rehash the entire theory that those guys probably spent years developing. It's not critical to our overall PhD focus. Even if it does irritate you!

The example of the bachelor and the 'unlucky seal', if understood, makes the substitution clear, but points to an apparent difficulty deciding whether the rhetorical figure is a metaphor or a metonymy (ibid., p. 282). There are two possible solutions, Eco explained, both of them produce infra- or inter-sememic connections and the presence "of a semantic global universe whose format is that of Model Q (note 49)" (ibid., p. 283).

Finish 7.18 p.m.

Good vs Bad

Posted on 11 April 2016 by Polo

Start 2.43 p.m.

Restarted 2:59 pm

[SS] because the first beautiful batch of words was lost to a cyber-squid. I can't think of anything else to call the sudden jerky loss of Internet contact followed by the disappearance of my work!

Eco argued on page 283 of his *A Theory of Semiotics* for rules that can help us distinguish between 'good' and 'bad' metaphors and metonymies (ibid., p. 283). He offered a tentative solution where the markers are identical, peripheral and characteristic of the sememe. The Romans established an interdependent metonymous use of <<gladiator>> and <<deathseekers>>, which offers an 'inventive' metonymy that increases awareness of the semantic entity 'gladiator' (ibid., p. 283).

Tracing the underlying metaphorical and metonymous connections reveals "fertile contradictions" throughout the whole gamut of the Global Semantic Field (ibid., p. 284).

[SS] That reminds me of the Dorothy Parker quip about an actor: "She ran the whole gamut of emotions from A to B". She was funny.

Rhetorical substitution, Eco went on to say, establishes further connections that can be short, sudden and unpredictable. This explains why it may appear to the addressee that a rhetorical figure of speech may appear as a 'sudden revelation', when in fact that sender simply saw, and crossed, a path that his/her knowledge of the "semantic organization entitled him to" (ibid., p. 284). The sender saw many possibilities and chose one that appears to the addressee vague and indistinct. In this way the rhetorical process is "a way of upsetting acquired knowledge" (ibid., p. 285).

But sometimes, despite the rhetorical figure's ability for continued operation, "the incompatibility remains unaccepted by the codes" (ibid., p. 285). This creates a feeling of unbalance that logicians use to claim that natural languages have no logic (ibid., p. 285).

Eco agreed that sign-production in natural languages “are without logic” (ibid., p. 286) but rhetorical language does produce a kind of ‘fuzzy’ logic. It allows for a kind of play in language where a substitution or a figure of speech can act as “a pleasantly ironic joke” (ibid., p. 286). But what, asked Eco, if a figure such as <<bachelor>>, which usually connotes free, happy, and open to adventures, is really sad? “A jocular figure of speech may thus release a discussion about whole areas of accepted values” (ibid., p. 286).

[SS] Oh the poor little bachelor. I thought they had all the fun. It’s the poor old ‘spinsters’ that are supposed to be lonely, isolated, sad and expunged from society’s structures. They don’t get to reel in the romantic catch. Whereas, bachelors have their nets full.

[OS] Well that would depend on whether you are a homosexual bachelor living in a repressive society? As Eco explained, if you would give him the chance, rhetorical connotations are just values society chooses to express.

Values can be hidden and manipulated: what can start as a straightforward persuasive argument can quickly turn into an ‘ideological’ one (ibid). Eco demonstrates the threshold between these two types of reasoning in a case study of how the value of <<sugar>> in the US changed through advertisement campaigns in 1969. When dietetic foods were first released onto the market, sugar was associated with fat and was replaced with the less fattening alternative, cyclamates. But when a 1969 medical research programme discovered that cyclamates could produce cancer, they were removed as an ingredient in a range of dietetic foods. Sugar was reinstated. To stress the absence of cyclamates many foods were relabelled with the words “with sugar added”. This approach was accepted by consumers because as feedback showed, people thought “Better fat than dead” (ibid., p. 288).

The sememic spectrum of sugar never changed. It was still coded as fattening. What happened was cyclamate acquired a new marker that of <<cancer>>. The repositioning and idiotic notion that sugar acquired a positive status in comparison to cyclamates happened through code-switching. The emotional connotation was displaced and an ‘ideological’ argument replaced a fixed marker for sugar that then became conventionally accepted (ibid).

[SS] So that's how it happens. Advertising and marketing execs must spend a lot of time studying the use of rhetoric! Does that make them semioticians? I should look up how much semiotic theory forms part of degrees in marketing?

[OS] Why bother?

Finish [because we have had enough] 3.38 p.m.

Ideological Code-switching

Posted on 11 April 2016 by Polo

Start 3.59 p.m.

It is difficult to detect a speaker's world vision, Eco claimed, perhaps explaining why ideological arguments may be considered "an extra-semiotic residue" (ibid., p. 289). . But ideology "is an organized world-vision which must be subjected to a semiotic analysis" (ibid).

[SS] Hear. Hear. That relegates those ideologues to where they belong!

In general, anyone will turn to their own cultural inheritance to interpret a message: choosing their own subcodes "to apply to the message", thereby producing a partial world vision (ibid., p. 290). This is why Marxists propose that ideology is "false conscience", Eco argues (ibid)..

[SS] But I don't understand? Marxism is an ideology, so are Marxists acknowledging that they too have only a partial view of the world? Isn't their view just as one-sided as the Capitalist one!

[OS] Yes. That is what Eco is getting at: ideology offers only limited possibilities, often ignoring that which doesn't fit.

Ideology starts as factual description, then tries to justify the message theoretically. The justification gradually becomes accepted by society through a process of overcoding. The reasons behind the political or economic message are not relevant to semioticians. Semiotics “is concerned to establish in what sense this new coding can be called ‘ideological’” (ibid., p. 290).

To find the answer Eco ‘built’ an imaginary laboratory to replicate an experiment in thermodynamics. He asked us to imagine a container with two halves he named Alpha and Beta. Between the two halves is “Maxwell’s demon” – an imaginary creature created by mathematician James Clerk Maxwell – who guards the point between the halves through which gases move. The demon is able to change the balance of pressure between the two enclosures by allowing faster molecules to move in one direction and slower molecules to move in the other. The result is an imbalance in pressure between the two (ibid., p. 290).

To measure the outcome of this thermodynamic process, provided the demon has a simple code of ‘yes vs no’, needs no more than an electric signal (ibid.). A sum of units if measured by a machine will produce a signal that registers <minimum> or <maximum> that the machine reacts and responds to without the registration or understanding of its meaning. Repetitions of the signal produce a sum of the units of value. Eco asked we take /Z/ to denote <<minimum>> for (heat and pressure) and /ZZZZ/ to denote <<maximum>> (ibid., p. 291).

If, however, the receiver is a human being, his/her reaction transforms the signal into a sign. The values of the sememe /Z/ and /ZZZZ/ will receive additional connotative markers to the denotative ones. Values for heat and pressure will be assigned according to cultural bias (ibid.). “Both sememes, if they are to be established, require that culture subdivide the semantic space into a series of oppositional sub-systems of which only a limited number are taken into account by the various readings of the sememe” (ibid., p. 292). Human beings circumstantially select properties that support their bias. Apart from examples of ideological *elecutios* discussed previously, there are two other types of ideological arguments that the example reveals:

1. An ideological *inventio* conceals or ignores contradictory properties; and

2. An ideological *dispositio* argument never makes clear that there even exists a contradictory premise. Anything that upsets the linearity of the argument is excluded. (ibid., p. 293)

In Eco's recreation of the hypothetical thermodynamic laboratory 'Dispositio' does not take into account the potential contradictions between <<production and pressure>> and <<heating and pressure>>. He asserted their semiotic relationships in Tables 58 and 59 on page 294 and Table 60 on page 295 (ibid., p. 294-295). Ideology splits discourse into either/or. In the example above, the ideological choice seems to be either a good heating system with comfort and danger, or a bad heating system with discomfort and safety. What Eco suggested we need is honest, persuasive discourse "about the aims of a social group [that takes] into account all of these goals": heating, comfort, safety, security (ibid., p. 296).

It is the "absolute (i.e logically formalised)" values that split options into mutually exclusive pursuits (ibid., p. 296). Instead, the values of the thermodynamic example are open and graded. By calculating values in an open and graded way, ideology can be trespassed by "performing a critically persuasive discourse" without threat to the motivations or conclusions of the speaker (ibid., p. 296).

Ideology, Eco concluded, conceals options by over coding and code-shifting. It is "a partial and disconnected world vision" (ibid., p. 297).

[SS] It's also so lazy. Now I understand why Eco's work is so hard – he goes right into the deep end of thought and even though we are mostly left in the depths, there are moments where we get to visit the surface to catch a glimpse of a broader, wider, more complex worldview.

Finish 4.56 p.m.

The Ultimate Threshold and my Ultimate Concern

Start 2.00 p.m.

Perhaps it is purely coincidental that the last post of my interpretation and understanding of Eco's *A Theory of Semiotics* has in his section title the word 'Ultimate'. For it is precisely that word that defines my motivations as a PhD candidate and a reflexive critical realist. My 'Ultimate Concern' as a reflexive agent is at the very heart of this PhD. Conceptually, an 'Ultimate Concern' is the cornerstone of Critical Realism – a movement in philosophy and social sciences (Archer, Bhaskar, Collier, Lawson & Norrie, 1998, p. ix).

Looking more deeply, it is clear there is more than a word that links the last section of Eco's book and the last posting of this blog. As Eco challenged us on page 298 of *A Theory of Semiotic (ibid)*: semiotics is 'a form of social practice'. It is these words that he chooses to end his text. It feels like a call to action. An invitation to “destroy the oblivion of false conscience” (ibid., p. 298). For when the metaphorical/analogous alpha-beta thermodynamic system gives rise to 'ideological imbalance' and its sub-systems 'stand on their heads', then we may have to force the system to explode, he argued, thus causing a revolution that will be so destructive, it will require a complete rebuild (ibid).

Roy Bhaskar claimed that Critical Realism is basically “about standing the world right way up” (Reflections from Professor Roy Bhaskar, IACR Conference Closing, Friday 20 July 2012). Both the critical realist and the semiotician I am working with point us to similar thresholds: righting the world through an engagement, study and understanding of the social world within which we live. But there are tautological constraints and dangers. Throughout Eco's *A Theory of Semiotics* he confessed to the circularity of the subject and its study: “Semiosis explains itself by itself” (ibid., p. 71).

[SS] Like I explain myself, through and by myself?

[OS] Notice our voices are quiet. Have we been hushed?

[SS] She's afraid. We are cast out to sea with a tenuous lifeline back to our academic home. We are officially de-registered student(s) and have to appeal to the Dean for re-

admittance. In addition, there's likely to be a big fat student fees bill awaiting us at the door.

[OS] So are we blowing in the wind and bouncing about in the tumultuous waves of emotion, like Polo is in the story?.

[SS] Well, Polo started out caught in waves, but he worked his way through to more stable ground.

[OS] I hope we will too. I am going to now officially appeal to the Dean here on this page. Dear Dean please let us back in!

Similar threads of thoughts are carried through to my readings and understanding of Structure and Agency, in particular Archer's theory of Morphogenesis.

Posting Interruptus 3:49pm

Writing Re-Start 11:45pm (days, then weeks, then months later)

Picking up on Eco's last few words of his *A Theory of Semiotics (ibid., p. 316-317)*, the thoughts he expressed are echoed in Margaret Archers' work on *The Internal Conversation*.

[OS] Oh gosh there is a sign right in front of us. We/Us/I are sitting at Gate B1 at the Cape Town International Airport and when I lifted my eyes over the top of my new reading glasses, I could see before me a 'glass' mosaic of a penguin, a boat, a piece of land, a house, a protea and a sunbird (from the outline it looks like a lesser collared sunbird). It's as if I am seeing Polo's story visually depicted in front of me. Scary.

[SS] Even I am impressed by the coincidence.

There are images of this PhD's story in front of me, but semiotics like physics is not concerned with metaphysical statements only methodological ones. Eco cited Pierce's use of Caesar and Brutus to exemplify the heart of the semiotic process and states that "physics knows them [Caesar and Brutus] as spatio-temporal events defined by an inter relationship of elementary particles and must not be concerned with the motivations of

their acts, nor with ethical evaluation of the result of these acts. Semiotics treats subjects of semiotic acts in the same way: either they can be defined in terms of semiotic structures or – from this point of view – they do not exist at all” (ibid., p. 316). Idealism is avoided by accepting the limits of semiosis (ibid).

According to Eco, semiotics is akin to physics in that there are no ethical or motivational questions. “The man and the external sign are identical” (ibid., p. 316).

But what do exist are our thoughts. Since we can only think using words or other external symbols, words and thoughts have a reciprocal and corresponding relationship. Words push the ‘evolution’ of thought and thought increases ‘a word’s information’. For as Pierce categorically stated: “My language is the sum total of myself: for the man is the thought” (cited in Eco, 1979, p. 316).

The first volume of this thesis is a sampled representation of world risk theory that has motivated my agency. The second volume of this thesis charted my Internal Conversation as I represented my growing agency as a PhD candidate. What I have learnt through my study of semiotics is that the representation of learning is significant and signification within social structures is testable through the material expressions of interpretants. Archer began her text on Structure, Agency and the Internal Conversation (2003), by stating that we know ‘roughly’ that structures are objective and that there is something about ‘agents that are subjective’. This balancing act that is evident in social sciences between structure and agency, I see mirrored in the ‘balance’ or the sway between the writer and reader. In the case of semiotics, there is a space in between these two. That space is the text. In Archer’s theory of reflexivity, the ‘space’ is the Internal Conversation.

The final volume (Vol. 3) is represented as a story about Structure and Agency, Reflexivity, World Risk, and debates about political, social and environmental inclusion/exclusion and action.

Ends 11 November 2016

Postscript

[SS OS ALL OF US]: Although this has primarily been a social study, there were many times where the read and expressed theories head-butted against, and with, psychological ones. The 'theory of the mind' is only part of the sociological story.

Unlike some psychoanalysts (Freud, Jung, et al) who believed that violence was fixed within the internal structures of the mind, which prevented change in the social structures of violence and degradation. I disagree. Not just because it makes me feel better or more empowered. I disagree because we have, as individuals, enormous capacity for creativity, for imagining, for action. Transformation does start with ourselves. But transforming our internal world is not enough. Yes, it must start from within. As the numbers of reflexive individuals grow, then the possibility for reflexive societies grow with those numbers. We have the ability to change 'things'. And, I believe we have responsibility to. The question is how do we motivate ourselves and each other to change?

The following page shows a depiction of the main character of the story in Vol.3. His name is Polo. He has certainly changed me.

Volume 3: Representing Other Voices in the Environmental Education Story

Introducing Polo



Image by Liza Grobler and Mary Murphy, 2000

Table 1: Description of Characters

Character	Role	Description
Polo	Protagonist	Seven year-old penguin from Antarctica. Innocent. Naive. Develops into an agent for change.
Lycaon Pictus	Antagonist	Wild dog insists on using Latin name. Angry, destructive psychopath who will use anyone to attain her goal of destroying human species. She is the leader of the Endangered Species Society (ESS).
Myrtle	'Love' interest	A cow who controls through excessive care and love. Tries to hold Polo back by instilling fear of moving forward. Her slaughter awakens Polo and leads him toward action.
Robert Lee Jefferson III	'Love' interest	A self-obsessed turkey from the United States who escapes the White House Thanksgiving carving plate because he is pardoned by the President. During his time in the White House and on Capitol Hill he learns of the US plan to undermine the World Congress' emissions reduction targets and end the Antarctic Treaty so they can drill for oil. He is constantly 'seeing' signs of imminent danger.
Mr Smith	Antagonist	Secretly referred to as Spot by members of his Pied Platoon, Mr Smith is a greedy dalmatian who panders to the populist view to increase his power. He loves food and spends a lot of time finding ingredients and recipes. He never cooks himself.
Banu	Guide	Banu is a wandering albatross who helps Polo gain perspective. He guides him toward maturity and teaches him how to navigate between his idealism and tainted reality. He is Archer's High Command.
Tanuq Yan Kyo	Rescuer	Tanuq Yan Kyo is an Emperor Penguin. He is a warrior who leads 80 000 penguin troops into battle to rescue Polo and bring him back home.

Table 2: Characters and their representations

Representation of	Character	Character's Aim
The reflexive being The learner	Polo, a penguin	To know, to learn, to reflect and act
Teacher	Banu, an Albatross	To teach, transmit knowledge and inspire action
Conservation Endangered Species	<i>Lycaon Pictus</i> , a Wild Dog	To protect endangered species
Globalisation	Robert Lee Jefferson III, a Turkey from the USA	To describe global risks
Morphostasis	Myrtle, a Cow	To unconsciously hold Polo back from his goal through love and innocence
Identity and Culture	Mr Smith/Spot	To maintain the status quo
Morphogenesis	Tanuq Yan Kyo	To bring change

I present a literary example of Margaret Archer's theory of the morphogenetic cycle that she used to describe "how structural conditioning (which is temporally prior, relatively autonomous yet possessing causal powers) conditions social interaction, which in turn generates structural elaboration. That scheme of **Structural Conditioning** → **Social Interaction** → **Structural Elaboration**, which crucially is stretched out over time".⁸³

Figure 1: The morphogenetic cycle (Archer, 1995, p. 157)

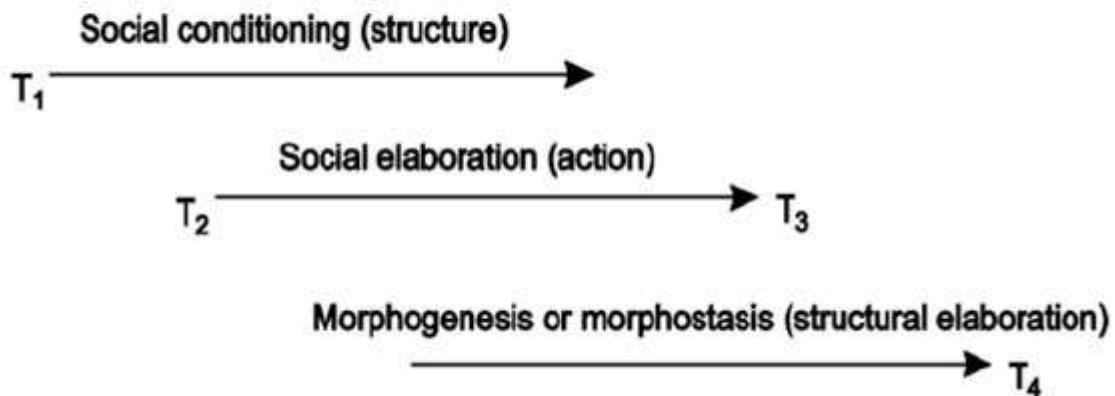


Figure 2: Polo's morphogenetic cycle

T1 Polo's cultural condition born a penguin in Antarctic



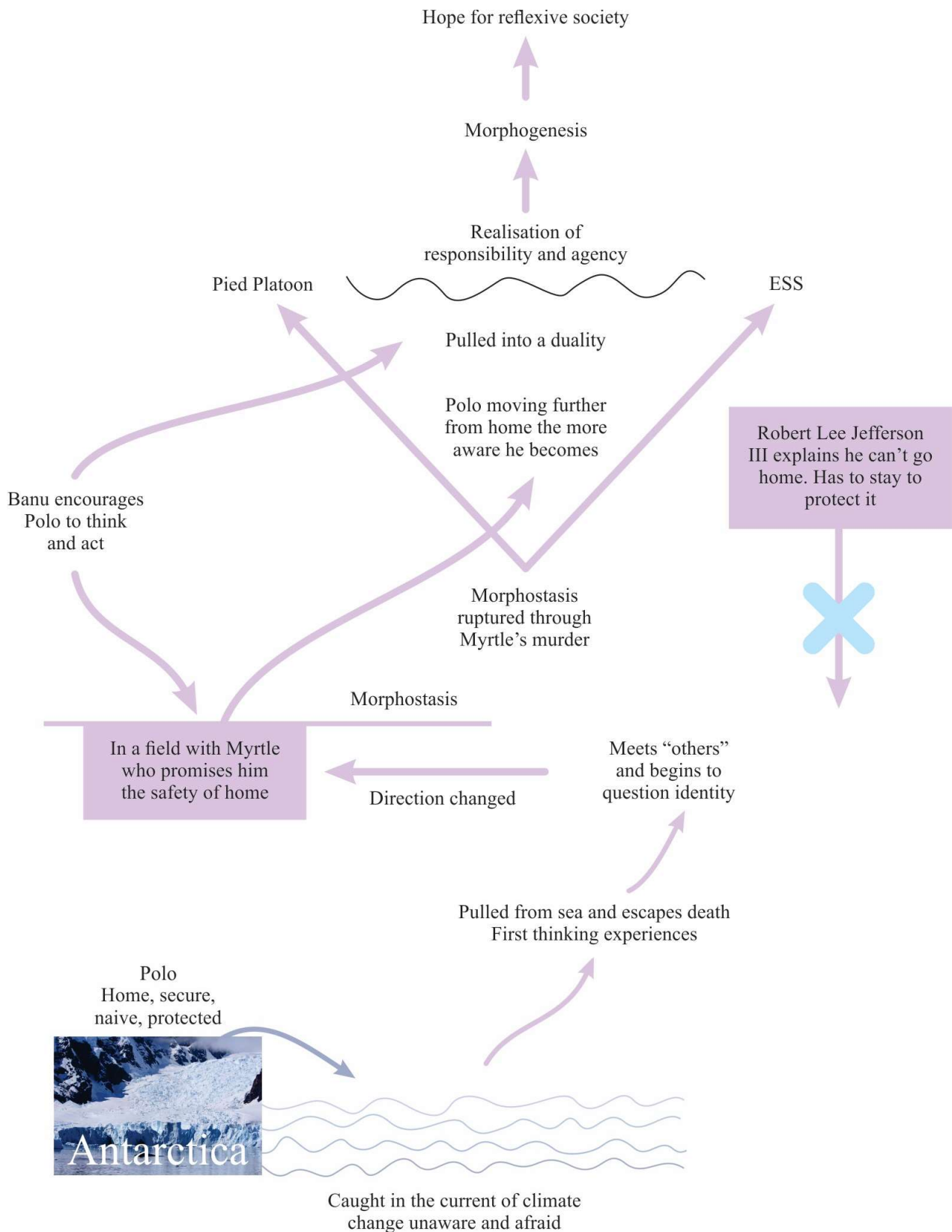
T2 Aim: to get home. Moves forward but thwarted by new knowledge, development of meaning and structural interactions T3



T3 He goes through cycles of morphostasis and morphogenesis as his awareness emerges



⁸³ Archer, M. Retrieved September 18, 2017 from <https://warwick.ac.uk/fac/soc/sociology/staff/archer/research/>



A morphogenetic map of Polo's Story

Glossary of terms

ESS Endangered Species Society is a fictional society whose membership is open only to wild and endangered species. Core belief is that humans are the source of all destruction on the planet. Despise domesticated animals and believe they should die with humans or live separately so 'true' genes not contaminated. Use violence to achieve their aims.

Pied Platoon Membership open to domesticated animals. Positions of power reserved only for black and white animals. They humour humans. As long as their basic needs are met, they will maintain the status quo. Their leader, Mr Smith, is greedy for power.

Antarctica A continent not owned by any state, although many have territorial claims. It is governed by the Antarctic Treaty, which is up for review in 2041. It is dedicated to research and the pursuit of peace.

Karoo The Karoo is a semi-desert over 700kms long in the interior of South Africa. It is the setting for many scenes in the book.

World Congress The World Congress is a fictional global gathering of Heads of State, Scientists and Activists. It is loosely based on COP (Conference of the Parties) and WSSD (World Summit on Sustainable Development). The World Congress is stormed by the ESS and Pied Platoon in a joint initiative to wrest control of the planet from humans.

Polo Lost and Out at Sea

None of the veiled warnings and visible apprehension driving his father's repeated lessons could have prepared him for what he was experiencing now. It took him many seconds to divide the sound into what he was hearing and what he was feeling. A force threatened to shred him to pieces.

“Don't fight,” a voice whispered. “Let yourself fall. Go deeper.” Instinctively Polo knew he must move away from the light and into the darkness where his only hope lay. His thoughts tumbled faster than the electric pulses exploding around him. As he swam down into the depths, a profound state of knowing momentarily moved to the surface.

As he swam deeper, the panic rose again. It threatened to lift him back into the monster raging over his head. A murmur rustled through the pounding, repetitive thick rumbling. “Relax. Let go. Allow yourself to sink.”

Released into bubbles, Polo stretched his neck and legs. The bubbles nibbled and lulled him into a soft grey calm. He smiled. Now he was pirouetting with the maelstrom around him. A symphony of exquisite light darted in and out, out and in, through the rolled up bits of white. Fear evaporated and joined the thunderous rage above him. His head lulled and swayed.

An imperceptible pulse reached his ear. Ping. Ping. Ping. Rhythmically it grew. Ping. Ping.

The sound flattened and gushed faster than the drops falling from his body. His right wing tore from his flesh. The air battered against his nostrils forcing the molecules in as they grated and ripped inside his chest.

“That's a full load.”

“Batten down the hull. Hold her steady and head for shore.”

Signs of Agency

Memory comes slow and fitful when the mind has been enraged. With no ice, parents, or visibility, Polo could make no sense of his surroundings. Was this a dream, an unreal place his mind had put him in? Questions that were only murmurs started to raise their voices. “Why am I here? Where am I? Who am I?” Polo called out to the clouds.

“Slap. Slap, goes my tail of woe,” chortled a mackerel.

“You is what you is.”

“Is dit?”

“Dit is!”

“And what it is, is.”

Laughter erupted everywhere and the silver carpet Polo lay on awakened in shimmying dominoes of light. He was lying on a pile of fish that seemed to be mocking him.

“You're nothing special,” the mackerel continued, “the likes of you gets caught with our kind everyday.”

“Hee hee. Yeah, we've seen just about all sorts come through here. Caught a young whale that cried so loud we were ready to throw it overboard. She cried right to the end.” “You're not going to cry, are you?”

“No point.”

“No point. No point,” the body of fish flailed in repeated unison.

The raging ocean bellowed the sea water, sending waves pounding over Polo's head. Pounding waves over him and rolling waves of movement massaged under him. This

vessel seemed to be battling against the sea, not with it. Lurching and jolting knocks threatening expulsion. A penguin on the sea, not in it where he belonged. At least his teasing bed had some comfort.

“Move. Left. Now!” a thundering, flapping voice commanded.

“With tidal grace, Polo's soft silvery bed gave way to a dry sticky surface. Separated and apart, Polo stood up and watched as the last of his silvery companions turned away from him. He felt a growing sense that they were now turning on him.

“It's you against us!” they now eyed him menacingly.

“I bear you no ill will,” Polo cried from his isolation in the now dank, diesel fumed hold of the trawler.

“He's crying. We knew he would,” hundreds of wriggling eyes smugged.

The words cascaded and slid over and toward him.

“I am not. I just want to understand why you no longer wish to be around me?”

“Them and us. Us and them. Your kind eat us.”

Appalled by the cutting words that now divided them, Polo tried desperately to reconnect.

“We can crush you with one movement the unidentified voice warned. “We are masters in singular, streamlined movements. Alone we are weak. But together we can act as one.”

“Penguins do not eat mackerel. And I am still too young to eat anything larger than tiny krill. I pose no threat to you.”

“Right. We have lost many who fell, hook and line for that argument. If allowed, you would sidle up against us. Use us. And when needed, gorge on us till your belly swells and our numbers dwindle. You will delight in your delectations. At our expense. Whatever words you utter, lurking in them is the real meaning. A meaning that we understand through 'experience'. Shore is five days away. See how your words change when hunger strikes. For the rest of this journey, you stay over there.”

Separation and Division

He peeked out from under his place of hiding, where he had been for four days. Heeding the warning from the hidden voice of the fish, he had sought refuge under a tarpaulin on the starboard side of the hull. He could sense the sea close to him and scraped for any bit of comfort he could find in the sound and feel of the waves – anything that connected him to his home. He allowed himself regular sips of sea water mixed with thickened blood splatters from previous catches. As he sipped, the words of the fish: “Your kind eat us,” echoed through his mind. He had never thought how eating could cause such destruction.

He swallowed the thought with a memory of playing in the rookery with his mates. Always under the watchful eye of his father. He gulped with the pain of his loss. The pain shattered through him, slicing at his chest. He felt broken and cut into pieces. It was so overwhelming, he could see himself projected into thousands of pieces scattered in the air, on the boards, and in the sheeting that surrounded him. His spiny tongue pushed and pushed to its outer reaches in an attempt to reclaim them. Despite his efforts, his tongue remained encased between his upper and lower keratined mandibles. He tried clamping his powerful jaws in the hope that the sheer force would pull the pieces of him back in. He struggled and gagged with the desperation. His frenzied state spread like electrical pulses to the pelagic mass flick flacking anxious tails toward him.

Fear turned his attention outward. Polo slid further under the tarpaulin and slunk down to his belly. If he needed, he could toboggan to the other side and down into the bilge. This would have to be a last resort, as the noxious oils and gases congregating in the bilge water would steadily erode his flexibility and worse, harbour the pitch that would destroy his waterproofing. Another irony of this strange new world found its way into his

awareness. Here materials like the tar used to bind the trawler's seams was the very substance that destroyed his.

These thoughts helped distract him from the one that remained constant: He could not bear to feel how far he now was from home. He slowly piled thoughts on top of this one to anchor it down in containment. He would get out of here and return home. But first he had to devise a plan to escape.

He listened to the whisperings from the other side of the hull. It appeared he had been bagged in a giant net on a boat that did not use an excluder device and so became another incidental catch that should have been left in the sea. The lone voice was that of a yellowtail: the biggest of her kind. The real treasures of the trawler's nets. Polo recognised her from the gentle yellow hues of her graceful back.

"If you can't tell me what I am doing here, or who I am, can you please tell me how I got here?" Polo blurted, agitated by his exclusion. "You are excluding me now just as I should have been from the net. Isolating me from you doesn't mean I have gone away. Don't just ignore me. Can't we try and work together so we can all get out of here?" he courageously squawked.

A frenzy of a different kind erupted. Sheer, unadulterated, mocking laughter belched out from the crowd.

"You are on a multi rig super freezer trawler. It's a factory ship with 1,000 horsepower allowing it to stay out at sea for months at a time. You got caught in the last 60 ton catch, just as it was heading for shore. Soon we will be in the port of Cape Town, at the southern tip of Africa.

"When the bags were winched with the Gilson and popped, you fell with teeming masses of us and dropped straight into the hold. You got lost from sight because our numbers gave you the invisibility that allowed you to survive. The collective that saves the individual. But let's dispel any myths you might have about anything beyond what you are experiencing now. This is what it is. You are here. So am I. This fact will not change and

proffers no denial. Your fate is now tied to ours. We will all end up on the plates of humans. Of course your plate might be of a different colour, size and shape to ours, but morsels you will be.”

“How do you know all of this if you have just been caught and are still to be bagged and shored?” Polo interjected distrustfully.

“Collective consciousness. We are caught in a repetitive pattern that humans have designed. They are unaware of their own circularity and cannot shift it. They do not know how to think about their thinking. We pass the knowledge on with each catch in the hope that one day, someone, something, will break the linear pattern and we will all be set free.” A screeching twisting sound ground the fish into silence.

“Do not fear what happens next. There is no point. We are now being conveyed to the next stage of our lives. The sound you are hearing, the sound we are all hearing is the bagging machine preparing to divvy and split us into neat, weighted, semi-frozen bundles. Humans are very precise in their measurements. Sayonara. Nice knowing ya.”

Determined to survive and fight, Polo gulped as much fortified sea water as he could muster and waited for the inevitable. He did not doubt the description the fish had shared. But he was not about to accept the fate they claimed he was part of.

The fish continued to eye him, but now some were looking through a thin clear film. He realised that he too was packaged in. The mass of fish that he first lay on, were now divided and bagged and piled together, separated by thin layers of plastic.

He swallowed the last of the water he held back in his gullet. And then decided, and executed the next step in a swift clear slice. He tumbled out from the torn plastic with twenty or so fish and landed with a wing jammed between two bags.

Although muted by the plastic bags, Polo could hear the gales of laughter from the fish. “What the hell did you do that for?” one of the freed fish gasped.

“I have to get out of here,” Polo delivered in cold tones that matched their icy surroundings.

“When are you going to learn to just accept your fate? There's no way out. There are times when it's best to suspend all expectations and hope and simply recognise what is. You may be out of the bag but you are not free. Accept that you never will be. There's no point fighting this. With all the will you have, nothing will release you from the structure that surrounds you.”

“I have a home that I want to get back to. I have a family. I want to be with them. I will be with them. It is not my time to die. I have only just started to live.” Floods and floods of emotion exploded through the refrigerated truck that was completely full of bags and bags of fish. Polo could no longer contain his agony. With a long straight extended neck, he raised his beak and screamed:

“I will not give up. I will go home.”

“Maybe he is the one,” murmurings crescendoed through the refrigerated truck.

“Maybe he is the one we have been waiting for?” multiple voices spoke at once.

Billie the yellowtail expanded her voice and through her toothless, protruding, sucker-like mouth proclaimed: “Freedom!”

The uttering stirred all the bagged fish into shimmying motion. Directions and commands synchronised with each movement. With his wing released and ready for action, Polo understood what was happening. With their last will and remaining strength, the fish built a stairway on which Polo could, with alternating belly-flaps and steps, move to the tiny window at the back rear of the refrigerated container. They believed in him after all.

Beside the icy glass he bided his time expectantly. Although unsure of what would happen next, a deep knowing surfaced to the top with him. He waited confidently.

Social Connection

“He is perfect. Exactly what we are looking for.”

“Milly, Pictus assigned us to watch for and analyse the consignments coming through. Not assess the beauty of such creatures.”

“You think it’s just coincidence that this exquisite creature lands up in this truck? This particular truck?” the meerkat raised her voice as high as her stature. “Pictus also tells us we have to find ways to raise our profile. To get our story out. Humans have the upper hand in the propaganda. This one could really help us change that.”

Polo looked out through the glass in absolute wonder. Two heads were bouncing around just feet above him. Rapid movements alternated with rigid post-like statues, with the odd scratching bounces in between. He was enthralled by these slender, agile animals intermittently peering down at him.

“Oooowe. You are lovely. Just lovely. So cute. So blindingly, dazzlingly beautiful. How perfect for our cause.” Daisy finally nodded in agreement, as she gazed into the glass. “Oh Milly, I think you are right. Once we get him back to HQ, the Meerkat Marketeers will add value again.”

Polo knew that the words being uttered through the thick glass window were important. He instinctively knew their meaning. He could sense that these were friends. When they both splashed their faces as close as they could against the glass with their inch-long sharpened claws, he knew. These were kindred spirits. Their bodies were dank and brown, but just as slender and agile as his. Something about them stirred a feeling of belonging.

“Stay tight. Don't worry. We will get you out of here,” Milly screamed the words as her arm cleared the steamed glass. “Hold on.”

With a skewed, but happy look, Polo gave an acquiescent nod. Milly and Daisy barely blinked, their instinctual, collaborative and ancient code of conduct and sprang into action.

Polo was strapped to a giant plastic cone on the roof top of the ice cream truck as it hurtled north into the Karoo. Milly and Daisy had taken the truck and had thought that by tying him on the roof, he would fit innocuously into the newly rebranded vehicle. They had lost time with the delays in getting Polo out of the refrigerated container and onto the ice cream truck. It was amazing what two meerkats can do with a spoon, twine, and a sardine container!

They were both stunned to hear a chorus of unified fish, singing a farewell song to Polo as they hoisted him out through the smashed window. Something about “gulping waters will never end, as long as there's hope in our newfound friend.” These accolades increased their certainty as to the value of their catch.

The rather large pink lettering 'Scoops' had been replaced with 'Marco Polo' to signify their collective action adventure. Daisy and Milly had hotly debated their choice and finally decided on the ice cream truck's new branding for two reasons: Marco Polo was the human who supposedly introduced ice cream, and it was only one name longer than their new little friend's. In addition, they would be able to drive their new mascot into the demonstration with his name already emblazoned and clearly symbolising his iconic status.

Although uncomfortable, Polo was relieved to be standing with the strange support behind him as the wind whistled across his back. He felt alive and free. He was free. He had escaped the macabre death that appeared only hours ago to embrace him. He knew the meerkats, who were scrambling with the controls below, were on his side. Their wildness excited him and stirred a sense of freedom and invincibility. A feeling of great power juddered within him.

He could hear Daisy and Milly frantically engaging the controls of the ice cream truck. Daisy sprawled with splayed arms and legs at angles through the steering wheel with her chin glimpsing the road ahead, while Milly flitted between the pedals, judging distance and speed from Daisy's mirthful, directional calls. Thankfully, it was an automatic transmission so their manoeuvres were confined to their specific areas of expertise. Meerkats were adept at working in teams. Milly and Daisy were a particularly exceptional partnership.

Emerging Agency

Below him were dusty dirty reds with spindles of waving green fronds dispersed by clefts. Polo could not have been further away from the familiar light and sound spectrums of the blinding white and infinite blue layers of his home.

Interspersed with these grey-green tufts were gangs, stables, troupes and congregations of the most diverse range of animals Polo had ever seen, or could have imagined. Some were as wide as others were tall. Beaked, antlered, clawed, hoofed, winged, hided masses stretched as far as his eyes could see. Nearly everyone carried some sign of their heartache. The messages they conveyed were easy to decipher.

He was in the middle of a mall of wall-to-wall protest, signifying human destruction. Signs of that destruction were visually represented by the animals.

A rhino held an image of a friend's bloodied face with a human gleefully holding his horn.

An elephant showed an image of a family member trussed and hanging upside down from a helicopter.

A gorilla hugged a photograph to his chest showing his dead partner's body splayed on a wooden frame carried by ten humans.

Some of these animals had travelled far to tell their stories. They had been roused by the growing numbers of their wounded and dead. Rage hovered over the crowd fuelled by the shared pain of the collective. Not one animal had been spared the devastation either to their homes, their food, their water, or to their loved ones. Every detail of these stories was laid out in a multitude of banners, billboards, posters and flyers.

Polo looked at the placards that surrounded him. They told stories of despair and horror. He quickly looked away. He didn't want to know.

He didn't want to hear their tales of woe. He was beginning to doubt the meerkats' motivation and apparent gift of freedom.

As thoughts of them kindled, so they appeared with the same awe and reverence they displayed when they met him. But he noticed a slight reticence that emanated from the wild dog that accompanied them.

Pictus' artistic nature was immediately obvious. Driven only by logic, romantic thoughts, like hopes and dreams, held no sway with her: only the neat, methodical, ordered movement of ideas into coherent outcomes. Outcomes, Polo sensed, she was proficient at orchestrating.

"Well. Well. Not bad. Not bad at all," Pictus mused, as she circled round Polo's untethered body. "He could be the link we are looking for. The bridge between our thoughts and the inspiration that drives action."

"A good call bringing him here. Loathe though I am to say it there really is something about him," Pictus nodded her approval toward Milly.

"Excuse me. You are speaking as though I am not here. Could you please share with me what seems to be some very definite plans for me?"

"Milly/Daisy please brief our cohort. I will return later to go through the details." And with one leap, the wild dog merged back into the agitating crowd.

Polo listened to the alternating voices of Milly and Daisy as they laid out their marketing plans for a global demonstration with him as the lead mascot.

"Don't worry. You won't have to do much more than simply be there. Of course the more saddened and downtrodden you appear, the more in sync you will be with the cause," Milly rushed through excitedly.

During a brief ebb in the conversation, Polo slid off the ice cream truck. He decided he would just walk away from this chaotic babble.

“Goodbye.”

“What?” Daisy shook incredulously. “You can't just walk away from us!”

“Thank you,” Polo encouraged, “thank you for rescuing me. But these stories are not mine. They are not my responsibility. I have to get home. Best I get started while the day's still young.”

Nose to nose and speechless, Daisy and Milly gawped at their miscalculation. Nobody walked away from the ESS or Pictus. Certainly no-one who had gleaned insights into their plans.

“When Pictus finds out you have deserted us, she will not be pleased,” Milly and Daisy advised him. “She does not like disobedience or deserters. If you turn back now, she need never know you had these thoughts of separation and selfishness.” “Goodbye,” Polo repeated resolutely.

“Your wildness inside you means you are part of us. DNA does not lie! You owe it to yourself to stay and fight for our existence. Join our campaign by choice. Under duress will only mean more inevitable stress.”

The clarity of choice swept through him as Polo ventured on above the red soil that dusted beneath him. He could hear the call of his home as he waddled in thick thack motions southward toward his home.

Constraints on his Ultimate Concern

The weight on his chest was getting heavier. He had been pinned to the 'culvert' for hours and he knew if he did not move soon, he would die. He was not ready to give up, so with a final push he broke free. The pressure broke open and sent him plummeting toward the bank. He crawled up through the muck and lay gasping.

A few hours after he sauntered away from the meerkats and their masses, Polo heard the thunderous sound of a posse that were clearly after him. As he waddled through the Karoo he reflected on the interactions on the ice cream truck. With hindsight and distance, he realised that his sudden departure may not have been his smartest move. He shuddered at the memory of his courage. Now his journey home would be marred by a chase. He would have to get off main paths and find cunning ways to mask the scent of his trail. Wherever he could, he mixed his guano among other dung heaps, hopefully confusing his trackers, as well as the unfortunate dung beetles collecting their hordes.

Walking through the stark, contoured landscape gave Polo ample time to think about where he came from, where he was going and the power of his will to return. The image of his home was steadfast and fixed in his mind. The urgency of his need to return, was as much about his disconnection and loss, as it was a wish to keep the Antarctic pristine, just as he recollected it. To be so integral and part of it that he wouldn't notice the imperceptible and inevitable changes. If he was going to change, he wanted it to be a gentle process that happened in his home and with his home.

After a narrow escape during the chase, he had leapt into a concrete channel that was rushing swiftly in a southerly direction. What he gained in speed was outweighed by being smashed against a silt box in one of the gullies crossing a single track road. He had struggled in fits of energy for over four hours. His persistence left him sprawled and flat in the pile of muck where he lay thinking and exhausted.

"Sunrise," Polo sighed. Another 24 hours away from his home and his family. He missed them so much. He despaired of ever returning home and even wished he'd drowned in the Atlantic. At least then he would have died closer to his family in the sea that he loved. "I'm

a penguin, just a sorry, lost little penguin,” he cried to the sun as it cast its first rays on the field in front of him. Even with the light, everything around him seemed dark and sad.

“I’m lost! I don’t know which way to go.” By now he should have started shedding his chick feathers, but they continued to cling to him as he clung to memories of his home. With no direction, how could he ever grow up? Polo vomited. The last remnants of the bloodied water came flying out unto the grass in front of him. Soon after, his stomach felt empty, just as he did.

“Stop feeling sorry for yourself. It will only incapacitate you more,” Banu anchored the ground with his talons.

“You need to get your strength up so you can get up and move forward.” “With what?” Polo whined to the mighty bird towering before him.

“Penguins are known to be able to stave off hunger by swallowing stones. I have seen King Penguins on Marion Island swallow 24 stones in a minute. How lucky are you to be in a landscape that is full of stones.”

“Lucky? You have strange notions of luck.”

“Isn’t it just a matter of what you see around you and being grateful for what you have? I mean truly seeing what is around you and appreciating everything as it is.”

“Does it really matter? We are just powerless against all that surrounds us?”

“Polo, this sense of powerlessness is in your mind.”

“Well if it is just in my mind, how did it get there?”

“It’s a deep question and one that might take us a while to get through. Perhaps we can agree to meet and discuss these ideas together. After all, you have already said you haven’t really anything left to lose?”

“You just avoided answering my question. I want to know how this thought that I have no power over my world got into my mind.”

“Well, I surmise, it's a combination of how you were raised, where you were raised, who was around you when you came into the world and how you are now trying to make sense of where you are. It's understandable that you feel despair and loss. But neither feeling can excuse your lack of responsibility. If you still feel like giving up at the end of our conversation, then at least be honest and say you are choosing to opt out of the world. Goodbye for now.”

“Smug, irritating bird,” Polo exhaled. If he had more strength he would probably have flung the stones that seemed to be looking up at him.

Eerie though it seemed, he picked one up with the precision afforded by his perfect beak and snapped his head and swallowed. Seven stones later he felt energy waxing within him.

Is this Love?

Robert turned and did a quick check of his feathers: they'd been ruffled by the scape. He was disturbed by how brutally handled he had been. How crass and brutal they were. “Don't they realise my significance. I have vital information that could change the world,” he said to himself, “Without me, this planet is going down. How could they?” Tears of anger rolled over his gizzards as he looked at his misshapen feather. “And this is how they treat me after all I've shared with them. I don't even have a comb to straighten them out.” He suddenly missed the ribbons, the clothes, the bags that he had lavishly enjoyed in his sanctuary in Washington D.C.

“Oh that beautiful tweed waistcoat,” he cried out. His brief wish to be back in the US passed quickly, when he remembered that the last thing he would have worn if he had stayed were garlic posies and onion rings. “My gizzards would have been wrapped round me,” he thought, as he placed his wing protectively on his neck.

Just then he heard a faint, unfamiliar sound in the bush behind him. "It could be them," he trembled. "I am too beautiful to die, I have too much to give to go like this." He closed his eyes and prepared for the worst. Minutes passed and nothing happened. Terrified, he opened his eyes and listened. Now he was certain that there was someone, or something, huddled under the bush. It was too small to be one of his captors. He checked his feathers, flailed and walked bravely to the bush.

He had never seen such serenity and beauty. Lying huddled under the green leaflets of the Sutherlandia shrub was the most beautiful creature he had ever seen. He fell instantly in love with the short, sweet feathers, the strong pointed flippers, and the starkly contrasting contours of his majestic body.

Polo opened his right eye. He was getting used to new creatures. What he saw before him was unlike any of those he had seen before.

"Go away, just leave me alone." Too tired to say it out loud and unable and unwilling to cope, Polo closed his eyes and his mind to anything new.

Robert stared transfixed and fixated.

Your or My Identity?

"Oh deary, deary me. Isn't he just adorable. What a lovely little pile of black and white. Look at the smoothness of that fair-bellied skin. The smooth sleek outline of the head and the exquisite slenderness of his mouth. What a dear, dear creature."

"Mother. Step back. He looks scary to me. I have never seen anything like it. No hooves. Pink claws like chicken's feet. But not. Pointed beak, longer and sharper-looking than any bird I have seen."

"Did you see how graceful and swiftly he moved through our river?" Myrtle asked in awe. It was a thing of beauty. Besides, sweetheart, he looks just like us, if you get past his size and shape."

“The Shape, and the beak, flippers, flappy pink feet...”, Myrtle’s young son rattled.

“Look at what makes us the same, Charlie. Look at his skin and the patterns of our ancestor's colours weaved throughout his whole body. We must be connected.”

“I don't trust him. He looks weird Mum. Why is he here?”

“Why am I, indeed?” thought Polo, as wet grey holes hung over him, just below wobbly jellied bits of flesh that he reckoned were lips, where large square teeth knocked up against them.

He had hoped an hour earlier, that by diving into the river, he would escape the turkey who called himself Robert, and it would lead him back to the sea, and eventually back home. But none of his plans were carrying him forward.

Polo could feel himself sinking further than he ever had before. Nothing looked familiar or felt safe. Now it looked like rectangles on spotted square bodies were talking to him. He didn't even feel scared anymore, just utterly hopeless.

“Hello dear, what is your name?” Myrtle encouraged. Something about her voice made Polo feel calm and reassured so he responded and before he knew it, he had told her the whole story. It was such a relief to be able to tell someone. It was good to have someone who would listen. He reflected on why the fish, the meerkats, and the ESS, couldn't really listen and realised it was because they had so many of their own stories to tell. It seems there were a lot of creatures out there who needed to be heard. It was important to feel understood. Something about this animal made Polo feel safe and understood. “Funny,” he thought, “maybe it is because she has black and white markings just like me?”

As if she heard his thought, Myrtle said, “My mother always told me that penguins were particularly special, not only because they knew how to move so gracefully, but because they were also made up of the two best colours: black and white.” “I'm a penguin?” Polo asked.

“Yes, honey, you’re a penguin.”

Suddenly, Polo’s eyes started swimming round and round. He could no longer tell the difference between the spots, the river, the grass and his own flippers. What did it mean to be a penguin?

“I don’t understand: what am I, who am I”? Polo asked.

“These are such big questions. Maybe we should start by getting you warm. Then after some nice grass tea we can begin to answer some of them. Come along. Follow me.”

Melting into Structure

“Charlie! Charlie! That patch of grass is filled with Patterson's Curse and is dangerous for you! Please come over here to me where the grass is searing green and fresh as can be.”

“It may have just popped out of the ground but it’s not fresh”, Charlie scoffed at his mother’s innocence.

“Darling, don’t be absurd. We dine on the best pastures. We couldn’t ask for better. Our farm is well managed and well-tended by humans who care and love the land.”

“They don’t care. They spray that shit...”

“Watch your language young man.”

“It is shit. It’s all shit. The sprays. The grass. Us. We are only here to serve their needs.”

“Charlie, my darling. Come here and nuzzle up against me. What has made you so angry? I wish I understood and could help you see it the way I do. We don’t have a care in the world protected by these fences and walls around us. We have those beautiful trees to

shade us in the winter, wonderful pastures to enjoy, endless food to ruminate over. Water is in constant supply.”

“They are not walls of protection, Mum. We live in a cage. Why can't you see that? Why are you so taken in by them? Don't you hear the wails of the cows who live in the fields over there? Haven't you ever tried to talk to them? Don't you wonder why so many walk into that red mucky shed and the weekly truck, but never come back out?”

“Oh darling, your head is filled with nonsense. Trust your mother. I have been in this field for a very long time and I haven't been harmed. I've reared fourteen little ones just like you.”

“Where are they? Where are my brothers and sisters? Where have they have gone?” Charlie gargled in fury as liquid spilled from his nostrils. “Wake up Mum. Wake up!”

“Let him be Myrtle”, Polo beckoned. “Your son Charlie is young and frightened of the world. And he is right to be: what goes on over that hedge and those fences also terrifies me”.

“As long as I am here Polo, you won't be harmed. I promise. This is the safest place to be. Your fear is understandable. You've been on the other side. But right here, you are safe with me. Charlie is just being foolish and he is cross because he is restless with youth. In time he too will find comfort in the safety of this field.”

“How can you be so calm when there is so much horror in the world?”

“Oh my dear, if only you could see the world as I do. Peaceful. Safe. Full of love. Don't you feel loved, Polo?”

“I do. Kind of. But I am not talking about love. There are diseases, floods, pain, death, hunger, destruction right over the other side of that hedge. Polo spun his focus and pointed to the other side of the field. Can't you see it? Don't you care?”

“All we have to concern ourselves is what's happening right here. Right now. When you look around you what do you see?”

“Grass.”

“And?”

“Green grass?”

“And a beautiful river that carried you here. Over there, Charlie is soothing under a tree that is barely bustling with a light spring breeze. The grass is a searing green, fresh from the earth below us, which is cool and soft. I don't see any danger. Do you?”

“I guess not. But what about over the hedge?”

“But we are here Polo. Not over there. We are safe, warm, happy,” Myrtle smiled her soft reassuring smile. “Nothing else exists.”

“They say there are over 7 sextillion stars up there. That's more stars than there are grains of sand on all the deserts and beaches in the world. This is a beautiful place,” Myrtle reminded Polo, as he stared into a distant space.

“If it's so big and beautiful, why do you live in this tiny little field? Why don't you see what's on the other side of this hedge?”

“I don't have to travel to appreciate the world and what it has to offer. I am content here, Polo. I like to be surrounded by these trees and to watch this field change each season. Even if I had another 50 years I would never be able to know it fully. It constantly surprises me. The river brings fresh news.”

And so with time, Polo relaxed and accepted his new environment, and whiled away his days in the comfort and ease of his new green home. Soon the sounds beyond the fence faded into insignificance, replaced by low soft rumblings of Myrtle's digestion and the

trickling constancy of the river and its fresh supply of fish-for-food. What else could he want or need? When the thought of home threatened to shake him, he simply laid down on the green grass and reposed in its soft luxury. Its cold, smooth dampness lulled him into a state of inertia. The passion and wish for action and movement was blunted by the complacent warmth of his surroundings. "I don't owe anything to anyone. Action or inaction – it's all the same. Might as well rest in safety, rather than risk in failure," he repeated to himself.

Structure and Agency

"Polo you have to get out of here," Banu swept his shadow with his words and his wings.

"But what can I do, Banu? I'm just a penguin."

"You have power beyond your imagination. I have watched and seen how the animals inside and outside the fence that surrounds you listen to you and admire you. They believe in you and I think if the time was right, they would follow you."

"Follow me? To where? I don't want that responsibility. I don't want to take on things that don't concern me. Why don't the whales and the seals keep the ocean clean and those who live on land sort out the problems they have?"

"Polo, I can understand your fear. I'm asking a lot of you. But if you are committed to saving your home, you'll have to go further. It's all connected. We're all connected." "You can do anything, Polo," Banu encouraged.

"Why do you talk in such confusing riddles?"

"These are not riddles. You have powers within you to transform the world around you: to move it, and you, forward."

“How Banu, do you propose a penguin, 5 ft tall with one broken wing, dried out flippers and a beak that is brittle and falling apart, have any effect on the world?”

The power of his irritation forced out a bray, the like of which Polo had never heard before. His voice was emerging.

“Yes,” Banu agreed, “it may seem at first that you have no power. That you are just swaying in the wind. Without direction and without hope. You are accepting a definition of yourself that you haven't really thought about. Every day since you have been here, I have watched you grow. I can see your strength. Look what you have achieved so far. You have travelled over 7,600 kilometres. You have survived, Polo. You are a survivor. It is that strength and desire that pushed you forward so you could end up in this field. But now you need to go inward and find out what you really want. Go deep like your parents taught you to do in water. But this time go deep inside you. Find out what you want. Find your Ultimate Concern.”

“Another riddle, Banu. I don't know what an Ultimate Concern means?”

“It's the thing that drives us to act, to change, to transform, and comes from who we are as individuals and how we came to be who we are.”

“I want to go home. I want to go back to the Antarctic.”

“OK. But in order to find a way back to your home, you need to look at how you can navigate through the structures that surround you. As you look deep inside, ask yourself what it is that's in the social world that is stopping you from getting home?”

“Social World?” Polo brayed again in repeated exasperation. “I have none. I no longer reside in a social world. Why do you insist on ignoring my reality? I am alone. My entire family. Everyone. They are all in the Antarctica. Nothing is left but me.”

“Why do you insist on ignoring the reality right here in front of you? I am here. I am right in front of you. I exist. Our conversation exists. And that conversation is part of a much wider

one that you are also part of – whether you like it or not. The Pied Platoon and the ESS are engaged in a battle. A war, the outcome of which is certain to determine the course of all our lives. If you choose to bury your head in the grass of this field and ignore that conversation, it won't matter how many times you bray or feel sorry for yourself, the risk the Antarctica faces will fade into insignificance, against the backdrop of a new world order, a complete change of society's structure.”

“Please Banu. Please. I can't. I can't. There is nothing I can do.”

“So you are just going to accept that everything around you is more powerful than you? That you are a product of it and have nothing left to produce? Your journey here was an act of courage and change. But if you choose to sit here in this field dreaming of your home. Remember it is a choice. Doing nothing is a choice. I leave the meaning and understanding of that choice up to you. But do not blame others for your decision. Your thoughts are yours. If you think there's nothing you can do, then it is not only your broken feathers and brittle beak you need to fix, it's the mind inside you. Whether you think about the Antarctic, whether you are there or not, it exists apart from you. Separate from you. You need to distinguish the real from the actual and both from your experience. Right now your mind is awash with dampened, congealed thoughts like your feathers. What do you do when you clean your feathers, Polo?”

With a slight lift of his head, Banu caught the air, spread his wings and rose into the sky, as did the question he had asked. As he rose, he peered down, and noticed how little there was to distinguish his young friend from the black and white shape of Myrtle. Similar but different. This field was blending them together as if they were one. Banu wondered how Polo would learn to see the distinction between his individual and his universal self. Uncharacteristically, he flapped his wings to signify the sense of haste he felt within.

Polo Awakens

Myrtle's head was snapped back as the long, thin strip of electricity burnt her left flank. The shredded grass swirled in wheezes down her chest and out through her nose. Partially stunned by pain and shock, she had a vague image of a human in an orange vest, uttering words that she neither heard nor understood. Her breath pulled and then sucked into a tiny

vacuum where her windpipe should have been. Her curly lashes opened, but her eyes would not steady long enough to find a fixture familiar to her.

“Maum ma mau maum mau mau mau...,” she bleated in circles over her head. The sounds moved in thick pungent bubbles. They were too heavy to move toward the tree where Charlie still stood. And she could not muster words that would reach him. She could sense Polo's panelled chest close by.

“Poor dears”, she thought. “They must be frightened watching all of this. No doubt it's a big mistake and the farmer will sort it out soon.” After all she was the longest living cow that had ever frolicked in this field. This could not be happening. She denied the blatant reality that had formed in front of her. “This is just a temporary misunderstanding, that's all.”

Polo stood motionless, as frozen as the ice that once surrounded him. Fear pulsed through him. He watched Myrtle's once graceful head bend in agony against a metal crate that was slowly tightening around her. Her patchwork skin of black and white was now transforming into a tapestry of red. Charlie lay crumpled behind the tree. There was nothing either of them could do now. Any attempt to aid her would mean sudden and sure death. Polo realised the best he could do was to find her eyes so she could see some kindness in her surroundings.

The second vest moved with precision, as he tightened the bars around Myrtle's chest forcing her into a fixed forward position. Her eyes moved in random, quick, violent darts. Polo's were the only eyes holding a steady gaze as he watched in agony as Myrtle's anxiety and fear sprang in desperate tight jerks against the metal that was now moving her toward the truck. The dirt and shit lay everywhere in the deep grooves as Polo ran in sticky slides toward the now closed striped metal gate that held her in.

Without a thought, he jumped into the centre of the spare tyre bolted close to the exhaust pipe. Above, on a few thick planks, his kind dear friend was imprisoned in an unimagined reality.

“Myrtle,” Polo called, then tapped his beak in rhythms at the cross bar above him.

“Myrtle, Myrtle, Myrtle,” he repeated in deepening concern. Horrible, pungent liquid poured like gravy over him.

“Myrtle, Myrtle. Please, please answer me,” Polo pleaded.

“Honey. She's still frozen by the stun gun,” a resigned voice drawled down.

“She got some extra lashes from that brute. Her tongue will be swollen with tension and adrenaline.”

“Who are you?” Polo gasped from the unexpected voice.

“I am the decoy. The ploy. The joker. The one that sets the game...”

“That doesn't answer my question. Who are you? What is happening to my friend?”

Adjusting her voice from her usual resigned drawl, the Fresian spoke her shame, “My name is 40703838. It is stamped on my ear where it will remain until the day of my dissection. I travel in this two-storey monster to fields around the country. They use me to coax the others in. You see, when other cows see me, they feel comforted by my friendly familiar shape. The 'vests' feed me often so I look large and round. Cows respond to my voluptuousness...”

“Please, Miss. Get to the point. I need to know what is happening.”

“I am sorry. I don't often get a chance to tell my story. The only creatures I get to meet are either scared speechless or beating and bullying. My job is to lie. To tell cows like your friend Myrtle, or 280566, that she's just going to another bigger, brighter, happier field.”

“Where are we going?”

“Oh sweetie-pie. It's a place that deserves no name. It's a place that no one should ever have to see. It's the end of the road. It's.”

“Stop. Please. I need you to be clear. Where are we going?”

“They call it the abattoir. Or the slaughter house.”

“I have never heard those words before. But they don't sound good.”

Silence filled the space between the two animals. One's silence was driven by shame, the other by a dull, heavy sadness. The grinding metal continued with a deliberate forward motion. The sound of the grating tyres broken by 40703838's words,

“The vests also call it the meat-works. It's one of many places where they kill animals.

They kill us with hooks and chains. With saws that spin so fast you can't see the blade. They kill us in silence. They kill us to the sound of music. Sometimes the sun shines in and shows the dappled hide of my fellow cows. I have seen many walk from me to their death. Often they turn for one last moment of reassurance, which I give. I keep up the pretence right to the end. At the stage they bumble off in ignorance, it's already over, so I decided long ago that the truth would only add more pain. Where and what exactly happens next, I have put together in pieces: the pieces I have heard from the vests, the pieces I have heard from the screams of recognition, and the literal pieces of the animals that come back out.”

Polo simply could not comprehend what this voice was telling him. How could he? He had no interaction with humans before. No gauge with which he could judge the meaning of his surroundings. He lived in a world that was governed by cooperation and support. By love and tenderness. By genuine affection for those around him.

His thoughts knocked against his frontal lobe with the sharp bang of the brakes. His body lulled back to centre shortly after the tailgate of the truck locked into place. A throttling gurgling calm settled around him. Instinctively, he did not speak.

Tanging clanking rocking sounds and movements muted the voice, “This is a good time to flee. The cows are stirring but won't be moved for another few minutes. The vests are inside checking the contents of the truck in. Get out now. While you can.”

“What is... what will happen? What's going to happen? Tell me? Tell me? I want to know.”

For the first time since she could remember, 40703838 did not have to pretend. Here was someone wanting/willing/needing to listen. She had never told this story before. The facts had only lived in her head. Now she had the opportunity to release the words, to free them. And in the process, she briefly thought, she could free herself. One day, she knew she would no longer be the one left behind on the truck after the packed, cramped cows walked to their death. She too would join them. She would be one of them. Her number would literally be up! For years now she had started to notice that her relief at being left behind was making way for a wish for death. This may, she thought, be the only time she could share the truth of the life she was forced to share. Using only the words necessary she began.

“If she can, Myrtle will walk off this truck in the direction of that steel door. She won't be in any doubt where to go, because by then the metal railings will be assembled in a neat, narrow path that will guide her forward. By that stage she will not be able to turn, the pressure of others behind her will force her on. If she is lucky she will spend only a few seconds in a tight chute where iron arms will restrain her head as she is shot in the forehead with a stun gun. The floor will tilt and she will roll with a force that will push open a thick plastic curtain. With overalls, masks, goggles and gloves, they will hook a chain on her back right ankle. This will hoist her so her head will dangle down at shoulder height in line with the head of a vest. They have about 10 seconds left before they will need to cut her throat so deep all her arteries will burst open. If the blood rushes out she will be dead soon after, if it coagulates and slows she may wake from the stun and know what is happening. Of course, if the death train moves too quickly and she misses the gun, she will be able to hear, see and know all of it as they saw off her legs one by one. Bit by bit she will be divided into pieces. She will dangle on her now moving chain completely conscious. She will watch for minutes as the blood that once sustained her speeds in an unstoppable flow past her.

She will die to the sound of compressing air, clashing metal, discordant elevator shafts and the vests, forever the vests, moving, murmuring and whistling. The machines do most of the work, including the full body stripping of skin and the final dismemberment. The vests

are only there to make sure the bodies constantly flow. When this truck load is processed, the lights go out and the whole place is sprayed clean. Ready for the next load.

“What happens if she just stays on the truck,” Polo was grasping.

“If the cows are too tired, sick or weak from the cramped journey, a vest will likely lift their tails and stick an electric prod up their ass. Sometimes, when the weather is particularly cold, cows arrive frozen stuck to the side of the truck. They are peeled off with crowbars. Whether she moves on her own, or by the vests, she will go through that door.”

Polo finally raised his head level with the tyre's rim. The source of his need to wretch suddenly blasted his face. It was the stench of death. The stench of many deaths committed in rapid, hurried succession. A reeking cloud of fear and terror wrapped around him and held him tight. Fleeing was the obvious course of action, but something compelled him to do what he did next.

In a sort of daze and with little concern for what the vest-clad-thugs might do to him, Polo took a clear, clean step on to the concrete embossed with the drippings of twenty years of fear. A brief look defined the metal railed parameters. The green metal pipes pointed in only one direction. This is where Polo waddled. It took seven steps to reach the curtain that now shimmered with the morning light. Remembering the sequence recited to him, Polo stepped off the edge and rolled over in smooth penguin cascades to, through and down the plastic shield that separated who he was before and who he was about to become.

He let himself roll. He turned and fell flat against a metal plate. It burnt of bleach, but was icy cold. He felt a familiar tinge of home. He was on his back. Above, square boxes about 2m long and 2m wide towered down on him.

As he was wondering what they were, a grinding metal motioned to the right of him. The boxes appeared to treble their size and boomed rays of stark white light. He caught the shadows on the floor as he turned his head. It was then that he saw the white boot with fine red trim circling his thigh. By the time the second boot stood, the vest was about

seven feet from him. He was covered head to toe in white overalls, a mask, ear covers and red gloves that were holding a large, long metal hook.

Flattened by the terrifying realisation surfacing through him, he calmed his twitching flippers and tried to assess his surroundings and look for a possible escape. “One, two, three, four” – he counted in a pace to steady his mind, “five, six, seven” – his heart was beating out of time. He had just uttered, “eleven” – when a thunderous clap mixed with a wet thud unhinged him from his metal plate to a grate inches below. The metal plate he had rolled onto moments before, sprang back in a calculated motion, to catch a kicking, screeching cow. It was Myrtle. He could only hear the sound of the hooks and knives ravaging her flesh and then felt the warm, sticky blood soak his anguish. He was right below her, above a meshed, smooth grate that captured the last molecules of her life as it flowed from her.

The screeching and noise of his friend was replaced with the groaning metal of the clamps and the rasping, looping chains that carried her body. Her body. Her beautiful body was cut and spliced into sections that dropped unforgivingly into sterile, plastic containers moving in spiralled directions away from him. Her gaping eyes were open and stuck in the same stare she had had in the field that they shared hours before. Her eyes slowly diminished from the centimetre stare to inches that pulled away to the many feet of sadness, until the metres took her behind the curtain and finally away.

“That was it? It's over? She's gone? Never to be seen again?” Round and round, and over and over, these thoughts moved in jumbled jigsaws in his brain/head. He just could not comprehend that she was really dead.

Despite being trapped in despair, he knew it was her blood that ultimately saved him.

Consumed by Anger

Regardless of how loud and dramatic, the sound of moving ice was comforting to Polo. Its familiarity connecting him to the ebb and flow of time. It was soothing to listen to ice breathing in rhythm with his home. Strangely similar to the circular movements of metal over his head. The creaking ellipsis aching, and desperately, continued in the windmill's attempt to pull water from the earth. Metal hope to parch the dry red dust around him. Barely visible through the twisting spokes, above was soft, safe blue. A vague distant reminder of the water and icebergs of Antarctica.

A feather lay beside him brittle and limp. Although it was obviously his, it didn't feel connected to him. He was breaking up and he didn't really care. He wanted to let go and fade into the distant blue above him. All he had to do was close his eyes, lie motionless and slowly time would carry him back through the memories.

As if floating on the crisp clean waters of Antarctica, peace began to settle in him. But peace was interrupted with the labouring twists above him. Irritation propelled him to move away from the crass distraction. The urge to die was so strong, he dug his beak into the red and dragged his body to an open space inches from waving grasses that surrounded the base of the windmill. The pain expanded with each movement forward. Numb serenity slipped away. Pain returning in its place. Pain of living and life out of time and out of space. Neither alive nor dead and powerless to make a decision about either – anger, his companion and comfort.

With enough distance anything can look insignificant. As he drew closer, the small body seemed to reduce in size and stature – flattened and lifeless in the dust. Growing smaller as he approached, Banu feared for the first time that he was too late.

“Polo. my friend, I am here”.

“Your voice is a tiny string that I can't hold on to. I want to go.”

“We can go together if you can tell me where we are going?” Banu gently rocked his vocal chords in a rhythm designed to soothe and comfort.

“Please let me go, Banu. I have done my best but I can do no more. I don't belong here.”

“But don't you want to go home?”

“Why are you so cruel? You know as well as I, that it is an impossible and stupid dream. I know that now. Please go away. I want to die. Let me die.”

“Just because you wish for death does not mean you can have it. The mills of the gods grind slowly, Polo.”

“Of course I can. I can will myself to die. I can simply give up, as I am doing now, and I will die.”

“It sounds as though you are feeling very sorry for yourself.”

“You are so smug, Banu. You float around high in the sky and think everything looks so good with your winged bird's-eye view. You make it seem like everything is colourful, bright, clean and pretty. It's sickening. Because down here on land, things are bleak. The butterflies you fly over die. The pretty flowers that you barely smell wither. Flowing clear rivers dry up and disappear. Forever. Forever, Banu. Don't you get it – everything dies! This is not pity. It is reality.”

Sombre aching music wafted from the parched earth.

“What is reality Polo? Do you really think there's one reality and that everyone's experience is the same?”

“I don't care about everyone's experience. I care about mine.”

“Maybe it has nothing to do with experience, but about how you see the world and your sense of power over it”.

“In the last few months I have been torn from my family, nearly drowned, tortured by neglect, humiliated, pushed, shoved, tied up, bullied, burnt and blistered. To top it all, I can never get back home and my only true friend has died. So Banu, the way I see it, those experiences have affected the way I see the world. How I saw the world before is long gone. And I want to leave it.”

“Flickity Flack Jack. Oh my gizzard. Oh. Oh. Oh. My lolo Polo,” came the screeching sound from a ball of roughened/ruffled feathers. “You look awful. Simply awful. Where has my cute little bird gone to? It's OK. I forgive you for everything. You needn't prostrate yourself like this.”

Polo could feel raging energy building inside him. He almost felt alive. Before Polo could summon the words that would quiet the infuriating turkey, Robert cut back into Polo's thoughts again.

“Where is your zing, your pep, your zest”, Robert frantically asked while rummaging in his bag. “Where is your vitality Polololo. I know how much you love me, but you cannot blame yourself, *because* you cannot love me. We have to get you better. Now let's start with some hydration. Where is it? It is in here somewhere.” Robert bustled and hustled his way through every zip and pocket in his Louis Vuitton.

“Robert. Stop. You are the most self-obsessed, vain, irritating, annoying, fiddlediddledoodledeh aargh ... I have ever met. You probably think the windmill over my head turns for you. This is not about you.”

“Oh this is just the delirium talking. The desperate, dire, drudgery of illness. I know. I have been through the same myself. I remember when I was in the breeding cages on Capitol Hill, how sick I got...” Robert continued his monologue as he prepared the sugared water, the pillules, and the aloe vera wraps. “Let's see,” Robert repeated his wing flick tick – two degrees out, slight flare to the back and a jolting return to his side. An increase in frequency always indicated an increase in anxiety, although many before had mistaken it for aggression. “I am not going to let you die. You will not die. I can fix this. I know I can. I will fix this,” on and on Robert persisted, his anxiety driving his repetitive speak as he laid out his balms.

“Stop. Robert. Stop. Look at me. Do you really think that some eansy beansy tablets and a foul smelling rag will cure me? Cure this? Look at me!”

“Take this,” Robert bristled after he had forced the hypodermic needle down Polo's gullet.

Polo closed his golden-coloured eyes. He constricted them down three hundred-fold into their tight diamond shape and willed them to constrict to their logical end. Behind his lids was the only place where life lived. He could see the ice, feel the feathers of his parents enveloping him, and he could hear the endless symphonic cracks of the ice that remained the backdrop to all his memories. He wished his eyes would stay closed forever. But if they did, would his memories stop too?

“OK. I know that wasn't very nice of me. But I had to give it to you. Don't worry, I put the pillules into the liquid, so you'd only have to take one dose. I saw it once at the compound where all the other turkeys lived. When something had to be given, our minders would just force it down, especially when in a dire situation. Like the first day I met the President,” he pondered. “Now I am applying the aloe vera gauze strip to your flipper wing. I don't really want to look, so can you please indicate with some kind of noise so I know when I have found the right place. Polo, did you hear me? OK. Being ignored. That's typical and part of the pattern of unexpressed anger and unfulfilled dreams. Despite these trying and uncooperative circumstances, I will continue. Applying bandage now.”

“Let me help you, Robert. I am not afraid to look,” Banu glided in.

“Thank goodness there is someone around here who is speaking sense. Actually, thank goodness there is someone around here who is speaking: who can use language to express themselves”

“You are doing a great job Robert. Now move your beak a little higher and a tad to the right and when you feel the tension, you will know I am pushing/guiding the bandage into place over his wing.”

“Surprisingly that feels soothing,” Polo murmured. “But it will not fix the ultimate problem.”

The problem of death. The sure and immediate death that is coming.”

“Flapping flickity flack, how utterly boring your self-pity is. Sure the world will go on without you, just as it will never be the same without you. Your presence has changed us. You have changed and in so doing changed the way the world is.”

“Nothing I have done will arrest the destruction that our planet, our home faces. Nothing. So being here just isn't enough.”

A heavy net suddenly engulfed them and cut the conversation. Robert and Polo were captive. Banu issued a warning from his position of safety overhead: “Do not be afraid of your captors. Learn from this experience. Grow your knowledge. And maybe you will find a way to transform them.”

Agency within Structure

“It's not bullying, Polo. Nothing of the sort. A bully dissolves compassion. Thrives on division and is masterful at shredding dignity. They tear at weakness with the finesse of a Michelin-starred chef. They are cowards and hide behind their insecurity and appalling self-worth. Bullies project their anger and conceal their aggression in carefully crafted deceptions. I, on the other hand, do nothing of the sort. My hatred and wrath are crystal clear. I have the courage of my convictions and the certainty of my actions. Those around me are not here because they fear me. They are here because they fear themselves. Without me that fear will consume them. They fear being eaten alive by their inability to act.”

“So you are using their fear for your own gains?” Polo brazenly asked as he swung from the tree where he was held captive by Pictus.

“My gains are theirs. Theirs are mine. I have the brains, they have the brutish and cunning strengths that I need. We are a perfect team.”

“It does not sound like teamwork to me.”

“Oh you foolish creature. Don't tell me you hold to that silly, outdated notion that we can all get together and make decisions as a warm happy little group. That's so tinglingly fuzzy. Is that what you and your Mumsy and Pappie did, circling icy seats with your little brothers and sisters? Tthat.” Pictus' front teeth swelled into a wall of white as they sneered at the penguin standing before her. “Your naivety, although endearing, is destructive and dangerous. You are eroding my good work and are starting to affect the minds of my team.”

“Why does that threaten you? Don't you think their thoughts differ from yours already? You can't change how they think, even if you bash and bully them daily?”

“It's not their thoughts per se. It's their actions that require consistency, commitment and control. We are involved in a war, Polo, a war that will be won through precision and unfailing loyalty to the cause.”

“But thoughts affect actions!”

Lycaon Pictus leaned over and slowly slid her tongue up Polo's left flipper until her flared nostrils sucked in the air that she used to exhale her warning: “Do not engage in a battle of the mind with me, Polo. You have not the depth of experience, the cache of knowledge, or the capacity to formulate a response worthy of more than my spittle.”

Polo resisted the temptation to plunge his beak straight through the bulging throat before him. It was an instinctive drive penguins had when confronted. Measuring the outcome helped him contain his weapon. He would have to weave his way to safety not through violence, but a cold commitment that was starting to form inside him. Pictus mistook his rigid silence for defiance.

Making Meaning

“Pin come here,” Pictus commanded, with her swirling tail.

“Squeeze in here between our guest and this disused termite mound. Marvel at the dust under your paws.”

“Yes commander. Do you want me to put my feet more into the dust like this?” the obedient hyena enquired?

“I want you to tell me what you think of the dust under your toes?”

“I don't know Mam, I mean Sir. I, I don't think I understand the question?”

“Pin. Pin, Pin. It's a simple question. It's on page one of your manual!”

Pin noticed a shadow form that seemed to reduce the diameter of his leader's eyes. He trembled in terror as he realised this was more than a test. He was an example, some kind of showcase. His answer would decide.

“Code One of Manual Five detailing the destruction of human states,” Pin uttered as precisely as he could muster:

1/ Humans are the source of all destruction on this planet. The signs of their destruction surround us.

2/ They are selfish and concerned only with their species.

3/ Their interest in animals is purely self-interest.

4/ That self-interest includes packaging and consuming our flesh as food, converting our skins into items they wear, melting our fat for soaps, using us to keep warm and to adorn their walls. They turn our bodies into tables, chairs, rugs for their feet.”

Pin continued in a growing confidence and relief that his hours of practice was paying off. Although he did not look at Pictus directly, Pin could see that she was standing with her eyes closed.

“Their self-interest has destroyed our homes: our trees are cut down daily, grasslands and savannahs burnt away...”

“Stop. What does the last line mean to you Pin?” Pictus cajoled.

“I don't understand commander. Please tell me what you mean? I have learnt all the codes.”

“But do you understand what the codes symbolise? Do you understand the signs of human destruction? Can you see them around you?”

“Are the signs on another page Mam? I have only started. I was told in my training to focus on the summary of codes, pages 1-5. To learn them by heart.”

“I wrote the codes so that everyone knows what guides us and where our manifesto originates. So you would have the means of code production. So you could apply the codes in any situation and be empowered to act against them. Everything I do has meaning and can be interpreted based on an understanding of the codes. The reason why I have set up our headquarters in this disused zoo, for example. Does it strike you as paradoxical? Or is it satirical? I wrote them Pin so you can be saved from them. So their dominion over us will end forever. I assume that you and everyone here understand the meaning of the codes, not just the individual words, but their combinations, their correlations, their connections to the overarching strategy?”

“I do Mam, Sir, I do. Honest I do. I hate humans and would rather die trying to rid the planet of them. That is our goal.”

Then what does the dust under your feed represent? What does it remind you of, Pin? How does the dust link to the codes you recited with such speed?"

Polo couldn't bear to witness the humiliation. He knew Pictus thrived on belittling others. She relished the game. Everyone wanted what she wanted. They put up with her because they believed she could deliver their goals. But today, she was going further in her cruelty than she had ever gone before. Proving how little she cared for anything, or anyone, that got in her way. Polo feared that Pictus could sense her own weakness growing and her power slipping away. He knew that would push Pictus to try prove a strength that was never hers. Polo watched her every move, sensing the worst was still to come.

The sound of Pin's broken jaw cracked through Polo's thoughts. Blood splattered the dust long before Pin's body merged into it. The dust hadn't settled when Pictus clawed onto Pin's speckled chest, digging in more than she needed for balance.

"Humans are weak," Pictus's words cut through the silence. "They think it is us who are weak. Their strength is only possible when we are caged and frightened, or mindlessly chewing our daily food. We make them strong through our allegiance with them. It is time to show them our strength. We will not endure unless we stand taller than they do on their 'two feet'. Pin lies in the dust underneath me to remind us that humans have bled us and our homes dry. They call it desertification. I call it annihilation. They are directly threatening our ability to survive. They have dried the land so we can no longer live on it. Let this be a lesson to you all. Today Pin will not eat and because of me, he will remember what it will be like if humans get their way and they stop him eating forever. Party over. Lesson done. Move on out and prepare for The Gathering"

"Pictus, Pin's jaw is broken," Polo declared with pity.

"Then he won't eat for a few more days," replied Pictus, as she sauntered to a carcass for lunch.

Polo thlack-thlack-twacked his feet after him. “That is cruel and unnecessary. Where is the lesson in that?”

Oh my dear, dear little penguin. I suppose you would rather I was kind? Drip, drip go my inward tears. Kindness takes a long time to develop. So if I chose, I could govern with compassion. I have all the skills needed to design any type of training programme. But you see, I simply don't have the time to soothe their tender hearts. And, kindness will soften their resolve and may encourage pity for a human. And that might spread like a mould and take over. We wouldn't want to go to war with only an army of simpering, foolish, hesitant idiots like you?” Pictus growled in disgust.

“Polo, you are useful, because you are a means to an end. No-one can bear to think of anyone harming a cute little penguin like you. You symbolise the abject, absolute cruelty of the human species. You are our rallying call. So you serve a purpose. For now. But know this my little one, if your interference exceeds your usefulness, I will think nothing of boiling your flesh and packing it away in neat congealed blocks. One of which could be posted all the way to your Mummy! Do you understand me?”

“No. I don't understand you,” Polo pushed his defiance. “You can't choose kindness. It's not a choice. It's a way of life. You are incapable of kindness or love. You are nothing more than a witless, fearful masquerader. You too need to be mindful of this – I don't fear you. I have lost everything, so therefore I have nothing left to lose. We can both accept we are together for a time. That is all. We belong to two different worlds. I may be a wild animal, as you are, but that's where our shared world ends.” Polo ignored Pictus's dictate to isolate Pin, choosing instead to bristle past her to fetch the last cubes of ice he had stowed in the freezer truck.

“Make sure you are both out of my sight when I return,” Pictus gargled through her rising jowls, as Polo placed the soothing ice on Pin's jaw.

“Humans are really bad. I've never met one but I guess we are lucky to have Pictus as our leader. We need someone strong to stop them.”

“Pin, why are you defending her? She just broke your jaw! It was pure violence. No reason. No provocation. Just wretched, horrible behaviour. How can you even bear to think of her?”

“Oh, she, She didn't mean to, sir. She only meant to teach me a lesson. And by doing so, others can learn. My jaw will heal. She was right – I should have known what she was asking. I understand now. I am new, you see. I've wanted to join the ESS since my brother was caught. I came close to many human settlements to get here. I could smell them. I could see their smog and their smoke. There were places where I saw water carrying the bodies of animals. Feathered and furred bags of their disregard. The plants were gone. Their places were strange and frightening. I felt alone and out to sea. As if I too was being carried wherever the flow of their rivers would take me. There were times when they would send out their dogs to catch me. At first, I didn't even recognise them as members of my family. Imagine, dogs with flattened faces, curled spiral tails; dogs with ribbons and vacant eyes; dogs that had hair that would tangle in long grass, let alone the veld. They were made from shapes and colours I did not recognise. All of them wore markers around their necks. At first I thought they must be running to the wilds like me. But with blind obedience they turned on their heels when their human masters whistled. They are not my family. They are not from me.”

“I walked on paths they call roads. The surface hurt my paws. There was so much noise, I almost lost my direction. There were very few things I recognised. Everything they do is designed to ensure we are not part of it. There is no room for us. If we let them continue even for one more day, we will all die. And worse, die with none of our wild memory in us”.

“Thank you for your help sir. But I must ask you to not help me again. I must prepare my plan for human extermination. Our leader may never ask me a question again, but I must be prepared in case she does at The Gathering.”

Forced to Take Sides

The silence filled with a deep penetrating hum, as Pictus stepped in methodical rhythm from one boulder to the next. Each higher than the one before, until the last gave her a vantage point way above any that stood in awe below. With her expanded chest in a direct and purposeful angle to her sloped flank, Pictus opened the proceedings.

“We are gathered today to finalise our strategy for the permanent elimination and final eradication of all humans from this planet. Our global communications system is almost complete and ready to disseminate the decided strategy. You were all tasked with finding the perfect elimination. Not one of us will rest until the strategy is agreed. I expect brilliance, ruthlessness, decisiveness and nothing less.”

“There are ten proposals tabled before the ESS's war committee. We will now begin with the presentations. Support for a proposal will be measured through Giraffe's head count and Cheetah will hold you to time. No pleasantries or introductions. Get straight to the point. Your name or rank is not relevant. You will be introduced as your corresponding number on the list of ten. Begin.”

I think Pictus does not name some of us because it helps her to marginalise and belittle us, Barnin, the cheetah thought as she steadily gazed at the time.

A confident warthog called Choo stood up to make the first presentation

“This is the bloodiest century human beings have ever known. Seven billion of these humans have now invaded our wild populations, leading to our population decline by half in forty years. There are nearly nine million species on this planet. Even with the thousands represented here, we do not contribute to the destruction of the planet the way Humans, only one of those millions, do. We are being destroyed by human activity. We shall show them no mercy. For they have shown us no mercy. The global loss of species is even worse than previously thought. Their own reports suggest our populations have halved in 40 years: our mammals, birds, reptiles, amphibians and fish have declined by an average of 52% and our freshwater species have suffered an even worse fall of 76%.

Although they seem to have some disagreement on exact numbers, it seems clear that wildlife is continuing to be driven out by human activity.” The screaming cheers subsided in time to make way for the howling jeers of Pictus. “How dare you begin to contextualise this problem? We are aware of the statistics. They are the backbone of this organisation, they lend depth to our understanding. Repeating them in this forum is an insult and a waste of valuable time. What is your plan to eradicate these monsters from our planet?”

“I think they will eradicate themselves Mam. If we give them enough time, they will do our job for us,” the eager warthog pronounced.

“And by the time they have, there will be nothing left to live on.. Next.”

“I am sorry to irritate with interruption madam, but what if we helped to quicken their own destruction? Make it look like they killed themselves. We could infect all the domesticated animals with lethal doses of bacteria that would go right through their food chain?” the eager warthog maintained her courage.

“This has already been put into process,” a stern-faced baboon piped up from the front row. “We found a number of challenges with that approach. For example, many of the animals themselves died and the humans burnt many more alive to prevent spread. We also discovered that not all humans eat us. We attempted to distort and manipulate some of the genomes in their own GMO trials, but stopped when we analysed the potential danger our herbivorous wild cadre would endure. There would be far too many casualties on our side to justify continued engagement. Although plant controlled genocide has been abandoned, poisoned meat continues to strike through the chain. And, humans continue to add more and more lethal components into their own food. Our problem is time, hence this global call for new strategies,” the snod-nosed baboon sniped”.

With an increased crackle in her voice, Pictus bellowed for the next presentation.

The second proposal was presented by a well-known honey badger called Miriam. On spasmed legs, she rose, holding both forearms entwined and began her fearful oration.

“After many months of laboratory engagement, my team and I have found the way to guarantee their demise.” Excited murmurings emanated from the group. “But,” Miriam hesitated, “it will mean a lot of sacrifice. I, I mean we, propose to destroy their water supplies by increasing lead from their accepted level of 15 parts per billion to 200 parts per billion. We have already had considerable success with our pilot site in Flint, Michigan, on the American continent. We have disrupted supplies to such an extent, that water has to be brought in so the 100 000 residents can survive. The effects of the lead are far-reaching and long term. We present a portfolio of the results, which include direct reports from the humans. I would like to draw your attention to Appendix Four: Sunday, 24 January 2016, The Guardian. This is a newspaper with a human readership that extends across many human borders and boundaries.”

We have also had a more daring success rate with *Naehleria fowleri*, a nifty little amoeba that eats the brain and is 97% effective. All humans depend on water. We think it is the one vehicle that, properly conceived, could be the source of their extinction.”

“Destroy their water? Have you learnt nothing? Water is a global inter-species resource. To destroy it. Is to destroy us” Pictus fumed. “Next!”

A corridor opened that allowed the sauntering buffalo the space to share her piece.

“Who, I ask, are closer to humans than all of us? Domesticated animals of course. There are an estimated 1.4 billion cattle, 525 million dogs and approximately 3 chickens to every human. We could use their proximity to force widespread attacks. We have 4 quadrillion bacteria and there’s at least a million ants to every human. We could harness the energy of the ants to carry the selected strains of bacteria and infect these primary ‘domesticats’ to infiltrate and wipe out humans.” Subtle but deep murmurings of discontent moved like waves through the crowd. The uneasiness was fuelled by the notion of killing fellow creatures. The reality of the destruction was beginning to strike home.

‘Tap’ picked up on the mood distilled by her presentation. “I draw your attention to Policy Two of our Codes, which state that with regard to the ‘Treatment of Domesticated

Animals', they are to be treated as we would a human with one exception: give them one, and only one, opportunity to convert. To return to their wildness. If they don't, kill them too. I'd like to remind my fellow Endangered Species that our wild population has halved in just forty years. We are declining so rapidly that these gatherings will soon cease to be. Domesticated animals are part of the problem. Either they join us or they will become part of the solution: the total eradication of humans. Even the humans themselves acknowledge our extinction. I have documented this and other facts in my dossier to the war committee and cite the human, Roger Harrabin, and his 30 September 2014 BBC report on the status of the 8.74 million species on earth."

"Enough description. I want a plan of action! You have presented nothing more than a foolish wish that our domesticated animals will join our campaign. They are as lost as humans and shall be confined to the dump hills of their own history. Next presenter."

The fourth presenter, representing many insect populations, hovered with eagerness just above ground

"If we were to wipe out all their signs and symbols they use for direction, guidance and understanding, we could create such chaos and mayhem that their species would be destroyed. All road signs, airport signs, radar systems, electrical stations, nuclear power plants would become unnamed and therefore unrecognisable. We have such a wealth of resources at our disposal, I believe we could do it. For example, vast swarms of locusts already know how to threaten their crops, but what if those swarms hovered over their radar systems creating such anarchy and confusion their transportation system would be ground to a halt? We could create murmurations as far as their eyes can see. If we directed those powerful feathered phenomena's and their powerful collective energy, to swooping on Parliaments of the world and interrupting their policy formulations, we could stifle their progress."

"That's assuming they all have Parliaments and work by consensus." Milly whispered to Daisy.

“We could harness the energy of our ant populations to disrupt their radio, satellite and broadcast networks. Infestations of cockroaches and rats, could be unleashed for catastrophic effect on their hospitals. And boring beetles could crash their nuclear power lines. It has been known to be disrupted by simpler things. I would like to draw your attention to page twelve of the policy dossier in which a nuclear reactor in Koeberg, Cape Town, was shut down by a simple loose bolt. A simple bite from a field mouse through a wire has a small effect – multiple rodents engaged in metal dissection could have a powerful and global impact. We can make their world ungovernable. Civil disobedience and action on a large scale. We will exchange their signs for ours. All their social memory will be eclipsed and replaced by ours. Data will be reworded and shown as visual signs of who we are and what we are becoming because of them.”

“To understand their social memory, requires an understanding of them,” Pictus mused.

“Who among you can accurately describe a human? Who among you knows their ways?”

Them and Us

Banu, who had long stayed distant and removed from his wild society, flew in. Perched on a fence, he listened to the smouldering, angry debate.

“Them and Us. It’s either us or them,” a young lioness stepped up to speak. “Humans give more attention to their thoughts than they do their actions. We *act*. We are quick and decisive. We have our own language. Communication that goes way beyond the individual to the needs of each other. Humans spend too much time worrying, considering and arguing about what they plan to do, and little time doing. This is the problem. They live in a separate semantic world, far away from our reality. I am tired of their reports about our existence. About our experience.”

Too afraid to speak, many smaller animals mumbled their experience of lions and how they killed. Some wondered how this was different to the murderous tendencies of humans. The question remained unexpressed and unexplained.

“Who among us,” the lion continued, oblivious to her individualised view, “can share their experience, their story, their reality of what it means to be a wild animal in a human’s world?”

With a heavy heart and a clear memory, a young rhino stood his ground to speak.

“I had just pulled a leaf from an acacia. Delighted, after years of stretching, that I could finally reach one. My father burst through the thicket, balls of dust pushing a tornado of fire behind him. I had no memory of a time when he had run. Except once when he playfully corralled my brother and I into a muddy pond at sunset. Run? Not him! Never. Not like that. His presence forced others to flee. His movements although clear, sharp and deliberate, were short bursts communicating his authority.”

“The leaf seared my mouth, as I watched my dad fall metres from the tree I had been eating from. His right leg twisted invisibly under him. His broad grey neck snapped against a termite mound. My jaw clenched against the bitterness. Five men surrounded him. I remember the round thick, brown lace of one boot draped against my father’s back. Three of them were speaking in a language I didn’t understand. I knew they weren’t talking about my father. They cut into him as if he wasn’t there. Every ounce of the summer’s green disappeared in layers of flesh. My father’s flesh. His sliced body fell in loud cracks through the humid afternoon. I could see the white heads of seven cigarettes gaping from the tightly stitched blue pocket of the man who ripped at my father’s head. Bellows of air blew termites off their mound, as the last man leaped off my father’s chest and back through the trees from where they’d come. Minutes later a haze of gunpowder hovered beyond the thicket. I knew my mother was also dead. The green sap dripped in waterfalls from my jaw. I may not have been able to do anything then to revenge them. But whatever it takes I want those men dead.”

A Reflexive Being Emerges

The word 'man' boiled up inside Polo. Fuelled by powerful and violent urges, Polo started to scream internally, "Throw them off the planet. They don't deserve space here. They don't deserve to live. It's us or them." On and on he raged. A burning fury projected out of him. In an instant, all the hurt, pain and loss divined through him and found an outlet in the malice and madness of the human species. His hatred was palpable, red and focused. Polo swayed in the net that was hanging from the sign-up tree where multitudes gathered close to the booming voice that continued listing the destruction that had been wrath upon the animal crowds. Yes, I will join you," Polo continued his internal screams "I will help destroy their reign over us." He knew this is what he felt but he also understood that freedom would not be found in the feverous masses growing underneath him.

"Animals unfree shall never rest in peace," the masses repeated. "Animals unfree shall never rest in peace," the words rolled together with a growing energy and fervour for action. An eagle cut through the net and both Polo and Robert rolled to the ground.

Robert's flamboyant feathers would not protect him for long. He knew sooner or later someone would notice how little he belonged. He nestled quietly under a giant aloe for camouflage and shade. He watched as his little friend tumbled through the dust and toward the menacing crowd.

An Agent for Change

"Aren't you simply replacing one form of cruelty for another?" Polo brayed above the crowd. Waddling as fast as he could, he climbed close to Pictus. This was important. For the first time he knew he had a role to play, he had something valid to say. Memories of Myrtle's death cascaded through him. But he could see that what he had witnessed, the rage he had felt, would not be solved by the presented proposals. Somehow he understood what was happening – the ESS were creating a structure that simply mirrored the very one they were trying to take down.

“Yes, humans are destructive and have been blindly destroying us all. But I see two problems with your plans – killing domesticated animals makes you just as bad as humans; killing humans reduces you all to murderers and condemns us all to a life of fear. Removing humans from our ecosystems does not guarantee our safety. Nor will their eradication protect us from risk.”

“But without humans, we will be free of nuclear destruction. Our forests will no longer be cut down. There will be enough water for us to drink without their unfettered usage,” the young rhino spirited. “They are the source of all our problems! As long as they are here, we will continue to suffer.”

“It is not possible, my young friend, that all humans are all bad. Unpalatable as it is, we must acknowledge that the nuclear weapons of which you speak will not disappear along with them. Who will manage these weapons, laboratories, machines when they are gone? Somebody will have to manage the systems they have established, regardless of how flawed they are. Without their knowledge, we risk contamination of our food and water supplies. We need them. We are bound to them. They are part of our world. They may not share our worldview but none of us here are exactly alike. None of us can fully know what lies ahead. What the future holds. Our only real protection is to find a way to get our message across – to communicate to humans that their existence and vitality is linked to ours. They have blindly ignored us and we have seen the consequences of that denial. If we likewise blot them out, therein lies our demise.”

“Something about this smooth feathered bird, both irritates and inspires,” Pictus reflected. “If I shut him down now, I may risk a split in the thinking and therefore a split in the movement itself.” She would have to play the next few moments carefully. “What Penguin do you suggest? We have been engaged in years of research, data collection, observation, engagement, and participation in their world. We see no improvements in our agenda. What is it do you think that we have missed?”

“You have talked about separation and annihilation. What about integration? There must be a way to work with the Pied Platoon. To find common ground between domesticated animals and wild animals that does not escalate the violence? They have a direct line of

communication into the human world. I believe, through them, we have an opportunity to create a stable, peaceful world in which we all can live.”

“A hoped for dream. Who doesn’t want a stable peaceful world in which to live?” Pictus derided. “That’s as obvious as the sky overhead is blue. Thus far, you have not increased my understanding or knowledge. Or, offered any new ideas or plan that will move us forward. We need action, not discussion!”

“Madam, I would like to propose that you send me as emissary to meet with Mr Smith, the leader of the Pied Platoon, so I can discuss our common needs. I would like to put it to a vote.”

Enraged by his audacity, Pictus knew that the penguin had momentarily broken the solid grip of her reign. She would have to acquiesce and play along with his idealistic request. He knew Smith well. The penguin would learn for himself. This of course could not be brought to a vote. She herself would sanction the plan thereby maintaining her aura of control.

“Very well Polo. You have three days to attend to this project. Heed my advice and fore notice: we will not wait for you. Our offensive planning will continue and if you have not returned at the appointed time, it will be instituted.”

Ambivalence swept through the crowds. A collective thought gathered: “Was their leader’s strength failing?” Suppressed thoughts waved like the wind.

Exploring Common Ground

Polo stretched his neck as his mother had taught him and peered round the open gate. The grass reached in angles to the wall. Clouds blended perfectly with the pale cream boundary and offered the only relief from the searing stark lines of the garden. The memory of his last encounter on grass diluted his courage. With swift cumbersome steps he crossed his fear. As he reached the front courtyard, his stomach was scraped clean with the stench of ammonia. He gasped in horror as he remembered the last time he inhaled these bitter, acrid fetid fumes. It was the day Myrtle died.

A rasping cough drew him closer to the sliding door.

“Sit down,” Mr Smith gestured to the cushion, as he sipped a tall pink cocktail.

It was no accident that Smith had chosen the highest chair in the room, Polo noted. One pounce and hopes of escape, or treaty, were over.

“Sometimes we have to do the hard things, the stuff that everyone else avoids,” Mr Smith ridiculed.

“Like being here with you?” Polo challenged.

“Yes. I knew it was only a matter of time before they would send someone. I hadn't expected you.”

“We are not as different as you would want others to believe. If we stay divided, our goal will not be met.”

What do you propose, my little friend?”

“You and Pictus must share power and bring all living creatures together again.”

“Daring and dangerous. But look around you Polo, I have all the power I need. Why would I want to enter into an alliance with my enemy?”

“This proposal could give you dominion beyond these walls. You could be sipping from a bigger glass at the President's residence.”

Fleeting greed registered around Mr Smith's lips, “I am listening.”

A Unifying Theory

Smith filled up his glass for the third time, huddled under his red tartan blanket and studied the penguin who began his monologue.

“We look to science and we look to each other for a unified theory. One that will explain all our misunderstandings and ignorance. The forces of nature – gravity, electromagnetism, weak and strong nuclear forces are observable and measurable, but quantum physics alerts us to their differentiation. Alerts us to dualities and divisions within our understanding and warns us against absolute notions. Quantum physics tells us that just because we cannot see something does not mean that something is not there. There exists much outside of us. We all have valid worldviews. Mine is as valid as yours. Yours is as valid as theirs.

“The human world has been plagued with ignorance. Their thinking has evolved over time. They have gone from believing the world was flat, to accepting the theory of gravity that keeps us all safely on the ground. They have a desire to learn, to know and to reach far beyond where they’ve gone before. From the Middle Ages to Modern Times, they have changed their thinking many times. But just as they seem to move forward, new ideas disrupt the old. They struggle to integrate and manage the difference that new information often brings. They have shamed, banished and murdered their own kind – those who offered different views of the world we all share. Aristotle, Ptolemy, Copernicus are people that sought to explain the world. Their models and explanations affected thought. Their great philosophers from Plato to Bhaskar, have accepted that there exists a real external world that stands apart and outside of the human condition, but which affects and is affected by them. Their understanding of the mechanics and physics of the world, and the universe, affected their thoughts and relations with each other.

“The difference between a unified theory of social sciences and that of the natural sciences is that the former needs members of society to bring it together, the latter does not. The former guides the actions of humans, the latter are laws for us all. Although they both need a voice/a language in order to communicate meaning. We need to unify. We need a unified approach. It is a balancing act between what we know, and what we do; who we are, and who we become; our external reality, and our internal world; man and beast; water and soil. We can no longer swing between dualities. We have to hold the complexities, contain the anxiety and move forward together. Together our future is infinite. Separate we will implode. Division is the enemy of stability.”

On and on Polo rambled. Desperate to change the unfolding course of events that had been set in motion. Atoms, he thought about the Law of Inertia, which states that atoms

move forward indefinitely unless disturbed. The ESS and the Pied Platoon would continue their forward motion until, and unless, something moved into their path. That something had to be him. He was sure of it.

Power Corrupts

“So I listened. I afforded you that. But I had never any intention, nor did I promise, that you would leave. You are the bridge, the voice, the one who connects us and them. We will hold you here and use you to signal our dominion over the wild ones who dared to send you here. We will contain you, so your grand and disruptive ideas do not spread and infect our cadres.

I warned you Polo,” Mr Smith grunted. “I asked you politely to join us. Now you have no choice.

“Get into the tunnel. We will deal with you later. Charlie, make sure he doesn't escape.”

“But what about water, my feathers will not survive the heat?”

“Sprinkle a hose every hour. If he does not behave, make him sweat.”

Charlie how could you?” Polo asked the calf, both of whom were crouched in the cave.

“Your mother was my friend?”

“Don't talk to me, you infidel, my mother placed her trust in you. And look what you've done. The Pied Patoon is being destroyed because of your crusade. Your selfish desire to save a block of ice thousands of miles from here. Do you really think the Antarctic is that important? You have given away information to the ESS about our headquarters and strategy. You have befriended the ESS and their mad master they serve. You were one of us. You should have been one of us. The black and white elite of the animal world. Instead you changed your allegiance and broke the codes of this ancient system of respect and connection we have with humans.

For the first time Polo could see how distraught Charlie had become. He didn't know what he was saying. His words rambled incoherently with agitation and angst. Mr Smith had brainwashed him. Any attempt at pointing out the blurry lines of distinction Charlie made, between the tones and textures of skin, feathers and scales, would fall on deaf ears. The Pied Platoon was marketing a brand – that brand was Mr Smith. It was his cloak of spotted colour he wished to parade.

Polo looked away from the young calf with whom he once capered. He could not bear to see the anger in Charlie's eyes. He screamed and knocked his beak against the cold rusted bars that confined him. He could feel defiance growing in him. He didn't know how, but he would fix this.

Facing Mortality

“We will just have to kill him.”

“Isn't he still useful, sir?” the junior lieutenant asked, while containing his shock.

“He is gaining too much notoriety and interest from others.” “His opposition is getting in the way sir, I can see that, but I still think he can be useful.”

“Can I remind you what happened to the last creature who disagreed with me? They ended up in a soup can. A red and blue can. Understood? When I say dead, I mean dead!”

“How can we kill him without the others knowing?”

A timid voice rippled through the group, “we could use a tiny drop of *Naegleria fowleri* in his food, sir. It's a nasty little brain eating amoeba that has a 97% success rate. The others will simply think he has succumbed to weakness from his isolation and separation.”

“We will figure the details later. In the meantime, dump him into the freezer and turn the dial down to -50 degrees centigrade.” Little did Pictus know, but Polo thrived in these temperatures. His senses awakened and his resolve strengthened.

"We will be there at ten minutes past ten. Bring the chip."

"What will I give Pictus? She is not going to just let me walk out without it?"

"Distract her with the President's flash drive. It has the presidential seal. Pictus is so sure of victory, she won't question you. Remember to pull the cover over the bunker not later than 10:05."

Polo almost brayed in horror at the betrayal. He knew Mr Smith would destroy them all if he succeeded. He would have to get to Robert before the tank arrived.

Different Worldviews

"And so we finally meet, Mr Smith. The sight of you disgusts me. And humans think we are cruel and without remorse.? We kill to eat. We kill when we are hungry. We kill to survive.

"You on the other hand, Mr Smith, kill for fun. Or is it? The way you callously destroyed those chickens earlier and walked away not caring how many were left wounded among the twigs, sickened me.

"Another stamp of human influence. Waste. Endless waste. You didn't even look Smith to see if they were all completely dead. You didn't care if their necks were broken or the bodies contorted. Is that why humans bury their dead to hide the piles of cartilage, skin and bones left behind? When I eat there is not a trace left. When humans kill, their signs of carnage are everywhere.

"If this is what assimilation and domestication brings, then I want none of it."

Mr Smith, stood his ground. Lyacon Pictus made the first advance forward. "Let her come to me," Mr Smith thought. Three paces later, Smith pounced.

His incisors sunk into Pictus' neck – blood erupted from the artery he had aimed for. Mr Smith knew how to deal with death. The taste of blood aroused a deep desire in him. He

did not want to let go his grip. Years of repression rose up through the layers within him. Pictus still struggled beneath him. He would kill Pictus and so free himself.

"Sir," the zebra screamed from behind, "Sir they've got Charlie. He's in the pen. There's no time to save him."

"Stop blubbering, Zap," Mr Smith said, as he reluctantly released his grip of the wild dog cowering below him. "Let the ravens finish her off – she can die as wild as she lived," Smith slobbered over Pictus in disdain. "Where is Charlie? Bring me there now".

He was just turning the last bend when Mr Smith saw him. Charlie's eyes were bulging with terror. He knew what was ahead of him, these were his last steps. Nothing could save him from his fate. In those last steps that would carry him back to his mother, the realisation awakened him that he had been wrong. He had devoted his life to protecting the alliance between humans and domesticated animals. In the final harrowing moments as he turned to look at Mr Smith to whom he had followed without question, his heart sank at the emptiness of his work. He had failed to liberate himself and others. It was the irksome penguin standing beside him that had carried the truth. With a deviant flicker of grace, he blinked his acknowledgement and walked forward in step with the march of time.

An Emerging Reflexive Society

Tanuq stood facing his troops, who now numbered over ten thousand.

"You, the first Antarctic, who since time began, have managed to keep the Antarctic as a place of peace. We didn't invite this upon us. One of our friends has shown courage and has tried to save us all from destruction. The threat to our home, to what we stand for, is too great to ignore.

"I have just picked up the signal from Polo. He lays dying in a desert and surrounded by horrors a penguin should never have to face. I ask you to raise your flippers to your beaks and gather the strength of our forefathers and march forward with me to save this penguin and the home we cherish."

"We've got the signal sir: 10°S, 20°N, 50°W. It should take us two hours to get there."

Open and Closed

[SS] So how does this story end?

[OS] It is impossible to predict. There are so many possibilities for resolution. It will take a whole community to help us figure it out.

[SS] You mean a big bunch of reflexive beings?

[OS] I was thinking maybe some of our readers can be the writers of this story to develop other possibilities to bring Polo home.

[SS] What happens to the animals in the meantime? Will they just stay stuck in the story?

[OS] Well those we imagined will live on in our minds. Those who are real will continue their quest to survive. Maybe one day we can meet somewhere in the middle between the reality in our minds and the reality of what we have to face out there beyond the page...

Concluding Academic Reflections

This thesis started with questions that collectively summarised a problem :

This thesis seeks to explore some of the following questions:

1. What is the purpose of a doctoral thesis in environmental education?
2. What agency can I bring to, and through, my research work such that its purpose extends beyond academia?
3. How do I ensure academic rigour while challenging traditional doctoral texts?
4. Is it, and how is it, possible to demonstrate reflexivity in a doctoral thesis?
5. Can personal and political questions of truth form part of my PhD work?

6. Is it possible to write an academic thesis for an undefined infinite number of readers?
7. What role does the reader play in this thesis?
8. How can I include the un-heard voices of animals?
9. How do I overcome my anthropocentrism in animal representation?
10. Could my own internal voice and the imagined voices of others help both reader and writer critically reflect on how we as researchers present and respond to environmental risk?

References

Adams, J. (2000). *Risk*. Oxon: Abingdon.

Anthony, L., with Spence, G., (2010). *The Elephant Whisperer*, London: Pan Macmillan

Appiah, K. A. (2017). *The Browser*, Interview: Kwame Anthony Appiah, Danile Kodzi, Oxford Review of Books. Retrieved September 22, 2017 from <http://the-browser.com>

Archer, M. S. (1982). Morphogenesis versus structuration: On combining structure and action. *British Journal of Sociology*, 33 (4), 455-483.

Archer, M. S. (2000). *Being human: The problem of agency*. Cambridge: Cambridge University Press.

Archer, M. S. (2003). *Structure, Agency and the Internal Conversation*. Cambridge: Cambridge University Press.

Archer, M. S. (2004) The private life of the social agent – What difference does it make? In J. Cruickshank (Ed.), *Critical realism: The difference it makes* (pp. 17-29). London: Routledge.

Archer, M., Bhaskar, R., Collier, A., Lawson, A. & Norrie, A. (1998). *Critical realism essential readings*. London: Routledge.

Baptista, A., Frick, L., Holley, K. Remmik, M. Tesch, J. & Åkerlind, G. (2015). The doctorate as an original contribution to knowledge: Considering relationships between originality, creativity, and innovation. *Frontline Learning Research*, 3(3), 55-67. doi:10.14786/flr.v3i3.147.

Barrett, M. J. (2014). Responding to environmental crises through multi-media hypertextual research representation. In A. Reid, E. Hart & M. Peters (Eds.), *A Companion to Research in Education*, pp. 569-574. Dordrecht: Springer Science and Business Media.

Beck, U. (2005). *World Risk Society*, Oxford: Blackwell.

Beck, U. (2009). *World at Risk* (C. Cronin, Trans.). Cambridge: Polity.

- Beck, U. (2010). Climate for change, or how to create a green modernity? *Theory, Culture and Society*, 27(2-3), 254-266.
- Beck, U. (2012). *Twenty observations on a world in turmoil*. Cambridge: Polity
- Bell, A. C. & Russell L. C. (1999). Life ties: Disrupting anthropocentrism in language arts education. In J. P. Robertson (Ed.), *Teaching for a tolerant world: grades C-6 essays and resources*. Urbana Illinois: National Council of Teachers.
- Bhaskar, R. (1998). *The possibility of naturalism: A philosophical critique of the contemporary human sciences*. USA and Canada: Routledge.
- Bhaskar, R. (2008). *A realist theory of science*. London: Verso.
- Blackburn, S. (2002). *Being Good: A short introduction to ethics*. USA: Oxford University Press.
- Burbules, N. C. & Torres, C. A. (eds.) (2000). *Globalisation and education: Critical perspectives*. New York: Routledge.
- Burton, J. W. (1985). World society and human needs. In M. Light & A. Groom (eds.), *International relations: A handbook of current theory*. London: Pinter.
- Chen H. L., Cannon, D., Gabrio, J., Leifer, L., Toye, G., & Bailey, T. (2005). *Using wikis and weblogs to support reflective learning in an introductory engineering design course*. Paper presented at the 2005 American Society for Engineering Education Annual Conference and Exposition. June 12-15, Portland, Oregon
- Davenport, T. (2008). "If we carry on consuming resources like there's no tomorrow, there won't be one", Sunday Dispatches, *Sunday Independent*, Oct 12, 2008, England.
- Descartes R., (1999) *Discourse on Method and Related Writings*, England: Penguin Books
- Diamond, J. (2005). *Collapse: How societies choose to fail or succeed*. New York: Viking.
- Dickinson, E., (1999). In Franklin, R.W., (Ed), *The Poems of Emily Dickinson*, USA: Harvard University Press
- Dunlop, R. (1999). *Boundary Bay: A novel as educational research*. Unpublished PhD thesis, University of British Columbia, Canada.
- Dunlop, R., (2001). Excerpts from *Boundary Bay: A novel as educational research*. In L. Neilsen, L. et al. (Eds.), *The Art of Writing Inquiry*. Canada: Backalong Books

- Eco, U. (1979). *A theory of semiotics*. USA: Indiana University Press.
- Eco, U. (1984). *The role of the reader: Explorations in the semiotics of texts*. Bloomington: Indiana University Press.
- Eco, U. (1989). The theory of signs and the role of the reader. *Bulletin of the Midwest Modern Language Association*, 14(1), 35-45.
- Eco, U. (2015). *How to write a thesis*. USA: Massachusetts Institute of Technology.
- Everett, D. L. (1988). On metrical constituent structure in Pirahã phonology. *Natural Language and Linguist Theory*, 6, 207-246.
- Fairclough, N., Jessop, B., & Sayer, A. (2001). *Critical realism and semiosis*. Paper presented to International Association for Critical Realism Annual Conference, Roskilde, Denmark, 17-19 August 2001.
- Fitch, W., Hauser, M. D., & Chomsky, N. (2005). The evolution of the language faculty: Clarifications and implications. *Cognition*, 97(2), 179-221.
- Freire, P. (1985). *Pedagogy of the oppressed*. Middlesex: Penguin.
- Freud, S. (1976). *The interpretation of dreams* (Volume 4). Middlesex: Penguin.
- Fromkin, V. & Rodman, R. (1983). *An introduction to language* (3rd ed.). New York: Holt, Rinehard & Winston.
- Galtung, J. (1969). Violence, peace and peace research. *Journal of Peace Research*, 3, 167-191.
- Gannon, S. (2017). Saving squawk? Animal and human entanglement at the edge of the lagoon. *Environmental Education Research* 23(1), 91-110.
- Giddens, A., (2003). *Runaway world: How globalisation is reshaping our lives*. New York: Routledge.
- Harrabin, R., (2014), "World wildlife populations halved in 40 years", BBC News Report aired 30 September 2014
- Haraway, D. (2003). *The Companion Species Manifesto: Dogs, People and Significant Otherness*. Chicago: Prickly Paradigm Press.

- Hart, P. (2002). Narrative, knowing, and emerging methodologies in environmental education research: Issues of quality. *Canadian Journal of Environmental Education*, 7(2), 140-165.
- Hart, P. (2014). Destabilizing representation of research in education. In A. Reid, E. Hart & M. Peters (Eds.), *A companion to research in education* (pp. 479-488). Dordrecht: Springer Science.
- Harvey, D. L. (2002). Agency and community: A critical realist paradigm. *Journal for the Theory of Social Behaviour*, 32(2), 163-194.
- Hawking, S., & Mlodinow, L. (2010). *The grand design: New answers to the ultimate questions of life*. London: Transworld.
- Hayek, F. A. (1952). *The counter-revolution in science: Studies on the abuse of reason*. Glencoe: Free Press.
- Hinsley, F. H. (1966). *Sovereignty*. London: Watts & Co.
- Jaggi, M. (2002). Signs of the times, *The Guardian Online*, Saturday 12 October 2002.
- Jickling, B. (Ed.) (2002). *Telling our Stories*, *Canadian Journal of Environmental Education*, 7.
- Jickling, B. (2005). Ethics Research in Environmental Education. *Southern African Journal of Environmental Education*, 22, 20-34.
- Jung, C. G. (1933). *Modern man in search of self*. London: Routledge & Kegan Paul.
- Jung, C. G. (1964). *Man and his symbols*. Middlesex: Penguin.
- Korteweg, L. (2014). Representations 1.0, 2.0, 3.0. In A. Reid, E. Hart & M. Peters (Eds.), *A companion to research in education*, pp. 559-567. Dordrecht: Springer Science and Business Media.
- Krog, A. (2004). *The Stars Say 'Tsau': /Xam Poetry of Dia!kwain, Kweiten-ta-//ken, /A!kunta, Han#kass'o, and //Kabbo*. Cape Town: Kwela Books.
- Leggo, C. & Sameshima, P. (2014). Startling stories: Fiction and reality in education research. In A. Reid, E. Hart & M. Peters (Eds.), *A companion to research in education*, pp.539-548. Dordrecht: Springer Science and Business Media.

- Lotz-Sisitika, H. (2004). *Positioning southern African environmental education in a changing political, economic, social, natural and epistemological [environmental] landscape*. A discussion paper commissioned by the SADC REEP for DANIDA's Futures Research project.
- Mandikonza, C. & Lotz-Sisitka, H. (2016). Emergence of environment and sustainability education (ESE) in teacher education contexts in Southern Africa: A common good concern. *Educational Research for Social Change*, 5(1), 107-113.
- Matsuura, Kōichirō, 2005, Decade for Education for Sustainable Development (DESD), launched on 1 March 2005 in New York, USA.
- Melia, P., (2015) “Ministers hail ‘historic’ Paris climate change deal”, Sunday Independent, 13 Dec 2015, Dublin, Ireland
- Murphy, M. (1993). *Gang Interpretations of Violence in South Africa and in the International Community, and the Relationship between the Two*. Unpublished Honours dissertation (Peace Studies), University of Ulster, Derry.
- Murphy, M. (2001). *The unravelling of the principle of non-negotiation with terrorists in the international community: A case study of the ANC and IRA*. Unpublished Master's thesis, Department of International Relations, University of the Witwatersrand, Johannesburg.
- Murphy, M. (2002). *Reflections on our footprints: A journey through South Africa*. A report commissioned by Barloworld and the City of Cape Town.
- Murphy, M. (2002). 'Clear the Air'— a campaign to raise awareness of retrofittable diesel particulate filters in South Africa at the World Summit on Sustainable Development 2002 in partnership with Mission Antarctica.
- Murphy, M. (2007). *Alfie the Earthworm and his best friend Nellie*. Cape Town: Poloandfriends.
- Murphy, M. (2010). *Beginners Guide to Earthworm Farming, Simple Ideas for a Sustainable World*. South Africa: Penguin.
- Murphy, M. (2006-2017). Waste Audits and Waste Reduction Installations at Source at a number of hospitality and food production sites in South and Southern Africa (for example, Mount Nelson Hotel, Grand West Casino, Cavendish Square).

- Mutch, A. (2004). Constraints on the internal conversation: Margaret Archer and the structural shaping of thought. *Journal for the Theory of Social Behaviour*, 34(4), 429-445.
- Mythen, G. & Beck, U. (2004). *A critical introduction to the risk society*. London: Pluto Press.
- Mythen, G. & Walklate, S. (2006). *Beyond the risk society: Critical reflections on risk and human security*. England: Open University Press.
- Nagel, T. (1974). What is it like to be a bat? *The Philosophical Review* LXXXIII, 4, 435-50.
- Nash, R. (1999). Bourdieu, 'habitus', and educational research: Is it all worth the candle? *British Journal of Sociology of Education*, 20(2), 189-206.
- Nolan, K. (2014). The heart of educational inquiry: Deconstructing the boundaries between research, knowing and representation. In A. Reid, E. Hart & M. Peters (Eds.), *A companion to research in education*, pp. 517-530. Dordrecht: Springer Science and Business Media.
- O'Brien, M. (1999). *Theorising modernity: Reflexivity, identity and environment in Giddens' Social Theory*. Essex and New York: Addison Wesley Longman.
- Okrent, A. (2017). Is linguistics a science?. Retrieved July 5, 2017 from www.thebrowser.com
- Oravec, J. (2005). Blending by blogging. *Journal of Educational Media*, 28 (2), 225-233.
- Patterson, A. (2014). Writers Write Workshop, Ambassador Hotel, Cape Town.
- Pozzer-Ardenghi, L. (2014). Visual representations in educational research. In A. Reid E. Hart & M. Peters (Eds.), *A companion to research in education*, pp. 513-516. Dordrecht: Springer Science and Business Media.
- Reid, A., Hart, E., & Peters, M. (Eds.) (2014). *A companion to research in education*, Dordrecht: Springer Science.
- Rhodes University, 18-20 July 2012, International Association for Critical Realism 15th Annual Conference, Global Challenges and Critical Realism Debates, Grahamstown.

- Russell, B. (1966). *On education*. London: George Allen & Unwin.
- Russell, C. L. (2005). Whoever does not write is written: The role of 'nature' in post-post approaches to environmental education research. *Environmental Education Research*, 11(4), 433-443.
- Sayer, A. (2007). *Realism and social science*. London: Sage.
- Schatzki, T. (2003). A new societist social ontology. *Philosophy of the Social Sciences*, 33(2), 174-202.
- Schostak, J. (2014). Historical trends and contemporary issues in representing research in education. In A. Reid, E. Hart & M. Peters (Eds.), *A companion to research in education*, pp. 489-497. Dordrecht: Springer Science and Business Media.
- Silver, L. (2017). Pew research [online], 28 August 2017.
- Spanning, R. (2017). Animals in environmental education research. *Environmental Education Research*, 23(1), 63-74.
- Sterling, S. (2005). *Whole systems thinking as a basis for paradigm change in education: Explorations in the context of sustainability*. Unpublished PhD thesis, University of Bath.
- Suleiman, S. R. & Crosman, I. (Eds.) (1980). *The reader in the text*. New Jersey: Princeton University Press.
- Swartz, D. (1998). *Culture and power: The sociology of Pierre Bourdieu*. Chicago: University of Chicago Press.
- Symington, N. (1986). *The analytic experience*. London: Association Books.
- The Guardian, Saturday, 17 June 2017. The latest threat to Antarctica: An insect and plant invasion.
- The Guardian, Sunday, 24 January 2016. A report on poisonous water in Flint Michigan.
- Touraine, A. (2000). *Can we live together? Equality and difference*. Cambridge: Polity Press.
- UNESCO Education Sector 2006, ED/DESD/2006/P1/1 Framework for the UN DESD International Implementation Scheme.

- Vance, L. (1995). Beyond just-so stories. In C. J. Adams & J. Donova (eds.) *Animals and Women: Feminist Theoretical Explorations*, pp. 163-191. London: Duke University Press.
- Wiebe, N. G. (2014). Fictional characters in narrative research writing. In A. Reid, E. Hart & M. Peters (Eds.), *A companion to research in education* (pp. 549-553). Dordrecht: Springer Science and Business Media.
- WWF. (2016). *The Living Planet Report, Risk and Resilience in a new Era*. Retrieved from www.wwf.org
- Yallop, J. G. (2014). What if I don't get it right? In A. Reid, E. Hart & M. Peters (Eds.) *A Companion to Research in Education* (pp. 555-558). Dordrecht: Springer Science and Business Media.
- Yorks, L. (2005). Adult learning and the generation of new knowledge and meaning: creating liberating spaces for fostering adult learning through practitioner-based collaborative action inquiry. *Teachers College Record*, 107(6), Columbia University.
- Youngusband, P. (2000). *The Timbavati Patrol, Africana Books, Cape Town*.
- Zeuner, L. (2000). *Margaret Archer on structural and cultural morphogenesis*. Copenhagen, Denmark: Danish National Institute of Social Research.

Bibliography

These texts, though not directly referenced in the thesis text, have informed my thinking over the years and also provide a useful bibliography for further reading.

Adam, B. & van Loon, J. (2000). Repositioning risk: The challenge for social theory. In B. Adam, U. Beck & J. van Loon (Eds.), *The Risk Society and Beyond: Critical Issues for Social Theory*. London: Sage

Archer, M. S. (1988). *Culture and agency: The place of culture in social theory*. New York: Cambridge University Press.

Barrett, M. J, Harmin, M., Maracle, B., Patterson, M., Thomson, C., Flowers, M., & Bors, K. (2017). Shifting relations with the more-than-human: Six threshold concepts for transformative sustainability learning. *Environmental Education Research*, 23(1).

Barthes, R., & Lavers, A. (1957). *Mythologies*. France: Les Lettres Nouvelles.

Bauman, Z. (2004). *Wasted lives, modernity and its outcasts*. Cambridge: Polity Press.

Bennet, S. (1996). Discourse analysis: A method for deconstruction. In Williams, M. *Understanding geographical and environmental education: The role of research*. Cassell.

Culler, J. (1974). *Framing the sign*, University of Oklahoma.

Culler, J. (1981). *The pursuit of signs: Semiotics, literature, deconstruction*. New York: Cornell University Press.

Culler, J. (1983). *On deconstruction theory and criticism after structuralism*. London: Routledge & Kegan Paul.

Danesi, M. (1994). *Messages and meanings: An introduction to semiotics*. Toronto: Canadian Scholars' Press.

Elias, N. (1956). Problems of involvement and detachment. *British Journal of Sociology*, 7, 226-252.

- Elias, N. (1992). *The symbol theory*. London: Sage.
- Fairclough, N. (1992). *Discourse and social change*. London: Polity Press.
- Fairclough, N. (1995). *Critical discourse analysis*. Harlow: Longman.
- Giroux, H.A., & McLaren, P. (Eds.) (1994). *Between borders: Pedagogy and the politics of cultural studies*. New York: Routledge.
- Gordon, M. M. (1964). Subsociety and subculture. In D. Arnold (1970) *The sociology of subcultures*. USA: Glendessary Press.
- Gough, N. (1999). Rethinking the subject: (de)constructing human agency in environmental education research. *Environmental Education Research*, 5(1).
- Hannerz, U. (1992). *Cultural complexity: Studies in the social organisation of meaning*. New York: Columbia University Press.
- Hanson, F.A. (1975). *Meaning in culture*. London: Routledge & Kegan Paul.
- Henricksen, B. & Theuse, M. (1990). *Reorientations: Critical theories and pedagogies*. Chicago: University Illinois Press.
- Herbert, R. (1956). *The nature of literature*. New York: Horizon Press.
- Hickey, D. J. & Reiss, D. (Eds.) (2000). *Learning literature in an era of change: Innovations in teaching*. Virginia: Stylus.
- Huckle, J., & Sterling, S. (Eds.) (1996). *Education for Sustainability*. London: Earthscan.
- Lindblad, S., & Popkewitz, T.S. (Eds.) (2000). *Public discourses on Education Governance and Social Integration and Exclusion: Analyses of policy texts in European contexts*. Department of Education, Uppsala University, Uppsala.
- MacCannell, D., & MacCannell, J. C. (1982). *The time of the sign: A semiotic interpretation of modern culture*. Bloomington: Indiana University Press.
- Mackerey, P. (1978). *A theory of literary production*. London: Routledge & Kegan Paul.
- Parker, M. H. (1949). *Language and reality*. London: Frederick Muller.

- Perlas, N. (1999). *Shaping globalisation: Civil society, cultural power and threefolding*. Cape Town: Falcon Press.
- Popkewitz, T.S. & Lindblad, S. (2000). Educational governance and social inclusion and exclusions: Some conceptual difficulties and problematics in policy and research. *Discourse: Studies in the cultural politics of education*, 21(1).
- Pyke, M., Rose, G., & Whatmore, S. (2003). *Using social theory: Thinking through research*. London: Open University Press.
- Rorty, R. (1976). Professionalised philosophy and transcendent culture. *Georgia Review* 30, 757-771.
- Rorty, R. (1978). Philosophy as a kind of writing: An essay on Derrida. *New Literary History*, 10, 141-160.
- Sauve, L. (1998). Environmental education between modernity and post modernity: searching for an integrating educational framework. *Canadian Journal of Environmental Education*, 4.
- Shotter, J. (1993). *Cultural politics of everyday life: Social constructionism, rhetoric and knowing of the third kind*. Buckingham: Open University Press.
- Steiner, G. (1978). *In Bluebeard's castle: Some notes towards the re-definition of culture*. London: Faber & Faber.
- Vale, P. (2003). *Security and politics in South Africa*. Cape Town: University of Cape Town Press.
- Van den Berghe, F. (2005). The Archers: A tale of folks. *European Journal of Social Theory* 8(2), 227-237.
- Willinsky, J. (2014). The new openness in educational research. In A. Reid et al. (Eds.), *A Companion to Research in Education* (pp. 575-581). Dordrecht: Springer Science and Business Media.
- Wittrock, M. C. (1975). Reading as a generative process. *Journal of Educational Psychology*, 67.

Annexure 1 – an image of the front cover of the book, Alfie the Earthworm and his best friend Nellie

