Envisioning African Intersex
Swarr, Amanda Lock

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A commonly expressed belief is that hermaphroditism is the commonest form of intersexuality among the Bantu races of South Africa and Rhodesia, and that intersexuality on the whole is more prevalent in the Bantu than other races. —H. J. Grace, “Intersex in Four South African Racial Groups in Durban”

Why do white South African doctors assert that intersex and “true hermaphroditism” are more common among black South Africans than among white South Africans? And what have been the effects of these declarations? This chapter takes up these questions through an examination of five decades of South African medical literature, focusing on a remarkably influential master’s thesis written in 1970 by Dr. H. J. Grace. By unpacking this thesis, and by reviewing the citational chain that continues to rely on its claims to the present, I demonstrate how and why these falsehoods become widely accepted as truths. In this work that begins in the 1970s, intersex medicine remains inseparable from colonial ideologies. The visual science of raced intersex continues to circulate
between scientific and popular contexts with devastating impact on those diagnosed as intersex.

In this chapter, I argue that intersex in South Africa and in the Global South more broadly materializes through a particular set of linked strategies: **definition, scrutiny, repetition, and justification.** When taken together, these strategies collectively create perceptions of solid scientific truths where there are none. The first strategy is to provide a **definition** for an abstraction, a scientific explanation to make gender complexity seem simple. For instance, *true hermaphrodites* have been defined paradoxically at different times as having various combinations of bodily characteristics or as having both ovarian and testicular tissue (“ovotesticular DSD”), often only knowable through the surgical removal and microscopic examination of the contents of the body. The realities behind these definitions are politicized and never simple or consistent.

The raced science of intersex also relies on visual evidence, and **scrutiny** substantiates its claims. The medical gaze takes many forms—looking directly at the body but also looking into the body through exploratory surgeries and the removal of tissues and bodily substances for microscopic examination. Photographs of bodies are compared and manipulated to create norms. Medical imaging includes X-rays that test and create visual representations. Charts document and quantify doctors’ gender categories. The documentation of this scrutiny is used as visual data to create illusions of truth.

**Repetition** of findings and ideas, however biased and flawed they may be, creates iterative power. Hearing a claim again and again enables its acceptance. Eventually the origins and basis become irrelevant and unknown. In the case of raced intersex science in South Africa, this repetition regularly links intersex to blackness. Citational practices and repetition contribute to an illusion of consensus, and circulation becomes a truth-creation strategy. Photographs are the most obvious technology enabling this—medical photographs and infographics are reproduced and distributed through publications, online, and in media as purportedly objective proof. Claims of raced intersex frequency have interdisciplinary and transnational audiences, far exceeding the academy and reinforced by media and popular portrayals, and create knowledge and meaning with wide reach.

Finally, raced intersex science relies on **justification** to explain inconsistencies or inaccuracies. Throughout medical literature reviewed here, those deemed intersex are blamed for bodily difference; they are accused, for example, of inbreeding or secretly using traditional medicine. Local acceptance of intersex also frustrates researchers who blame their unproven racist hypotheses on communities they represent as unevolved and uncivilized. Those in these communities
are portrayed as deceptive (unwilling to talk honestly to researchers) and non-compliant (unwilling to submit bodies fully to science or surgery). Deception and noncompliance are then used to justify research failures and inaccurate hypotheses.

Definition, scrutiny, repetition, and justification are not always directly correlated or intentional. Instead, they form an overlapping set of strategies as claims and images are interwoven to create accepted truths without foundation. These strategies operate in H. J. Grace’s seminal work and the citational chain that builds from it. While Grace spearheads a citational chain of troubling literature linking blackness and intersex (with origins in the 1600s), by his own standards his research actually proves that black South Africans are not disproportionately intersex. The conditions of this massive contradiction and its implications for contemporary medicine are explored here.

This chapter begins by exposing the inception of medical diagnoses labeled “intersex” in South Africa as predicated on scientific racism. I then expose how claims are codified through repetition in medical journals and popular media with global reach. Finally, I analyze visual representations, arguing that medical gazes—and especially medical photography—produce ideas of raced inferiority through broadly circulating images. Throughout this chapter, I expose how assertions of black people as disproportionately intersex are fundamentally flawed truth claims built on unsubstantiated evidence with catastrophic effects for those under medical scrutiny.

The Untoward Reach of One Master’s Thesis

The creation of gender normality has deep ties to colonialism and apartheid. But it was not until 1970 and the publication of Grace’s influential master’s thesis—“Intersex in Four South African Racial Groups in Durban”—that the links between intersex and racist science were cemented in South African medical literature. Hatherley James Grace was trained in the Departments of Zoology and Animal Biology at the University of KwaZulu-Natal (then University of Natal) and pursued a prolific career through the Genetics Department at the Natal Institute of Immunology. Grace endeavored to map gender onto bodies through medical subfields including genetics and obstetrics/gynecology, publishing dozens of articles on his South African research in medical journals based in the Global North as well as in Africa-based medical publications. The content of these inquires varied, but the majority of Grace’s work was concerned with intersex, particularly as congruent with apartheid’s racial categories. His research on intersex paralleled and sometimes overlapped with his
scholarly efforts to find other physical bases for racial categories in the body through studies of hands and fingerprints (dermatoglyphics) and “mental retardation” (see Grace and Ally 1972, 1973; Grace 1974, 1975a, 1975b, 1976; Grace et al. 1979; Ally and Grace 1979). Citations of Grace’s thesis, and three articles Grace published in the South African Medical Journal that drew from its data (Grace, Quantock, and Vinik 1970; Grace and Schonland 1970; Grace and Edge 1973), codified the assertion that intersex is more common among black South Africans than white South Africans.

Given the subsequent reach and longevity of this work, H. J. Grace might be likened to John Money. While less known on a global scale, Grace likely had an equivalent influence on the racialized treatment of intersex patients. Money and Grace also represent important scientific relationships between the Global North and South. Their collaborations span the three sites discussed in the introduction—South Africa, the Dominican Republic, and Papua New Guinea—with scientists from Europe and North America tacking among them. As part of these transnational discourses, Grace cited Money’s work, while Grace’s scholarship on black intersex frequency in South Africa was published and cited in journals across the Global North. Grace influenced scientists conceptualizing gender diagnoses and treatments in the United States. Money’s and Grace’s parallel work disrupts expectations of transnational flows of theory and knowledge as exported from the Global North to the Global South, demonstrating that the global creation of raced gender binarism emanated from and always relied on comparisons to the Global South.

What were the specific claims of Grace’s work, and how do they hold up to contemporary scrutiny? The stated intention of his master’s thesis was to prove the commonality of intersex among black South Africans. Grace’s thesis begins by citing three specific studies in South African medical literature in the 1960s, discussed in chapter 1, that assert true hermaphroditism as the most common form of intersex among the “Bantu races of South Africa and Rhodesia.” Despite their contradictions and data deficits, these three studies form the shaky and tenuous basis for Grace’s assertion that “over several years it has been claimed by authors and clinicians . . . that intersexuality is more prevalent among the Bantu of the subcontinent than in other race groups; and that in the Bantu hermaphroditism is the commonest form of intersex” (1970, 7). For African patients deemed intersex, the rare diagnosis of “true hermaphroditism” was embraced as part of efforts to position black intersex as the epitome of abnormality.

Grace is intent on defining intersex and differentiating among various syndromes and diagnoses focused on anatomy, hormones, and especially chromosomes. He takes great care in introducing his reader to his detailed definitions
in sections titled, among others, “The Differential Diagnosis of Intersex,” “Classification of Intersex,” and “Pathogenesis of Intersex.” In addition to discussions of intersex in nature, history, religion, and mythology, Grace devotes a full six chapters of the thesis to categorical descriptions of conditions he believes fall under the rubric of intersex. The rest of the document is devoted to thirty-four “case reports” focused on individuals diagnosed with these conditions. I return to these case reports in more detail below.

The other stated focus of this study is on “four racial groups.” Grace’s detailed taxonomy of intersex recalls scientific racism and extensive colonial efforts to categorize those in southern Africa. Yet in this entire thesis, which is 272 pages long, Grace devotes only three sentences to defining race because, to him, race is simple and needs minimal explanation. His description perfectly and uncritically follows apartheid logic with corresponding labels and statistics. Intersex requires hundreds of pages of explanation, whereas “South Africa has four well-defined population groups, caucasoids, negroids, Asians, and a mixed race of all three, the Coloureds, and is therefore an ideal area for studies of inter-racial variation; even more so than the West Indies where miscegenation has obscured the true racial identity of the individual” (1970, 216). These assumptions about apartheid racial categories are not confined to Grace’s scholarship and were replicated in most medical literature in this period, reflecting a matrix of race, tribe, nation, ethnicity, language, and population, and these categorizations are rife with contradictions even within the same author’s work.

When I read about Grace’s thesis, I was surprised at the longevity and breadth of citations based on it. How could a mere master’s thesis that is decades old and makes such troubling declarations still have such a strong impact in medical literature? But when I closely analyzed the thesis itself, I found that not only is this study the penultimate source for the claim that black South Africans are disproportionately intersex, it argues the inverse: black South Africans are not disproportionately intersex. Remarkably, in this thesis, Grace is quite unsuccessful in finding proof of corporeal racial difference. Of the 20,690 live births included in his year-long study, which included four maternity wards in Durban in 1969, only 7 births of babies with supposed genital anomalies, including four with simple penile hypospadias and three diagnosed with “possible” intersex, were recorded (1970, 197–200). The number of black intersex patients Grace cited was too low to allow for accurate statistical analysis and thus disproved his thesis.

In his conclusion, a disappointed Grace admits, “The overall impression gained from this work is that there is little difference between the frequency of intersex in whites and Bantu” (1970, 218). Regardless of his statements that link intersex to blackness throughout the text, his admission of failure throughout
the conclusion to this thesis is direct and emphatic. Grace tries to prop up his failing hypothesis through cytogenetics, dermatoglyphics, and other more technically advanced and invasive forms of imaging and testing—shifting from examinations of external genitals to looking inside the body for sources of racial difference—but this proves unfeasible due to lack of resources. He is not easily dissuaded and shares suggestions for continuing the search. But Grace eventually concedes that his “preconception of intersexuality being rampant in South Africa was incorrect” (1970, 218).

Gendered medicine is historically dependent on confused and conflated concepts. Grace was interested in proving the commonality of both “intersex” and “hermaphroditism” among black South Africans. The difference in medicine at the time was that hermaphroditism referred to the concurrent presence of ovarian and testicular tissue (with true hermaphroditism sometimes used synonymously), while intersex served as an umbrella term for a wide range of conditions. Other researchers used these terms interchangeably. Grace, seeking order, proof, and clarity, bemoans these authors’ classifications of intersex as incorrect, extensively citing publications of his peers to demonstrate that “in describing clinical cases it is regrettable that authors do not use the popularly accepted names for syndromes, instead of conjuring up synonyms . . . or failing to use a term when a suitable one exists” (1970, 9).

Given these inconsistencies, hypotheses about intersex and race cannot be supported and quantified. Grace himself points out that medical publications regularly misdiagnose intersex patients, complaining, “Some authors appear to be diletantes [sic] as far as the terminology of intersexual states is concerned” (1970, 9). This causes statistical confusion and inconsistency when trying, as he and other apartheid-era scientists tended to do, to quantify and classify people. In Grace’s own words: “Calculation of figures for the national, or even regional prevalence of intersex is virtually impossible at present” (4). Nevertheless, from the point of Grace’s thesis publication onward, researchers did indeed make quantitative assertions that true hermaphroditism is most common among black South Africans.

The statistics presented by Grace are inherently flawed yet rationalized. For instance, Grace claims that intersex patients are inconsistently motivated to seek medical attention due to various “geographic, economic and domestic conditions” (1970, 201). Grace justifies his failed research by blaming intersex people themselves, and especially black people, for the lack of statistics to support his hypothesis. He couches this in the language of “racial idiosyncrasies”: “None of the races are particularly eager to present themselves for investigation of intersexual problems, but this is complicated by racial idiosyncrasies: for instance,
the Bantu male does not seem unduly perturbed by gynecomastia unless there is some concomitant pain. These racial characteristics must have some influence on the apparent distribution of intersex amongst the four communities” (199). Grace and other scientists and physicians are unsettled when those in the Global South (here “Bantu”) are unbothered by gendered conditions like gynecomastia (chest tissue growth) or hirsutism (hair growth). Their studies reflect this biased expectation. Not being “unduly perturbed” is taken as evidence of disproportionate intersex frequency and as a rationale for lack of statistical data. Nevertheless, while those researching intersex bemoan their colleagues’ shortcomings and patients’ racial idiosyncrasies and seem paradoxically resigned to the impossibility of statistical accuracy, they continue to rely on positivist research and statistics about intersex and to make sweeping false assertions.

**Codifying a Citational Chain and Reifying Black Intersex Frequency**

Since 1970, Grace’s work and the scholarship of those who cite him have had amazing tenacity. They continue to be referenced in medical studies of intersex in South Africa and in those that slip into generalizations about Africa more broadly, creating a complex scientific façade. Oddly, even Grace himself continued to make his disproven claim of raced intersex in articles that drew on the same data and photos represented in his 1970 master’s thesis. For instance, in 1973 he and co-author Edge asserted, “Hermaphrodites have frequently been found among the Negro peoples of Africa and their descendants in the West Indies, and also in mixed races who share Negro ancestry. In caucasoid races, however, hermaphroditism is rare and has hitherto not been described in a White South African” (Grace and Edge 1973, 1553). This article repeated data from “Case 29” in Grace’s thesis (1970, 185, plate 17) and made unsupported assertions that became canonical.13

Grace’s scholarship and its quick acceptance occurred at the height of apartheid. Rigid classification systems and violent control of bodies lay at the core of apartheid’s project, mirrored in Grace’s ongoing obsessions with racial purity, reproduction, and gender norms. But resistance to these restrictive policies was strong. In the 1970s, racialized pathologization of intersex was institutionalized at the same time that revolts over centuries of colonial rule erupted in violent conflicts. These conflicts were concurrent with tightening controls over bodies deemed intersex, particularly through the medical interventions of Grace and his South African colleagues.

I have already examined the flaws in the three publications that preceded and influenced Grace’s thesis (Klempman 1964; Forbes and Hammar 1966;
Wilton 1969) in chapter 1. To construct the citational chain that followed his research and the purposes it serves, assessing a few examples proves instructive. These and countless other studies demonstrate the power of repetition of the unproven racial assertion that continued over the following five decades:

“True hermaphroditism is the commonest intersex state in the Black population of South Africa, with an estimated incidence of 1/10,000 live births” (cites Wilton 1969 and Grace and Edge 1973)

“Professor van Niekerk lives in a part of the world [South Africa] where true hermaphroditism is relatively more common than elsewhere due to environmental or, more likely, genetic influences. In fact, he lives in an area where true hermaphroditism is the most likely diagnosis when a patient is encountered with ambiguous genitals” (cites Grace and Edge 1973)

“True hermaphroditism is highly prevalent in the indigenous black population of South Africa” (cites Grace and Edge 1973)

I. A. Aaronson: *British Journal of Urology*, 1985
“True hermaphroditism is a rare cause of intersexuality in Western Europe and North America, but on the African continent is among the most common” (no citation, later reference to Van Niekerk 1974)

“A disproportionately high incidence of true hermaphroditism has been reported among South African black people, the cause of which has not yet been elucidated” (citations include Grace 1977; Van Niekerk 1976; and Aaronson 1985)

“With an unusually high incidence of this condition among South African patients investigated for ambiguous genitalia (51%), several authors have shown that true hermaphroditism in Southern Africa is different in several respects [primarily due to a ‘unique histological pattern of ovo-testes’]” (cites Van Niekerk 1977 [sic, 1976]; Aaronson 1985; and himself)

Ganie et al.: *Hormone Research in Paediatrics*, 2017
“The prevalence of OT DSD [true hermaphroditism] is particularly high in black South Africans [and] . . . disproportionately high compared to

In these examples, scholars collaborate and cite each other, referencing scholarship repetitively and citing decades-old research with presentist assumptions. Note, for instance, the historical present assumed in Ganie’s 2017 citation of research published forty-one years prior (in 1976). References with scant evidentiary bases become codified through citation without substantive engagement with the original publications. They begin to create norms about Africans’ bodies, deriving power through their repetition. The sources in which these articles are published are notable. Of the seven articles cited here, only two are published in Africa-based journals, and the rest are published in journals based in the Global North. This reflects the broad reach and engagements among scientists and physicians worldwide. This consistent repetition and wide circulation create notions about black intersex frequency, especially in the Global South, as integral to broader theories of gender ambiguity.

In this citational chain and related medical literature, terms with varied meanings are used synonymously. In medical vernacular from the 1970s onward, intersex usually refers to a range of conditions of gender ambiguity, while true hermaphroditism is a specific diagnosis indicating the presence of both ovarian and testicular tissue. But slippages are the norm, and conflations of terms describing gender and race are found throughout these publications. Even Grace’s own description of intersex among “Bantu” becomes “Negro” becomes “South African” becomes “Black” in his writings. Tribe, ethnicity, geography, and phenotype merge under the ahistorical and abiological rubric of race.14

Dr. Michèle Ramsay, who might be considered Grace’s successor in medical literature, also provides links in South Africa’s citational chain, but with an explicit influence on popular culture. Ramsay has similarly devoted much of her career to finding a cause for black intersex frequency. Like Grace, Ramsay authored numerous studies on race and intersex, looking to her own field of specialization: genetics.15 But Ramsay’s research is similarly unsuccessful. For instance, in a co-authored study published in 1988, Ramsay and colleagues repeat Grace’s oft-cited claim that “a high incidence of 46,XX true hermaphroditism exists among southern African blacks”; however, the study again proves futile (4). In this research, conducted from 1976 to 1988, and in subsequent studies, Ramsay concedes that she can find no genetic or environmental rationale for the assumed frequency of black intersex in southern Africa. Ramsay’s most recent analysis of intersex and race, published thirty-three years after the start of her original study, in 1976, continues her career-long attempt to find cause for disproportionate prevalence of
true hermaphroditism but is again unsuccessful. The failed results are blamed on patients not providing blood samples for molecular analysis (Ramsay et al. 2009) in work that cites the same the citational chain just examined. Researchers including Ramsay repeat the same question from slightly different (albeit unsuccessful) angles: Why are black people more likely to be intersex? A more instructive question might be Why is the unproven high prevalence of black intersex the subject of such intense scrutiny and interest?  

The longue durée of intersex and race is furthered by the strong interplay between science and popular culture, as depicted in films such as The Third Sex (Roberts 2004). This film, produced by the BBC and the US-based Learning Channel, features expert commentary from Ramsay and is, unfortunately, one among dozens designed to titillate and educate a popular audience into accepting troubling understandings of gender binaries and medical science. While human displays and photographs were historically sites for reiterating myths of raced intersex, from the 1990s to the present, film has supplemented these public claims. But what makes The Third Sex unusual is its focus on three sites: the United Kingdom (where otherwise “normal” families are affected and then cured in hospitals), the community of Salinas in the Dominican Republic (investigated by Imperato-McGinley and here represented anonymously as a pointedly secret location in the Caribbean), and South Africa.

In the segment on South Africa, filmmakers interview Ramsay at length as she reiterates the assertion that she has not proved, extending its popular impact. The narration begins with the recitation of unfounded and somewhat confounding statistics and allusions to normality/abnormality; the narrator states, “Whereas cases of hermaphroditism might normally be 1 in 1,000,000 births, here in South Africa the rate is as high as 1 in 8,000, possibly higher.” This narration is accompanied by footage of a South African landscape (likely Johannesburg and Soweto) taken from a car as the camera pans over self-constructed township homes and children sitting in the street. Slow drum beats mix with spooky violin music to evoke feelings of drama and unresolved mystery. The narrator introduces the expert for this segment as Dr. Ramsay of the South African Institute for Medical Research, who has worked in Johannesburg for the past twelve years.

Ramsay is interviewed while she drives through township streets, where random people are shown walking in groups in slow motion, and she details her interest in intersex this way: “I first became interested in hermaphroditism when one of my colleagues pointed out that this was something that occurs quite commonly in South Africa, particularly in the black population. And I think it is such an enormous puzzle to us why people can have both male and
female parts. And it would be really interesting to find out why it happens, and particularly why it’s so common in one population group and not in others.” Ramsay’s description not only demonstrates her interest, it also complicates understandings of intersex for the viewer. Colonial histories are echoed in confusing generalizations of various intersex and hermaphroditic conditions as “both male and female parts.” If Ramsay is defining “parts” as the visible presence of a penis and a vulva/vagina, this is an exceptionally rare occurrence. Or maybe her euphemistic use of “parts” refers to internal organs. But so-called true hermaphroditism (or, in current medical vernacular, ovotesticular DSD) is based on the presence of ovarian and testicular tissue, usually undetectable except under microscopic examination. In either case, here, as throughout the film, definitions of intersex and true hermaphroditism are imprecise and conflated.

The narrator continues this segment of The Third Sex, still punctuated with spooky instrumental music and generic tribal drumbeats, by explaining the extent of the mystery Ramsay was trying to solve: “Dr. Ramsay began her work with little previous evidence to go on. In her search for clues, she knew that every possibility had to be considered.” Ramsay then codifies her declaration—intersex/hermaphroditism is more common among black people—and introduces the possibility of traditional healing, an element of culture and spirituality that many researchers find fascinating yet “primitive,” as a possible cause for this enigma. She states: “When we started this research we knew that it occurred more commonly in the black population than in the white or other populations. And we didn’t know whether it was environmental or whether it had some kind of genetic basis. One of the things we looked at was whether the mothers, during their pregnancy, had been to see traditional healers, because they may have given them something, say, the first three months of pregnancy, that might have influenced the gender, like some plant that contained a hormone or something that would influence the gender of the fetus.” This comment explicates Ramsay’s research trajectory, seeking to discover an explanation, here alluding to something that mothers or traditional healers did to cause so-called gender abnormalities. The narrator then discloses, however, that “the environmental possibilities, in the end, drew a blank. No clear line of connection could be found.” So the specter of traditional healing is raised in the film with no clear purpose other than to speculate on the causes of this “problem” in black South African communities.

Still fostering the sense of mystery, the narrator continues: “Dr. Ramsay began to believe that the answer lay somewhere in the genes. That the abnormality was passing through the chromosomes from one generation to another. Exploring this meant speaking not just to the patients, but to their extended families.” But, Ramsay suggests, research participants themselves thwarted successful and
definitive research into genetic causes for the supposed prevalence of intersex in their communities:

People don’t want to talk about it. They’re reluctant to, sort of, say too much. And in some of our earlier studies, we thought it was very important to look at the families to find out if there was more than one individual affected within a family. And we’re not always sure when they say that there isn’t that there really isn’t. Because it may be hidden and even, sort of like, cousins or aunts or uncles might not know about it. So it’s been an enormous problem from the research point of view. But you can understand that individuals want to protect their privacy, and that they don’t necessarily want people to know that they’re different.

Ramsay recounts a few reasons she believes that patients and their families may not speak honestly to researchers. Her explanations are focused on their confusion (they “might not know about it”) and efforts to protect their privacy (“we’re not always sure when they say that there isn’t [intersex] that there really isn’t”). This kind of tautological reasoning is impossible to disprove. But Ramsay posits that the failure of her own inquiries do not undermine her claim of black intersex frequency. Instead, inability to determine the cause of this connection is blamed on patients and families who may deceive researchers or do not understand their own bodies and histories.19

The final portion of the film segment focused on South Africa shifts from fear-inducing instrumentals to upbeat African-style drumming and wordless choral vocals. The camera pans over black South Africans in silhouette, playing basketball on an outdoor court in slow motion, while the narrator attempts to educate the viewer on genetics:

What makes a hermaphrodite different is the pattern of their sex chromosomes. In a normal male, every cell in the body will carry male genes. A female carries only female genes. In hermaphrodites, some cells carry male genes, others female. Some think the presence of the male genes in some cells is linked to the growth of testes in hermaphrodites, but how and why, no one knows. The mystery remains. But for the people in these South African communities, it’s an everyday reality. The problem for them isn’t understanding why they are intersexuals, but to be accepted as intersex person in wider society. The first step here is self-acceptance, and that process starts at birth.

This is a simple explanation of a complicated reality, within which hermaphroditism = genes, and it contradicts Ramsay’s earlier definition—hermaphroditism
male and female parts. Intersex and (true) hermaphroditism continue to be fused as confusingly synonymous. The resolution to this segment of the film is similarly reductionist. The narrator suggests that South Africans don't need to or cannot understand their supposed medical condition; instead, they need individualistic self-acceptance. Overall, the filmmakers consistently assert that intersex is common in remote and primitive communities in the Global South, including South Africa and the Dominican Republic, and that people may cause or facilitate intersex themselves through traditional practices or dishonesty with researchers. The viewer is urged to accept the complications of gender and the authority of (white) researchers and doctors to intervene and solve this crisis through the power of modern medicine.

Visualizing Violence: Creating Truths through Medical Photography

Visual representations in The Third Sex and other films recall the photographs of those labeled as “hermaphrodites” and “true hermaphrodites” ripped from the pages of the South African medical books detailed in chapter 1. In the colonial record, images of raced gender difference are framed through sexual fetishization, clinical gazing, and panoptic surveillance. In South African medical literature beginning in the 1970s, photographs in intersex scholarship thinly veil violence. These photographs rarely conceal patients’ identities but usually picture them naked with their faces and bodies revealed, often looking at the floor and away from the photographic gaze. They also represent very poor outcomes of surgeons’ efforts at genital construction. The images are accompanied with captions often expressing overt condescension or disdain for individual patients.

How can these haunting photographs be understood in ways that honor and value those exploited by their capture? My first answer to this question was to exclude the images themselves from this book. The tendency toward spectacularization is why this book intentionally excludes photographs even while it focuses on ways of seeing. Images are not inert objects that convey an objective truth but play a powerful role, holding power and emotion that go far beyond their physical replication. Ariella Azoulay (2008) suggests the importance of watching, rather than looking at, photographs, and Fred Moten (2002) and Tina Campt (2017) give us methodologies to listen to images. These approaches interrogate multiple temporalities of images—including their capture, reproduction, and circulation—and the necessary refusal to accept them as reflecting objective truth. I analyze the images in Grace's work with these approaches and histories of African colonial photography and its refusal in mind.
Grace’s master’s thesis includes sixty-four images, and taken together, they convey the interplay of racism, objectification, and sanctioned violence. We don’t know who took these photographs—doctors, nurses, medical photographers, or other hospital staff—nor do we know their intentions. Given the context and questionable consent, patients’ agency is very difficult to assess. But one cannot help but notice facial expressions and body language. Some patients stand awkwardly spread-eagled, while others stand with their arms and legs clenched tightly to their sides. Their gazes at the camera (or the person taking the photographs) might be variously interpreted as irritated, resigned, pained, and sad. Grace’s thirty-four case studies depict twenty-two patients classified as Bantu, seven as white, and five as Indian, and their ages range from newborn to sixty years old. The reasons they were seen by doctors varied. Some patients’ bodies were subjected to treatment because of their supposedly ambiguous genitals or menstrual problems, and some patients sought treatment themselves. But many patients facing intense diagnostic testing and treatment came to doctors for unrelated conditions, including a swollen leg, an earache, and dysentery. And several patients analyzed in Grace’s case studies were seen for supposed psychiatric conditions; different individuals were described as “catatonic,” “manic,” and “mentally slow,” while one patient’s history of conviction for fraud was presented as related to his intersex diagnosis.

Predictably, given colonial and apartheid foci, Grace’s thesis includes eighteen photographs of patients’ genitals. But perhaps more notably, these genital photos are often shown with hands on them, purportedly exposing their size, structure, and abnormality but also indicating violent objectification in the moment they were captured. These anonymous hands expose patients’ bodies to the photographers’ gaze and documentation. A useful point of comparison comes in the work of South African visual anthropologist Rory Du Plessis, whose analyses of photographs of patients at the Grahamstown mental asylum taken between 1890 and 1907 lay bare the violence faced by black patients in residence. Du Plessis examines the hands that hold black mental patients in place, gripping their necks and bodies as they are forced to submit to intake photographs, and he details patients’ movement as they resist restraint by staff members. He surmises that patients’ efforts to writhe away and refuse photography make the asylum’s staff’s bodies part of the images: “This failure of the authorities to remain hidden leads the viewer to meditate on the intrusions, discipline and conditions under which the photographs were produced” (2014, 27). For Du Plessis, such images “underscore the point that the taking of a photograph is never neutral” (27) and is often a violent act.
A hand holding genitals is also notable in a photograph of Eugénie Rémy circulated among French medical professionals in the late 1880s, largely considered the first photograph of a person deemed intersex. Hil Malatino points out the underlying power of the hand on Rémy’s genitals: “The hand that directs the scenography here while remaining otherwise disembodied—we follow it to the wrist, which the border of the images severs, invisibilizing the physician, diffusing medical authority, rendering it part of the miasmic milieu while sterilizing its violence” (2019, 138). Like Du Plessis, Malatino foregrounds the violence of the moment the photograph was taken and the absent physician or photographer. Alice Dreger, analyzing the same photograph of Rémy, provides historical context about hands in both medical photographs and sketches of the time, when the stated intent was scientific control, and never wanting the viewer to “forget that there is a ‘hand’ guiding the given image” (1998, 48). Hands on genitals in medical photography not only displayed external genital structures, but in some medical photos, hands were “inserted in the patient, ostensibly documenting ‘insufficient’ vaginal depth” (Malatino 2019, 141). Malatino submits that doctors’ gazes of dominance coupled with their own invisibility made a physician photographer a “modest witness” in philosopher Donna Haraway’s (1997) terms. Haraway’s modest witness is one who serves as an objective and legitimized authority and entrée to scientific truth, self-invisibilized yet omnipresent in his gaze. He is modest in the depiction of his hand, but not his face or body, inviting observers to overlook the violence and subjectification of the moment.

Photographed hands have had another significant meaning in photography: as a means of identification and racialization. Tina Campt’s analysis of what she refers to as compulsory and compelled photos—photos that are forcibly taken without consent—considers criminal identification photos taken at Breakwater Prison in Cape Town around 1893. These photos show prisoners’ faces with their hands positioned as part of the portraits, held against the shoulders of their uniforms: “The positioning of these hands is more than purposeful—it is both prescribed as well as literally transcribed onto the uniforms themselves, where we see painted white marks that seem to indicate exactly where these hands should be placed” (Campt 2017, 81). In Campt’s view, hands are as significant as faces in photographs of prisoners, scrutinized for distinguishing features and carefully documented to identify them for possible recapture. Grace’s photographs also include some hands of patients themselves, forced to spread their own genitals for the gaze of the camera, compelled into the photographs as subjects and assistants in their own visual capture.
Grace was obsessed with hands. In addition to his work on intersex, which continued throughout his career, he pursued another focus of research in genetics: racialized dermatoglyphics. This research analyzed handprints as a site of anatomical difference. Grace’s publications on the subject number almost a dozen and include titles such as “Dermatoglyphs of the South African Negro” (Grace and Ally 1973), “Palmar Dermatoglyphs of South African Negroes and Coloureds” (Grace 1974), and “Concentrations of Similar Finger Print Patterns in Four Race Groups” (Grace 1976). Indeed, Grace’s master’s thesis includes three chapters dedicated to dermatoglyphics as a branch of inquiry that merged scientific racism with intersex genetics.

Contemporary fingerprinting grew from efforts to predict and control criminality under British colonialism. Fingerprinting was popularized in India in 1888 through the work of Francis Galton, a half cousin of Charles Darwin’s and the founder of eugenics, who believed that criminality was biologically determined. Galton and his contemporaries were concerned about the “treachery of the native population and the impenetrability of their languages,” and he approached “fingerprints as images that could end the cycle of presumed deception” (Waits 2016, 20). Fingerprinting was a precursor to dermatoglyphics, both claiming hands as racially distinct and continuing to combine colonial surveillance and racialized science. Grace’s work merged his own research into dermatoglyphics with intersex conditions such as Turner’s and Kleinfelter’s syndromes, genetic quests that continue today.

Faces are as significant as genitals and hands in medical photographs of those deemed intersex, both when obscured and when revealed. Photographs taken of those considered “hermaphroditic” in the late 1800s in Europe initially revealed faces of patients and even printed their full names in publications, but around the turn of the twentieth century, “some investigators began to photograph subjects after placing a black bag over their head . . . the precursor to the practice of placing a black bar across a subject’s eyes in later medical photographic representations” (Dreger 1998, 49). Images of intersex patients’ heads covered with black bags evoke images of bags tied over people’s heads for executions. Such strategies are not intended to protect the privacy of those enveloped in the bags, who will soon be killed, but to create distance to shield those engaging in violent gazing from a returned intimate gaze in the moments before and after death. Black bags concealing patients’ faces in medical photography were soon replaced with conventions of altering photos to include blurred or whited-out faces or bars over the eyes—sometimes referred to as black bars, white bars, or censor bars—imposed after the photograph was taken. Malatino suggests, “While the pragmatic function of this trope is to ensure the anonymity of the patient,
it works to further stigmatize intersex bodies through entrenching the idea that the visibly intersex body must remain secret, covered, socially and politically invisible—it cannot be attached to a person” (2019, 122). This move toward what Malatino calls “dispassionate detachment” is facilitated by medical photographs that show exposed genitals before and after surgeries juxtaposed with covered faces, disallowing the patient to gaze back but allowing gratuitous imaging of bodies.31

Viewers do not know how Grace’s patients felt about the photographs taken for his case studies, but traumatic consequences of clinical photography can be expected, as intersex patients already experience intense ostracism and medicalized violence. In the only clinical article on intersex medical photography of which I am aware, from the British Journal of Urology, patients from two adult intersex clinics in the UK describe long-term psychological damage attributable to clinical photography (Creighton et al. 2002, 67). Creighton and colleagues spoke to intersex patients who, as adults, found photos of themselves taken when they were children in their medical files. One patient reflects on this experience: “They made me be naked in a room and take pictures of me and they took pieces of my skin and left two marks one on each arm and nobody said to me why they were doing it. Those marks are still there, and I look at them and I think ‘Why did they do that?’ You know, why did they make me stand in a room and have pictures taken with no clothes on and humiliate me like that without saying anything to me. Why, what was wrong with me?” (Creighton et al., 2002, 69). The photographic trauma expressed by this patient is disturbingly common, and it is echoed by intersex South African activists in chapter 5.

Alice Dreger, as part of her work with intersex activists in the United States, decided to include a nude photograph of herself with a black bar over her eyes on the cover of her 1999 anthology of intersex adults’ stories, Intersex in the Age of Ethics. Her intention was to show that this kind of imagery is pathologizing.32 Dreger recounts, “I learned from contriving this ‘medical’ photo of myself that intersex activist Cheryl Chase was absolutely right when she told me that the only thing the black band over the eyes accomplishes is saving the viewer from having the subject stare back. Even with blackened eyes and blurred parts, those who know me can recognize me in that picture” (2000, 162). The photos of Grace’s patients are also fully recognizable; eighteen patients, including children, are clearly identifiable by pictures of their faces and bodies. The kinds of photographs included in Grace’s thesis are also troublingly gratuitous, their bodies shown with little explicit medical rationale.

In the early days of photographic technologies, researchers were enthralled with the possibilities of photography to record the “lifeless bodies” of those
considered primitive (Pinney 2011, 36). Christopher Pinney recounts that in 1893, anthropologist Im Thurn argued that corpses were photographically preferable to live humans, as bodies would “be more accurately measured and photographed for such purposes dead than alive, could they be conveniently obtained when in that state” (quoted in Pinney 2011, 36). In parallel course in nineteenth-century Europe, medical diagnoses of “true hermaphroditism” necessitated dissection or death. In both contexts, dehumanization and categorization motivated visual documentation. Corpses and gendered body parts were displayed, measured, and dissected in necropolitical quests to prove gender and racial binaries.

Perhaps the most disturbing photographs in Grace’s thesis are of deceased infants. Grace’s case studies include four patients who died while under his medical care. For instance, one infant (“Case 25”), who lived for only forty-six hours due to severe breathing difficulties, was subjected to blood draws, oral buccal mucosal smears, and hand-printing during their few hours of life because of persistent efforts to diagnose the patient’s intersex condition. Grace continued to photograph the infant’s body in death. In other case reports, patients are subjected to unnecessary surgeries that may indeed have contributed to their demise, and their cadavers are dismembered and photographed. Two photographs focus on the genitals of the deceased patients—a neonate (“Case 1”) and a sixty-year-old (“Case 5”) who died under medical care—and their genitals were removed and dissected after their death. Postmortem photography has a long and complicated history in medical literature, including in the examination, removal, and photography of genitals and reproductive organs to “prove” gender. In these ways, the visual violence described here doesn’t merely mirror but ultimately works to control and produce notions of raced gender binaries.

The Intractability of Racial Intersex

While this chapter focuses on a fifty-year-old unpublished document, it is a document with powerful contemporary significance. A Google search of “Intersex South Africa” in 2020 quickly linked me to the digital library of the University of KwaZulu-Natal and the description of Grace’s thesis. Indeed, Grace’s entire thesis is provided as a free PDF, widely available on the open web. Contemporary readers continue to find and cite this troubling study, adding links to the citational chain I critique here. I recently questioned my own possible role and unintended complicity in this chain of intersex literature. During my dissertation research over twenty years ago, I requested Grace’s thesis via interlibrary loan from the University of Minnesota libraries. As this request preceded digitiza-
tion, librarians at my alma mater and at the University of KwaZulu-Natal went to significant trouble to provide me with this document. I still have five plastic sheets of Grace’s thesis on microfiche in an envelope sent to me on December 2, 2002. Could my request for a then-obscure document have played a part in the current online access provided to Grace’s racist research? Reproductions sometimes work idiosyncratically to create “truths,” and the stakes of practices that create data are thus matters of intense import.

I want to return to the strategies of raced intersex science that begin this chapter—definition, scrutiny, repetition, and justification—to briefly consider their application. Complicated and contradictory definitions and language pepper this chapter. Various authors inconsistently define intersex, hermaphrodite, and true hermaphrodite. The slippage among these terms, and quantitative reliance on them to create statistical evidence, dovetails with problematic assertions about race. Ellison and de Wet’s survey of 668 articles in South African medical literature for “any categories that might have been used or interpreted as measures of genetically determined ‘racial’ differences (including ‘racial,’ ethnic and sociopolitical ‘population group’ categories)” (1997, 1671) finds that the use of racial categories in health research in South Africa has been similarly “ill-conceived, misleading and divisive” (1672). This elision gives the appearance of racial solidity and is used as contrived proof of innate and genetic behavioral differences.37 As the authors demonstrate, there was little evidence of decline in the use of historical or contemporary “racial” labels published in the South African Medical Journal between 1950 and 1990. In this chapter, similar trends in racialized and gendered language mask their inaccuracy and longevity.

Scrutiny is paramount in the creation of raced intersex, as demonstrated in visually dependent medical practices, film, and photos. These representations, like Imperato-McGinley’s medical photographs of residents of Salinas, still freely available on the website of the Urological Sciences Research Foundation, form a taxonomy of intersex difference that transcends its origins. Visual representations in Grace’s work are analogous to the South African Museum’s “Casting Project” of racial types in their broad public impact. Grace’s work is far from alone in these efforts. For instance, in this same period Willem A. Van Niekerk’s exhaustive effort, True Hermaphroditism: Clinical, Morphologic and Cytogenetic Aspects (1974), extended his work in the field of Bantu Gynaecology, pathologizing gender and genitals through raced categories of apartheid. Like Grace, Van Niekerk includes charts, graphs, and extensive ledgers that form part of the classification and scrutiny of science. He photographically depicts patients’ faces, bodies, and genitals as well as dissected organs categorized as “operative specimens” (body parts displayed on white backgrounds)
and “laparotomy findings” (internal organs photographed during surgical procedures). He publishes X-rays, slides of dissected body parts, and diagrams of their locations in patients’ bodies. I mentioned this book earlier, as a photograph from it had been torn from my library-loaned copy, presumably for individual consumption. Van Niekerk’s exhaustive imaging and documentation was characteristic of the violence of apartheid. The scrutiny of visual representations didn’t merely reflect classificatory systems of apartheid; it created classification.

Citational chains in which Grace’s and Van Niekerk’s works are prominent exemplify the power of repetition as a strategy for creating ideas of raced gender binarism. Judith Butler’s discussions of citationality help explain this scholarship in historical and geographic context. Analogizing a judge’s role in the law, Butler (invoking Lacan) explains that “the judge does not originate the law or its authority; rather, he ‘cites’ the law, consults and reinvokes the law, and, in that reinvocation, reconstitutes the law. The judge is thus installed in the midst of a signifying chain, receiving and reciting the law and, in the reciting, echoing forth the authority of the law” (1993, 107). Compare Grace to the judge in Butler’s example. Citation and recitation/repetition of his work (and his own reinvocation of centuries of this colonial assertion) do not simply restate the claim of disproportionate intersex frequency in Africa. Grace’s and his successors’ citations rework and reinforce the claim itself, thus building its power.

This citational power is global, as the myth of black intersex frequency far exceeds South African national borders. The intersection of Grace and Van Niekerk’s work in the United States demonstrates its wide-reaching authority. In 1976, Van Niekerk was invited to present an updated summation of True Hermaphroditism to the 96th meeting of the American Gynecological Society in Virginia, and his remarks and comments from United States–based colleagues were published as an article in the American Journal of Obstetrics and Gynecology. In this article, Van Niekerk cites all three of Grace’s publications of “case studies” that replicate Grace’s master’s thesis findings (Grace, Quantock, and Vinik 1970; Grace and Schonland 1970; Grace and Edge 1973), repeating the assertion that “it is interesting that true hermaphroditism is so common among black races” (Van Niekerk 1976, 907). Again, the citation both precedes and exceeds each author and their respective reconstitutions of the body.

The claim of disproportionate raced intersex is also uncritically affirmed by the paper’s prominent discussants. Dr. Howard W. Jones of Johns Hopkins University in Baltimore was John Money’s contemporary and the surgeon who put Money’s psychological theories into practice as he treated intersex patients. Jones is also credited as the innovating pioneer of in-vitro fertilization.
He even personally cared for Henrietta Lacks at Johns Hopkins Hospital (R. H. Epstein 2010). Reflecting on Van Niekerk’s work on intersex and race, the influential Jones surmises, “There is little to be added to such an authoritative and comprehensive review,” and, he continues, “Professor van Niekerk lives in a part of the world where true hermaphroditism is relatively more common than elsewhere due to environmental or, more likely, genetic influences” (in Van Niekerk 1976, 905). Like so many others, Jones parrots the problematic assertions of the citational chain without critique or even minimal vetting.

With these claims and transnational connections in mind, it is perhaps even more notable that the reference tool Web of Science documents consistent reference to Van Niekerk’s article on “True Hermaphroditism” for the past four decades. As with Grace’s thesis, contemporary references to this work are startling, given the age and overtly racist bases of the publication. Web of Science also provides information on the “countries/regions enhanced” by this publication; researchers citing Van Niekerk’s article were based most often in the United States (36 percent), South Africa (17 percent), and France and England (11 percent each), with further citations from researchers in Mexico, the Netherlands, Turkey, Algeria, Belgium, Brazil, Iran, Switzerland, Yugoslavia, Australia, Bulgaria, Canada, Chile, Germany, India, Indonesia, Israel, Jamaica, Poland, Scotland, and South Korea (listed from most to least frequent). These citations again demonstrate the power of repetition across geographies and historical periods, showing how this biased claim traveled and garnered unquestioned acceptance.

The final strategy under consideration—justification—allows truth creation in the face of inconsistencies and demonstrable flaws in research. I return here to Grace’s counterpart, Money, and his most famous failed case. Money was known for his influential theories of the mutability of gender and his prescription to surgically alter intersex infants’ bodies to fit norms he created. His theories and practices largely rested on the case of the Reimer twins. The Reimer children were assigned “male” at birth, and both were born with penises; but one child’s penis was severely injured during circumcision. Money surgically and hormonally reassigned the injured baby as “female,” unbeknownst to the child. He widely touted this treatment as a success that proved his theories about childhood gender development and intersex infants’ plasticity. But David Reimer eventually learned the truth of his own history and demanded to be reassigned as male again at age fourteen. His experiences became widely known when he told his story publicly and exposed Money’s failings at age thirty-two. But a few years later, in 2004, bearing the stress of medical and psychological treatments and global public attention, Reimer tragically committed suicide. Money, rather than admitting his fallacies and the flaws in his theory’s underpinnings, justified the errors of
his own research. And his assertions that rested on Reimer’s failed treatment remain the dominant standard for intersex infant treatment today.\footnote{41}

In this chapter, erroneous medical claims are regularly cited as scholars continue to assert that intersex (and true hermaphroditism) is more common among black than white South Africans. Perhaps the most bizarre component of Grace’s work provides a fitting conclusion to this chapter, reflecting his deep efforts to ground black inferiority in the body. In trying to understand the scope of Grace’s work, I read everything he ever published, including dozens of articles that initially seemed irrelevant to this inquiry. Imagine my surprise when I went beyond the titles of two articles he coauthored on snails—“On the Haemagglutinin of the Snail *Achatina Granulata*” and “The Agglutination of \(A_{\text{bantu}}\) and Other Human Erythrocytes by Reagents from Snails”—to discover that these works represented further efforts to scientifically locate inferiority in black bodies. The intention of this element of Grace’s research was to prove that racial difference affects immunity. Grace used snails found regionally only in South Africa. He drowned them, dissected them, and ground up their albumin glands to mix them first with the blood of animals (oxen, pigs, rabbits, sheep, and goats) and then with the blood and saliva of so-called Bantu, European, and Indian donors. Co-authors Brain and Grace assert that “there is a substance in some human salivas . . . [that] appears to be present in significantly greater quantity in the saliva of Bantu than it is in that of Europeans” and claim this as evidence of “quantitative differences” between races (1968, 298; see also Grace and Uhlenbruck 1969).

This final example reiterates why Grace’s claims about black intersex are not only unsound but connected to broader racial comparisons with deeply troubling roots. Grace’s career centered on trying to locate racial difference and black inferiority in the body. Taken together, his widely accepted assertions about genitals, reproductive organs, and chromosomes—and even saliva—are inseparable from histories of scientific racism and African pathologization. This pathologization and its effects on those deemed intersex would be the focus of South African intersex activism beginning in the 1990s, where the next chapter begins.