The lifecast case: An ethical legal inquiry

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I, Sarah Emily Wild, declare that this Research Report is my own, unaided work. It is being submitted for the Degree of MSc Med at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination at any other University.

_____(Signature of candidate) 2 November 2018 in Johannesburg

Dedication

For those we have already forgotten

Abstract

This report research seeks to determine ethical action regarding the Bushman lifecasts currently housed in Iziko Museums in Cape Town. Dozens of casts were made in the first half of the 20th Century with the aim of classifying different races, specifically Bushmen. Race science, as this form of inquiry became known, gave false scientific grounding to ideas of racial hierarchies, racism, and white supremacy. It stripped those cast of their dignity, and promoted racist stereotypes which justified the poor treatment of South Africa's first inhabitants. Race science formed part of a scientific paradigm which is at odds with the country's current paradigm, with its focus on human rights and dignity. Determining right action requires a dialogue between multiple paradigms: the past, the present, and possible future paradigms. Using a mixture of Kantian deontology and virtue ethics, this research report contends that the only ethical action is for the lifecasts to be returned to descendants of those cast or of communities thought to be depicted by the casts.

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Contents

Nomenclature

A note on the word "Bushman": Words, particularly labels, carry connotations and associations, and the word "Bushman" is subsumed in a racist and derogatory history. In 2007, a newspaper reader wrote into the *Mail & Guardian*'s ombudsman, objecting to the use of the word Bushman in an article. The reader said the word technically meant "one who lives in the bush", but had also been used to describe apes, and quoted a 1902 Dutch dictionary, which said: "The possibility cannot be ruled out that the name '*bosch(jes)man*' in this meaning of 'ape-man' was carried over to the despised group/tribe, whom (the settlers) in fact regarded as creatures of a much lower level, hardly indistinguishable from apes (quoted in Kruger 2007)".

Unfortunately, there is no collective indigenous label for southern Africa's first inhabitants. They have been labelled "San", "Bushmen", "Basarwa" "Ovakwankaala" or "Ovakuruha" but this was all by non-Bushmen groups (Suzman 2001, p.3). In recent years, the labels "San" and "Bushman" have been used interchangeably. "San groups have traditionally identified themselves according to individual group labels and languages such as "Ju/'hoansi", "Naron" or "Bugakxoe"," write the authors of a report into the status of the San in southern Africa. "Almost all labels referring to San collectively were coined by non-San and are etymologically pejorative."

In attempting to adjudicate whether the newspaper could – and, importantly, should – use the term "Bushman", ombudsman Franz Kruger reached out to a number of representative groups. Survival International, an activist group promoting tribal people's rights, said they used the term "Bushman" because both "San" and "Basarwa" also have derogatory origins. The group used "Bushman" because it was accepted by the community and well-known. South African San Council chair Andries Steenkamp said that the council did not object to the use of the term. Alex Thomas, adviser

to the South African San Council, told Kruger that groups would prefer to be addressed by their indigenous labels. But delegates at the Common Access to Development Conference held in Botswana in 1993 also agreed that specific groups, such as “Ju/’hoansi” or “Kxoe”, should be used wherever possible.

That, unfortunately, does not help when it comes to talking about the victims of race science. As will be shown in this research report, the scientists treated the Bushman as a single entity with no distinction representing an entire race. Their record keeping was also poor, with the location of a cast person sometimes included, sometimes not. Throughout the literature – both archaic and modern – the term Bushman is used. Since it is not possible to determine the specific groups which people belonged to, and since there is no indigenous collective term for the people selected for casting, this research report will refer to this group of people as “Bushman”.

As Kruger says in his ombud finding:

> The contradictory views available make a choice very difficult. Where possible, it would be good to use the name of the particular group involved. But that will often not be possible: for practical reasons, the media [and ultimately academia] need an umbrella term. I think that in this and other cases the people affected should have the strongest say in how they are described. But until there is a clearer consensus, both “San” and “Bushmen” will remain in use. (Kruger 2007)

Introduction

In the storage vaults of the Physical Anthropology Department of Iziko Museums in Cape Town, dozens of full-body lifecasts crouch, stand and lie in the dark. These casts of Bushmen[1] are more than 100 years old, and the people who once wore these faces are long dead. Initially, these casts were used for scientific study, then as museum objects to showcase their "otherness" trapped in timelessness, for a European audience (Cedras 2016, pp. 32, 43). Museum authorities removed them from public display in 2001, following a public outcry about how they dehumanised South Africa's first inhabitants. The CEO of Iziko Museums (quoted in Cedras 2016, p.116) said at the time: "The [primary] argument centred on the fact that the Bushmen were treated like natural history specimens." He said that the lifecasts would be "untouched and archived until we have consulted on the best route forward".

However, 17 years later, the casts remain "untouched and archived" without a framework for how to deal with them or, for that matter, other examples of this form of science that remain hidden in the back rooms of South African universities and museums. This research report sought to determine ethical action with regards to these lifecasts: should they be destroyed, archived in perpetuity, returned to communities, put on display, or used for future research. I have argued that it would be unethical to destroy the lifecasts, and using them for research or putting them on display would perpetuate the lack of dignity accorded to, and human rights afforded, to the individuals portrayed in the casts, and the people and "race groups" they were thought to represent. I further contended that it would also be ethically problematic to archive the casts, as this would promote forgetting about them. Consequently, I have argued that the only ethical action with respect to these casts is to return them to communities.

1See "nomenclature" for an explanation as to why this research report uses the term "Bushman".

Rationale for study

South Africa has numerous relics of race science, from both the pre-apartheid and apartheid eras. These artefacts were unethically obtained, exploiting vulnerable people and systemic power imbalances. There are no clear guidelines on what to do with them: whether they should be destroyed, archived, used for research, whether in the sciences or the humanities.

Research question

Should the Bushmen lifecasts be used for future research, put on display, archived, destroyed, or returned to communities?

Research aim and objectives

I aimed to normatively argue what should be done with these life casts.

Research design

This was a purely normative, desktop-based study. I did not undertake empirical studies, interview study participants, or create new data.

Research methods

This normative study first aimed to understand the context in which these casts were created, and germane philosophical arguments regarding the nature of science. These were applied to the case of the Bushmen lifecasts. A number of moral theories were tested for their suitability in deciding what should be done with the lifecasts. Suitable moral theory was applied to the lifecast case to determine right action. However, practical actions regarding the lifecasts are still constrained by South African

law, so this research report determined which actions are legal within the current legal framework.

Thesis approach

Chapter one introduced the notion of paradigms, as laid out by Thomas S. Kuhn in 1962. Kuhn debunks the notion of continuous linear scientific progress (Kuhn 1970, p.6): Western science, he argues, is not characterised by a continuous process of accretion, knowledge building on previous knowledge back to time immemorial, but rather it is a continuous series of scientific revolutions in which anomalies in a given paradigm force scientists to abandon it and adopt a new one. I argued that this is what ultimately happened with what is frequently termed race science. The ethnographic typology of the early 20th Century was unable to support the base assumption that value-rich racial hierarchies could be determined through morphological characteristics. Today, it would be unacceptable to conduct this research, from both an ethical standpoint and a scientific one. But while subsequent paradigms could not support the research undertaken in the name of race science, at the time it was a widely accepted and supported paradigm. What this chapter sought to illustrate was that science is in fact characterised by paradigms, and that these paradigms are governed by their own rules and are accepted from within. This laid the groundwork for the question at the heart of this research report: how to adjudicate ethical action when confronted with different scientific paradigms, when each paradigm is confined by its own rules, norms and ethics.

Chapter two highlighted the differences between the two scientific paradigms: then and now. While this form of race science, namely ethnographic typology, was common in the first half of the 20th Century, what was acceptable then is no longer acceptable today. In order to compare the current standards of what is ethically permissible, I turned to the international guidelines governing research on human subjects. The Nuremberg Code, a list of ten points to guide research on human subjects which was published in 1947, was a response to the atrocities committed by Nazi scientists

in their experiments on people. This made it a particularly relevant benchmark against which to compare the making of the life casts, as morphographic ethnology was part of the same arch of science that gave rise to eugenics and ultimately Nazi human experiments. Bioethics as a discipline developed in response to these unethical acts perpetrated in the name of scientific knowledge acquisition. Three decades later, in 1979, American philosophers Tom Beauchamp and James Childress proposed four principles, collectively known as principlism, to guide ethical health research: autonomy, beneficence, nonmaleficence, and justice. There are many other guidelines for research on human subjects, such as the Declaration of Helsinki and the Council for International Organizations of Medical Sciences's guidelines (regularly revised and updated), but these all hold the ideas of principlism and the Nuremberg Code at their core. This made these two frameworks useful benchmarks for pinpointing the ethical problems with the creation and exhibition of these lifecasts.

Chapter three interrogated which moral theory was best suited to the task of unpicking what should be done about the casts. This research report argued that the two mainstream moral theories – deontology, specifically Kantian deontology, and utilitarianism – do not alone have the necessary nuance to grapple with the complexity of this problem, and save it from a descent into ethical relativism. Utilitarianism is ill-suited to the task of determining right action in this case because it would, among other things, violate the current paradigm's ethical thinking, which focuses on individual rights and health research's principlism; and also trap this discussion in the current paradigm, without allowing for the possibility that ethical thinking will change or that there could be another scientific revolution, in which these casts could play a role. Kantian deontology, on the other hand, promotes universalisation, which makes it useful as a tool to probe ethical action across paradigms. However, this moral theory is premised on a law of right action to be universalised, and this poses a difficulty when discussing different paradigms, because any law that we devise would

in fact be rooted in the current paradigm. In other words, the rigid universality of deontology and utilitarianism would trap ethical thinking about the casts in what is acceptable today within the current paradigm, rather than facilitating a discussion between science in the early 20th Century, now, and future research. However, Kantian deontology – namely the Categorical Imperative (which is a universalised law laying out our moral duty) and the humanity formula (also known as respect for persons) – does show promise in adjudicating what is to be done, so long as the universalising law or maxim regarding right action is freed from the current paradigm. If that maxim is formulated within the current paradigm deontology, like utilitarianism, will ultimately fall into the lure of ethical relativism. Relativism is not useful in determining a framework for what to do with the casts either, as right action would be whatever is considered right by the current paradigm. So in order to facilitate a discussion between these three paradigms – the past, the present and the future – I turned to virtue ethics, which has the ability to transcend paradigms by placing virtue and flourishing at the centre of ethical debate. Virtue ethics has seen a revival in recent years, but struggles to offer a framework to determine right action in all situations. Virtue ethics focuses on the agent (as opposed to consequences, like utilitarianism, or only the action or duty, like deontology). Aristotle wrote that virtue is "the state of character which makes a person good and makes that person do his or her work well" (quoted in Pellegrino 1995, p.256). These virtues should be orientated towards a *telos*, which is an ultimate end or purpose. In humans, that purpose is a life well-lived, or *eudaimonia*. Right action is something a virtuous agent does in order to promote *eudaimonia*, or a life well lived. While this is ambiguous for right action in everyday life, it is simpler when considering science. In science, which is governed by practices and paradigms, that *telos* would be an accurate and unbiased representation of the physical world. However, this research report argued that this *telos* also requires self-reflexively situating the normal practice of science within society. There are a number of virtues associated with excellence in science, but an important umbrella virtue to guide action in this matter is *phronesis*, or practical wisdom. This is "a

sort of master virtue that fosters reflective deliberation necessary for a professional to pursue their work" (Stovall 2011, p.110). Ultimately, science's *telos* should inform the maxim used to determine right action. With virtue ethics informing the maxim, or principle to be universalised, then Kantian deontology will be well-equipped to decide on right action.

Chapter four developed a virtue ethics-based maxim to free Kantian deontology from its tether to the current paradigm, and then applied this adapted framework to the lifecast matter. In order to do this, I first investigated how to promote the *eudaimonia*-equivalent for science, and how this could be contained within a maxim. Ultimately I argued that science's telos is best achieved through continually scientific revolution. An appropriate maxim would thus be: *artefacts created in a discarded paradigm must be treated in a way that promotes the changing of current and future paradigms with a view to fulfilling the telos of science*.

I then applied this formulation of a virtue ethics-based deontological framework to the five possible courses of action with regard to the Bushman life casts: destroy them, use them for research, put them back on display, return them to communities, or archive them in perpetuity. Since the cast subjects' lack of consent is not less problematic now than it was in 1908, it would not be ethical to use the casts for future research or to put them on display. It would not promote science's *eudaimonia*-equivalent by reverting to rejected scientific practices. Also, these actions would indicate that we remained trapped in the thinking of a previous paradigm, which would go against the *telos* of science. Archiving the casts would not promote the *phronesis* necessary to achieve science's *telos*: it can be a form of forgetting (archiving can remove things from the national consciousness as effectively as destruction) and of cowardice, as we would be deferring a difficult decision to a time when the decision is less difficult. It would be easier to decide what to do in the future, but this would be effectively sanitising the casts through the passage of time. Similarly,

destroying the casts would not promote paradigm change, neither would it fulfil the *telos* of science, and thus is not right action.

This leaves returning the casts to communities. While the current paradigm holds that human rights and respect for persons is at the forefront of biomedical ethics, this has not extended to human remains. Repatriation is a fairly new phenomenon, and a change from the previous traditions of science, in which science organisations and museums did not recognise communities' roles in their scientific tradition. Consequently, returning artefacts would promote paradigm change and the *phronesis* that foregrounds respect for persons and communities. This could also create a new benchmark for scientific engagement and dialogue with indigenous communities. It was not within the scope of this research report to lay out which communities should be involved and how to identify the respective communities, but to note that this is the more ethical course of action. Even though communities may choose to destroy the casts, archive them, or donate them for research, their consent changes the ethical landscape. But there are legal constraints on actions that communities can take as the life casts were reclassified as human remains in 2015. In the last part of this chapter, I unpacked the South African legislation around the treatment of human remains, namely through the Heritage Resources Management Act and the Births and Deaths Registration Act. Ultimately, the only course of action that is both ethical and legal is to return the casts to either communities related to those cast, or who were thought to be represented through casting.

Chapter 1: Different paradigms

Between 1908 and 1924, South African Museum taxonomist James Drury made more than 60 casts of Bushmen from places as widely spread as Kanye in the Bechuanaland Protectorate (in modern day Botswana) to Carnarvon in South Africa, as well as from convicts held in Kimberley, Gaborone, Windhoek and Cape Town (Cedras 2016, p.49). Although a relatively small project, Drury's work tapped into a larger scientific zeitgeist: the notion that human races were distinct and discrete units; these differences could be measured through scientific methods; and that these scientifically-proven differences illustrated a hierarchy of races. This mode of thought was firmly entrenched within Western scientific discourse by the beginning of the 20th Century. Known as race science, it was the prevailing scientific paradigm at that time for engaging with human racial diversity (Cedras 2016, p.63; Dubow 1995, p.27). There are many forms of race science, such as comparative anatomy, phrenology, and eugenics, although eugenics may be the best known due to its links with Nazi human experiments. However, this research report will focus on typology and comparative anatomy, since that was what drove the creation of the Bushman life casts and which formed a sub-paradigm used to investigate the larger paradigm of race science. This chapter will sketch out a brief trajectory of race science in general, and comparative anatomy in South Africa in particular, in order to show that the lifecasts were made within a certain paradigm, which had certain moral assumptions regarding how people could be treated. The ultimate goal of this chapter is to show that, when considering what to do with the lifecasts, there are different scientific paradigms at play, and that these paradigms were underpinned by different moral frameworks of what scientific research could involve. This discussion will lay the groundwork for the next chapter, which will unravel what these different ethical assumptions and frameworks were, and that the question of what to do with the lifecasts is actually a dialogue between two immiscible ethical paradigms.

In order to tease apart the complex issue of what to do with these lifecasts, this chapter will first explain three terms that are integral to discussing different and time-bound scientific traditions, namely “normal science”, “paradigms”, and “scientific revolution”. This notion of paradigm, and its specific association with science, was introduced by Thomas S. Kuhn, in 1962 in his influential work, *The Structure of Scientific Revolutions*. For Kuhn, science – he specifically refers to it as “normal science” – was a practice constrained by a set of agreed upon rules and norms, which are derived from previous scientific achievements:

> ‘[N]ormal science’ means research firmly based upon one or more past scientific achievements, achievements that some particular scientific community acknowledges for a time as supplying the foundation for its further practice.(Kuhn 1970, p.10)

By this Kuhn seeks to show that normal science is indeed a process of accretion – it builds upon the ideas that preceded it. However, at the same time, this process of accrual is contained and constrained within a given paradigm:

> ‘Paradigms’ [is] a term that relates closely to ‘normal science’. By choosing it, I mean to suggest that some accepted examples of actual scientific practice – examples which include law, theory, application, and instrumentation together – provide models from which spring particular coherent traditions of scientific research.(Kuhn 1970, p.10)

But models, laws and theories change, and with them traditions of scientific research. Scientists pursue normal science based on models and theories, derived from previous normal science and the frameworks they yielded, in an effort to explain the universe. But models and theories are not concrete replica of reality. Because of this, during this pursuit of normal science anomalies show ways in which current models and theories – and ultimately current paradigms – are flawed. As Kuhn writes:

> [N]ormal science repeatedly goes astray. And when it does – when, that is, the profession can no longer evade the anomalies that subvert the existing tradition of scientific practice –

> then begin the extraordinary investigations that lead the profession at last to a new set of commitments, a new basis for the practice of science." He refers to these shifts as "scientific revolutions", which are "the tradition-shattering complements to the tradition-bound activity of normal science. (1970, p.6)

To remove this discussion from the abstract, this research report will now show how this is applicable to race science in South Africa, and ultimately to the Bushman life casts. To decide what to do with the life casts, the notion of paradigms is useful because it supplies the language to discuss two different ways of doing and considering science, one which is acceptable today and one which is not. Kuhn seeks to show that normal science is indeed a process of accretion – it builds upon the ideas that preceded it, but that this accretion process is contained within a paradigm. Once the accretion process is disrupted through an overwhelming recognition of anomalies, the paradigm suffers an irreparable blow and is replaced by another one. This research report will contend that, in the case of race science, the moral guidelines of what was permissible in the name of science and the treatment of research participants suffered the same irreparable blow as the scientific tradition itself. Race science, as a way of understanding human diversity, began to gain traction in the 18th Century, but by the mid-1940s, following the discovery of the extent of human experimentation by the Nazis, race science – from typology to eugenics – was considered ethically unacceptable and a flawed paradigm for studying human diversity. Thus the normal science performed in the service of this paradigm, such as the making of the life casts, was both discarded as a scientific mode of inquiry, as was the ethical framework that had underpinned it.

Race science as a scientific discipline and as a paradigm has its roots in Carl Linnaeus' seminal book *Systemae Naturae*. In this work, published in 1735, he broke the natural world up into discrete units, creating categories and hierarchies of organisms. Linnaeus also pointed to the similarities

between humans and primates (Stepan 1982, p.7) and through an alchemy of prejudice and this systematic categorisation of the natural world, scientists and philosophers sought this link between humans and apes, by identifying what they assumed to be the least-developed and most ape-like races. “The search to establish the lower limits of humanity became especially important in the 18th Century, and in the hundred or so years before [biologist Charles] Darwin, this came to be expressed in terms of searching for the ‘missing link’.... Hottentots, and then later Australian aboriginals, were commonly seen as the ‘lowest’ of savage races,” writes Saul Dubow (1995, p.21). A century later Darwin’s pioneering work, *On the Origin of Species* published in 1859, laid out the processes of natural selection and argued that although unique from other animals, humans had evolved from an animal ancestor. Although not intended for this purpose, “evolution strengthened [old racial ideas], and provided them with a new language of struggle and survival” (Stepan 1982, p.49). When applied to societies and cultures, this thinking became collectively known as Social Darwinism, defined by Dubow as “a broad philosophy or ideology which describes social evolution in terms of laws and natural selection and stresses the importance of biological inheritance” (1995, p.120).

This mode of thought was firmly entrenched within Western scientific discourse by the beginning of the 20th Century. It carried with it the underpinning ideology that, in the survival of the fittest of societies, Western caucasian society was the pinnacle of human development. Humanity was, thus, a gradation from barbarian to civilised, degenerate to sophisticated. The crutch of Darwinism can be seen in the biological vocabulary of race science, such as “adaptation”, “segregation”, “degeneration”, “fitness”, “stock”, “hybridisation”, etc (Dubow 1995, p.9). An important way to grade these differences in human physiognomy became known as comparative anatomy, in which one human body was compared with another, and measurement was used to reinforce stereotypes of degeneration and superiority. This method was used to “arrange and rank societies in terms of their

levels of civilisation" (Cedras 2016, p.22). The method, namely physical measurement to illustrate type and evolution, was part of normal science: both Linnaeus and Darwin had shown its use and usefulness when used in the natural sciences. Physical anthropology constituted an attempt to measure these different "types of humans", and was a continuation of inquiry within the prevailing paradigm – that measurement would allow categorisation and descriptions of evolution. Human biologist Alan Morris, referencing Stepan, writes:

> "The 'type' was defined as an ideal individual who possessed all of the important characteristics of the race. Hence the focus was only on those features that could differentiate between races. The place of the individual was well defined in typology. Because the type was an ideal standard, the individual could be compared to a type and his or her purity assessed. Variations were impurities, but the characteristics of the type could be dissected out through careful observation by the skilled observer." (Morris 2012, p.S157)

While mainstream scientific thought accepted the idea of evolution, and erroneously extrapolated that to humans "types", it still saw these "types" as discrete, static units that, once formed, were now impervious to change. Known as the model of early race formation, the argument goes thus: humans were subject to evolution which gave rise to races; however, once humans became "fully human", with intelligence and the ability to speak, "his inventiveness and intelligence protected his body from the further influence of natural selection, and acted only on mental traits" (Stepan 1982, p.85).

By the beginning of the 20th Century, the idea of races as discrete units was fixed in people's minds, as was the ability to measure a person's race and thus slot them into the hierarchy of human development. This was the paradigm: building upon the theories and work of Linneaus and Darwin, as well as many others, the scientific community agreed that different races had different physical characteristics, that races were discrete units, and that there was a gradation of development which

corresponded to different human value. This gradation of value also determined how research subjects could be treated, something which will be expanded on in the next chapter. But those were only the broad strokes of paradigm: scientists undertook normal science – using physical measurement, which was the best tool available to them – to investigate and understand the matter of racial difference. They did this using the disciplines of physical anthropology and typology, themselves sub-paradigms within the larger paradigm of race science.

Permeating the development of race science was the European notion of the Bushman as exotic and other, and this had momentous consequences for the scientific paradigm, as well as what was considered acceptable scientific practice. The othering of Bushmen justified their mistreatment at the hands of colonisers, both white and black, and reinforced social hierarchies of power. As Joseph Rouse notes in the preface to his 1987 work *Knowledge and Power*:

> [W]e cannot readily separate the epistemological and political dimensions of the sciences: the very practices that account for the growth of scientific knowledge must also be understood in political terms as power relations that traverse the sciences themselves and that have a powerful impact on our other practices and institutions and ultimately upon our understanding of ourselves. (Rouse 1990, p. xi)

Prejudice and power play an important role in the evolution of race science, and what was considered ethical during the pursuit of scientific knowledge. Travellers' reports in the 18th Century from African expeditions spoke unflatteringly of Bushmen races, painting a picture of a savage and primitive people who were little more than apes (Magubane 2007, p.110). "The surprise and then disgust Europeans expressed on first encountering for themselves the Africans in Africa created long-standing prejudices concerning the African's physical, mental, and moral nature…. Most tragically, too, the African was compared with the great apes which came out of Africa, and which Europeans encountered at the same time they met the Negro," writes Stepan (1982, p.8).

These prejudices were solidified through the examples of Bushmen and black people brought to Europe as part of "exotic curiosity shows". The most famous of these people brought to Europe for the entertainment of the general public, and then research by scientists, is Saartjie Baartman. Baartman, a South African woman who became known as the "Hottentot Venus", was during her short life and in death a stage curiosity and a victim of science. When she died in 1815, her manager sold her body to scientists at the Natural History Museum in Paris, without her consent (Holmes 2007, pp.152-153). A cast was made of her body, she was dissected, and her skeleton and preserved brain and genitals put on display until the 1970s.[2] Museum officials said the dissection was "in the interests of the progress of human knowledge" (quoted in Holmes 2007, p.154). Part of this quest was to determine where Baartman and other Bushmen fit into the alleged hierarchy of race groups, but Rachel Holmes in *The Hottentot Venus* also notes the misogynistic fascination of male scientists with black women's genitals and their supposed lascivious sexual appetites (Holmes 2007, pp.141-142). There was a skewed power dynamic at play in the case of Saartjie Baartman that cannot be ignored; it is mirrored, although to a lesser extent, in the making of the life casts. In this power dynamic, the pursuit of knowledge justifies the mistreatment of an individual, because that individual does not have intrinsic value aside from what value they can give when their physical dimensions are translated into measurements. By the beginning of the 20th Century, when the South African Museum commissioned the lifecasts of Bushmen, the "otherness" and inferiority of black people in general, and the Bushmen in particular, had solidified in the European imagination, and in that of Western scientists.

This perception is one of the factors that drove the genocide of Bushmen in South Africa, although these were also other reasons. This extermination of the indigenous people has been well-documented (Dubow 1995; Magubane 2007; Skotnes 1996; Rassool 2015), and this research report

2 Her remains were returned to South Africa and buried in 2002.

will not engage with this large-scale slaughter over the course of two centuries. But the resultant scarcity of bushman bodies was a source of concern for scientists wishing to study their morphology (Cedras 2016, pp.20, 36; Morris 2002, p.338). The Bushmen were considered a means to an end for these scientists, as opposed to individuals with intrinsic value. South Africa, at the beginning of the 20th Century, was a British colony, and its scientific endeavours were modelled on those of its imperial motherland. The year 1905 was pivotal for South African science: it was the first visit of the British Association for the Advancement of Science to South Africa. Alfred Haddon, chairman of the association's anthropology section, during this visit implored researchers to preserve knowledge of indigenous people before it was lost forever:

> But our first and immediate duty is to save for science the data that are vanishing; this should be the watchword of the present day…. Anthropometric data are everywhere wanting, very few natives have been measured, and the measurements that have been made are insufficient both as regards those taken and the number of individuals measured. The interesting subject of comparative physiognomy is unworked. (quoted in Morris 2002, p.338)

The life-cast project – an endeavour driven by the museum's director Louis Péringuey – aimed to record what was thought to be a "dying" race. When Drury took the first lifecast in 1908, his explicit aim was scientific – to preserve a race "type" for researchers to study – and was imbued with a sense of urgency. Drury's instructions were also very specific about the examples of Bushmen that Péringuey wanted Drury to cast, and the parts of their bodies that he wanted "special attention" paid to, such as the genitals. In a letter to Drury, he wrote:

> Do not chose [sic] the too decrepit specimens. But I would prefer however to have those with all the wrinkles of the body, especially the belly, than to have them as well fed as our previous specimens…. Could you take a woman with her little one on her back, wraps and all, it would indeed look very natural…. Endeavour to buy the garments of the Bush people

> in order to clothe the reproductions with if you can, provided that their garments or arms are not Manchester or [?Birmingham] goods… (quoted in Cedras 2016, p.45)

Consequently, the casts that Drury made were of people who already fit into their notion of what constituted a "pure" bushman, and – knowingly or unknowingly – upheld the paradigm. Selection of Bushmen who did not fit their conception of race, from physical characteristics through to socio-economic status, could create anomalies within the prevailing paradigm of science-backed white supremacy.

Initially, the lifecasts were kept in the museum's collection, but in the 1930s were put on display. Ultimately, the Bushman Diorama, which was first shown as an exhibit in 1959, aimed to immortalise the idea of hunter-gatherer life (as romanticised by museum curators). The lifecasts were positioned behind glass viewing panels, with a painted savannah backdrop and birds flying overhead (Cedras 2016, pp.73-75). The diorama continued in many incarnations for more than four decades, even as a show travelling throughout Europe and South Africa between 1976 and 1981. In 1996, artist Pippa Skotnes curated an exhibit called *Miscast: Negotiating the Presence of the Khoisan*, which received widespread attention. The exhibit included information about the roles played by and treatment of Bushmen by anthropologists and scientists, and drew attention to the genocide of the Bushmen and how they were mistreated in the name of science. The outcry, which gained momentum over the next five years, saw the closure of the Diorama in 2001.

By this time, the world had moved far away from the practice of typology and comparative anatomy. The scientific paradigm of race science was no longer considered a valid form of scientific inquiry and it was also deemed morally problematic. There are a number of reasons for this shift, and it is not the scope of this research report to trace in detail the downfall of race science. However, there is a critical watershed. The atrocities committed in the Nazi concentration camps

illustrated the logical conclusion of race science: hierarchies of race resulted in hierarchies of human treatment. If a race was considered less important or valued than other races, then people of that racial group would be mistreated by society and by science, and this was morally unacceptable. As Dubow writes in *Scientific Racism in Modern South Africa* (1995, p.1): "A principal cause of this huge shift in perception has been the traumatic experience of Nazi holocaust, which alerted humanity as a whole to the terrifying consequences of politicized racism." But this focus on Germany and Nazi action clouded the extent to which these ideas were pervasive in pre-war Europe and America and has obfuscated the extent to which race science was a prevailing paradigm of pre-war Western science (Dubow 1995, p.2). The next chapter will illustrate how the current scientific paradigm and the rise of participant rights-protection in medical science is incompatible with this race science paradigm. This is what gives rise to the moral quandary of right action with regards to the life casts – what was considered acceptable scientific practice in 1908 is not acceptable in 2018.

Chapter 2: An ethical discussion between paradigms

When South African Museum director Louis Péringuey conceived of his plan to create casts of Bushmen, there were no formal ethical guidelines regarding scientific research on human beings. Medical ethicist and historians Jochen Vollman and Rolf Winau (Vollmann and Winau 1996, p.1445) argue that science was not without codes of ethical practice and notions of informed consent, but in South Africa at the turn of the 20th Century these gentlemen's accords (quite literally: science was then an overwhelmingly male discipline) did not extend to Bushmen. As shown in the previous chapter, the Bushmen were considered "other" and less human than other races, particularly white Europeans. This chapter will show that the creation of the life casts contravenes current ethical guidelines regarding research on humans, with the aim of highlighting that the two scientific paradigms were operating under different ethical frameworks. In order to do this, I will first discuss the ethical tenets underpinning scientific research in 2018 and then show how the creation of the life casts was ethically unacceptable when considered in the light of these guidelines as it dehumanised the people cast, and robbed them of their identities, context, and autonomy. It also perpetrated great harm through the furthering of racial stereotypes, which ultimately justified segregation and the different treatment of races. This research report seeks to facilitate a discussion between these two paradigms. This chapter will draw on select ethical guidelines that were developed between the mid-20th Century and today. It will also engage with international human rights declarations as well as South Africa's Constitution, which ushered in a new rights-focused era in the country. While a legal framework is *not* synonymous with a moral framework, it *does* offer insight into the moral consensus of the current scientific paradigm in South Africa, specifically that the rights of people of all races should be protected. The ultimate goal of this chapter is to illustrate the areas in which what was once considered ethical and commonplace scientific practice is, through the lens of current scientific research practices, unethical and illegal.

This will show that the decision about what to do with the lifecasts is in fact a dialogue between the present ethical framework, the one that underpinned their creation, and future possible paradigms. It will introduce the idea that science and research in South Africa are currently encapsulated in a paradigm, and that our ethical thinking is constrained by that paradigm. Consequently, right action with regards to the lifecasts is not just about adjudicating between the past and present, but also recognising that actions in the present could be answerable to future paradigms. The next chapter will discuss which moral theories and ideas are best suited to deciding right action between multiple paradigms. However, first it is necessary to show that current ethical thinking is at odds with what was considered acceptable in 1908.

There are a number of guidelines regarding how to conduct ethical research on and with human participants. It is not the scope of this research report to canvass all the literature and guidelines and point to the ways in which the lifecast project was unethical when viewed through current frameworks, but only to illustrate salient and indicative differences. Consequently, I have selected two frameworks: the Nuremberg Code and the four principles laid out by Tom Beauchamp and James Childress in their seminal work *Principles of Biomedical Ethics* (2013). Both of these guidelines were drawn up in response to atrocities committed by scientists in the name of progress and the acquisition of scientific knowledge, and perpetrated against individuals in no small part because of their race. The Nuremberg Code, which comprises 10 points, was born out of what was known as “the Doctors’ Trial” (Shuster 1997, p.1436) as the Nazi physicians on trial had performed inhumane experiments on human subjects. Beauchamp and Childress’ principles, on the other hand, built on the 1979 Belmont Report, which followed an investigation into the treatment of syphilitic patients as part of the programme between Tuskegee Institute and the United States Public Health Service. In this programme, black men with syphilis did not give informed consent and did not receive adequate treatment for their condition so that medical scientists could trace the progression

and manifestation of the disease (National Center for HIV/AIDS, Viral Hepatitis, STD 2015; Brandt 1978, p.21). While there are a number of other guides, such as the Declaration of Helsinki, I have chosen these two frameworks because they underpin a lot of the bioethical thinking that came later, including the Declaration of Helsinki whose continual revisions illustrate developments in our ethical thinking. Moreover, the research that they responded to was on people selected for study because they were considered to be part of a lesser race and thus less valuable or deserving of fair treatment – a superiority that 20th Century typologists displayed towards Bushmen subjects in South Africa decades previously. First, I will lay out how the making of the casts violates parts of the Nuremberg Code and principlism.

The code, published in 1947, hinges on the notion of consent, and the goal of the research practice. Of its 10 points, Article One, which deals with consent, is the longest and most well-developed. The authors write: "The voluntary consent of the human subject is absolutely essential" and that this individual "should be so situated as to be able to exercise free power of choice, without the intervention of any element of force, fraud, deceit, duress, overreaching, or other ulterior form of constraint or coercion; and should have sufficient knowledge and comprehension of the elements of the subject matter involved as to enable him to make an understanding and enlightened decision" (Nuremberg Code 1949). This was not the case when the lifecasts were made. Cedras notes (2016, p.49) in her painstaking tracing of cast construction: "Those who objected to the scrutiny and the invasive procedures were often coerced into cooperation by white officials – for example, the local constable or magistrate – or sometimes even by a trusted local leader or chief who would be bargained with for access to models, as Péringuey's instructions to Drury confirm." Also, prisoners were used as subjects, which is ethically problematic. There is an ongoing debate as to whether prisoners' consent can ever really be uncoerced, as their imprisonment renders them dependent (Moser et al. 2004, p.1; Del Carmen and Joffe 2005, p.639; Beauchamp and Childress 2013, p.58).

Cedras' comments also show that consent was given for subjects by the local constable and magistrate or "a trusted local leader who would be bargained with". This spectre of authority encouraging participation compromises the quality of consent given on the part of participants, if they gave consent at all. But Article One of the Nuremberg Code continues: this consent process should ensure that participants "should have sufficient knowledge and comprehension of the elements of the subject matter involved". There is no evidence to suggest that cast Bushmen knew that their likenesses would be used to "scientifically" show their inferiority to other races. While it would be conjecture to assume whether this would have altered their consent, the omission of positive and explicit consent in and of itself would be a violation of the Code, which says that the participant has to give an "affirmative decision" based upon knowledge of the "nature, duration, and purpose of the experiment". Consent would have included future use, such as their inclusion in a travelling Bushman Diorama, and it is unlikely that this was foreseen or explicitly mentioned to casting subjects. There is no record available of any consent process followed by Drury in his casting process.

While the Bushman casting project contravened elements of the Code, there is one possibly controversial point upon which Drury's research agrees with it. Article two states: "The experiment should be such as to yield fruitful results for the good of society, unprocurable by other methods or means of study, and not random and unnecessary in nature." While viewing this issue from the vantage point of the 21st Century, and the debris of the failed practice of typology, it is possible to recognise that there were no scientifically "fruitful results for the good of society", particularly not for the Bushman community. However, from within *his* paradigm, Drury thought that his research was valid, and that he was conducting it for the good of society. As the British Association for the Advancement of Science's Alfred Haddon said in 1905: "[O]ur first and immediate duty is to save for science the data that are vanishing; this should be the watchword of the present day." He

couches typological research in the language of urgent duty, and something vital in understanding the world and improving society. From within the race science paradigm of the time, Drury and other scientists thought that they were doing "normal science" in the aid of human development and understanding, and so would not have been contravening this article of the Nuremberg Code.

Principlism is at greater loggerheads with race typology and the lifecast project than the Nuremberg Code, mainly because Beauchamp and Childress' four principles encompass more facets of medical and scientific research. According to principlism, ethical health research has four pillars: autonomy, beneficence, justice, and nonmaleficence. It should be noted here that principlism is usually applied to biomedical research, rather than discussions of physical anthropology and how moral frameworks change with time (or intertemporal morality). However, it remains an illuminating concept to unpack the notion of ethical research involving human participants. This is because the principles – namely safeguarding participants' autonomy; doing research to improve livelihoods and society; sharing the risks and benefits equally between stakeholders; and not doing harm – are as relevant to physical anthropology and comparative physiognomy as they are to more traditional biomedical sciences. At the turn of the 20th Century, scientific disciplines were also not as rigidly defined as they are today, and in the context of this research report, the distinction is arguably superfluous since research was undertaken on human subjects. Additionally, in 2015 the lifecasts were legally reclassified as human biological material, meaning that any practical discussion about these casts needs to treat them as though they were in fact human bodies. This is why principlism is a valid lens through which to scrutinise the differences between the scientific paradigm in which they were made and the one we are currently in.

Autonomy, the first of Beauchamp and Childress' principles, is loosely phrased the ability to be in control of what happens to one's body. They write: "Personal autonomy is, at minimum, self-rule

that is free from both controlling interference by others and from limitations, such as inadequate understanding, that prevent meaningful choice." (Beauchamp and Childress 2013, p.58) However, an interesting way to look at autonomy is by showing what it is not:

> A person of diminished autonomy, by contrast [to someone who has full autonomy], is in some respect controlled by others or incapable of deliberating or acting on the basis of his or her desires and plans." (Beauchamp and Childress 2013, p.58)

From accounts of the casting process (Cedras 2016, p.50), the cast Bushmen had diminished autonomy. Those cast were both "in some respect controlled by others" through coercion or force, but also it is unlikely that the intention behind making lifecasts – as objects to typecast racial difference and later as tools to display Bushmen's "primitive" and "timeless" tendencies to European audiences – were explained to the people whose likenesses were cast. While there are elaborate descriptions of how the casts were made (Cedras 2016, Appendix Q), there is no evidence of research protocol and consent, or even descriptions of explaining the need for the casts to research subjects. Taken as a whole, the autonomy of those cast was infringed upon.

The second principle, beneficence, pertains to a "moral obligation to act for the benefit of others" (Beauchamp and Childress 2013, p.166). The authors further say that "obligations to confer benefits, to prevent and remove harms, and to weigh and balance an action's possible goods against its costs and possible harms are central to biomedical ethics". When used to discuss the creation of the lifecasts, this obligation of beneficence on the part of Drury is more complex than simply saying that he did not act to benefit the Bushmen subjects he was casting. While that is likely true, when considering the paradigm in which he was working which considered Bushmen to be less human, it is not possible to impose intentions. It is, however, possible to say that he believed he was acting to benefit humankind, through developing knowledge of human development and diversity. From his perspective and within his paradigm, he was acting for the benefit of others. The major issue is that

"others" in the paradigm of the early 20th Century comprised Europeans. This report will not contend without evidence that scientists working at that time did not seek to benefit Bushmen, but rather that their best interests did not form part of the research question that the scientists were seeking to address, namely how races displayed a hierarchy of human development.

The third principle, nonmaleficence (which involves doing no harm) is perhaps easier to engage with and less murky. Dubow notes that physical anthropology "did more than any other discipline to generate and sustain the racial paradigm in South Africa" (Dubow 1995, p.117). This racial paradigm – and the segregation and Apartheid policy that followed in its wake – perpetrated extreme harm. While this form of research promoted the interests and progress of white European society in South Africa, and bolstered global "evidence" of racial science, it was very harmful to other races. Scientifically-justified racism "provided the grounds for racism and racist exploits where religion failed to do so" (Cedras 2016, p.20). This research reinforced "perceptions about 'bush races' [which] served a further purpose – that of abdicating colonisers of a reason to treat Bushmen humanely" (2016, p.18). It is undeniable that race typology in South Africa caused great harm for non-white populations. However, this research report contends that it also caused harm against white European populations, as it reinforced their stereotypes and notions of racial superiority. Ultimately, it stopped them from flourishing and trapped them in a racist paradigm. This idea of flourishing will be expanded in chapter three when discussing the moral theory of virtue ethics.

The fourth and final principle in Beauchamp and Childress's bioethical framework, justice, "refers to fair, equitable, and appropriate distribution in society determined by justified norms that structure the terms of social cooperation" (Beauchamp and Childress 2013, p.226). While Beauchamp and Childress do not lay out what they mean by "fair" and "equitable", it is possible to say with a degree

of certainty that the subjects cast did not accrue benefits for having been part of the research. There is no record of them having been reimbursed in any way for their participation, although even if they were, this research report contends that financial benefits would not be commensurate with the risks and harms associated with the project, which have been outlined when discussing the principle of nonmaleficence.

Taken as a whole, Drury's lifecasting project violated numerous standards which are today considered fundamental to ethical research. While there are aspects of the lifecast project which were not in contravention of the Nuremberg Code, such as the researcher's belief that they are acting for the good of society, on the whole the project would be considered unethical from within today's scientific paradigm. It would also infringe on international and local legislation. The next section of this chapter will briefly show how the lifecast project would have contravened the rights-based legislation that governs the research on human subjects – in order to contrast the two paradigms. The United Nations' 1948 Declaration of Human Rights, made subsequent to the conclusion of the Nuremberg trial of Nazi scientists, notes that: "All human are born free and equal in dignity and rights." And article two of the declaration states: "Everyone is entitled to all the rights and freedoms set forth in this Declaration, without distinction of any kind such as race, colour, sex…" (United Nations 1948). This obviously puts the lifecast project at odds with the prevailing paradigm, which has individual rights and freedoms at its core. In 1978, the United Nations declared that all people "belong to a single species and are descended from a common stock. They are born equal in dignity and rights and all form an integral part of humanity" (United Nations 1978). Péringuey and museum taxonomist James Drury thought, as did most of their peers as shown in the previous chapter, that Bushmen were uncivilised at best and subhuman at worst. The paradigm did not hold that "[a]ll human are born free and equal in dignity and rights", in fact the science of the day reinforced the prejudice that races were hierarchical and that white people had

greater value than black people and Bushmen. The point of flagging these two declarations is to show that in 2018, we are inhabiting – quite literally – a different moral world to the one that Péringuey, Drury and their colleagues occupied at the beginning of the 20th Century.

In South Africa, the paradigm had also changed – both politically, socially, and scientifically. The Bill of Rights, contained in the Constitution of South Africa (Republic of South Africa 1996), is explicit about the universality of rights and that there is no distinction between races. According to this legislation, everyone has the right to inherent dignity and that that dignity should be respected (s10), should not be "treated or punished in a cruel, inhuman or degrading way" (s12(1)(e)), and has the right to bodily and psychological integrity (s12(2)). The public display of an individual's naked body, as part of a lifecast diorama, is disrespectful to their dignity, especially when that display is effected without their consent. Using those casts to show that an individual is inferior to others because of their race and to house it behind glass alongside animals in a museum's faunal collection, are inherently disrespectful acts that deny the individual cast their humanity, likening them to animals. This inhuman treatment would be considered unconstitutional. Additionally, such depictions "stripped inhabitants of Prieska of their social and economic context. In doing so, their contemporaneity was removed, and the displays could create the effect (or the illusion) of timelessness" (Cedras 2016, p.52). This turned the people cast – as well as Bushmen people in general – into timeless relics, as opposed to people trapped in social and economic hardship, people whose ways of life were being destroyed. They were turned into physical objects, rather than people, and denied the right to bodily and psychological integrity, turning them into objects whose value lay in their extrinsic value to science, as opposed to their intrinsic value as human beings.

If it were 1908, the prevailing paradigm – which ranked races in a hierarchy of value – would not necessarily recognise the moral problem of treating research participants as though they were

subhuman or of compromising their dignity and right to bodily integrity. There was no legislation locally or internationally protecting the rights of all individuals from inhuman or degrading treatment, and Drury and other comparative anatomists were working within the moral lattice of their paradigm. But in 2018, scientific research is governed by a different legal and ethical paradigm in which objectifying people in such a way is considered morally unacceptable.

Consent is a fundamental part of the Nuremberg Code, but this is not documented in the case of the Bushman lifecast creations and, in fact, historical accounts suggest that research subjects were coerced into participating in the project. There is also no evidence that the point and future uses of the lifecasts were explained to the people who were cast. For this to be ethical in the current paradigm, there would need to be explicit and documented consent. It is unlikely that this was the case. In terms of principlism, there are a number of ethical issues with the creation of the lifecasts. The individuals' autonomy was compromised, and through racial stereotyping the lifecasts did a great deal of harm, and there was no sharing of benefits; however, the matter of beneficence is more difficult to adjudicate, as the researchers and Drury thought that they were collecting scientific evidence for the good of society and human development. From within their paradigm, it is assumed that they thought that they were "acting for the benefit of others". While it is difficult to ascribe intent, and if they were in fact acting for the benefit of others, it was for others like them: white Europeans, rather than Bushmen communities. International declarations, such as the United Nations' Declarations on Human Rights and Race, show that the world has changed since 1908: human rights are considered to be something that everyone should enjoy, irrespective of their race or background. This rights-based approach is also at the heart of South Africa's Bill of Rights and Constitution. The lifecast project would be considered unconstitutional, and an egregious infringement of the Bushmen's rights. From this chapter, it is evident that the two paradigms had different moral and legal frameworks for research. However, as shown when superimposing the

lifecast creation on Article Two of the Nuremberg Code, there is a relativism that casts a shadow on attempts to determine right action with regards to the future of the lifecasts. Article Two notes that "the experiment should be such as to yield fruitful results for the good of society, unprocurable by other methods or means of study, and not random and unnecessary in nature". The scientific community in South Africa, and in the English-speaking world more broadly, thought that comparative anatomy was vital to understanding human development, and that this understanding hinged on measurement of Bushmen people. Gathering these measurements was "urgent", according to the British Association for the Advancement of Science, and typology and comparative anatomy were the best tools at their disposal. Kuhn, writing in *The Structure of Scientific Revolutions*, notes: "[T]hough the world does not change with a change of paradigm, the scientist afterward works in a different world" (1970, p.121). The difficulty then is one of finding a moral framework to adjudicate a discussion between two paradigms.

This chapter has shown that there were two distinct paradigms, and that 1908 was effectively a different scientific and ethical world to the one we inhabit in 2018. But if we accept that scientists in 1908 were in a different paradigm to the one we are in in 2018, then it is possible that in a hundred years, there will be a different paradigm to the one we currently inhabit. This means that right action with regard to the lifecasts must not only consider the relative frameworks of the past and the present, but must also be cognisant of the future. This acceptance of different paradigms means that a discussion of right action with respect to the lifecasts is essentially a dialogue between multiple paradigms: the past, the present, and the future. The next chapter will engage with the best moral theory or ethical framework to grapple with intertemporal and multi-paradigm ethics.

Chapter 3: Selecting an ethical framework

The decision about what to do with the Bushmen lifecasts is ultimately a discussion between paradigms. In the paradigm of 1908, typology was an acceptable form of scientific inquiry; it did not contravene the ethical mores or practices of the time, and was part of the resulting echo chamber of racial values. However, that paradigm is incompatible with the current rights-based legal and ethical framework which governs society and scientific inquiry today. Moreover, if we accept that these lifecasts are straddling two different paradigms, the logical consequence is that there could be future paradigms, which we cannot currently predict; consequently any decision made pertaining to the casts will affect future paradigms, whether the casts are used for future research (and are thus an active part of the paradigm), are destroyed or returned to communities (in which case they will be omitted from future paradigms), or archived in perpetuity (have the possibility of being part of future paradigms). This chapter aims to determine which is the best moral theory or framework to untangle these intertemporal and multi-paradigm ethical issues. In order to do that, it will investigate established moral frameworks – namely, utilitarianism, Kantian deontology, ethical relativism, and virtue ethics – to determine which of these frameworks is most suited to the task of determining right action with regards to the lifecasts. In order to do that, I will define each of the four frameworks and critique their suitability.

The first moral framework, utilitarianism, was first elucidated by English philosopher Jeremy Bentham in the 18th Century, and is based upon the principle of utility (Rachels and Rachels 2015, p.99). Bentham, in his work *An Introduction to the Principles of Morality and Legislation*, writes: “Nature has placed mankind under the governance of two sovereign masters, pain and pleasure. It is for them alone to point what we ought to do” (Bentham 2007, p.6). According to Bentham’s principle of utility, wrong action is one which “appears to augment or diminish the happiness of the

party whose interest is in question". Thus right action would increase pleasure rather than pain. John Stuart Mill built upon this idea, and wrote: "The creed which accepts as the foundation of moral, Utility, or the Greatest Happiness Principle, holds that actions are right in proportion as they tend to promote happiness, wrong as they tend to produce the reverse of happiness" (Mill 1863, p.9). Utilitarianism requires the adjudicator of this happiness to be "strictly impartial as a disinterested and benevolent spectator".

In other words, a right action must increase the happiness of the greatest number of people, and none of these individuals has special status. Utilitarianism is a beguiling framework to adjudicate what should happen with the lifecasts: it is beguiling because it would seek to ignore the prejudice and values that went into the creation of the lifecasts, and focus only on the happiness, pleasure or well-being (however pleasure is defined) of current or future people. These casts are imbued with the values of those made and displayed them, which is part of what makes them such uncomfortable and shameful relics; utilitarianism would allow us to divorce them from their context and history, and locate them in the present and imagined future. In applying utilitarianism, the fate of the casts would depend on which course of action would promote the happiness of the greatest number of people. There are three reasons why utilitarianism is not an appropriate lens for the lifecast case: first, it would freeze the decision within the current paradigm and would attempt to predict the future, which is impossible; second, there is no universally accepted definition of happiness, as it differs between individuals and groups and may differ between current and future individuals and groups; and third, it would contravene the individual-rights-based focus of the current paradigm.

Now, to examine these points individually: first, a major reason why the theory of utility is not appropriate to the matter of lifecasts is that it would trap a decision within the time frame in which the decision was made. Right action would be located within this paradigm, based on the current

conception of happiness hemmed in by the values that we currently hold. Using what we know of the world in 2018 and the future predicted from this point, we would have to extrapolate the greatest good for the greatest number. That future prediction is pinned to its origin, which is the current moment. In a year or 10 years, the predicted future could be different, as it is extrapolated from a different origin. But as the lifecast case shows us, we are blinded by our current paradigm, and so cannot imagine what future paradigms will look like.

That means a determination of greatest good would be located in what we currently think to be good or what we currently think would promote happiness, for people who either currently exist or who we imagine will exist. That imagination is constrained both by our inability to predict the future, and by the blinkers that our current paradigm has over our eyes. Kuhn notes, after describing an image what can appear to be either a duck or a rabbit: “What were ducks in the scientist’s world before the [scientific] revolution are rabbits afterwards” (Kuhn 1970, p.94). To continue this analogy, we are unable to predict what will be a duck or a rabbit in the future, but this is what utilitarianism requires of us if we are to use it to make a moral judgment about what to do with the lifecasts.

This temporal blindness is a fundamental issue when arbitrating between different paradigms. An apposite local example can be found in a recent Constitutional Court judgment, regarding a land claim in Salem in the Eastern Cape. Two white witnesses claimed that they had not seen black people living on the disputed land, despite evidence to the contrary. Judge Edwin Cameron, in his judgment in *Salem Club Party et al v Salem Community* (Constitutional Court of South Africa 2017), writes:

> There is no reason to think that either sibling [the two witnesses] was fabricating. On the contrary, both appear to have been entirely sincere in what they recalled. The inference must

> be that the witnesses' recollection was radically mistaken. Why their recall fell subject to so radical an oversight is a matter for justified inference as to the impact of an upbringing, like too many of us had, that foregrounded the virtues and visibility of white people to the exclusion – the disappearance, the evaporation, the virtual non-existence – of all others. (2017, pp.96-97)

It would be hubristic to imagine that within our current paradigm we are free of such blindness, since each paradigm is characterised by instances of heedlessness or uncritical engagement. Consequently, an extrapolation of the future would contain these invisible biases, and would trap any decision within the current paradigm, unable to adapt to new information and understanding. For example, imagine, hypothetically, that the principle of utility dictates that in 2018, the greatest happiness for the greatest number – both current and future, as decided in this moment – requires that we destroy the lifecasts. That unalterable decision would mean that all actual future possibilities and paradigms are subservient to the one in which the decision was taken to destroy the casts.

The second way in which utilitarianism is ill-suited to this case is the matter of defining happiness. Happiness, "good", "well-being" or pleasure are slippery terms, without a consensus meaning. Many South Africans would be happier if the lifecasts did not exist; this would agitate for their destruction. But in the long run, more people may be happier – living more fulfilled and nuanced lives, with a greater understanding of themselves, their country, and history – if the lifecasts were not destroyed and were put on display to remind people of the atrocities perpetrated in the name of race science. This action could encourage people to learn from the scientific and social mistakes of the past, and could ultimately result in the greatest good for the greatest number of people. But that may not increase pleasure, and could in fact result in a great deal of pain. That would be at odds with utilitarianism, which would classify that as wrong action.

This research report further seeks to determine right action with regards to the lifecasts – what should we do with unethically obtained objects of the discarded paradigm of race science – not what consequences do we want to effect, beyond having made a decision (which is the stated objective) regarding the casts. Consequently, the principle of utility, with its attendant notion of happiness or pleasure is not appropriate for such a fraught case, with multiple layers of meaning, nuance, and emotion.

The third and final reason why utilitarianism is not appropriate is that it is at odds with the current paradigm. As was shown in the previous chapter, individual rights are at the centre of research ethics and South African law. Utilitarianism, however, does not consider individual rights as intrinsically valuable. They only have value in so far as they promote the happiness of the greatest number of people. Individual rights are subservient to the greater good, and that is unacceptable in the current paradigm, as shown in the previous chapter. Consequently, utilitarianism would be inappropriate for determining right action regarding the lifecasts.

Kantian deontology is also problematic. Whereas utilitarianism is concerned with the consequences of an action, deontology is concerned with the act itself and duty: do we have a duty to destroy, archive, return to communities, display, or perform research on artefacts that were collected unethically? German philosopher Immanuel Kant's ethical framework hinged on a notion called the Categorical Imperative, which was a universalising principle. Writing in the late 18th Century, he wrote: "Act only according to that maxim by which you can at the same time will that it should become a universal law" (quoted in Rachels and Rachels 2015, p.130). When applied to the lifecast case, this becomes: we should only perform an action (destroy, archive, return to communities, display, use for research) if we would want it to be applied in other similar cases. Kantian

deontology also pivots around Kant's humanity formula, otherwise known as respect for persons, which is the idea that "man, and in general with every rational being, exists as an end in himself and not merely as a means to be arbitrarily used by this or that will" (quoted in Rosenstand 2000, p.295). In other words, a rational being cannot be used as a "means" or as an instrument to further someone else's agenda or purposes.

In the case of the lifecasts, rational people were used as an ends to further scientists' understanding of human evolution but not recognised as individuals with inherent worth of their own. The humanity formula, or respect for persons, is grounded in the rights of persons and the protection of their autonomy (Stanford University 1997). This respect for autonomy recognises that rational beings have intrinsic worth – that they have value by dint of being rational beings – rather than simply instrumental value to further someone else's agenda. This intrinsic worth means that, according to Kant, they are entitled to respect. Respect for persons is a good place to start in determining right action with regards to the lifecasts. One of the major reasons that the lifecasts are so problematic in the current paradigm is that they disrespect the individuals and peoples they cast. This respect for persons makes Kantian deontology a possible candidate for determining right action with respect to the lifecasts.

Additionally, the maxim of universality – the universalising principle which posits that for something to be right action, it must be universally applied in similar situations, and that the resulting world would be one in which we wanted to live – allows for a bridge between paradigms. It would allow us to circumvent the trap of relativism, which would be paralysing and render us unable to make any multi-paradigm decision. Another feather in deontology's cap with respect to the lifecasts is that it focuses on action, and that is what this research report seeks to determine: what is right action.

However, any maxim that we formulate would be located within the current paradigm. As stated in the dismissal of utilitarianism as an appropriate theory to determine what to do with the lifecasts, any framework we use must be able to transcend the current paradigm, or descend into ethical relativism. If we are trying to create a universalisable rule for what to do with the casts, it would need to take into consideration the possibility that the appropriate maxim might change with time. The rigidity of Kant's Categorical Imperative, although attractive in terms of prescribing action, would tether whatever maxim is selected to the current paradigm. However, as stated earlier, Kantian deontology's humanity formula could be an important lens for discussing the future of the lifecasts. Taken holistically, Kantian deontology – with its rigidity, focus on action, ability to transcend paradigms, and respect for persons and autonomy – could be an ideal candidate for the lifecasts case, if it were possible to locate the maxim within a framework that transcends paradigms. As will be shown later in this chapter, virtue ethics could offer a formulation of this maxim that would make Kantian deontology acceptable as an intertemporal, multi-paradigm ethical framework. However, as it stands, the rigidity of the Categorical Imperative married to the paradigm-dependency of the maxim means that pure Kantian deontology cannot be used to decide on what to do with the lifecasts.

Both Kantian deontology and utilitarianism stumble over paradigm relativity, and ethical relativism is a major impediment to determining right action. As shown in the previous chapter, what was considered ethical in the early 20th Century is not acceptable in the current paradigm. Similarly, there is no guarantee that what is acceptable today will be considered right action in a future paradigm. Although it is necessary to determine an ethical framework to deal with the casts, some of these actions could be permanent – such as destroying the casts – which would rob future paradigms of possible uses of the lifecasts.

But at the same time, inaction itself is a decision, which should be made for the right reasons, as opposed to simply deferring difficult and possibly uncomfortable choices. But ethical relativism is an impediment to a discussion of the lifecasts, while at the same time going to the heart of the issue. As Kuhn notes (1970, p.94): "Each group uses its own paradigm to argue in that paradigm's defense." Paradigm relativism is a close cousin to, or even a subset of, cultural relativism, which Rachels and Rachels describe as different cultures having different moral codes. By this logic, right action would be guided by what a given culture deems right. If applied to the lifecasts case, right action would be whatever we in the current paradigm consider to be right action. But ethical relativism has a number of problems (Rachels and Rachels 2015, pp.20-21), which make it unsuitable for this case. If we held to ethical relativism, the creation of the lifecasts would not have been morally wrong. It was in keeping with the ethical framework of the time, and although we see that framework as skewed from within our current paradigm, ethical relativism would find that there is nothing wrong with the creation of the casts. This way of thinking would extinguish the notion of scientific revolutions – because it would not be possible to criticise people's actions from within the paradigm, if they are considered morally right by the prevailing consensus. This research report does not equate scientific revolutions with immediate moral progress. For example, the hierarchical conception of race science has been shown to have no scientific basis, but scientific racism still exists. However, the prevailing moral consensus has changed, and this is in large part due to the change in the scientific paradigm. Moral relativism would diminish the ability to highlight and problematise the anomalies; these anomalies eventually blow the paradigm apart, and moral imperatives play a role in the perception of anomalies.

Without the recognition of anomalies, paradigms would not be able to change and new ways of thinking would be confined to normal science within existing paradigms. The supposition

underlying this line of argument – which aims to show that ethical relativism is not a useful way of discussing right action with regards to the lifecasts – is that there is an overarching form of progress in succeeding paradigms. While science is characterised by scientific revolutions, each replacing its predecessor, that does not mean that there is no transversal progress. “Scientific progress is not different in kind from progress in other fields, but the absence at most times of competing schools that question each other’s aims and standards makes progress of a normal-scientific community far easier to see,” Kuhn writes (1970, p.163). This research report contends that there has been scientific progress, defined in terms of a greater understanding of the natural world achieved through observable and repeatable results and a reduction in bias, and that a scientific paradigm which affords all individuals equal rights is a better paradigm than one in which Bushmen were treated as subhuman and abused. However, scientific revolution means that it would be possible for there to be a reversal in this stance and that a future paradigm could run counter to the rights-based focus of the current paradigm. But this research report contends that science is ultimately self-correcting, and since diversity ultimately improves the quality of science and reduces bias (Lee 2012; University of California Berkeley Museum of Paleontology 2018), a reversal in respect for persons would itself be repudiated.

Ethical relativism is not appropriate for determining right action, as it is at odds with the notion of progress: if action within a paradigm is always right, to deviate from it would be wrong. But that leaves us in a difficult position when trying to determine right action with regards to the lifecasts. Utilitarianism would require that we predict future paradigms, which we cannot do, while simultaneous trapping any decision within the framework of the current paradigm. Kantian deontology, while attractive for its Categorical Imperative and humanity formula, would give way to ethical relativism when trying to formulate a maxim for right action. However, ethical relativism is an unacceptable framework for deciding what to do about the lifecasts because it would paralyse

us when trying to adjudicate right action between paradigms when each is governed by its own practices and ethical framework. It also discounts the notion of progress, as deviating from moral norms would be seen as unethical – even if they were to be considered immoral by future paradigms.

For these reasons, this research report will contend that virtue ethics offers the greatest potential for determining right action, specifically in formulating the maxim required to universalise right action. However, virtue ethics alone is not robust enough to decide what to do with the lifecasts, and so needs to be combined with Kant's deontology.

In the last three decades, virtue ethics has seen a revival. The concept dates back to Greek philosophers, particularly Aristotle in his works *Nicomachean Ethics* and *Eudemian Ethics*. "Virtue ethics focuses on the agent; on his or her intentions, dispositions, and motives; and on the kind of person the moral agent becomes, wishes to become, or ought to become as a result of his or her habitual disposition to act in certain ways," writes Edmund Pellegrino, in "Toward a Virtue-Based Normative Ethics for the Health Professions" (1995, p.254). What makes this attractive for our purposes, is that one thing that different paradigms have in common is agents acting. Sanctioned actions change in accordance with the paradigm in which they are contained; the consequences are difficult to predict from within a paradigm; but there will always be an individual scientist or agent – in past, present, and future paradigms.

For Aristotle, virtue is wider than the Christian connotations that the word currently bears. He refers to *areté* (quoted in Pellegrino 1995, p.256) which is more closely associated with an idea of excellence or doing something excellently. Virtue, in this conception, is "...the state of character which makes a person good and makes that person do his or her work well" (Aristotle quoted in

Pellegrino 1995, p.256). These virtues should be orientated towards a *telos*, which is an ultimate end or purpose. In humans, that purpose is a life well-lived, or *eudaimonia*. The meaning of *eudaimonia* is, loosely translated, "happiness", "flourishing" or "living well", although the exact definition is a cause of contention among philosophers (Shields 2008). An important consensus, though, is that *eudaimonia* is an active, rather than passive state (Stovall 2011, p.115; Chen 2015, p.76; Pellegrino 1995, p.256): a person lives well through an habitual cultivation of virtue. *Eudaimonia* is never attained, but something that an individual is always striving to attain, a work in progress. It "is not just a goal to be secured by action, like comfort or prosperity, but it is also the process of doing it well. It is not merely the reward of a life, but a life" (Chen 2015, p.76). *Eudaimonia* is "an activity of the rational soul, conducted in accordance with virtue or excellence or, in what comes to the same thing, in rational activity executed excellently" (Aristotle quoted in Shields 2008). It is necessary to belabour this point as it will be pivotal in our formulation of a maxim to deal with what to do with the lifecasts.

There has been a great deal of excellent scholarship in the contemporising of virtue ethics, but this research report does not have the scope to explore the various additions and philosophical extensions to Aristotle's ideas. However, there are major obstacles that virtue ethics has to overcome to be a useful tool in this particular discussion: first, determining right action; second, weighting virtues; and third, differing *telos* for different moral agents. First, if right action is something that a virtuous person would do, how do we know what a virtuous person would do? Second, if a virtuous person is someone who acts in accordance with a certain collection of virtues, how do we know what those virtues are? Third, if the virtues should be orientated to the realisation of some end, how do we know what that end is? Different people in different situations will have different *teloi*. These are all important issues, which have received a great deal of attention from philosophers and will no doubt receive more in the future. However, for the purposes of using virtue

ethics to determine right action with regards to the lifecasts, we do not need to worry about the larger issues in the framework of virtue ethics. This is because we only require it to negotiate what to do within the narrow frame of scientific paradigms in which moral agents are governed by practices, with ancillary virtues, and a stated *telos*. While this *telos* will also include situating science within society, making it broader than simply the self-contained practice of normal science, it is still a substantially smaller feat for a virtue ethics framework to perform – especially if contained within the rigid structure of Kantian deontology.

Alastair MacIntyre offers some important insights when discussing virtue ethics located within a practice or within a set of norms and standards. He defines practices as:

> Any coherent and complex form of socially established human activity through which goods internal to that form are realised in the course of trying to achieve those standards of excellence which are appropriate to, and partially definitive of, that form of activity, with the result that human powers to achieve excellence, and human conception of the ends of goods involved, are systematically extended. (MacIntyre 2007, p.187)

Scientific inquiry is obviously a practice in MacIntyre's vision of practice. It is a "coherent and complex form of socially established human activity", and through trying to achieve standards of excellence goods are realised. MacIntyre considers internal goods (which, in Kuhn's conception of scientific revolutions, would be "normal science") something that anyone can achieve through the application of virtue or excellence, which is ultimately opening up the capacity for greater normal science, and that human power to achieve that excellence is further extended. MacIntyre distinguishes between external and internal goods; "internal goods are achievable only by doing that particular practice, while the same external goods are achievable through a variety of practices" (Chen 2015, p. 85). Normal science is only achievable through the practice of doing normal science, and thus would be an internal good; it is not possible to formulate normal science through any other

means, except by doing the normal science – whether that is through measurement, calculations, etc. External goods, such as being successful or wealthy, can be achieved by other means. So, what we are concerned with, when it comes to determining a virtue ethic for science, are the virtues that would enable a scientist to fulfil the "standards of excellence" that MacIntyre describes. These virtues would need to be independent of paradigm, as the virtues that allow for this fulfilment should not be dependent on the time, location, or specific discipline – allowing us to determine what a virtuous agent would do, and thus ultimately how they would act.

Pellegrino notes that MacIntyre "clearly recognise[s] the difficulties that his reformation faces in the absence of a shared notion of the good or a community of values to sustain it" (Pellegrino 1995, p.261). While that might be true of determining a shared notion of the good for society, it is possible to find a shared notion of "the good", the end, or the *telos* for a scientific community. To investigate this, we need to return to Kuhn and his conception of paradigm: a paradigm comprises models, laws and ideas about the universe that explain the universe better than its competitors (Kuhn 1970, p.23). When a scientific paradigm is shown to contain anomalies or gaps, it is superseded by a paradigm that is more successful. The ultimate goal, end, or *telos* is to explain and understand the universe with measurable, repeatable results and without bias.

Pellegrino has a constructive view of this problem; he postulates "the necessary ingredients" for a virtue-based normative ethics for the health profession, but it can also be applied to scientific research. In the case of science, a virtue-based ethic could require, one, a theory of science to define *telos*; two, a definition of virtue in terms of that theory; and, three, a set of virtues entailed by the theory to characterise the "good" scientist (Pellegrino 1995, p.268). First, we require a *telos*. As described above, it would be the development of a paradigm best suited to explain the natural world, stripped of bias. The normal science and practice of science are performed in aid of that

explanation. The second step is to create a definition of virtue in terms of this *telos*, so the question is then: what is the excellence that science is attempting to achieve? In humans, that ultimate goal would be *eudaimonia*, a flourishing and a life well lived, a constant striving to achieve excellence. If that thrust were to be imposed upon science, a scientific paradigm would be consistently striving for excellence in its *telos* (to accurately represent the natural world without bias), and so would be a constant state of uncertainty and doubt – or, rather, it should be consistently self-reflexive, testing its own biases. Ultimately, the *eudaimonia* of science would be scientific revolution, replacing old, flawed understandings with new ones, a state of constantly trying to disprove what is thought to be accepted knowledge and understanding.

The third step of Pellegrino is a list of these virtues against which to determine what a virtuous agent would do. As has been shown in the previous chapters, science is fraught with bias, often unknown; consequently, the virtuous scientist would be continually aware of and attempting to gauge their own bias. Bruce MacFarlane considers six different scientific virtues: "courage (standing up at the appropriate time for what one believes in despite of some personal cost), respectfulness (treating others with the respect they deserve), resoluteness (staying with one's work, forging on despite difficulties, within the bounds of reason), sincerity (being honest and truthful when appropriate, believing what you say), humility (giving due weight to one's strengths and weaknesses), and reflexivity (being critical enough of one's work, making due allowances for one's own biases)" (quoted in Resnik 2012, p.334). For MacIntyre, virtues such as truth-telling, integrity, courage, and justice are intrinsic to excellent practice (Hicks and Stapleford 2016, p.456). Max Weber stated that the proper scientist would "press an individual to 'clarify' his own thought, to consider its coherence and the ramifications of its presuppositions and choices, and thus to 'force …, or at least … help him, to give himself an account of the ultimate meaning of his own conduct'" (Weber quoted in Hicks and Stapleford 2016, p.471). However, *phronesis*, which was a fundamental

virtue for Aristotle, could be the overarching or underpinning virtue that could give rise to science's *eudaimonia*-equivalent.

Phronesis, or practical wisdom, is the central virtue that enables a unity of virtues to attain a *telos*. "Virtue determines the end; practical wisdom makes us do what is conducive to that end" (Aristotle quoted in Pellegrino 1995, p.257). The idea of *phronesis* is pithy and complex, but for the purposes of determining what to do with the lifecasts it is pivotal as it is "a sort of master virtue that fosters reflective deliberation necessary for a professional to pursue their work" (Stovall 2011, p.110). In order to decide what to do with the lifecasts, "reflective deliberation" should thus be at the heart of any maxim we attempt to universalise.

But there is another aspect of scientific practice that cannot be ignored, particularly since this is going to be applied to the matter of lifecasts: although science often sees itself as divorced from society, it is in fact deeply embedded within society and vice versa. There is a feedback loop between science and the society in which it is located, as the lifecast case exemplifies. Excellence in science, and achieving its *eudaimonia*-equivalent, cannot be divorced from its society. Stovall notes that the "virtuous professional is the professional who reflects on and recognises the effect one's actions have on society".

> Professional self-awareness should be seen not merely as the capacity to navigate the Scylla and Charybdis of the vices. Instead, an emphasis should be placed on the role professional self-awareness plays in fostering the pursuit of virtue by fostering an understanding of oneself, one's profession, and the role one's profession plays in society. It is in this sense that virtue ethics includes an essentially *aspirational* component. (Stovall 2011, p.124)

Ultimately, applying virtue ethics to the matter of the lifecasts requires an aspirational self-reflexivity both within the paradigm and its the normal science, as well as its interface with society.

Consequently, virtue ethics is up to the task of informing the maxim which would divorce Kant's Categorical Imperative from the paradigm in which it is created. If the ultimate goal of science is to understand the natural world without bias, and this state of exploration is characterised by an aspirational reaching – similar to flourishing or *eudaimonia* in humans – then the virtues required to realise this need to be characterised by *phronesis*. This would allow for the self-reflexivity that would encourage scientific revolution and thus the ultimate *telos* of science as a practice.

The point of this chapter was to determine which moral framework was best up to the task of deciding what to do with the Bushmen lifecasts. Utilitarianism was discarded because of its fixation with consequences, as extrapolated from within the current paradigm. Kantian deontology, with its Categorical Imperative and humanity formula, showed promise in terms of adjudicating a dialogue between paradigms, but was found wanting as any maxim developed using only deontology – with its rigid framework of duty and absolute right action – would mean that the maxim for right action would be located in the current paradigm. Both utilitarianism and Kantian deontology struggled against the lure of ethical relativism. However, ethical relativism is not an acceptable theory for determining what to do with the lifecasts because it assumes that right action is determined by whatever is considered moral within a given paradigm. This is problematic for notions of progress, and would run contrary to the occurence of scientific revolutions.

Consequently virtue ethics offers us a way to navigate the case of the lifecasts. It would be difficult to determine right action using only virtue ethics as it lacks the universalising principle of the Categorical Imperative, as well as the inherent respect for persons, which is useful in a discussion in which the rights and autonomy of research subjects were ignored. Virtue ethics is up to the task of formulating the maxim that can be used in Kantian deontology to determine what to do with the life

casts. The next chapter will first formulate a maxim to universalise, and then apply it to the case of the lifecasts.

Chapter 4: Applying the ethical framework

In the previous chapter, this research report investigated the suitability of different moral theories to determine right action with regards to the Bushmen lifecasts stored in Iziko Museums. Ultimately, Kantian deontology, combined with virtue ethics, offers the best lens through which to engage with this intractable problem. There are two specific aspects of Kantian deontology that are useful in this determination, namely the Categorical Imperative and Kant's humanity formula. Kant's Categorical Imperative creates a scaffold upon which to decide upon universalisable right action regarding discarded relics from previous scientific paradigms. However, the maxim to be universalised needs to transcend the current paradigm to avoid ethical relativism; agent-centred virtue ethics can offer a transcendent maxim. But the Categorical Imperative also contains an important caveat: if we universalise a maxim (the action we want to take), would the resulting world be one in which we wanted to live? This is why the humanity formula is so important: the humanity formula safeguards the autonomy of rational individuals, and decrees that people cannot be used simply according to someone else's agenda. All rational beings should be treated with respect, and this humanity formula will constrain the actions which can be taken with respect to the lifecasts. But, as will be shown later in this chapter, the humanity formula need not be an *ad hoc* addition to a possible action, a litmus test to determine whether we are doing the right thing. The humanity formula can also inform the *telos* of science, which needs to be furthered by the maxim we select.

First, this chapter will determine what the maxim should be – and ultimately a Categorical Imperative – and then apply this maxim to the five possible actions that can be taken with the lifecasts. The casts can either be: one, destroyed; two, put on display; three, used for research; four, archived in perpetuity; and, five, returned to communities. But before we can apply the Categorical Imperative, we require a universalisable maxim. The maxim to be universalised will be based in

virtue ethics, as argued in the previous chapter. It must hold true to the ultimate goal of science, its *eudaimonia*-equivalent. This *eudaimonia* ultimately involves creating a fertile bed for scientific revolution, in which a superior paradigm for describing the world replaces one which is riddled with anomalies. It is only through revolution that science better realises its *telos*, which is the unbiased explanation of the physical world through repeatable experiment. Thus, a decision regarding the lifecasts must realise this function.

Eudaimonia is not a final condition: it is an active state. When applied to science, this becomes a state of constantly searching and reaching for the most accurate, repeatable and unbiased way of explaining the universe. Consequently, any decision regarding how the lifecasts ought to be treated should be characterised by this push towards revolution, something which is achieved through *phronesis*, roughly translated as practical wisdom. This practical wisdom is imbued with "reflective deliberation" (Stovall 2011, p.110) or self-reflexivity, and so in order to achieve science's *eudaimonia*-equivalent (a state of pushing for revolution), *phronesis* and self-reflexivity should dictate what we do with the lifecasts. But that *phronesis* should not be confined solely to the practice and world of science. That *phronesis* also needs to locate action and virtue within society, so that we "[foster] the pursuit of virtue by fostering an understanding of oneself, one's profession, and the role one's profession plays in society" (Stovall 2011, p.124). An apposite anecdote to include at this juncture is the exhumation of the Prestwich Street dead, in which a colonial burial ground containing thousands of human remains was uncovered during construction activities in 2003 in Cape Town, South Africa. The situation became fraught, pitting residents, scientists, heritage authorities, and activists against each other. Although the remains were ultimately exhumed and relocated, that decision was not uncontroversial and archaeology, while a victor in the sense that the remains were preserved and not buried, suffered a blow in image and public buy-in. "Archaeologists generally defended the exhumations in the name of a notion of instrumentalist

science, distanced from broader issues of culture and society," writes Nick Shepherd (Shepherd 2007, p.4). "[T]he idea that archaeology should take place at a distance from society – that it should try as far as possible to filter out the noise of heritage claims, identity politics, and the busy play of interest in the post-colony – is both a starting point and an article of faith for many archaeologists in South Africa."

This is a problem, according to our *telos* of science, and the *phronesis* which we require to strive toward that *telos*. In the early 20th Century, South African science also failed to recognise the positivistic tradition that reinforced its accepted paradigms, and that by convincing itself that it was separate from society, science and scientists cemented existing ideas and power relations. One way in which this tradition could have been problematised was through the influence of heritage claims, identity politics and the "busy play of interest". The Prestwich issue highlights that, even in modern South Africa, science still considers itself as separate from the society that it invariably influences and in which it is located. This stance – that the exhumations should be done in the name of science, and that this would be a value-less, clinical decision – would go against the *telos* of science that this research report is cultivating. Such actions ultimately show disrespect for the persons to be exhumed and the community laying a claim to them, because their wishes (in so far as they can be attained) are secondary to the knowledge accretion of science. Science cannot achieve its *eudaimonia*-equivalent, in which paradigms are continually challenged, if voices are silenced or ignored.

Additionally, a lack of societal buy-in is detrimental to science and its *telos*, as can be seen globally in the rise in anti-vaccination campaigns and the marginalisation of climate science. For science to realise its *telos*, it needs to recognise its role in society and its influence and effects – this can be achieved through *phronesis* embedded in societal-awareness. Another important factor in the

inclusion of respect for persons in our *telos* of science is that numerous studies have shown that a diversity of scientists and viewpoints, from different backgrounds, races, etc, improves the quality of scientific output (Lee 2012; University of California Berkeley Museum of Paleontology 2018). Respect for individual autonomy and values would also promote the recognition of anomalies in prevailing paradigms. Thus, the humanity formula – and its attendant respect for persons – should imbue any maxim we develop.

An appropriate maxim would thus be: the lifecasts must be treated in a way that promotes the changing of current and future paradigms, with a view to fulfilling the *telos* of science. A universalisation of this would be: *artefacts created in a discarded paradigm must be treated in a way that promotes the changing of current and future paradigms with a view to fulfilling the telos of science*.

Before we apply this is to the lifecast case, we need to ask: would the resulting world be one in which we wanted to live? Would we want to live in a world in which scientific thinking is always in a state of unresolved tension, in which the tenets – and their possible attendant biases – which underpin our modern world are constantly being challenged? This is a complex question. In this research report, I have purposefully not equated scientific progress with progress in general as that would be the scope of a book series rather than a research report. Thus, would the world of science – which applies a *phronesis* that includes questioning science's role and effect on society – be a world we wanted to live in?

Without Kant's humanity formula, this posited world could be problematic. Perhaps the world of science, even if it is tethered to society, would be better if scientists could perform vivisections on human patients or do targeted genetic assays on certain population groups without consent, even

though this could lead to stigmatisation or extreme harm. But that would not be a world in which we wanted to live because our bodies, genetics, and ultimately our lives would be in the control of others. This is why we require the humanity formula. That respect for persons, in which persons are recognised as having inherent value rather than just instrumental value, curbs the scope of that possible future world. The inclusion of respect for persons in our *telos* of science would also increase the diversity of inputs into science and scientific decisions. Consequently, the maxim – *artefacts created in a discarded paradigm must be treated in a way that promotes the changing of current and future paradigms with a view to fulfilling the telos of science* – would result in a world in which we want to live, so long as that world is imbued with the humanity formula. Right action would be an action that both is compatible with the maxim and with the humanity formula.

Before applying the Categorical Imperative, it is necessary to flesh out this idea of respect for persons. Kant's formulation of the humanity formula was constructed with rational, living beings in mind. The main thrust was that their autonomy, and thus their ability to exercise their rationality unhindered, should not be compromised. But does that extend to the "dead"? In this case, what respect should be afforded to the lifecasts, which have now been classified as the bodies of those who were cast? This taps into a tricky and contentious ethical question: do the dead deserve respect? Political scientist Martin Wilkinson (Wilkinson 2014, p.286) writes: "Theirs are the bodies of people who were like us – thinking, feeling, and having a right substantially to control what happened to their bodies – but the dead can no longer think or feel. The dead are neither persons nor just things. What then do the living owe them?" There are a number of reasons why we choose to respect the dead, such as a recognition that the body once contained a person, who is identifiable from their body; and that the body means something to those who knew the person. It is difficult to determine whether the lifecasts should be classified as recently deceased remains (as they will

forever resemble the people cast) or archaeological remains, since the casts were taken more than a hundred years ago.

Nevertheless, these reasons for respecting the dead show that there is more than one individual (the dead person) who is involved in this compact of respect: the individual and those who knew them or those for whom the remains mean something; in other words, their community. Respect for community is particularly important in the lifecast case, as the casts were made to be representative of a race group. Not only were the individuals stripped of dignity, but so were all others who resembled or were classified as Bushmen. There is another way in which respect for the individual and community are interwoven. Gareth Jones and Robin Harris, on the subject of human archaeological remains, write:

> As demonstrated in discussions on the recently deceased human body, a close association exists between the body and a known human person. The rationale underlying this association is based on the movement from living to dead, from knowledge of them as a living person to respect for those features most intimately associated with them when they were alive and functioning as persons. Even though this argument is based on individual persons and their bodies, it can be extended to groups of persons and their bodies. (Jones et al 1998, p.258)

The lifecasts offer a singular example, as they are trapped in the movement from living to dead – as they will forever retain the likeness of an individual, which will not decompose – but also sought to exemplify a group of people. But this representation was skewed through the selection of subjects, and the romanticised notions of Drury and Péringuey which stripped those cast of their socio-economic context. Bushmen communities remain affected by this extension. Consequently, any discussion of respect for persons must include not only those cast, but those within their community.

Any discussion of respect for persons requires an exploration of consent. As was highlighted in previous chapters, there is no proof that the Bushmen cast gave permission for their remains to be used to highlight racial hierarchies, and in 1908 it had not been imagined that they would be put on display, so there is highly unlikely, bordering on impossible, that the people cast gave permission for their bodies/likenesses to be displayed. Ascribing intentions or desires to the dead in an information vacuum is academic conjecture. This issue of consent is a major stumbling block in terms of deciding upon what to do with the casts. The cast Bushmen's lack of consent is no less problematic now than it was in 1908. In fact, it is more so because the concepts of consent and autonomy are more well developed now, and ignoring the lack of consent goes against the hard-won principles that were born out of unethical research and atrocities perpetrated. There are other examples of this difficulty, the most well-discussed one being what to do with both the data and human remains obtained during the experiments in Nazi concentration camps. Writing about using data from Nazi experiments, Stephan Post notes: "To use the data without the consent of those who were violated is to violate the violated anew. Therefore, those who have been experimented on without consent have the ultimate right and authority to pass final judgment on the fate of data, whether it is useful or not." Although Post is discussing data, a similar sentiment can be applied to the lifecast case. We cannot use the lifecasts in a way which ignores the lack of consent, unless consent is received from another source – possibly from relatives or descendants. This idea will be explored later in the chapter, when discussing whether the lifecasts should be returned to communities.

There is one final issue that requires unpacking when discussing respect for persons in connection with the lifecasts, and that is forgetting. While there are arguments for and against displaying, using or destroying the casts, there is no argument in favour of forgetting about them, and that is already

happening. Although Pippa Skotnes' 1996 work *Miscast* highlighted the atrocities committed against South Africa's first people, that narrative and outrage has faded, and most South Africans no longer remember that there are in fact full-body lifecasts which were once displayed in Iziko Museums' faunal collection. That is a great disrespect, and something which is extensively cautioned against in literature pertaining to the relics of unethical research. Baruch Cohen is particularly concerned about this with regards to the victims of Nazi human experimentations specifically and the holocaust in general. He writes:

> Europe's collective memory is about to become history. Especially since most of the witnesses have died, and the Nazi saga becomes subject to greater distortions and reinterpretation. It is therefore incumbent on our society to confront the collective sets of conflicting memories now, before the events of this era and its implications fade. (Cohen 1990, p.123)

The lifecasts are powerful because they are a visual and visceral reminder of the way that non-white people were treated in South Africa, and the atrocities that were committed in the name of scientific advancement. It would add insult to injury to forget about this as science reinvents itself, and rewrites the narrative of its past, something which Kuhn highlights is an integral part of a new scientific paradigm. This is both disrespectful to the individuals cast and those who were abused in the name of race science, but it also goes against the *telos* of science: science cannot avoid past mistakes if it has forgotten that they occurred. It would be yet another indignity and abuse toward those cast and their community if their trials were forgotten by science and society. Consequently, to uphold respect for persons, as well as the *telos* of science, the lifecasts cannot be forgotten.

Now, this chapter will apply the maxim – *artefacts created in a discarded paradigm must be treated in a way that promotes the changing of current and future paradigms with a view to fulfilling the*

telos of science – and humanity formula to the five possible actions that can be taken with regards to the lifecasts: destroy, display, use them for research, archive them, or return them to communities.

First, would it be ethical to destroy the lifecasts? Our maxim states that the lifecasts should be treated in such a way that they promote the changing of the current or future paradigms with a view to fulfilling the *telos* of science (the unbiased and accurate representation of the world through repeatable measurement, which requires a two-way dialogue between science and society). Destroying the casts would not promote this change, neither would it fulfil the *telos* of science, and thus is not right action. The destruction of the casts would in effect erase them, and they would not be able to influence current or future paradigms. This would ultimately disrespect those cast and their communities further, as it would allow this instance of European treatment of Bushmen to be forgotten. The casts are a source of discomfort and shame for South African science because they are visual physical reminders of the way in which people were once treated in the name of science and scientific progress, but they are also a data point in our understanding of humanity and the world, as well as our own scientific practices. Stovall describes a "virtuous professional" as "the professional who reflects on and recognises the effect one's actions have on society" (Stovall 2011, p.124), and in order to reflect on and recognise science's effects on society, we cannot destroy the relics that would promote this reflection. The physical reminders of race science promote the *phronesis*, and would help us to guide future action and science. By destroying the lifecasts, it would not promote revolution as they would not serve as a visceral reminder of the dangers of certain types of science. Consequently, it would be unethical to destroy the casts.

But, to flip to the other side of the spectrum, would it then be better to put the casts on display to highlight what was done to Bushmen in the name of white supremacy science? One way to influence current and future paradigms and promote the self-reflexivity foregrounded in the

previous chapter, would be to put the lifecasts on display. This would achieve the aim laid out by the maxim and the ultimate *telos* of science and the virtue of *phronesis*, or constant self-reflexivity. But it would be morally abhorrent. Kant's humanity formula does not disallow people to be used and to have instrumental value. The issue is when the rational beings only have instrumental value, and are not seen as having value in and of themselves. Would we be impinging on their autonomy if the casts were displayed? The short answer is yes. It would be acceptable if the lifecasts – and ultimate the people they represent – were treated as means *and* ends, but by displaying the casts, we would be reducing the Bushmen to symbols and objects, used to problematise a previous paradigm. We would be infringing once again upon their autonomy and dignity, similar to those in the previous paradigm. KS Satyapal, writing in response to the Bodyworks phenomenon in which plasticised cadavers are put on display for educational and entertainment purpose, notes: "When death is on display, human beings have no chance of retaining their dignity" (Satyapal 2012, p.59). But that disrespect would extend beyond those cast: it would extend to the community that they represent. As mentioned in an earlier chapter, the casts were made to illustrate a romanticised version of the Bushmen people, stripping them of their socio-economic context and "[i]n doing so, their contemporaneity was removed, and the displays could create the effect (or the illusion) of timelessness" (Cedras 2016, p.52). Without consent from those cast or their families or the group of people they were made to represent, displaying the casts would be once again turning those cast into objects whose value lay in their extrinsic value to science, as opposed to their intrinsic value as human beings. The benefit would lie in how this could aid the *eudaimonia*-equivalent of science, devoid of respect for persons. In light of this, it would be unethical to simply put the lifecasts back on display.

The same argument holds true for using the Bushmen casts for research. At this particular time, located within this paradigm, there are limited uses for the casts, since they do not comprise

biological material despite their status as human remains. That does not mean that some future paradigm may not have some use for them. However, there are two problems with this: the cast people's lack of consent is no less problematic now than it was in 1908. So, using the casts for research would once again violate those individual's right to autonomy and control over their bodies. The second point is that using the casts for research would be regressive: it would tether us to the previous paradigm, rather than accept that we are now in a different paradigm. The idea that consent can be waived or its lack is an obstacle to be ignored is regressive. It undermines the notion of revolution to hold on to anomalies – in this case that different races can be treated differently, and that a lack of consent can be overlooked – and so this sort of action does not promote scientific revolution. Using the casts for further research would show that our thinking around consent and the way in which people of other races can be treated is still located in a previous, discarded paradigm. This is contrary to the universalisable maxim: that any treatment of the casts would promote a change in the current and future paradigm and that it would fulfil the *telos* of science. The telos of science is to represent and understand the world in an unbiased way through repeated measurement, but using the Bushmen casts for future research would be retaining old biases, namely that their consent is worth less than that of people currently living and that their value is instrumental, rather than them being deserving of respect in and of themselves. This action fails the test for right action both in terms of the Categorical Imperative and the humanity formula. Consequently, it would be unethical to use the lifecasts for future research.

The fourth option is to archive the lifecasts in perpetuity. There are a few issues with this option, some of them ethical and some of them practical. It is possible to argue that archiving would be a form of cowardice, as it would be deferring a decision on what to do with these casts for a future generation. This would not hold with the virtues of scientific practice laid out in the previous chapter. Archiving would not hold with the *telos* of science, which involves pushing for scientific

revolution. Refusing to take an action is, in itself, a decision, but in this case it would not alter the current paradigm. However, it could be argued that it would alter a future paradigm. By archiving the lifecasts, it would stop them from being destroyed (even though we have ruled this out as right action) which means that they could possibly promote *phronesis* among future generations in future paradigms. But, in time, the possible *phronesis* could be diluted: part of the reason that these casts strike a cord is that there are Bushmen activists and lobby groups, which are drawing attention to the actions against Bushmen and the destruction of their culture. In another hundred years, we cannot be certain that these voices will still exist. We would be deferring a decision on the casts to a time where there could be fewer voices to contribute to a decision on what to do with them. This would not promote *phronesis*, as it would be diminishing the diversity of viewpoints. There is an additional problem this option: archiving can be a form of forgetting. We would run the risk of allowing the casts to gather dust and become forgotten, which would go against the *telos* of science and ultimately our maxim. Achille Mbembe cautions:

> Archiving is a kind of interment, laying something in a coffin, if not to rest, then at least to consign elements of that life which could not be destroyed purely and simply. These elements, removed from time and from life, are assigned to a place and a sepulchre that is perfectly recognisable because it is consecrated: the archives. Assigning them to this place makes it possible to establish an unquestionable authority over them and to tame the violence and cruelty of which the 'remains' are capable, especially when these are abandoned to their own devices. (Mbembe quoted in Jonker 2005, pp.203-204)

Mbembe's use of the word "authority" is particularly apposite, as by archiving these casts we would be asserting the current paradigm on both those cast and the community to which they once belonged. We would be sanitising the casts until such a time as they were less ethically fraught to handle. That would be muffling their ability to challenge the current paradigm, and dampening possible revolution. Archiving about the Bushmen casts would not be virtuous in terms of the

phronesis and self-reflexivity needed to promote scientific revolution and an improved understanding of the world, and of scientist's actions in previous paradigms. It would also be an assertion of authority over the casts and their community, constraining their action which would be denying their autonomy and ultimately disrespecting them. Consequently, it would be unethical to archive the lifecasts.

This leaves one option: to return the lifecasts to communities. But this option should not be selected by default. Would returning the lifecasts to communities fulfil the *telos* of science and drive paradigm change? There are two parts to this action: returning the casts to the communities would ultimately be a symbolic gesture, because there are limitations on what the community can do with the casts. So, one action is returning the casts to the communities; the second action is what the communities decide to do with the casts. I will first deal with whether returning the casts to communities would be right action – and then whether that would be legal, in terms of South African law. The question is thus, would returning the casts to communities fulfil our maxim and promote respect for persons? In terms of our *telos*, we must act in a way that *promotes the changing of current and future paradigms with a view to fulfilling the telos of science*. Would returning the artefacts to communities effect this? This research report contends that it would. While the current paradigm holds that human rights and respect for persons is at the forefront of current biomedical ethics, this has not extended to human remains. Bureaucratic and contradictory policies within countries whose museums contain unethically obtained human remains make it difficult for communities and affected countries to reclaim these remains (Harris 2015, p.147; Feikert 2009; Cook et al 2016).

Repatriation is a fairly new phenomenon, and a change from the previous traditions of science, in which science organisations and museums did not recognise communities' roles in their scientific

tradition. Consequently, returning artefacts would promote paradigm change and the *phronesis* that foregrounds respect for persons and communities. This could also create a new benchmark for scientific engagement and dialogue with indigenous communities. As has been described at various other places in this chapter, science is better able to realise its *telos* – and effect paradigm revolution – if it includes a greater diversity of viewpoints and individuals in decision-making. Consequently, repatriation of remains would promote flourishing within the practice of science and in its dialogue with society.

The next issue is which "community". It is not within the scope of this research report to untangle the knotty question of who would "own" these casts, and in fact whether a community can "own" a body. The lack of cast identities for many of those casts mean that it is not possible to trace families. Where that information is available, casts should be returned to direct descendents, much in the same way that bodies of the recently deceased are returned to families However, many of the casts lack identification. Since the casts are resin and not biological material, identification of families or descendants through DNA is also impossible. This leaves two options: to return the remains to a community that identifies itself as Bushman, or for the casts to remain the property of the state. Unfortunately, there is no legal clarity on how this should be handled. The Western Cape Heritage Resource Agency says it is inundated with repatriation requests, but that these are dealt with on an ad hoc basis (Western Cape Heritage Resource Management 2018). "There is therefore no consistency in how these cases are dealt with. There are also no criteria in terms of who should be repatriated and restituted and of who can claim these remains." When it comes to the lifecasts, this research report has determined that they need to be returned to communities rather than continue to be held by the state, as is currently the case. However, while the government aims to release a draft national policy on the repatriation and restitution of human remains and heritage objects in 2018,

this research report cautions against a blanket decree on how these fraught situations should be handled.

Ultimately, the *telos* of science requires engagament to stimulate *phronesis* and this is best achieved through the inclusion of dialogue, which is fundamental to respecting all persons involved. As Curtis notes (Curtis 2003, p.31), "Respect will emerge from these dialogues much more successfully than it would through the imposition of a standard code." There is provision within the Heritage Resources Management Act (Republic of South Africa 1999), section 41, which allows for negotiation with communities regarding the repatriation of heritage objects. This does not specifically cover human remains; moreover while Iziko Museum's policy with regards to human remains (Iziko 2005) says that it will negotiate in good faith with descendant communities, "with regard to unethically collected human remains that cannot be associated with any descendant community, the Advisory Committee will recommend the appropriate action after an agreed period of time has elapsed" (2005, s5). This is morally problematic. As highlighted when archiving was discussed, allowing time to elapse would reinforce existing power structures and would disrespect the people cast and their represented communities. A positive action must be taken to identify possible communities, rather than waiting for communities to come forward. Passively waiting for communities to approach museum authorities would be shifting the onus of action, with the likelihood that no action would be taken. This equates to forgetting the casts, which neither respects people nor does it promote the *telos* of science.

The second part of this action is that communities must decide what must be done with the lifecasts. However, there are legal constraints on what this can be. Both the Heritage Resources Management Act (s10(b)) and the Births and Deaths Registration Act (s14(1)(2)) (Republic of South Africa 1992) place restrictions on what can be done with the lifecasts, which are both archaeological and cultural

heritage objects, and human remains. In the case of the former (the Heritage Resources Management Act), the casts are part of the national estate, defined as "heritage resources of South Africa which are of cultural significance or other special value for the present community and for future generations" (s3(1)) and thus any action regarding these casts requires a permit. They also need to be housed within an accredited repository. In terms of the later (the Births and Deaths Registration Act), the regulations pertaining to the treatment of human remains (s15) note that only an individual or organisation with a certificate of competence can handle the remains. What this means in practice is that the lifecasts cannot be retained in the possession of individuals within communities. Since the lifecasts are legally considered human remains, they would be bound by these laws and regulations and would have to be buried – even if that would practically equate to burying statues.

In fact, whether the lifecasts are treated as archaeological relics or a recently deceased corpse, there are limited options open to them: they can be buried or cremated (and ultimately destroyed); archived; or used for research. In other words, the options previously open to us now become open to communities or descendents. However, it would still be unethical to put the lifecasts back on display as this would be denying the cast subjects dignity and returning them to the status of object and "other". But with regards to the other options, does repatriation alter whether it is ethical to perform these actions according to our maxim and respect for persons? A major difference is that there would now be consent. When an individual is unable to give consent, their family is usually accorded the opportunity to give it for them. While this may appear an academic distinction, it is actually very important. Consent is what differentiates organ harvesting from corpse desecration or surgery from assault.

There is an important caveat, though: by repatriating the lifecasts, we have satisfied our maxim to some extent but not entirely. The act of repatriation to communities creates a dialogue and a *phronesis* that the other options did not include, but it has not addressed the issue of forgetting. South Africa has no museum or memorial to the victims of race science. It is not within the scope of this research report to dictate how we remember these people – and the other nameless and faceless individuals who were denigrated in the quest to "illustrate" racial hierarchies with science, but it is imperative that repatriation of these lifecasts to communities is combined with an effort to ensure that the lifecast case is not forgotten by science or South African society.

Conclusion

South Africa has numerous relics of race science, from both the pre-apartheid and apartheid eras. These artefacts were unethically obtained, exploiting vulnerable people and systemic power imbalances. However, even though it has been more than two decades since the advent of democracy, there are no clear guidelines on what to do with these relics. The aim of this research report was to use moral theory to decide what should be done with the Bushmen lifecasts: should they be destroyed, archived, put on display, used for research, or returned to communities.

More than a century ago, South African scientists began making resin casts of Bushmen to highlight racial difference. This branch of science, known as typology or comparative anatomy, attempted to classify races based on physical characteristics, and ultimately to assign value to morphological markers. This formed part of the scientific paradigm of race science, which was practised throughout Europe, Britain, and their colonies. But what was acceptable at the turn of the 20th Century is no longer acceptable in the 21st Century, as shown through imposing the cast creation on the Nuremberg Code and Beauchamp and Childress' four principles of biomedical ethics. The creation of the casts is ethically problematic in light of the guidelines that direct research on human subjects within the current paradigm. But we still retain the relics of this race science, and need to decide what to do with them.

This research report examined the case of Bushmen lifecasts, which are currently archived in Iziko Museums in Cape Town. Using Kuhn's notion of scientific paradigms, this research report has argued that the decision of what to do with the casts is actually a discussion between paradigms, not just between 1908 and 2018, but also future possible paradigms. It put forward different moral theories, such as utilitarianism and moral relativism, and ultimately decided that Kantian deontology, with its Categorical Imperative and humanity formula, was an appropriate tool to

determine right action with respect to the casts. However, virtue ethics offered a way to divorce the Categorical Imperative from the current paradigm. A major difficulty in facilitating an intertemporal, multi-paradigm dialogue is ensuring that action is not rooted in the current paradigm. The universalised maxim was one that was rooted in virtue ethics, and it directed that any action regarding the casts should force scientific revolution and paradigm change, as this would allow science to achieve its *telos*, which is the unbiased, measurable and repeatable description of the natural world. A fundamental part of this *telos* was *phronesis* and a self-reflexive awareness of the role of science in society and the inclusion of diverse voices. This societal *phronesis* was important as this encouraged the recognition of anomalies within the current paradigm, thus driving revolution. It also foregrounded respect of persons, and that individuals autonomy and dignity should be respected. Ultimately, the only ethically acceptable action was to repatriate the lifecasts to communities. This repatriation is subject to a number of South African laws, and allows communities the options of destroying the casts, donating them to museums for research, or archiving them. However, this repatriation had to go hand-in-hand with a form of memorialisation, so that science and society would not forget or repeat the atrocities committed in the name of race science and societal progress.

This research report aimed to determine what to do with these lifecasts. It has done that through giving context to the creation of the casts, and the intellectual zeitgeist of the time. Through the use of Kuhn's paradigm theory, I have highlighted the immiscible ethical frameworks of past and present scientific research in South Africa. There are various moral theories which could be applied to the lifecast case, but the most suitable theory was selected through both argumentation and robust engagement with current bioethical thought. Ultimately, I applied a mixture of deontological virtue ethics to the case to determine right action. However, practical actions regarding the lifecasts –

which were the objective of this research report – are still constrained by South African law, so this research report determined which actions are legal within the current legal framework.

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Appendices (including plagiarism form and ethics clearance certificate)

PLAGIARISM DECLARATION

I **Sarah Emily Wild**

(Student number: **420260**)

am a student registered for **MSc Med (bioethics and health law)** in the year **2017**.

I hereby declare the following:

I am aware that plagiarism (the use of someone else's work without their permission and/or without acknowledging the original source) is wrong.

I confirm that the work submitted for assessment for the above course is my own unaided work except where I have explicitly indicated otherwise.

I have followed the required conventions in referencing the thoughts and ideas of others.

I understand that the University of the Witwatersrand may take disciplinary action against me if there is a belief that this is not my own unaided work or that I have failed to acknowledge the source of the ideas or words in my writing.

Signature: Sarah Emily Wild

Date: 2 November 2018