WELLNESS IN WHITENESS

This book analyses the social and ethical implications of the globalization of emerging skin-whitening and anti-ageing biotechnology. Using an intersectional theoretical framework and a content analysis methodology drawn from cultural studies, the sociology of knowledge, the history of colonial medicine and critical race theory, it examines technical reports, as well as print and online advertisements from pharmaceutical and cosmetics companies for skin-whitening products. With close attention to the promises of 'ageless beauty', 'brightened', youthful skin and solutions to 'pigmentation problems' for non-white women, the author reveals the dynamics of racialization and biomedicalization at work. A study of a significant sector of the globalized health and wellness industries – which requires the active participation of consumers in the biomedicalization of their own bodies – *Wellness in Whiteness* will appeal to social scientists with interests in gender, race and ethnicity, biotechnology and embodiment.

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WELLNESS IN WHITENESS

Biomedicalization and the Promotion of Whiteness and Youth among Women

Amina Mire

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I would like to dedicate this book to my late mother,
Xalima Sheik Aweys.

My mother was an amazing woman. I have learned so much from her, such as to love and not hate; to work hard and always dream big.

CONTENTS

1

SITUATING SKIN-WHITENING BIOTECHNOLOGY

The primary aim of this book is to introduce key ideas, concepts and analyses in order to reveal the social and ethical implications of the globalization of the emerging skin-whitening biotechnology. These biotechnologies promise women 'ageless beauty' and youthful appearance by removing visible signs of ageing and by shielding women's bodies from the harmful effects of ageing, environmental pollutants and undesirable lifestyles. This work also examines how skin-whitening biotechnology represents a major contemporary global market that promises brightened and youthful-looking skin to women who can afford the asking price. Consequently, this work aims to delineate and reveal how whitening biotechnology is implicated in the dynamics of racialization and biomedicalization of women's bodies and skin. In this work, skin-whitening biotechnology is defined as an enabling site which facilitates the commercialization of a plethora of biotechnologies with skin-whitening properties and with profound biomedicalization and racialization implications. Using an intersectional theoretical framework and a content analysis methodology drawn from cultural studies, the sociology of knowledge, the history of colonial medicine and critical race theory, this work examines technical reports and advertisements for skin-whitening products (online and in print) by pharmaceutical and cosmetics companies to analyse racialization and biomedicalization implications of skin-whitening biotechnology.

These biotechnologies have two major marketing strategies. First, skin-whitening biotechnologies are increasingly marketed to white women to remove visible signs of ageing and to shield their bodies and skin from the harmful effects of environmental pollution and undesirable lifestyles. When marketing under the purview of anti-ageing, skin-whitening biotechnologies reinforce discursive construction of the visible signs of ageing, such as age spots, sunburns and 'hyper-pigmentation' as pathological problems. One of the aims of this work is to critically investigate the extent to which the aggressive promotion of skin-whitening biotechnologies

with anti-ageing claims represents a heightened level of the biomedicalization of women's bodies. Biomedicalization of women's bodies results from the claims that skin-whitening biotechnology can reverse ageing by purifying and restoring the ageing bodies and skin of women. Petersen and Seear (2009, p. 269) defined the biomedicalization of ageing as a reductionist conceptualization of complex and multi-dimensional ageing processes based on the interaction between 'bio-physical, socio-cultural and psycho-social factors' to a medical problem amenable to technological intervention.

Biomedical construction of ageing enables the discursive articulation, production, dissemination and validation of knowledge about anti-ageing as a legitimate domain in the service of intervening and reversing the disease of ageing (Calasanti, 2007; Cheek, 2008; Mykytyn, 2009; Spindler & Streubel, 2009). Furthermore, biomedicalization of ageing shapes social policies and broader public attitudes toward ageing as a 'social problem' (Cheek, 2008; Petersen & Seear, 2009). The sharp rise of healthcare costs and retreat of the welfare state facilitates a privatized do-it-yourself (DIY) healthcare lifestyle which reinforces inequities. In this context, aggressive marketing of anti-ageing consumerism is not a matter of bottom-up or top-down, but is instead implicated 'in global webs of science and capitalism', racializing and biomedicalization strategies (Gerlach, Hamilton, Sullivan, & Walton, 2011, p. 10). For these reasons, careful examination of the social and ethical implications of skin-whitening biotechnology, both with respect to its use in the anti-ageing wellness industry and the globalization of skin-whitening, requires critical intervention by interrogating how the discursive construction of ageing as a disease and pigmented skin as unhealthy and aesthetically undesirable entails discursive demarcation and material exclusion of the poor and other marginalized bodies as potential sites of racialized, biomedicalized and gendered vulnerabilities. This book will address these urgent concerns.

The steady rise of skin-whitening biotechnology as a 'restorative therapeutic intervention' of white women's bodies and skin represents a site of biomedicalization of women's bodies. One of the aims of this book is to reveal the extent to which contemporary promotion of skin-whitening biotechnology reconfigures and rearticulates colonial medicine, which associated whiteness with recuperative wellness (Anderson, 2003; Berger, 1997; Blaut, 1992; Crosby, 2004). One of the primary contributions of this book is to demonstrate how the biomedicalization of ageing positions anti-ageing products with skin-whitening properties as a legitimate way of ameliorating the 'disease' of ageing. The second aim of this book is to demonstrate that globalization of skin-whitening biotechnology promulgates and rearticulates colonial-era environmental determinism with respect to the Eurocentric notion of autochthonic whiteness. In this work, concepts of Eurocentric autochthonic whiteness is examined as a colonial-era evolutionary theory through which superiority of whiteness has been asserted as a catalyst in enabling European colonial expansion and how their influential theory continues to be reflected in contemporary marketing of anti-ageing and skin-whitening commodities and related technologies to women and around the world.

Furthermore, in this work, biomedicalization of ageing is used as analytic concept to signal and expose aggressive pathologizing of ageing and aged women and discursively marking them as gendered degeneration. The aim this approach is to reveal how biomedicalization of women's bodies in turn positions anti-ageing intervention as a legitimate way to 'cure' the visible signs of ageing as gendered and racialized pathologies. A biomedicalization imperative is then woven into various articulations of European colonial environmental determinism, ecological imperialism and colonial medicine, all of which associate pigmented skin with racial and gendered degeneration. These ideas are used to forge a working theoretical framework to examine and interrogate the complex relationship between biomedicalization of ageing of in white women and the racialization of the dark, brown and yellow skin tones of non-white women with respect to advertisements for anti-ageing and skin-whitening cosmetics.

Stressing that biomedicalization of ageing is critically important for the anti-ageing and skin-whitening industry because the broader societal perception that ageing is a disease must be normalized before anti-ageing can be justified as a curative and preventative means of intervening in the disease of ageing. The rise of the health-conscious consumer works within the neo-liberal framework of 'the rational choice discourse' and it also facilitates biomedicalization strategies (Gerlach et al., 2011; Petersen & Seear, 2009; Winterich, 2007). One of the ways the neo-liberal healthcare model promotes biomedicalization of ageing is through the discourse of promoting 'active citizenship', which, in reality, reinforces 'self-governmentality' and self-surveillance (Petersen & Seear, 2009). This book seeks to produce new knowledge that can enhance the abilities of health regulatory authorities, health practitioners, bioethicists, experts in women and health, women and gender studies and anti-racist scholars and researchers to confront and challenge hitherto unchecked mass promotion of skin-whitening biotechnology both as skin whiteners and as anti-ageing cures.

The third aim of this book is to create new knowledge that could facilitate collaborative exchanges among researchers, teachers at universities and colleges in areas such as women and health, bioethics, feminist and anti-racist scholarship. The knowledge produced in this book can also be useful to educators and activists working in women and health and anti-racist fields of research and practice concerning social and health policies. To that end, the knowledge produced in this book can facilitate health and social policy experts' ability to critically assess potential health risks and inequities and marginalize the potential outcomes of the emerging anti-ageing and skin-whitening biotechnology as an unregulated health promotion regime directed at affluent ageing populations in the West and through mass diffusion of skin-whitening products and discourse to the rest of the world. This book can also be used by critics working in the area of the social effects of climate change by linking the rise of skin-whitening biotechnology aimed at anti-ageing with the history of European colonial discourse which promulgated an imaginary 'evolutionary advantage' and 'recuperative' power of whiteness (Anderson, 2003; Berger, 1997; Crosby, 2004). To this end, this book seeks to reveal the

extent to which promotion of skin-whitening as an anti-ageing cure reinforces the dynamics of homogenizing Western beauty ideals, and the desire to hide and suppress the visible signs of ageing.

Finally, this work evaluates the extent to which skin-whitening biotechnology represents a spin-off commercial site of capital accumulation, a source of knowledge production and a cultural practice in whiteness consumerism associated with ageism and biomedicalization, and assesses to what extent these strategies facilitate and reinforce the gendering, racializing and marginalization of ageing women regardless of race and ethnicity.

Structure of the book

Chapter 2, Pigmentation pathologies and regenerative whiteness, theorizes and grounds the discourse of whiteness as it pertains to promotion of wellness by linking these concepts to the literature in the nineteenth-century German Romantics, colonial medicine, ecological imperialism and environmental determinism and by revealing how these ideas promulgated association between temperate climate condition and regenerative whiteness. Tracing and theorizing historical roots of whiteness as a catalyst of wellness is a useful analytic concept to uncover the symbolic association of Northern European and Canadian cold climates with autochthonic regenerative whiteness (Anderson, 2003; Berger, 1997; Crosby, 2004). The symbolic association of whiteness with wellness is a useful way of understanding how skin-whitening biotechnology came to be associated with regenerative wellness and with regaining and restoring youthful appearance to ageing women – especially middle-aged white women. This is done by examining how discursive representation of whiteness in terms of wellness promulgates the symbolic embodiment of whiteness as a sign of corporeal fitness and moral superiority. Furthermore, theorizing whiteness in terms of wellness requires simultaneous construction of non-white bodies and ageing white women as potential sites of racial degeneration and gendered decline. This analysis reveals how notions of Northern coldness and white snow invoke metaphors of autochthonic whiteness and regenerative wellness. And in the age of climate change, understanding the colonial roots of ecological imperialism and recuperative whiteness is critically important.

Making the link between the historical roots of recuperative whiteness and anti-ageing and skin-whitening biotechnology is critically important for revealing the ways in which these biotechnologies appeal to ageing white women with the promise of making them look younger and healthier by inviting them to engage in self-biomedicalization and anti-ageing consumerism. Recurring references to the therapeutic and the transformative power of whiteness are key to the current marketing of skin-whitening biotechnology as anti-ageing regenerative intervention. Revealing historical roots of recuperative whiteness is pertinent to this work since skin-whitening and anti-ageing promotions target primarily female consumers.

Chapter 3, 'Face north and smile': biomedicalization of ageing and 'science-based' whiteness therapy, reveals that biomedicalization of ageing and recuperative

whiteness are key to the discursive association of skin-whitening with restoring youthful appearance to ageing white women. To make these links convincingly, this chapter focuses on the discursive association of whiteness with wellness and with biomedicalization of visible signs of ageing – especially in white middle-aged women – to the Victorian-era construction of women as frail and incapable of coping with the stressful demands of the industrial age. This historical approach is selected in order to reveal how contemporary anti-ageing discourse frames the female body as uniquely vulnerable to the stresses of the post-industrial age, such as climate change, urban pollution and ecological crisis. The linking of skin-whitening biotechnology to the colonial history of regenerative whiteness will be revealed by carefully analysing promotion of skin-whitening products marketed as anti-ageing cures to women. The aim is to reveal how skin-whitening and anti-ageing biotechnology came to be invested with promotions of regenerative wellness and with scientific potency to restore a youthful appearance to ageing women's bodies and faces. It will be revealed how these discourses enact and reinforce the biomedicalization of ageing. A close examination of advertisements for skin-whitening biotechnology reveals aggressive ways in which the anti-ageing and skin-whitening industry encourage to women protect themselves against the harmful effects of sun damage and other forms of environmentally induced pollutants, which can cause premature ageing and pigmentation disorders.

It is in this historically grounded approach that broader implications of biomedicalization become evident. When read through contemporary dynamics of science, ecology, gender, race and class relations, advertisements for anti-ageing and skin-whitening biotechnology seek to fearmonger by reinforcing an alleged unique vulnerability of the female body to premature ageing caused by deterioration of the environment, ecological crises, climate change, and urban pollution. In this context, skin-whitening biotechnology represents a contemporary site of the biomedicalization of ageing and global diffusion of whiteness with profound racializing implications.

Chapter 4, Racializing consumption: skin-whitening and the global look, situates the globalization of skin-whitening biotechnology as a contemporary phenomenon that promotes symbolic investment in whiteness. It also examines the extent to which globalization of skin-whitening facilitates and reinforces racialization and Eurocentric femininity. The material examined in this chapter reveals globalization of skin-whitening as a contemporary diffusion and circulation of whiteness (Ashikari, 2005). Detailed content analysis of technical reports, scholarly literature and promotions for skin-whitening products is conducted. The aim is to assess the extent to which globalization of skin-whitening products, which promise to 'whiten' and 'brighten' the dark skin of non-white women, reinforces racialization and biomedicalization of women's bodies and skin – especially in the Global South. This undertaking is urgently needed because, as an emerging market, skin-whitening is a lucrative global trade with profound ethical and social implications. Consequently, this chapter critically investigates the extent to which dynamics of race, class and gender intersect, in complex and contradictory ways, and reinforces

the globalization of skin-whitening biotechnology marketed primarily to women in the Global South.

Chapter 5, 'Entrepreneurial innovation in skin-whitening biotechnology: ethical and social implications', focuses on the social and ethical implications of research and development and mass marketing techniques used in the skin-whitening biotechnology as an unregulated but lucrative economic sector. This chapter examines discursive and economic imperatives behind the globalization and normalization of skin-whitening biotechnology. Skin-whitening biotechnology is examined here as a penetrating technology that drains the natural pigment, melanin, from the skin of the user. Skin-whitening biotechnology, as a 'melanin-blocking', intervention, will be carefully examined through analysis of promotional brochures, technical reports and scholarly works. The penetrating capacity of skin-whitening biotechnology is a product of the role of scientific researchers whose are tasked with producing active agents which can effectively act on the site of melanin production and suppress it. As a result, researchers in skin-whitening biotechnology seek to find the most effective way to control the biosynthesis of melanin. Researchers in skin-whitening innovations have often published their results in peer-reviewed scientific journals.

In addition to publishing their research results in peer-reviewed journals, they also produce technical reports about the latest advances in skin-whitening and these reports are widely disseminated and circulated in leading online sites operated by cosmetic and biotechnology firms. Analyses of the material examined in this chapter is sourced from academic journals, technical reports and marketing promotions for skin-whitening products. The aim of this chapter is to reveal the extent to which globalization and normalization of skin-whitening depend on systematic recuperation of colonial medical narratives which equate pigmented skin with disease and degeneration and whiteness with regenerative wellness. Analysis of the material examined in this chapter seeks to provide a critical insight into the extent that skin-whitening biotechnology reinforces biomedicalization and racialization.

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2

PIGMENTATION PATHOLOGIES AND REGENERATIVE WHITENESS

This chapter theorizes and grounds the concept of recuperative whiteness as it pertains to the contemporary notion of anti-ageing wellness by linking these concepts to the literature on nineteenth-century German Romantics, British colonial medicine on race and tropical diseases and to the ecological discourse of the myth of the Canadian Great White North. The aim of this historically grounded sociological analysis is to reveal the historical roots of the contemporary marketing of products which associate skin-whitening and anti-ageing with recuperative wellness. The second aim is to situate the contemporary promotion of anti-ageing whiteness and global promotion of skin-whitening to colonial-era environmental determinism and reveal how belief in recuperative whiteness and the benefits of colder climates shaped colonial thinking in wide-ranging areas such as the medical understating of the causes and cures of communicable diseases and racial degeneration. This historical review is necessary to reveal how contemporary marketing of anti-ageing and skin-whitening discourse, practice and market has rebranded the trope of recuperative whiteness as a means of reversing the process of ageing in women, and middle-aged white women, in particular, and the promotion of a global diffusion of whiteness.

Pigmentation pathologies and regenerative whiteness

One of the tasks of this chapter is to reveal how whiteness came to associated with recuperative qualities and how the discourse of recuperative whiteness historically emerged through colonial-era environmental determinism that focused on an *autochthonic* slow evolutionary process under colder climate conditions through which supposedly recuperative whiteness emerged (Crosby, 2004; Mohanram, 1999). During the era of European colonial expansion in the eighteenth and nineteenth century, the idea that whiteness had regenerative properties was deployed

in wide-ranging fields including colonial medicine, racial hygiene and in the mass production of consumable whiteness (Anderson, 2003; Berger, 1997; Blaut, 1992; Crosby, 2004). European colonial policies and practices promoted reproduction and diffusion of whiteness through different methods (Anderson, 2003; Johnson, 2009). The ideology that whiteness had healing properties had been taken up also as a powerful Eurocentric political ideology which attributed European racial progress and colonial expansion to the supposed evolutionary advantage of the temperate climate conditions (Crosby, 2004). At the same time, warm climates were linked to blackness, diseases and racial degeneration (Anderson, 2003). In the contemporary context, recuperative whiteness has reemerged in the discourses of anti-ageing whiteness and in the globalization of skin-whitening biotechnology aimed at consumers in the Global South. These products claim to have the ability to reverse ageing and to whiten and brighten the black and brown skin of non-white people.

The history of colonial-era *environmental determinism*, defined here as a claim that environmental conditions determined civilizational advances or lack of civilizational advances (Blaut, 1992), shaped and continues to influence the contemporary phenomenon of anti-ageing biotechnology and the globalization of skin-whitening in the following the closely related ways. First, contemporary anti-ageing discourse and skin-whitening cite climatic factors such as urban pollution, thinning of the ozone protective shield against harmful effects of the sun and the overall stresses of modern living as the root causes of premature ageing in women and especially in white women. Second, these environmental aggressors are often formulated in terms of increased unwanted hyper-pigmentation on women's faces and skin. Third, consumable whiteness is proposed as the ideal means of countering unwanted pigment accumulation and reversing the process of ageing. It is in this context that this chapter seeks to sketch a theoretical map that can reveal how anti-ageing whiteness and the globalization of the skin-whitening industry came to be associated with regenerative wellness.

Whiteness and regenerative wellness in an historical context

In the history of European colonial medical and ecological discourses, regenerative whiteness had been associated with the 'temperate zone' (Anderson, 2003; Berger, 1997; Blaut, 1992; Crosby, 2004; Dyer, 1997; Johnson, 2009). Theorists of the European colonial era had argued that cold climate conditions induced regenerative qualities and that warmer climate conditions induced racial degeneration and civilizational stagnation. According to these ecological and environmental theories, the embodiment of whiteness gave people living in colder climate zones evolutionary advantages (Anderson, 2003; Blaut, 1992). Environmental determinists of the colonial era believed that temperate climate conditions were conducive in cultivating autochthonic whiteness and that autochthonic whiteness was an ecological marker of the evolutionary process (Crosby, 2004; Blaut, 1992; Mohanram, 1999).

According to this formulation of environmental determinism, people who stay in temperate climate conditions eventually become white and the determinists state that white people have gained evolutionary advantage over people living in tropical zones because a tropical climate supposedly suppresses natural evolutionary processes (Crosby, 2004; Mohanram, 1999). In this way, living in cold climate conditions has been signified as the primordial condition of the ecological embodiment of European identity (Anderson, 2003; Crosby, 2004; Mohanram, 1999). Additionally, since it naturally emerged from the cold soil of the temperate climate, autochthonic whiteness continues to act as a catalyst for racial and technological progress (Blaut, 1992). During the height of European colonial expansion this theory became highly influential. Thus, in *Ecological Imperialism: The Biological Expansion of Europe, 900–1900* (2004), Crosby proposed a bold thesis that traced a thousand years of European colonial expansion to the entire temperate zones of the world, explaining it as the outcome of European evolutionary advantage. Crosby argued that the ecological conditions of the temperate zones acted as catalysts in facilitating European settlements in the temperate zones of the world (2004, p. 17). Crosby used the racialist concept of 'Caucasian' to signify the environmental deterministic basis of autochthonic whiteness of the cold climate conditions to reinforce the supposedly teleologically driven spectacular advances of European imperialism.

Crosby theorized that European expansion to the temperate zone was both a historical process but also a teleological unfolding of a European Caucasian white race whose evolutionary advantage was due to the 'superior qualities' of European whiteness (2004, p. 17). However, the racial concept of Caucasian whiteness was published for the first time by Johann Frieedrich Blumenbach in 1776 (Eze, 1997, p. 84). Blumebach's theory of Caucasian whiteness was based on an ecologically induced process of regeneration through which an originally brown-skinned tribe left Asia, eventually entering a European cold climate via the Caucasus Mountains (Dyer, 1997; Eze, 1997). Crosby reformulated Blumenbach's theory on the spatial birthing of a Caucasian white European race into a story about a thousand years sage of European imperial expansion to the entire temperate zones of the world. Other theorists have argued that the racial articulation of European whiteness started with the Christian Crusaders in the Middle Ages (Gose, 2008). Avoiding engaging in the complex reasons which facilitated successful European colonial expansion not only to the temperate zones, but also to the tropical zones, Crosby made the following overarching statement which attributed Caucasian whiteness as the primary catalyst in advancing European ecological imperialism:

> Europeans, a division of Caucasians distinctive in their politics and technologies, rather than in their physiques, live in large numbers and nearly solid blocks in northern Eurasia, from the Atlantic to the Pacific. They occupy much more territory there than they did a thousand years or even five hundred years ago, but that is part of the world in which they have lived throughout recorded history, and there they have expanded in the traditional way,

> into contiguous areas. They also compose the great majority in the population of what I shall call the Neo-Europes, lands thousands of kilometers from Europe and from each other.
>
> *(Crosby, 2004, p. 2)*

It is not clear how Crosby arrived at what triggered the onset of the European conquest of the temperate zones just in the thousand years and why this process did not start earlier. Nevertheless, Crosby attributed the autochthonic natural process as the cause of the European evolutionary impulse of Caucasian whiteness. It is interesting that despite invoking Caucasian whiteness as an outcome of the autochthonic ecological process and the Eurasian space as the primordial birthplace of European Caucasian whiteness, Crosby excluded Central Asia or countries which fall within the path of the Silk Road in not making significant contribution to the advances of world civilization (Crosby, 2004). Thus, there is clearly discernable Anglo-American theoretical orientation in Crosby's *Ecological Imperialism*. This is perhaps one of the reasons this book has become highly influential. In this work, Crosby offered a simplistic story of European imperial expansion, and the geographical advantage of the temperate climate and the 'making' of the Neo-Europes, which according to Mohanram sounded more like 'a description from a real estate catalogue' (1999, p. 12).

According to Mohanram, what united the 'old Europe' with the Neo-Europes of settler colonies in Crosby's book was his focus on ecological racism and how the fecundity of the soil in the temperate zones supposedly gave Europeans unique qualities of intellectual and spiritual superiority (Mohanram, 1999, p. 12). It is in this context that the European discourse of Eurocentrism advanced and continues to promote a pseudo-science of ecological discourses to justify European brutal imperialism by turning colonial violence into a teleological unfolding of European Caucasian whiteness (Anderson, 2003; Blaut, 1992; Mohanram, 1999). In this way, Eurocentric ecological imperialism articulated a dialectically and hierarchically brutal history of white colonial order in which whiteness was associated with enlightenment, order, cleanliness, self-control and technological progress, whereas people who lived in warmer climates were linked to environmentally induced tropical diseases, racial degeneration and cultural stagnation (Anderson, 2003; Johnson, 2009; Blaut, 1992).

However, European imperial expansion faced serious challenges with respect to the tropical zones. This is because the tropical zones were thought be reservoirs of disease and degeneracy (Anderson, 2003). European colonial theorists claimed that tropical zones represented cultural and technological stagnation of non-white races (Anderson, 2003, p. 96). European fear of tropic disease and racial degeneration became particularly acute when they decided to set up white settler colonies in tropical spaces such as Australia. Anderson (2003) convincingly demonstrated how British colonial authorities feared potential white racial degeneration and it became a highly controversial issue in the late nineteenth-century British colonial

debates around whether Northern Australia could ever be turned into a white settler colony.

> As the southeastern parts of Australia became a domesticated British territory, the northern tropics continued to challenge even the most hardy of white sojourners. By the end of the nineteenth century, the temperate zone of the continent was exonerated as a cause of disease or degeneration among transplanted Britons, but above Capricorn heat and moisture still threatened to sap the vital forces of working white men and their dependent wives and children.
>
> *(Anderson, 2003, p.73)*

The challenges of tropical heat and humidity presented three options for the British colonial administrators. First, abandon setting up permanent white colonial settlements in the tropical zone such as Northern Australia. Second, endorse setting up permanent white settlements in tropical climate zones by accepting potential racial degeneration among white settlers as one of the inevitable consequences of creating white settler colonies in warmer climate zones. Third, set up permanent white colonial settlements in tropical zones but find ways to introduce prophylactic whiteness into the tropical climates so as to protect white colonial settlers from the harmful effects of tropical heat and humidity.

Anderson argued that it was those with the third option whose opinions finally prevailed when the decision was made to finally turn Northern Australia into a white colonial settlement. In this way, locating white colonial settlers in the warmer climate zones required turning the tropical heat and humidity into a safe space for whites through the diffusion of whiteness into it. Thus, once the decision was made to settle whites in Northern Australia the overriding task for British colonial administrative and medical expertise was finding ways to make Northern Australia spatially and racially white (Anderson, 2003). Turning Northern Australia into a white temperate space required, first, quarantining it off as a space of blackness and racial degeneration and, second, introducing whiteness as a regenerative purification strategy so that the tropical landscape itself was expected to eventually become more like a temperate white colonial space.

> Increasingly, the Australian tropics were marked off as a separate, racially dubious territory, in contrast to the more cultivated, picturesque, and innocuous southeastern crescent. In medical texts, geographical reports, and popular literature, 'tropical' was positioned against 'temperate'; 'wildness' against 'civilization'; 'promiscuity' against 'restrain'; and in a racial summation of these dichotomies, 'colored' contrasted with 'white'.
>
> *(Anderson, 2003, p. 73)*

Consequently, turning a tropical zone into a temperate and white space required flipping each item from a potential negative to its opposite. This theory also became

the foundation of the most powerful Eurocentric colonial discourse that asserted that colonizing non-white people with Europeans could be morally justified in the name of diffusing whiteness to non-white spaces and into non-white bodies (Anderson, 2003; Blaut, 1992).

Theorizing recuperative whiteness

Evolutionary accounts of the concept of regenerative whiteness can be traced back to late seventeenth-century European colonial ecological determinism (Crosby, 2004; Eze, 1997). It also became once again popular at the height of nineteenth-century British colonial medicine (Anderson, 2003; Johnson, 2009). From the perspective of European environmental determinism, the myth of regenerative whiteness can also be traced to the 'spatial birthing' of Caucasian whiteness (Dyer, 1997; Eze, 1997). Tracing the entwining histories of colonial ecological imperialism and the spatial birthing of the Caucasian race could help explain the reasons why anti-ageing biotechnology promulgates tropes of regenerative benefits of therapeutic whiteness. The myth of the spatial birthing of the Caucasian race was the first and most influential theory of environmental racism (Dyer, 1997, p. 44; Eze, 1997, p. 80). The environmental basis of the birth of Caucasian whiteness centred around the claim that a brown-skinned Asian tribe called Aryan left the tropical climate of Asia and eventually entered Europe via the Caucasus Mountains (Dyer, 1997; Eze, 1997). The corporeal transformation of the members of the Aryan tribe was supposedly the result of a slow process of autochthonic transformation that eventually gave birth to a new white European race (Dyer, 1997; Eze, 1997).

The corporeal transformation of the brown-skinned Asian Aryan tribe into a white European Caucasian race was supposedly induced by the cold climate, snow and the rugged mountains of the Caucasus (Dyer, 1997, p. 22). The claim that, over time, cold climate conditions turned brown-skinned people into white was theorized as an example of a reversible evolutionary process of racial regeneration (Eze, 1997, p. 81). However, this theory also presented problems for the European colonial authorities. For example, if relocating brown people to cold climate conditions could transform them into white people, the reverse process was also possible if white-skinned people relocated and transplanted to the heat and humidity of the tropical climates: they could turn to brown and eventually to black. This reversible evolutionary process was therefore contingent to environmental conditions (Anderson, 2003; Eze, 1997). As a result, environmental racism suggested that white Europeans could face evolutionary reversal and racial degeneration if they left the temperate zones and relocated to warmer climates for prolonged periods (Anderson, 2003; Johnson, 2009).

Fear of potential white racial degeneration was one of the recurring themes of the eighteenth- and the nineteenth-century European colonial literature. Hence, whereas European conquest of the tropical zones gave them access to immense material wealth, fear of white racial degeneration became an obstacle to colonial expansion to tropical climates. So, finding out how to reduce the negative effects of

a tropical climate on a white body required the diffusion of whiteness through various means into tropical colonial spaces (Anderson, 2003; Johnson, 2009). From the standpoint of colonial medicine, the idea that whiteness had regenerative qualities became a catalyst and endorsement for purging and bleaching out any unwanted black and brown pigment accumulation on the bodies of the members of the white colonial settlers (Anderson, 2003; Johnson, 2009; McClintock, 1995). Diffusing whiteness also reinforced European racialist discourse that blackness was an outcome of racial degeneration and that the tropical zones were loci of chaos and disease (Anderson, 2003; McClintock, 1995).

The idea that tropical spaces, and Africa in particular, were spaces of danger and disease were widely expressed not only in colonial policy papers and medical discourse, but also in European colonial literature. For example, Conrad's nineteenth-century novel, *Heart of Darkness* (1963), provided an excellent literary representation of the tension between European economic interests, which required traveling to the 'tropical' hot and humid spaces to access material wealth, and their fears of suffering racial degeneration and disease. In *Heart of Darkness*, contradictory tensions between the European colonial desire to conquer and exploit the African continent's massive material wealth and the fear of racial degeneration became apparent when Kurtz, a white colonial emissary, was ordered to sail 'down' to the heart of the Congo to secure ivory tusks and bring them back to Europe. Kurtz's travel to the tropical heat of Africa faced the dilemma that he could become racially degenerated.

This fear was soon realized when Kurtz quickly succumbed to the African heat and humidity as well as coming under the influence of African 'magic' and 'witchcraft'. As result, Kurtz became a willing participant in ritualized cannibalism and witchcraft practice. As a work of fiction, *Heart of Darkness* is a brilliant social critique of European imperialism. In several scenes the novel enacts the symbolic transformation of blackness into whiteness and whiteness into blackness. For example, from the outset of the novel, Kurtz's primary mission in going to the Africa was to procure precious and ironically 'white'-looking ivory tusks. However, getting the ivory tusks required killing the elephants. The colonial violence of killing elephants for their tusks was symbolically marked in the novel as an allusion to Kurtz's eventual racial degeneration as he slowly turned from a white European man into a 'degenerate' cannibal beast in the heart of the African tropical space. It is interesting that Kurtz's degeneration was addressed as a collective European crime instead of treating it as the result of personal transgression.

> All Europe contributed to the making of Kurtz, and by and by I learned that most appropriately the International Society for the Suppression of Savage Customs had entrusted him with the making of a report for its future guidance. And he did written it too. I've seen it . . . He had found time for it. But this must have been before his – let us say – nerves went wrong and caused him to preside at certain midnight dances ending with unspeakable rites,

> which – as far as I reluctantly gathered from what I heard at various times – were offered up to him . . . to Mr. Kurtz himself.
>
> *(Conrad, 2003, p. 110)*

Another colonial-era European novel in which European desire to exploit African riches was implicated in acts of bloodshed and fear of white racial degeneration is in Henry Rider Haggard's *King Solomon's Mines* (McClintock, 1995, p. 5). Similar to Conrad's *Heart of Darkness*, *King Solomon's Mines* starts with three English men taking a 'parlous' journey 'down' into the tropical heat of Southern Africa as they searched for a map that lead to the secret passage of a diamond mine which was originally drawn in 1590 by a Portuguese trader named Jose da Silvestre (McClintock, 1995, pp. 1–5). Just as in *Heart of Darkness*, *King Solomon's Mines* tells a story of how the European quest for possessing another bright-white African resource (finding a hidden diamond mine) required Europeans to risk death and destruction and potential racially degenerate. It was here that the three Englishmen ritualistically killed and dismembered the body of an African witch.

> The map, we are told, is a copy of one that leads three white Englishmen to the diamond mines of Kukuanaland somewhere in southern Africa. The original map was drawn in 1590 by a Portuguese trader, Jose da Silvestre, while he was dying of hunger on the 'nipple' of a mountain named Sheba's Breast. Traced on a remnant of yellow linen torn from his clothing and inscribed with a 'cleft bone' in his own blood, da Silvestre's map promises to reveal the wealth of Solomon's treasure chamber, but carries with it the obligatory charge of first killing the black 'witch-mother', Gagool.
>
> *(Henry Rider Haggard (1885)* King Solomon's Mines. *London: Dente. pp. 74, 84. Quoted in McClintock, 1995, p. 1)*

One of the results of European fear of racial degeneration in the era of high European colonial expansion to Africa and Asia was the rise of racial hygiene (Anderson, 2003; Johnson, 2009). It was during this period that the trope of recuperative whiteness played a key symbolic role in the process of a European attempt to diffuse whiteness into tropical spaces. Thus, in the era of European colonial expansion to the tropic zones of Africa and Asia, a dialectic of climate determinism was situated at the juncture between European fear of contagion of blackness and the vulnerability of white colonial settlers to the potential reversibility to blackness, as well as potential invasion of blackness into the European spaces of whiteness. The dialectical reversibility of whiteness into blackness and blackness into whiteness had also been critical in European colonial medicine.

It also continues to play an important role in the current marketing of anti-ageing whiteness in the name of fighting premature ageing and pigment accumulation among ageing white women. It is in this context that understanding historical roots of regenerative whiteness and its potential capacity to reverse 'degenerative'

blackness into whiteness is critically important. Consequently, contemporary association of whiteness with recuperative wellness continue to influence.

Northern reflections: autochthonic whiteness of the Great White North

Ecological discourse around recuperative whiteness also influenced the immigration and health policies of colonial white settler states such as Canada (Berger, 1997; Dyer, 1997). In the specific case of Canada, recuperative whiteness and its ecological formulations favouring the Canadian cold climate also strongly influenced Canadian visual culture. Canadian visual culture is imbued with motifs of 'autochthonic' whiteness (Berger, 1997; Dyer, 1997). Exemplary artistic rendition of imagined Canadian autochthonic whiteness can be gleaned from the trope of the *Great White North* (Berger, 1997). The myth of the Canadian Great White North has its ideological roots in the ecological myth of the 'Canadian wildness' (Berger, 1997). The ecological roots of Canadian whiteness shaped, and continue to influence, Canadian identity of the Great White North (Berger, 1997, p. 84). The trope of the Great White North subtly and ubiquitously frames everything and anything Canadian through whiteness. Of course, given the Canadian official discourse of multi-culturalism and the denial of whiteness as an official public ideology, one needs critically trained eyes to see how whiteness visually permeates dominant Canadian cultural representations.

The myth of the Great White North reflects on the belief that autochthonic whiteness shaped and continues to influence the distinctive Canadian white national character in two specific and closely related ways. First, this myth itself was influenced by the Aryan turning into a Caucasian white race (Dyer, 1997, p. 22). The Aryan mythology and the Canadian Great White North share common ideological roots grounded in the belief in recuperation of whiteness through which a brown-skinned Asian tribe became a white European race. Earlier forms of European ecological racism were imported and reformulated and redeployed to capture the sublime beauty of the Canadian landscape, including its coldness, clear waters, rivers, majestic mountains and water falls (Berger, 1997; Dyer, 1997).

The intertwining myths of the Canadian Wilderness and the Great White North formed the foundations of Canadian visual culture. Both myths use the Canadian landscape as a crucial site to construct and widely disseminate racialized aesthetics of Canadian whiteness. As a result, Canadian visual culture is deeply rooted in the belief that the Canadian cold climate is the primary source of Canadian whiteness. This imagined Canadian autochthonic whiteness had its most significant visual expression in the paintings of the Group of Seven (Berger, 1997, p. 95). Paintings by the Canadian artists famously known as the Group of Seven often invoked the Canadian landscape as the primary source of their artistic inspirations (Walton, 2007, p. 141). For example, Lawren Harris, a member of the Canadian Group of

Seven, openly associated that the Group's artistic sensibility to the 'unique' Canadian landscape, its vastness and all its grandeur, harsh coldness and remoteness.

> We live on the fringe of the great North across the whole continent and its spiritual flow, its clarity, its replenishing power passes through us to the teeming people of south of us.
>
> *(Lawren Harris quoted in Walton, 2007, p. 141)*

Lawren Harris's vivid reflection on the Canadian natural landscape in terms of 'spiritual flow, its clarity, its replenishing power passes through us to the teeming people of south of us' made an unmistakable allusion to the 'flow' the Canadian Northern 'whiteness'. This Northern whiteness was the source of the Group of Seven's artistic impulse and its spiritual energy. Canadian whiteness is the 'energy' that can 'replenish' the collective Canadian identity with Canadian Northern whiteness, which then flows 'down' south, an area considered to be racially and geographically below Canada (Dyer, 1997, p. 22). It is in this allegorical sense that the Canadian Northern whiteness purifies and cleanses all trace of ethnic and racial admixture transforming these amalgamations of European and non-European immigrants into a racially specific, Northern white race (Dyer, 1997; Berger, 1997).

It is through this complex, symbolic representation of the Canadian autochthonic Northern whiteness that the paintings of the Group of Seven sought to visually capture and aesthetically disseminate the idealized source of Canadian identity. Of course, the artistic work of the Group of Seven was part of a much broader myth around the *Canadian wilderness* as the source of 'clean/pristine' and 'regenerative' whiteness (Berger, 1997, p. 83). Thus, it is no accident that Canadian whiteness is often expressed in spatial terms as 'up' North, as opposed to the US being located 'down' South (Dyer, 1997, p. 21). It is critically important to stress that visual and other symbolic signs which associate the Canadian climate with recuperative whiteness were themselves the outcome of the rebranded eighteenth- and nineteenth-century European myth of Caucasian whiteness (Dyer, 1997, p. 22; Berger, 1997, p. 94). One of the ways in which colonial belief in the regenerative power of the Canadian cold climate shaped policies was in the history of the Canadian immigration policies. The main controversy of the Canadian immigration policies in the nineteenth century centred around whether to let non-Anglo Saxon, primarily Eastern European immigrants, into the country. There were two camps with contradictory opinions about this issue. The first camp promoted the position that the Canadian cold climate had transformative and therapeutic benefits which could improve the corporeal heath and racial constitution of the new immigrants and that in due time these immigrants would become 'legitimate' members of the Canadian Northern white race.

The other camp was against letting non-Anglo Saxon new settlers into the country for fears that their presence would 'dilute' the Anglo Saxon settler bloodstock. Berger cited immigration policy documents and medical opinions of that era and revealed

how opinions of those who believed in the recuperative qualities of the Canadian cold climate had prevailed over those who opposed the introduction of non-Anglo Saxon immigrants into Canada had deleterious consequences (Berger, 1997). Berger also revealed that social policies around the racial and health 'benefits' of recuperative whiteness of the Canadian Northern climate were part of a bigger British colonial project.

> In the rhetoric of the day, Canada was the 'Britain of the North', 'this northern kingdom', the 'True North' in Tennyson's phrase, the 'Lady of the Snow' in Kipling's. 'Canada is a young, fair and stalwart maiden of the north.' 'The very atmosphere of her northern latitude, the breath of life that rose from the lake and forest, prairie and mountain, was fast developing a race of men with bodies enduring as iron and minds as highly tempered as steel.'
>
> *(Berger, 1997, p. 84)*

Phrases such as the 'Britain of the North', 'True North', 'The Lady of Snow', in the above quoted passage provide excellent symbolic imagery of Canadian whiteness and Canada as an ideal white settler colony upon which the future of the British racial progress depended. The symbolic images which frame Canada as a newer, purer and stronger version of Britain in North America depended on conflating ecological imperialism (Crosby, 2004) with recuperative whiteness (Berger, 1997; Dyer, 1997). What connects these concepts was their alleged capacity for regenerative 'whitening' effects and the cold Canadian climate. The overriding colonial confidence that the Canadian cold climate could facilitate evolutionary advantage became the foundation of the Canadian racial formation and consolidation as a new and 'superior' white settler colony in North America. British colonial confidence in Canada as an ideal white settler colony contrasted with the British colonial fears that Northern Australia would cause potential white racial degeneration because of its close proximity to the tropical climate zone (Anderson, 2003, p. 73).

Consequently, whereas British colonizers thought that Canada was an ideal source of whiteness, they considered Australia a potential site of white racial degeneration. British colonial representation of Canada as a source of regenerative whiteness could also be gleaned from eighteenth-century landscape sketches by the British landscape artist William Henry Bartlett (Campbell, 1968). In his landscape drawings and the accompanying text commentaries, Bartlett sought to conflate the sublime beauty of the Canadian landscape and its supposed capacity to transform European settlers into members of a new and superior white race (Campbell, 1968). Thus, after visiting Niagara Falls, Bartlett expressed his sublime experience in terms of transcendental whiteness:

> I cannot describe the scene, but I can tell you that you would be so transported as to wish to be an disembodied spirit, to mix with the wild light of the waters, to rise on the ceaselessly mounting spray and to toss on the dim white waves far below.
>
> *(Bartlett, quoted in Campbell, 1968, p. 14)*

Bartlett first traveled to Canada in 1838 and made several subsequent visits to both Canada and the US (Campbell, 1968, pp. 12–16). During his travels in different regions of North America's white colonial settlements, Bartlett made numerous sketches of the natural landscapes, including Niagara Falls. Those sketches were then mass reproduced in such forms as engravings, postcards, newspaper articles and travel brochures and were widely distributed all over the British colonies (Campbell, 1968). Mass circulation of these cheaply produced art forms was designed to visually convey Canada as a locus of ideal whiteness. These visual images conveyed meanings which invested and imbued the Canadian landscape with the capacity to 'rejuvenate', 'restore', 'recuperate', 'transform' and 'purify' white bodies. These ideas conveyed the strong evolutionary imperatives of white racial progress.

> The special importance of the Canadian climate, therefore, was not merely that it sustained the hardy character of the stronger races, but that it also constituted, in Darwinian terms, 'a persistent process of natural selection'.
>
> *(Berger, 1997, p. 98)*

The 'persistent process of natural selection' in this context means that members of 'weaker' races were not expected to flourish in the harshly cold Canadian winter, but that the Canadian climate would also produce the strongest people. The Darwinian reading that Canadian cold climate conditions promoted racial progress and warmer climates caused evolutionary stagnation and racial degeneration was not limited just to the thinking of the British colonialists. Benthien (2002) traced eighteenth- and nineteenth-century German biomedical narratives which sought to link pigmented skin with racial degeneracy. German naturalists of that era claimed that the blackness of Africans was caused by the heat and humidity of the tropical climate, but also by lack of proper hygiene (Benthien, 2002, p. 160).

Anti-ageing wellness in the age of climate change

This theoretical chapter uses historically grounded analysis to reveal the historical processes through which recuperative whiteness came to be implicated in diverse practices which facilitated European colonial expansion and European practice of colonial medicine and racial hygiene. This theoretical approach aims at revealing how colonial belief that whites promoted evolutionary progress played a critical role in the shaping of colonial-era European racialist policies and practices. This final section seeks to map out the contemporary promotion of anti-ageing products which often position the white female body as 'uniquely vulnerable' to environmental deterioration, air pollution, artificial lightening and a myriad of environmental encounters, and how recuperative whiteness is promoted as a remedy against these undesirable environmental aggressors. The emerging anti-ageing whiteness has also given rise to new types of pseudo-pathologies such as 'age spots', 'hyper-pigmentation' and 'photo-ageing'.

However, whereas in the colonial era therapeutic whiteness had primarily focused on racialist agendas, in the contemporary anti-ageing discourse, gendered vulnerability has become the primary locus to articulate the ill-effects of climate change and ecological crisis. It is in this context that contemporary anti-ageing whiteness is implicated in ecological sexism and racism. Consequently, tracing the historical roots of the contemporary phenomenon of anti-ageing biotechnology as a resource of recuperative whiteness reinforces the racialized and gendered privilege of whiteness by putting a new focus on the ecological-based gendered biomedicalization of ageing women, especially white middle-aged women. Biomedicalization of ageing shifts historical European colonial preoccupation with racial degeneration into one of contemporary fear of ecological crisis, environmental deterioration and urban pollution and their deleterious implications for ageing white women.

Biomedical construction of ageing in women, and white middle-aged women in particular, enables the discursive articulation, the material production, dissemination and validation of knowledge about ageing. It also shapes social policies and could influence broader societal attitudes toward ageing as a 'social problem' (Petersen & Seear, 2009). It is in this regard that a careful examination of the social and ethical implications of anti-ageing whiteness requires investigating how the discursive construction of ageing as a disease requires the demarcation and exclusion of the poor and other marginalized bodies as potential sites of racialized and gendered vulnerabilities. From the standpoint of anti-racism and feminist analysis, linking anti-ageing whiteness engenders sexism and ageism, in addition to racializing tendencies, is urgent. Thus, it is no accident that the old colonial discourse around recuperative whiteness has re-emerging anew in the skin-whitening and the anti-ageing wellness industry. Consequently, the concepts developed in this chapter will be used in the remaining chapters of this book in order to reveal how the discourse of premature ageing and overall believe in the health-promoting qualities of whiteness have facilitated the research and development, and the globalization of the anti-ageing and skin-whitening lucrative market with profound social, health and ethical implications.

Contesting the proliferation of anti-ageing whiteness is urgently needed because these products are unregulated and they claim to have the capacity to penetrate and transform the body's physiology and structure, including the ability to eliminate skin pigment. As was noted in the introductory chapter, these products are often marketed to affluent consumers to promote a 'healthy lifestyle' and fight the visible signs of ageing. As a result, revealing broader implications of anti-ageing whiteness requires explicating and critically examining the economic and social drivers behind the globalization of skin-whitening and anti-ageing recuperative whiteness. Aggressive promotion of skin-whitening and anti-ageing recuperative whiteness share the common goal of eradicating the dark skin tones of non-women and promise to turn them to 'whiter', and 'brighter' new post-colonial subjects. At the same time, these products entice middle-aged white women with the promise of anti-ageing recuperative whiteness to 'restore' and 'purify' their bodies by removing the visible signs of ageing.

This research is urgently needed because the world is experiencing fast-developing ageing demographic dynamics and this trend has created heightened

concerns with demographic density and meeting the needs of an increasingly ageing population. These changes are often described in terms of the biomedicalization and 'feminization' of ageing. Feminization of ageing underscores the representation of women's bodies as 'uniquely weak' and amenable to endless fixing, transformation, control and discipline (Morgan, 1998; Henning, 1999). The association of premature ageing with gendered vulnerability and racialization can be evidenced from the current aggressive marketing of a plethora of anti-ageing cosmetics towards women to 'cure' and 'mitigate' the visible signs of ageing.

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3

'FACE NORTH AND SMILE'

Biomedicalization of ageing and 'science-based' whiteness therapy

This chapter brings into focus the discursive biomedicalization of ageing in women and the trope of 'recuperative' whiteness as a symbolic embodiment of agelessness. These two themes, the biomedicalization of ageing and recuperative whiteness as a marker of agelessness, are recurring features of the emerging anti-ageing industry. As a discourse, practice and industry, skin-whitening with anti-ageing aims is premised on restoring a youthful appearance to ageing white women. Consequently, this chapter examines how the anti-ageing discourse came to be associated with the biomedicalization of visible signs of ageing, such as 'age spots' and 'hyper-pigmentation', especially in white middle-aged women. This is done by tracing the historical roots and contemporary relevance of the material and symbolic association of youthful feminine appearance with regenerative whiteness. The primary objective of this analysis is to reveal how promotions for skin brighteners and skin whiteners promulgate ageless beauty, primarily to white women. These products are positioned as remedies to ageing. The aim of this undertaking is to reveal the extent to which discursive conflation of anti-ageing wellness with the skin-whitening industry is deeply implicated in ageism, sexism and the pathologizing of women's bodies and skin. When read through contemporary dynamics of science, ecology, gender, race and class relations of power, advertisements for anti-ageing therapeutic whiteness exploit white middle-class women's preoccupation with premature ageing and the desire to shield their bodies from the harmful effects of ecological/environmental deterioration, climate change and urban pollution.

The glow is the real

However, anti-ageing wellness and ageless beauty are not new phenomena. Since the onset of the Victorian age of empire and industrial revolution in Britain, the concept of the feminine glow had been associated with upper-class women's

leisurely existence, whereas the concept of shine signified the sweaty and labouring bodies of the working-class woman (Dye, 1997; McClintock, 1995). In addition to this, the unfeminine shiny and greasy visual reflections had also been implicated in the discursive racialization of non-white colonized bodies (Dyer, 1997; McClintock, 1995). Contemporary marketing of anti-ageing products which promise to restore feminine glow to primarily white middle-class women represents rebranding of these old concepts. Additionally, marketing feminine glow as a cure against visible signs of ageing is based on the biomedicalization and pathologizing of visible signs of ageing in white middle-class women (Gerber, Kukova, Bölke, Homey, & Diedrichson, 2014; Sator, 2006; Silva & Carneiro, 2006).

Biomedicalization of ageing is reinforced with the coercive demand that women, and white middle-class women in particular, should appear ageless and desirable at any age (Angus & Reeve, 2006; Fairclough, 2012; Gibson, 2006). The subtly coercive imperative that women should always aim to attain and remain ageless is promulgated through the rational choice marketing discourses within the framework of the neo-liberal healthcare discourse of self-responsibility (Ayo, 2010; Rudman, 2006). For example, age spots and hyper-pigmentation, and other visible imperfections, on the faces and bodies of middle-aged white women are often conceptualized as individual failure to protect oneself against prolonged and 'unprotected' exposure to everyday environmental risks (Henning, 1999). It is claimed that women's failure to protect themselves against everyday environmental risks could result in 'premature' ageing. Increased exposure to risk factors such as urban pollution, lack of exercise, smoking and climate changes are all considered factors which could increase the risks of premature ageing in white women (Henning, 1999). Framing women's bodies as already always vulnerable to environmental stresses is key to framing women's bodies as uniquely more susceptible to premature ageing than men's bodies (Angus & Reeve, 2006; Gibson, 2006; Morgan, 1998; Shildrick, 2002; Tunaley, Walsh, & Nicolson, 1999).

Consequently, skin brighteners and skin whiteners are positioned as a legitimate means of removing visible signs ageing from women's bodies and faces, especially with respect to ageing white middle-class women (Henning, 1999; Mire, 2014). It is critically important to stress that while white women are the primary target of the anti-ageing whitening industry, the same products are marketed to non-white women as well (Mire, 2014). However, white middle-class women have been identified as 'uniquely' worthy of being protected from the ill-effects of urban stress, environmental pollution and undesirable lifestyles (Henning, 1999). Consequently, this chapter traces the discursive processes and concrete practices through which premature ageing in white women came to be constituted as a site of gendered vulnerability. It is in this gendered and racialized context in which skin whiteners, skin brighteners and skin lighteners came to be used as anti-ageing remedies to remove visible signs of ageing in white middle-aged women. There is also a plethora of other procedures, including elective surgeries and Botox injections, which are used to alter the appearance of ageing female (and male) consumers (Gillespie, 1997; Rudman, 2006). However, skin-whitening products with anti-ageing aims

are positioned to prevent 'excessive' pigment accumulation which is considered as the leading cause of premature ageing among white middle-class women.

Consequently, discursive conflation of premature ageing with 'excessive' pigment accumulation has become the ideological foundation of new types of pseudo-disorders such as age spots, photo-ageing and hyper-pigmentation. These pseudo-pathologies have led to mass promotion of unregulated skin-whitening biotechnologies which promise to remove these pigmentation disorders and restore women to ageless, glowing embodiment (Henning, 1999; Mire, 2012). There is also strong evidence that the cosmetics and the biotechnology firms behind the anti-ageing wellness deliberately position white middle-class women as 'uniquely' vulnerable to these pseudo-pigmentation disorders (Sator, 2006; Serri & Iorizzo, 2008; Symrise, 2017). Thus, the complex interplay of gender, class and race dynamics enables and reinforces the discursive normalization of an ideal feminine image as a youthful-looking white female with smooth and glowing skin. As a result, in the process of consolidating women's fear of pigmentation disorders, advertisers for the anti-ageing products often use visual images of youthful-looking female models with glowing faces as the paradigmatic standard of beauty and desirable femininity. These images are widely circulated in social media and in the wide, popular visual culture in the West and globally (Ferrier, 2017).

As a marketing trope, glowing femininity acts as a visually powerful symbolic instrument that facilitates the erasure of the lived experiences of ageing women. It is in this historicized context that the embodiment of ageless skin that the anti-ageing industry promotes sets up an untenable standard of desirable beauty. As a marketing trope, the visual production of glowing femininity also facilitates the global promotion of unregulated skin-whitening and anti-ageing products to non-white consumers in the Global South for the purpose of acquiring lighter skin tones (Mire, 2014; Symrise, 2017). These biotechnologies are quasi-pharmaceutical products which are marketed directly to consumers, often without regulatory oversight (Mire, 2012). Faced with the absence of credible evidence of any therapeutic efficacy of these products, the promoters often use dazzling images of young women with glowing faces to reinforce the desirability of whiteness consumerism (Cosmeticsdesign-asia.com, 2018; Symrise, 2017).

A real lady glows: the Victorian 'angel in the house'

The contemporary promotion of whiteness consumerism can be traced to the visual construction of the ideal Victorian woman (McClintock, 1995, p. 161). The Victorian ideal woman was often visually captured in paintings, photography and in commercials for cosmetics and soaps as tranquilly 'bathing' in ethereal whiteness (Dyer, 1997, p. 122). According to historical scholarly literature, nineteenth-century Victorian Britain ushered in the discursive constitution and popularization of a new idealized female type: an 'angelic-looking and passively glowing' figure whose normalization required a systemic erasure of all traces of stress and physical labour from her face. The discursive construction of the angelic woman with no

worldly ambitions of her own had been symbolically secured by systematically erasing actual women's greasy, dirty and labouring bodies from public view. These are the historical roots of the contemporary vision of the glowing, youthful-looking female as the ideal model in marketing for anti-ageing products.

In the anti-ageing advertisements, consumers are often enticed with powerful messages which encourage consumers to attain ageless and glowing skin by purchasing and consuming expensive skincare biotechnologies. These are often skin whiteners, skin brighteners and skin lighteners which supposedly make the visible signs of ageing disappear. These products are marketed under various branding and one of the them covers anti-ageing. Similar trends which associate bodily transformations with gaining a glowing appearance and ageless beauty can be gleaned from promotions promulgated by the cosmetics surgery industry as well as the broader wellness industry. For example, in *Bodies Without Histories* (2006), Gibson argued that 'Because cosmetic surgery alters the history of family resemblance through the body, there are implications too for photographic records of resemblances' (p. 51). By promising all women the same standards of ageless beauty, advertisements for anti-ageing promotions make family resemblances and historical records of lived experiences meaningless.

Comparing contemporary anti-ageing discourse around ageless embodiment with the Victorian ideal woman based on the disembodied angelic figure is instructive to this analysis because both are based on the erasure of the lived experiences of women. The symbolic erasure of women takes many forms. For example, in the Victorian era, visual cultural practices often framed the ideal image of a 'proper lady' as an angelic figure bathing in an ethereal glow (McClintock, 1995). This was the outcome of three centuries of complex historical processes which started in the seventeenth century and which culminated in the systematic marginalization of women in the middle of the nineteenth century (Lown, 1990; Keller, 1985; McClintock, 1995). The systematic removal of women from the paying labour force was done through various means, including the mechanization and consolidation of industrial-scale factory-based mass production of goods which were once made by tradeswomen (Lown, 1990; McClintock, 1995; Mies, 1986).

In the middle of the nineteenth century, when women were finally excluded from partaking in the skilled crafts and small trades they once dominated, women's role in the new British industrial capitalist society had been reformulated and relocated almost exclusively to the private sphere of domesticity (Keller, 1985; McClintock, 1995. In addition, women themselves were reconfigured as a 'delicate subject' with frail psychological dispositions and a vulnerable body (Ellison, 1990; Shildrick, 2002; Thompson, 1997). In addition, new moral, ethical, medical and philosophical discourses were developed to back up the claim that women were incapable of coping with the stresses and strains of 'technological modernity' (Henning, 1999, p. 22; Morgan, 1992, p. 310). The masculinist theorists of the era had formulated ideas and concepts which framed women as uniquely vulnerable to physical exhaustion and mental fatigue from 'overstretching' their physical and mental capacities (Henning, 1999, p. 24). It is interesting that the primary focus of theories, discourses and

disciplinary interventions was on middle-class women. Middle-class women were encouraged to avoid strenuous mental and physical activities which could place undue stresses on their 'frail bodies' (Ellison, 1990; Henning, 1999; Morgan, 1992; Thompson, 1997).

While Western philosophers outlined the abstract theoretical framework which provided the moral justification for the exclusion of women from the public sphere as rational agents (Morgan, 1992, p. 309), the nineteenth- and early twentieth-century Western 'medical experts' provided the required 'scientific evidence' that women were suffering from unique bodily and psychological traumas from exposure to powerful industrial and urban noises (Henning, 1999, p. 20). This broader scientific, medical and philosophical framework provided the necessary epistemological, juridical and medical authorities and practical applications which were deployed to regulate, discipline, break down, reshape and fix women's bodies and minds. These imperatives were used to justify reshaping women's bodies and minds so as to fit them into the prevailing norms of the ideal of woman as docile, passive and domesticated (Ellison, 1990; Shaffer, 1997; Keller, 1985). Consequently, women became the target of extensive legal, moral and disciplinary regimes (Henning, 1999; Shaffer, 1997; Shildrick, 2002).

However, these policies and practices did not lead to the total elimination of women from working outside the domestic sphere nor did women become totally docile and passive. On the contrary, women continued to work outside the home often as paid domestic servants, maids and nannies to members of the new ruling elite (McClintock, 1995). However, images of women doing demanding physical labour were rarely represented in the public discourse. In that period, issues pertaining to the conditions of working-class-women were often discussed in medical and policy discourses and framed within the tropes of fears of sexual deviance, class degeneracy and the spread of communicable diseases. The primary aims of these discourses were focused on finding out ways to control the undesirable tendencies of members of the working classes (McClintock, 1995; Shaffer, 1997). Contrary to the fears and anxieties around the recalcitrant working-class women, because of their 'deviant ways', women of the middle classes became the object of systematic domestication by molding their bodies and minds to fit them into a docile existence in the private space of the home, as 'glowing emblems' which visibly displayed the power and the prestige of the emerging capitalist male order (McClintock, 1995).

In Victorian-era popular culture and medical discourses, working-class women were often framed as aggressive, deviant and recalcitrant for the simple reason that these women used their bodies as nannies, wet-nurses, servants, and in some cases as prostitutes, to earn a living whereas the women of the ruling class were represented as passive, docile and angelic. Consequently, it was no accident that Victorian males were fearful of the subversive power of working-class women. Henning (1999) showed that working-class women and men were the main victims of physical injuries and mental stresses relating to the rise in the nineteenth century of industrialization and urbanization processes in Britain, but they were not the primary

concern for the ruling capitalist elite when it came to attempts to 'shield' people from the negative effects of the mechanization of society.

> The dangers of factory labour were documented early in the nineteenth century: not only were industrial accidents very common but the everyday repetitive jolts of industrial machinery were taking their toll on the body of the labourer. But arguably less attention was paid to this than the dangers of railway travel, which was the nearest many middle-class people came to experiencing industrial machinery.
>
> *(Henning, 1999, p. 20)*

By ignoring the more urgent and widespread traumatizing effects of industrial accidents suffered by members of working classes, the middle classes, especially middle-class women, were selected as the ideal type to frame and promulgate negative symptoms of industrial modernity. Experts of that era claimed that men were more adaptable than women in coping with the stresses and strains brought about by the process of technical development (Henning, 1999, p. 24). Consequently, instead of paying due attention to the exploitation and physical exhaustion suffered by over-worked workers and the poor living conditions of the marginalized classes, experts claimed that women's innate psychological and biological weaknesses made them incapable for coping with the physically and mentally demanding conditions of the industrialization of processes (Henning, 1999; Keller, 1985; McClintock, 1995). In doing so, those experts avoided the traumatizing experiences of members of the working classes, including men, and as a result, this erasure created the philosophical space for formulating a dualistic and hierarchical epistemological framework, according to which women were excluded from the public realm as non-rational and frail beings (Keller, 1985; Morgan, 1992).

However, the exclusion of women from the public realm as beings lacking the capacity for rational thinking and objective judgment needed more than philosophical treatises. Medical experts and psychologists were quick to identify and codify a plethora of new physical and psychological illnesses which supposedly primarily affected women (Henning, 1999; Keller, 1985; Shaffer, 1997; Shildrick, 2002). In the context of the contemporary anti-ageing discourse, once again women, and white middle-class women in particular, have been identified as uniquely vulnerable to the harmful effects of the exposure to post-industrial urban pollution, sun damage, artificial lightening and myriads of everyday environmental encounters (Henning, 1999; Mire, 2014). In the anti-ageing discourse, medical experts, the biotechnology and the cosmetics industries have identified new ways of fixing, molding and transforming women's bodies and skin in order to protect them from harmful risks such as premature ageing (Henning, 1999; Mire, 2014).

Drawing on neo-liberal choice consumerism and the values of individuality and self-transformations, marketers promote products, devices and procedures directly to consumers (Moran & Lee, 2013; Morgan, 1992; Worcester & Whatley, 1992; Zion Market Research, 2017). From Botox to cosmetic surgery, including vaginal

rejuvenation, anti-ageing biotechnologies are marketed primarily at age-conscious female consumers (Gibson, 2006; Mire, 2014; Moran & Lee, 2013).

Climate change makes white women gain 'too many age spots'

As an industry, anti-ageing works because ageism is a powerful tool that sends the message that women should strive to retain their youthful appearance and feminine glow. Women's desire to remain younger-looking and our fear of looking older are the primary forces behind the booming anti-ageing market (Calasanti, 2007; Clarke, et al., 2003; Montague-Jones, 2009; Petersen & Seear, 2009; Winterich, 2007). One of the primary highlights in anti-ageing discourse is the supposed link between climate change and increased *hyper-pigmentation disorders* among white women. It is claimed that pigmentation disorders are the visible markers of premature ageing caused by unprotected exposure to adverse environmental factors, for example smoking, excessive alcohol drinking and prolonged exposure to the sun (Ganceviciene et al., 2012; Gerber et al., 2014; Sator, 2006; Silva & Carneiro, 2006). As a result, the anti-ageing industry often advises women to consider how ordinary living conditions almost always pose existential risks to them. The result includes the onset and acceleration of premature ageing in women (Ferrier, 2017; Glaser & Rogers, 2001; Sidow, 2017; Symrise, 2017).

The anti-ageing industry often draws on nineteenth-century discourse that women's bodies are uniquely vulnerable to environmental risks and industrial pollution (Henning, 1999). The cosmetics industry also uses spurious biological determinism that women's bodies have a unique disposition to premature ageing as evidence of 'innate' female biological weakness (Tunaley et al., 1999; Winterich, 2007; Worcester & Whatley, 1992). In response to these supposedly female pathologies, anti-ageing whiteness therapy is proposed to fight and remedy environmentally induced hyper-pigmentation disorders in women (white middle-class women in particular). In addition to the cosmetics industry, there are also medical experts and dermatologists who market skin-whitening products as anti-ageing remedies to female consumers (Draelos, 2007; Sator, 2006). As noted elsewhere in this work (see Chapters 4 and 5) the skin-whitening industry also entices non-white consumers seeking to lighten their skin tones artificially. As a result, the skin-whitening market interacts and dovetails with the anti-ageing whiteness industry (Draelos, 2007; Gerber et al., 2014; Mire, 2012; Sator, 2006).

Discursive conflation of skin-whitening with anti-ageing wellness has facilitated the broader commodification and globalization of consumable whiteness. Additionally, these processes have facilitated the discursive collapsing of consuming whiteness with acquiring and retaining youthful appearance at any age. Increasingly, visible signs of ageing in women are described in terms of the unwanted accumulation of age spots, dull and sagging skin. These signs of ageing are further interpreted as markers of a lack of self-care. Consequently, fighting the 'causes' of premature ageing has become an imperative that encourages women to exercise

diligent self-care. Women are encouraged to engage in responsible anti-ageing practices and avoid risks which can lead to the formation of visible age spots and other signs which indicate the onset of premature ageing. The following quote was taken from a medical journal and the language used therein frames visible signs of ageing in terms of disease, degeneracy and decline and that anti-ageing practice is positioned as part of responsible medical practice.

> Skin aging is a complex biological process influenced by combination of endogenous or intrinsic (genetics, cellular metabolism, hormone and metabolic processes) and exogenous or extrinsic (chronic light exposure, pollution, ionizing radiation, chemicals, toxins) factors. These factors lead together to cumulative structural and physiological alterations and progressive changes in each skin layer as well as changes in skin appearance, especially, on the sun-exposed skin areas. In contrast to thin and atrophic, finely wrinkled and dry intrinsically aged skin, premature photoaged skin typically shows a thickened epidermis, mottled discoloration, deep wrinkles, laxity, dullness and roughness.
>
> *(Ganceviciene et al., 2012, p. 308)*

In the above quote, in addition to biological factors, environmental factors, such as 'chronic light exposure, pollution, ionizing radiation, chemicals, toxins', are said to lead to discolouration, deep wrinkles, dullness and roughness of the skin (Ganceviciene et al., 2012, p. 308). However, medical intervention can bleach out dull skin and age spots and deep wrinkles can be eliminated by filling them with artificial fillers and that dull and rough skin can be softened, brightened, whitened and transformed into healthy and younger-looking skin. Consequently, discursive construction of the normal process of ageing as pathological makes anti-ageing intervention appear both a desirable and morally responsible way of fighting visible signs of ageing. The anti-ageing industry promulgates skin whiteners, lighteners and brighteners as a painless and risk-free way of erasing visible signs of ageing. As a result, the anti-ageing discourse advances the concepts of ageless and painless beauty. However, the desire for ageless beauty requires the erasure of the embodied lived bodies and replacing them with bodies without histories (Gibson, 2006).

The anti-ageing industry's erasure of women's aged bodies seems to have uncanny similarities with those concerning the erasure of women during the industrial revolution of the nineteenth century (Lown, 1990; Mies, 1986; Rogers, 1980). However, whereas in the age of the industrial revolution, the erasure of women focused on removing them totally from the public realm, the anti-ageing industry exploits women's bodies through an aggressive biomedicalization of ageing in women (Granleese & Sayer, 2006; Jermyn, 2012). Gendering the ageing process reinforces and facilitates the commodification of beauty as a highly prized possession (Calasanti, 2007; Winterich, 2007). These two strategies work in tandem and reinforce the discursive deletion of women's lived bodies and lived experiences (Balsamo, 1998; Bordo, 2003; Gibson, 2006; Moran & Lee, 2013. The discursive

construction and normalization of the ideal female as ageless has become the powerful marketing trope for anti-ageing biotechnology products with skin-whitening effects.

By equating female beauty with glowing skin makes the consumption of skin-whitening products an acceptable means of attaining ageless, glowing skin. This marketing strategy works within neo-liberal market imperatives of self-responsibility and rational consumerism. As a result, ageless beauty is being positioned as a 'choice' any woman can make by deciding to consume skin-whitening biotechnologies with anti-ageing effects. Consequently, the globalization of ageless beauty requires the demarcation, exclusion and discursive erasure of women who fail to meet this idealized standard of desirable femininity (i.e., non-white women, working-class women, older-looking women, disabled women). Coercive anti-ageing consumerism also excludes women who decide not to participate in anti-ageing consumption as morally irresponsible. This makes the anti-ageing industry a site in which race, gender and class-based stigmatization and exclusion can be enacted through symbolic policing of the boundaries between worthy and ageless bodies on the one hand and 'unworthy' and aged bodies on the other. It is in this specific context that the anti-ageing industry represents a new and troubling site of the biomedicalization of ageing and stigmatization of older women (Winterich, 2007).

The unbearable brightness of the ageless body

The recurring themes in almost all promotions for anti-ageing and skin-whitening cosmetics that I came across for this work include *glowing*, *brilliance*, *radiance*, *translucence*, *bright*, *clear* and *pure* (*New Beauty Magazine*, 6(4), 86–87; New Beauty, 2011; Proven age fighters; *New Beauty Magazine*, 7(2), 114–123; Symrise, 2011; Symrise, 2017). In the Western visual discourse, these adjectives signify whiteness (Dyer, 1997). In anti-ageing marketing, these concepts promulgate the embodiment of ethereal whiteness. These visual constellations are a reminder of the enduring influences of the representations of the angelic Victorian-era woman in eighteenth- and nineteenth-century Britain (Dyer, 1997, p. 122; McClintock, 1995, p. 161). In the contemporary context, tropes of ageless and glowing femininity frame visible signs of ageing as 'stigmatizing' traces of women's actual lived experiences.

The discursive erasure of women's lived experiences is the necessary symbolic condition for marketing the ageless body as a 'body without history' (Gibson, 2006). However, as Gibson noted: 'bodies do not just exist' (p. 51). Instead, Gibson suggests that 'bodies are already always historically, environmentally, genetically and socially situated' entities (2006, p. 51). This makes the anti-ageing promise of giving women ageless bodies a symbolic act of erasure. It is pertinent to stress that the discursive erasure of socially situated bodies requires that women actively participate in the symbolic deletion of their own lived body and replace them with ageless and unmarked bodies. A similar process of female self-deletion made the nineteenth-century construction of the Victorian 'idle' woman possible. McClintock reported that in nineteenth-century Britain, 'middling' and already middle-class women

actively participated in their own erasure by carefully disguising the visible signs of their own unpaid labour as well as disguising the labouring bodies of the working-class women who served them as cooks, housemaids and 'wet-nurses' (1995, p. 161).

According to McClintock, however, the outwardly glowing display of Victorian middle-class women required the double disavowal of the underpaid labour of domestic female servants and the unpaid labour of the middle-class women themselves. The double erasure of women's underpaid and unpaid labour was often attenuated and displaced by symbolically converting it into a 'labour of leisure' (1995, p. 161). McClintock noted that the 'the middling', and already members of the middle class, women were also tasked with the duty of making their own unpaid labour a spectacle of visual display by turning themselves into angelic figures who were untouched by stress or physical labour (1995, p. 60). It is worth stressing that by turning themselves into decorative visual images in the domestic sphere, Victorian middle-class women actively contributed to the systematic removal of women from the public realm in which for centuries women had engaged in diverse trades such as 'candle and soap making, tailoring, millinery, weaving and lace-making and dairy and poultry farming, and similar small scale industries' (McClintock, 1995, p. 160).

> Most women of the middle-class (itself a broad and shifting category, still under formation) would have to have been content harrying, at best, a single callow girl whose life would, most likely, have been a chronicle of interminable labor and pitiful wages. Wives of small tradesmen, clerks, grocers and plumbers would probably have made do with the service of one such maid-of-all work.
>
> *(McClintock, 1995, p. 161)*

In other words, Victorian middle-class women were anything but idle. For the women of the emerging new middle-class, 'looking idle and glowing' during the day required doing the housework late at night and then washing the dirt, grease and sweat away and changing to clean, fresh and often white outfits (McClintock, 1995). Thus, women's own symbolic self-deletion allowed middle-class men to convert the unpaid labour of women into a symbolic display of idleness. Additionally, McClintock noted that in the Victorian era it was often customary that before visitors or the master of the house arrived, 'servants were ordered to remain unseen' which often forced them into 'completing the filthiest work before dawn or late at night, dodging their employers, keeping to the labyrinthine back passages' in order to remain 'out of sight' (p. 163). However, on the rare occasions when seeing the servants could not be avoided, they were required to always remove all visible traces of labour from their skin, faces and hands before they could be seen.

> If they had to appear before their 'betters' to answer the master's bell or open the door to receive a visitor, they were obliged to change instantly from dirty work clothes to into fresh, clean, white ones-a ritual metamorphosis that

> rehearsed – the century's long transformation of domestic work from the realm of the seen to the unseen.
>
> *(McClintock, 1995, p. 163)*

In this way, the discursive conceptualization of the Victorian middle-class home as a private space inside which delicate and fine objects were visually displayed did not allow the visibility of the greasy and the labouring bodies of the working-class women who kept it clean.

Commodification of whiteness through regenerative consumption

One of the popular commodities in the Victorian era was soap (Opie, 1963, ad for Sunlight Soap 1890s UK Women's Housework www.pinterest.ca/pin/37788084342943751/; McClintock, 1995, p. 163). Soap was often invested with the power to cleanse grease and sweat, the most visible signs of physical labour. It was also invested with the power to penetrate the body and remove 'hidden' causes of class and racial degeneration (Anderson, 2003; Bashford, 2004; McClintock, 1995). McClintock argued that nineteenth-century British popular culture also used soap and white clothing as visual boundary objects. As a result, images of Victorian visual aesthetics in the domestic sphere often showed governesses attired in white aprons and white gloves, maids in white aprons and white headcovers and nannies in white dresses. These white visual tropes were used as symbols of class and gender boundary objects. However, these boundary objects were already disrupted and undermined by the irreducible presence of women's unpaid and underpaid work (McClintock, 1995, p. 163). The idea that servants must always appear looking 'clean' and 'fresh' in white attire, before they could be 'seen' by their employers and visitors, suggested that the ruling elite was fearful of losing control over class, gender and racial boundaries.

The ritualistic purification of the servants removing traces of dirt, sweat and grease from their faces, hands and clothing before making contact with members of the middle-class household and their visitors, also had the medical aim of preventing 'polluting' traces of the labouring bodies of the servants from 'contaminating' the 'clean bodies' of the members of the middle classes (Anderson, 2003; Bashford, 2004; Johnson, 2009). Consequently, heightened anxieties and fear of diseases and pollution associated with the poor and racialized others often required putting in place rigid regulatory regimes to administrate and police the movements of the underpaid servants to and from the spaces of the ruling classes who depended on their services. As a result, the ritualized visual display of whiteness acted as a symbolic border to regulate the contact between spaces occupied by members of the ruling bourgeois and the marginalized classes who served them (McClintock, 1995; Stoler, 2002).

Victorian visual culture was also influenced by Christian aesthetics which placed the highest premium on material austerity and self-denial. These Christians concepts

were often used to reconstitute the whiteness of the ideal Victorian woman into an absence of sin and lack of her carnal desire (Dyer, 1997). It is pertinent to stress that the absence of pigment, grease and shine from the skin of white women was often symbolically represented as the absence of sin and carnal desire, but as visual markers of racial purity (Dyer, 1997). The absence of grease and pigment from visual images of women was also interpreted as idealizing their chastity, passivity and devotion to motherhood. These images were often mass produced and disseminated through paintings and photographic aesthetics. In these artistic productions, the ideal Victorian-era female was often rendered as passive and angelic, with a glowing hue (Dyer, 1997, p. 122).

On the other hand, visual representations of working-class women were often associated with increased pigments and a greasy and 'shining' effect (Dyer, 1997, p. 132). Consequently, the pigmented skin of the working-class women and men were construed as the embodiment of class, gender and racial difference (Dyer, 1997; McClintock, 1995; Stoler, 2000). It is through these visual strategies that the Victorian visual culture also influenced advertisements for cosmetics. In that era, cosmetics were formulated to create a glowing effect on the faces of female consumers and eliminate any greasy and shining effect. Dyer noted that the primary aim of producing a glowing visual impression and eliminating shine on the faces of white women in cosmetic formulations continued into the twentieth-century Hollywood film industry (1997, p. 122). The aesthetic desire to eliminate shiny and greasy reflections from the visual images of women in personal portraits, but also in films and professional photographic practices, was based on the symbolic association of these terms with the working classes and racialized people.

In the European colonial era, terms such as 'indigo' and 'tint' and 'shine' were codes for interracial 'miscegenation' and the labouring bodies of non-white servants (Anderson, 2003; Benthien, 2002; Dyer, 1997, Stoler, 2002). Consequently, in the European colonial visual cultural representations, these terms pointed to unsanctioned and threatening interracial liaisons and the 'greasy' bodies of non-white servants. Thus contrasting tropes of glowing on the one hand and greasy shine on other became the visual markers to distinguish between the women of the ruling classes from working-class women, immigrants and members of other marginalized groups (i.e., prostitutes and racially mixed persons). The discursive production of a glowing effect on photographic images of women of the ruling elite also had religious and philosophical aims, often portraying women from the ruling classes with notions of spiritual purity and chastity.

As a result, women from all classes sought myriad ways to make their skin appear glowingly white. The visual conceptualization of an ethereal glow as the symbolic code for devotion to motherhood and self-sacrifice were the result of a tacit secularization of Christian beliefs which conflated womanhood with motherhood and both categories with nurturance, self-denial, passivity and sexuality chastity (Dyer, 1997, p. 17). However, the secularized ethereal embodiment of the bourgeois woman depended on the discursive demarcation, devaluation and exclusion of the labouring bodies of the women from the working classes. Using women from the

working classes as 'wet-nurses' and servants contradicted the idealized construction of the upper-class mother as angelic, clean and 'dry'. Consequently, glowing Victorian ruling-class femininity was symbolically attenuated and ultimately undermined by the presence of the greasy, sweaty bodies of working-class women (McClintock, 1995, p. 161; Stoler, 2000, p. 102).

The embodiment of the grease and shine denied the disembodiment of whiteness

The recurring theme of racial reproduction of whiteness was also another preoccupation of nineteenth-century imperial Britain and its white settler colonies (Anderson, 2003; Dyer, 1997; Stoler, 2002; Weinbaum, 2004). One of the primary duties assigned to middle- and upper-class white women was ensuring the biological reproduction of the racial purity of whiteness (Dyer, 1997, p. 18; Weinbaum, 2004, p. 29). The discursive conflation of feminine glow with the reproducibility of racial purity were part of a larger colonial discourse which was concerned with issues of tropical disease, racial hygiene and the consolidation of white colonial rule over non-white people (Anderson, 2003; Bashford, 2004; McClintock, 1995, Stoler, 2002). The cultivation of whiteness as a racializing instrument of colonial rule was the foundation of the white colonial system (Anderson, 2003; McClintock, 1995; Stoler, 2000. The colonial cultivation of whiteness also had medical aims (Anderson, 2003; Johnson, 2009).

The colonial-era European fear of racial degeneration, tropical diseases and loss of imperial order had profound implications for the material production and symbolic representation of whiteness (Anderson, 2003; Johnson, 2009; Stoler, 2000). This is because European fear of racial degeneration and tropical diseases had expanded the symbolic representation of whiteness beyond the visual production of feminine glow and included medical claims that whiteness was a catalyst for racial regeneration (Anderson, 2003; Johnson, 2009). It was during the colonial era (in the middle of the nineteenth century) that the association between recuperative whiteness and notions of racial hygiene started to be widely disseminated through colonial medical discourse (Anderson, 2003; Bashford, 2004). These ideas were also promoted in advertisements for soap and other commodities with supposedly prophylactic health benefits (Anderson, 2003; McClintock, 1995). Soap was also invested in the symbolic power of mediating and attenuating a bourgeois colonial order over non-white people.

McClintock demonstrated that in the late nineteenth century Britain that advertisement for soap often mediated and transmuted colonial and class-based hierarchical relations into a universal mission of racial progress to the non-white colonized societies whereas the social benefits of cleanliness were also promoted as a catalyst for working-class regeneration at home inside Europe (1995, p. 211). Dyer argued that cosmetics also played a key role in the attempt to visually produce the embodiment of whiteness.

> Cosmetics have been devoted to both glow and the avoidance of shine. The reason for the use of powder in cosmetics was to prevent any suspicion of

> shine. Elizabeth Arden's cleansing cream promised to remove the fault of 'checks that shine'. Helena Rubinstein's fame rested on her claim to have, and through her creams to be able to give others, alabaster skin, that is, a translucent whiteness.
>
> *(Dyer, 1997, p. 122)*

Also, in the same period, films and photographic practices began using subtle combinations of different lightening techniques to visually mark gender, class, ethnic and racial distinctions (Dyer, 1997, p. 71). Dyer further argued that starting in the nineteenth century, photographic, and later on film, practices started using lightening techniques to signify darker skin tones to show white heterosexuality and white male worldly ambitions (1997, p. 71). Photographic images of white males from the middle and upper classes were often rendered darker than white females, but lighter than white, the typical visual image of a male from the working classes. However, the European colonial visual culture required privileging images of white masculinity in a racializing context by imbuing it with worldly ambition and transcendental spirit.

> Above all, the white spirit could both master and transcend the white body, while non-white soul was a prey to promptings and fallibilities of the body.
>
> *(Dyer, 1997, p. 23)*

In that period, Western philosophy theorists started using tropes which coded for whiteness, such as brilliance, brightness and ethereality as visual symbolic signifiers of the masculine mind (Keller, 1985, p. 22). The symbolic association of lightness with masculinity pointed to an abstract rational mind whereas glowing femininity denoted female passivity which rendered women as subjects who lacked the capacity for abstract thinking (Dyer, 1997, p. 115). As the locus of an abstract mind, the 'head' is associated with masculine authority in Western philosophy and political discourse (i.e., the head of the family, the head of the company, etc.). The focus on the head of the male for lighting in photographic and film practices signified a man's head as the locus of an imagined 'transcendental' rational masculine identity and his capacity for mastery and control (Dyer, 1997). However, when lighting for femininity and passivity, soft lightening was often directed at women's hair and face to create a glowing effect (Dyer, 1997, p. 117). In this way, ideal middle- and upper-class women were expected to show neither the 'dark' physicality of working-class women nor the intellectual brilliance and abstract rational mind of the middle- and upper-class men.

As a result, the aesthetic glow of the white middle- and upper-class woman signified her as a subject with neither a strong physical body nor in possession of an abstract rational mind (Keller, 1985, p. 63; McClintock, 1995, p. 160). This exclusionary philosophical dualism reinforced political processes and economic transformations which were deployed to systematically remove women from the public sphere and which justified placing them in the domestic space to perform

feminized tasks of motherhood and nurturance as a naturalized and unpaid labour of 'love and leisure' (Keller, 1985; McClintock, 1995). In *Reflections on Gender and Science (1985*), Keller showed the lasting implications of those sexist processes and practices:

> Central to the separation of spheres was the construction of a new ideal of womanhood, although it took 150 years for this new ideology to come to full flower. By the nineteenth century the fearful devourer, with her insatiable lust, had given way to the 'angel in the house' – a chaste, desexualized, and harmless dependent whose only function was to uphold the values of the age.
> *(Keller, 1985, p. 62)*

Mass marketing of glowing femininity in a historical context

In the middle of the nineteenth century, the image of the passively glowing Victorian woman was widely used not only in popular culture, but also in advertising for soaps, cosmetics and in photographic and film practices (Dyer, 1997, p. 70). Brochures for soaps, cosmetics and photographic practices used glowing femininity as a signifier of consumable whiteness. In addition, advertisements for clothing made of natural fabrics such as cotton, linen and silks were promulgated as sources of consumable whiteness (Johnson, 2009). By the mid-nineteenth century in Britain, as well as in the white colonial settler spaces, consumable whiteness had been promoted to ameliorate and recuperate the 'dirty bodies' of the working classes inside Europe as well as a means of 'protecting' colonial settlers from tropical diseases and the negative effects of the tropical heat and humidity (Anderson, 2003; Johnson, 2009; McClintock, 1995).

It is through this complex process that consumable whiteness became a discourse, practice and a profitable industry (Johnson, 2009; McClintock, 1995). Explicating the historical roots of the contemporary globalization of the anti-ageing and skin-whitening products as sources of consumable whiteness is critically important to fully understand the economic, symbolic and social drivers behind these industries. The preceding sections have revealed how the Victoria-era marketers were the first to turn the trope of glowing whiteness into a mass commodity (McClintock, 1995). The aim of this historically grounded analysis is to trace and expose the symbolic association of consumable whiteness with recuperative wellness. The process of associating consumable whiteness with regenerative wellness reveals also the symbolic linking of pigmented skin with race, class and gendered degeneration (Anderson, 2003; Johnson, 2009; Mire, 2014).

It is this historical context that links the contemporary phenomena of skin-whitening and anti-ageing whiteness to the colonial-era commodification of whiteness. The following section expands this historically grounded analysis by focusing on the colonial-era medical justification behind the rise of consumable whiteness.

Whiteness and the empire of cleanliness

In the colonial era, consumable whiteness became one of the ways to prevent what was considered an impeding white racial 'degeneration and dissolution' (Anderson, 2003, p. 80). According to the discourse of colonial medicine, tropical heat and humidity produce toxic vapors and deadly germs which supposedly caused corporeal degeneration and even infertility in whites (Anderson, 2003, p. 80). Anderson argued that colonial experts were convinced that 'whites as a doomed race in the tropic' (2006, p. 80).

> A white race planted in his region would surely either sink to the same low level of civilization, or succumb to local diseases, else become infertile in such alien circumstances and wither away entirely. One way or another, most experts regarded whites as a doomed race in the tropics.
>
> *(Anderson, 2003, p. 80)*

Fears of a potential 'white infertility' caused by tropic heat and humidity is interesting because they did not seem to affect the reproductive capacity of the supposedly already 'degenerate' colonized non-white natives. Another critical inference in the above quote is the association of the 'temperate zone' with recuperative whiteness and racial progress. As noted in Chapter 2, the discursive association of whiteness with recuperative wellness became the theoretical foundation of the racialist imperative of environmental determinism (Anderson, 2003; Blaut, 1992, Crosby, 2004; Dyer, 1997, Mohanram, 1999). Consequently, environmental determinism became another site to discursively articulate the cold climate as a source of recuperative whiteness and racial progress (Anderson, 2003; Crosby, 2004; Mohanram, 1999).

The discursive association of whiteness with racialized advantage and Anglo Saxon virality were bourgeois ideologies whose primary aims were securing racial and class-based domination (Anderson, 2003; Blaut, 1992; Crosby, 2004; Dyer, 1997; Mohanram, 1999). As a result, by the mid-nineteenth century, a dominant European colonial medical discourse fully consolidated the notion that pigmented skin was a marker of corporeal disease and racial degeneration (Anderson, 2003; Johnson, 2009; Steigerwald, 2014). Eschewing prevailing evidence that 'darkened' bodies of the labouring classes inside Europe, or in the settler colonies, did not suffer from racial degeneration, despite being subjected to extreme working conditions, or from climate-induced diseases when they were relocated to the tropical climate, medical experts in colonial medicine sought to construct an essentialist and racialist theory based on 'skin types' in which increased skin pigmentation supposedly pointed to an increased degree of corporeal and mora degeneration (Anderson, 2003; Johnson, 2009).

According to this theory, the higher the level of pigment on skin, the greater the chance of corporal diseases and racial degeneration (Anderson, 2003; Johnson, 2009). Attempts to make a causal link between the concentration of pigment on the skin and racial denegation had profound implications. This is because environmental

determinism and the concomitant pseudo-scientific discourse of racial degeneration gave the necessary moral justification for the diffusion of consumable whiteness globally (Anderson, 2003; Blaut, 1992; Crosby, 2004; Dyer, 1997). However, in reality, the Pyrophytic use of consumable whiteness focused primarily on 'protecting' the white skin of the European colonial settlers from the harmful effects of the tropical heat and humidity. Finding protective 'white tropical skin' against the harmful effects of the tropical claim was based on the claim that white skin was 'vulnerable' to environmentally induced problems because it lacked melanin, the dark pigment which supposedly made the non-white natives susceptible to 'disease' and 'racial degeneracy' (Johnson, 2009, p. 1). Contradictorily, it was thought that lacking enough melanin made white skin susceptible to the negative effects of tropic heat and humidity, but having enough melanin supposedly was bad for the non-white natives. To overcome melanin deficiencies in whites, the evolutionary advantage of the melanin-rich non-white colonized people had to be studied so that the protective qualities of melanin could be transferred to the white skin covertly while maintaining the ideological position that the pigmented skin signified racial degeneracy (Johnson, 2009).

Turning melanin's dark protective quality into an artificially produced 'tropical' white skin depended on the European colonial need to deny that naturally pigmented skin had any positive biological or symbolic qualities. Nevertheless, the colonial medical authorities tacitly admitted that the pigmented skin of the colonized natives had an evolutionary advantage over the white skin and that melanin helped the natives' resistance against harmful environmental factors such as UV rays and the extreme heat and humidity of the tropical climate (Anderson, 2003; Johnson, 2009). To resolve this problem, European medical experts attempted to discover ways to mimic the protective qualities of melanin-rich skin by transforming melanin artificially into a wearable whiteness in the forms of clothing made of wool, cotton, linen, silk or a combination of these materials (Johnson, 2009, p. 1).

As a result, wearable whiteness became a burgeoning industry (Johnson, 2009). Often, whites living in tropical climates were encouraged to wear broad-brimmed hats and white clothing made of linen, cotton, silk and wool, and avoid prolonged exposure to the debilitating tropical heat and humidity (Johnson, 2009; McClintock, 1995). This contradictory approach to the role of melanin as protective shield against harmful environmentally induced factors continue to influence the marketing of anti-ageing and skin-whitening products. It is not uncommon to see advertisements for anti-ageing cosmetics that include claims that melanin is the cause of the 'unwanted' formation of age spots and hyper-pigmentation, and to also tacitly admit that melanin has important protective qualities in the same brochure. To resolve the problem that melanin is the cause of premature ageing such as age spots and hyper-pigmentation on the one hand, and admitting that the pigment provides essential protective shields against harmful environmental aggressors on the other, the anti-ageing whiteness industry often includes Sun Protection Factor in cosmetic formulations as a substitute for melanin.

This strategy is similar to the one used in European colonial medicine that utilized clothing made of natural fabrics in the hope of mimicking the protective shield of black skin. In this context, by promoting products which suppress the synthesis and the proper functioning of melanin, the anti-ageing industry is forced to replace the essential protective properties of melanin by adding Sun Protection Factor benefits to anti-ageing formulations (Prakash & Majeed, 2008; Symrise, 2017; Villarama & Mailbach, 2005). It is in these contradictory ways that therapeutic use of whiteness requires bleaching out the slightest increase in 'unwanted' pigment accumulation on the skin of white female consumers. This marketing strategy is also similar to the nineteenth-century promotion of soap as a source of recuperative whiteness. I will illustrate this similarity by closely examining a few nineteenth-century advertisements for Sunlight soap that targeted white working-class consumers and also white middle classes. I will first examine a commercial brochure which claimed recuperative whiteness to members of the working-class whites. There are unmistakable similarities between this nineteenth-century advertisement and contemporary advertisements for anti-ageing products. In the nineteenth-century ad for Sunlight soap, dark clouds and billowing smoke are visible in the distance. These threatening images pointed to the fear that industrial pollution and urban over-crowding could result in the potential racial degeneration of the white working classes.

It is in this context that Sunlight soap came to be invested with regenerative whiteness that can restore the health and wellbeing of the 'great unwashed' (McClintock, 1995, p. 211). In fact, this advertisement makes a direct association between consuming whiteness and the racial regeneration of the white working class: 'My Soap is My Fortune Sir, she said' (retrieved from www.pinterest.ca/pin/37788084342943751/). The idea that this woman's fortune depends on Sunlight soap suggested that consumable whiteness was considered a prophylactic source of regenerative wellness. It is in this context that consumable whiteness came to be conceptualized as a catalyst for racial regeneration and class mobility. McClintock (1995) had also noted similar rationales behind late nineteenth-century aggressive promotion of soap as an agent of imperial progress and white racial domination.

> Soap did not flourish when imperial ebullience was at its peak. It emerged commercially during an era of impending crisis and social calamity, serving to preserve, through fetish ritual, the uncertain boundaries of class, gender and race identity in a social order felt to be threatened by fetid effluvia of the slums, the belching smoke of industry, social agitation, economic upheaval, imperial competition and anticolonial resistance. Soap offered the promise of spiritual salvation and regeneration through commodity conception, a regime of domestic hygiene that could restore the threatened potency of the imperial body politic and the race.
>
> *(McClintock, 1995, p. 211)*

It is in this complex and contradictory way that the trope of recuperative whiteness became enmeshed with the discourses of racial hygiene and gendered reproduction of racial purity. Additionally, the discursive collapse of recuperative whiteness with racial regeneration invited members of the ruling classes to participate in prophylactic consumption of restorative whiteness. The following is an example of this strategy. This late nineteenth-century Sunlight soap advertisement in the UK featured two women, perhaps a mother and a daughter. The women in this promotion seemed to be preparing an afternoon summer tea party. They are dressed in shapely fitting and elaborately tailored white muslin dresses. The cleanness of the floor was also signified by allowing the white dresses the women wore to visibly touch the ground (Opie, 1963). The women's faces, shoulders and neck areas are exposed, thereby revealing their smooth and youthful-looking white skin. The women's glowing skin disavowed the slightest hint of visible signs of sweat and shine, the greasy marks of physical labour. The setting itself brought together motifs of empire, class privilege and the discursive conversion of women's unpaid domestic labour into a pleasurable 'labour of leisure'.

For example, the two women in this promotion are standing facing each other across a beautifully crafted portable side table on which stands a box of Sunlight soap and an aqua-blue-coloured fine porcelain wash basin with mosaic 'oriental motifs' and intricate floral patterns with long dashes of gold and pink stripes. The younger-looking of the two women is using a delicate-looking white dishcloth as she carefully dries expensive-looking bone china teacups and matching saucers. Visible in the background is a tall sideboard on which green coloured plates with intricate floral patterns with similar mosaic 'oriental' motifs are carefully displayed. Dozens of bone china teacups and saucers and shining silver soup pots are also visible in the background. Additional attention was also paid to the floor itself by placing on it a nicely decorated porcelain water pitcher with the same aqua-blue colour and intricate floral pattern as the washing basin on the portable table. The display of these precious objects and youthful-looking skin of the women in the caption and their expensive-looking white muslin dresses symbolically excluded that they were servants or that it was a working-class home. In this promotion, the restorative whiteness of the soap also reinforced the erasure of the middle-class women's unpaid labour.

'Degenerative premature ageing' and recuperative whiteness

In the preceding sections, I have delineated how a colonial-era fear of urban pollution and other harmful effects of the industrialization processes in Britain and settler colonies gave rise to fears and anxieties of white racial degeneration and civilization decline and how these concerns had facilitated the discursive constitution of a new regime of cleanliness based on the commercial promotion of consumable whiteness. In the following section I carefully examine how contemporary fear of urban pollution, climate change and stressful modern living have facilitated

the discursive construction of a plethora of pseudo-pathologies, such as premature ageing, hyper-pigmentation and so on. The aim of this task is to reveal how the discursive articulation of age spots and hyper-pigmentation as visible pathologies of premature ageing have recuperated colonial-era discourses around environmentally caused racial and gendered degeneration, and the role of restorative whiteness as an ameliorative remedy to counter the moral and the corporeal degeneration of ageing white middle-class women.

It is in this historically grounded analysis that 'anti-ageing whiteness therapy' (Mire, 2014) represents a new phase in a long history of mass commercialization of consumable whiteness. This historical link reveals specific ways in which contemporary anti-ageing whiteness is premised on 'curing' visible signs of ageing in white middle-aged women. Revealing the historical roots of recuperative whiteness explains how contemporary mass marketing of skin whiteners, skin brighteners and skin lighteners to women came to be linked with restoring their lost youthful appearance and to anti-ageing therapeutic whiteness. In this way, anti-ageing whiteness points to the discursive and material erasure of the lived bodies of aged women and replaces them with bodies showing no trace of stress, labour or lived experiences (Gibson, 2006). Further, the links between the Victorian-era practices in which women were often made invisible by excluding them from public roles and confining them to the domestic sphere and the contemporary anti-ageing discourse in which women's ageing bodies are erased through hyper-visibility and fantasies of agelessness and self-display can be convincingly revealed.

Anti-ageing therapeutic whiteness promises an impossible dream of achieving glowing skin in women at any age. This is done by supposedly reversing the process of ageing, potentially, indefinitely. In this context, anti-ageing whiteness aims at agelessness as a permanent embodiment for those who can afford it and are willing to participate in anti-ageing consumption. Despite there being little evidence that anti-ageing products reverse the ageing process, women continue to purchase expensive creams and serums in order to achieve glowing skin and a youthful appearance. These marketing tactics work because they appeal to the consumers' awareness that looking aged comes with a powerful social stigma (Ayo, 2012; Brown & Knight, 2015; Calasanti, 2007; Cairns & Johnson, 2015; Granleese & Sayer, 2006). Similar to the fear of racialized, classed and gendered degeneration in the nineteenth century, environmental deterioration and the stresses of a modern lifestyle are the driving forces behind women's desire to find ways to shield and protect their bodies by taking prophetic steps such as using anti-ageing cosmetics.

It is critically important to stress that biomedicalization of ageing is the sociological foundation of regenerative whiteness as a means of restoring the lost youthful glow to white women. It is in this context that anti-ageing wellness reveals coercive intersecting imperatives of ageism, sexism and racism. For example, advertisements for anti-ageing products with whitening effects often list 'pigment' coded pathologies, such as age spots, hyper-pigmentation and photo-ageing, as undesirable markers of gendered degeneration. Therefore, ageist marketing is used in most anti-ageing brochures. These marketing techniques also tacitly promulgate racialist and

class-based fears of degeneration. Anti-ageing with skin-whitening effects promise to eliminate these *pigmentation marks*, which, if not removed, could undermine the youthful appearance of white middle-class women. It is in this context that the contemporary popularization of the anti-ageing discourse promulgates intersecting imperatives of sexism and ageism and racism.

While race- and class-based imperatives are clearly at play in the anti-ageing discourse, by far ageism is the most powerful tool in the ani-ageing industry's rhetorical arsenal because women are often valued in terms of how well they retain their youthful glow. As a result, women often assess their own self-worth in terms of how successfully they have avoided looking older. Consequently, no matter how successful women may become, looking youthful and glowing is expected. As a result, the discursive conceptualization of the visible signs of ageing in white women as 'pigmentation problems' (age spots, photo-ageing, hyper-pigmentation) make these pseudo-pathologies into symptoms which, if not intervened on, can lead to gendered degeneracy, decline and loss of femininity and social exclusion (Calasanti, 2007; Glaser & Roger, 2001; Mire, 2014). It is not only in advertisements for anti-ageing products that women are warned to protect their bodies and skin from premature ageing and gendered decline.

Some medical experts have also joined the biomedicalization of age spots and other pseudo-pathologies despite the fact that these visible imperfections have no recognized pathological status requiring legitimate medical intervention (Gerber et al., 2014; Sator, 2006; Serri & Iorizzo, 2008; Silva & Carneiro, 2007). In this way, biomedicalization ageing reinforces anti-ageing restorative whiteness. When read through the contemporary dynamics of science, ecology, gender, race and class relations, advertisements for anti-ageing therapy depend on framing women's bodies as uniquely vulnerable to the harmful effects of ecological/environmental deterioration, climate change, and urban pollution. Biomedicalization of ageing and the feminization of anti-ageing have become closely intertwined discourses and a lucrative business. In 2005, in the US alone, the anti-ageing market had been estimated to be worth $US30 bn (William Reed Business Media SAS, 2005). Also a recent report estimated the anti-ageing global market share to be around $US200 bn (Zion Market Research, 2017). These staggering figures show that anti-ageing is not just a discourse, but that it is also a highly profitable industry. Also, there is not the slightest credible scientific evidence that these products could slow down or could reverse the ageing process. These products are also unregulated and have no legal status (Mire, 2012).

In this context, framing age spots and hyper-pigmentation as pathological signs has become another site for the commodification of beauty and an insidious locus in the long process of the biomedicalization of women's bodies. Sadly, these tactics work. There is compelling scholarly evidence that trying took younger can be a survival strategy for some women (Fairclough, 2012; Jermyn, 2012). Research evidence has revealed that, increasingly, older men do experience ageist discrimination and marginalization (Clarke, Bennett, & Liu, 2014). However, ageism against men often focuses on strength-oriented themes such as restoring lost sexual prowess,

rebuilding lost muscle strength and nutritional supplements. On other hand, ageism against women has more encompassing economic, symbolic and social exclusionary consequences than ageism against men (Fairclough, 2012; Jermyn, 2012). The pressure on women to look younger and fresh-looking at any age drives not only the anti-ageing industry, but also other modes of self-transformation among women of all age groups, including younger women (Braun, 2009; Gillespie, 1997; Moran & Lee, 2013).

It is critically important to stress that women are expected to hide their visible signs of ageing in ways men do not feel compelled to. Consequently, much of the anti-ageing rhetoric is directed at women. Anti-ageing promotions promulgate a message that says that women must engage in endless self-transformation, self-deletion and that women must always seek ways to hide their visible signs of ageing. There is no evidence that similar ageist messages are directed at older men.

> . . . the construction of the ageing female celebrity and the state of endless transformation that is so revered in neo-liberal and post-feminist cultures operates in the gossip industry, suggesting that the notion of continual self-maintenance through consumption has become a necessity in a society that rewards continual corporeal change.
>
> *(Fairclough, 2012, p. 90)*

As noted above, increasingly, a celebrity-driven unreal standard of youthful appearance has been normalized in the broader domain of visual popular culture such as fashion magazines and fashion and beauty advice columns (Brown & Knight, 2015; Fairclough, 2012; Jermyn, 2012). These gendered visual practices are also the cultural foundation of the biomedicalization of the menopause and could explain the reasons women in the post-menopause phase are framed in terms of lost femininity, lost sexual desirability and lost capacity for fertility and fecundity (Coupland & Williams, 2002; McCrea & Markle, 1984; Worcester & Whatley, 1992). In the 1970s, 1980s and in the 1990s, biomedicalizing discourse against women focused primarily on the menopause as a stage of 'feminine death' for women over child-bearing age. As a result, the pharmaceutical industry stepped in with hormone replacement therapy (HRT) regimes which promised to restore women's youthful, feminine appearance and sexual desirability to men (Coupland & Williams, 2002; McCrea & Markle, 1984; Worcester & Whatley, 1992). In this way, despite being a normal phase in life, the figure of the menopausal woman became an emblem of loss: lost bone density, the onset of osteoporosis and lost sexual desirability (Coupland & Williams, 2002; Lewis, 1993; McCrea, 1983; Rubin & Quine, 1999; Wahab & Al-Azzawi, 2006; Worcester & Whatley, 1992).

> Estrogen deficiency has a negative impact on the quality of life of post-menopausal women and is associated with vasomotor symptoms, insomnia and emotional lability. Other manifestations of estrogen deficiency include dry skin, dry vagina and dyspareunia, in addition to bone loss.

> Estrogen replacement effectively reverses these changes. The only indication for the administration of a progestogen is to protect the postmenopausal uterus against the potential development of endometrial hyperplasia and carcinoma.
>
> *(Wahab & Al-Azzawi, 2006, p. 539)*

Yet, despite the overwhelming research evidence that with ageing both men and women do experience steady decline in estrogen (for women) and testosterone (for men), only women's *estrogen deficiency* is associated with the potential loss of bone density, the onset of osteoporosis, dry skin and other negative symptoms. As a result, as a medical practice, a discourse and as part of the pharmaceutical industry, HRT has been framed as means of ameliorating the symptoms of menopause as a 'dreadful' event that happens to women and which can be averted by artificially introducing estrogen into the bloodstream of older women. By citing dry skin and a shrinking vagina as some of the symptoms of menopause, HRT is as much about restoring glowing femininity as other forms of anti-ageing medicine. Other concepts which were once associated with negative connotations, such as 'shine' as a visual marker of grease and dirt on the skin, have also been rebranded and promoted as markers of a desirable femininity (i.e., similar but still different from the trope of the glow). However, a glow is still the leading marketing trope in the anti-ageing discourse.

For example, in 2017 *The Guardian* (UK) published a fashion advice column with the following highly suggestive title 'Time for all of us to shine – why "glow" is the big new beauty trend.' Ferrier, author of the fashion advice column for *The Guardian* (UK), used a well-known Victorian-era visual aesthetic technique by featuring a passive-looking young white female bathing in ethereal light. The young model's long blonde hair is used as a medium to transmit light downward to her face and skin (Ferrier, 2017). Ferrier knew the intended audience's familiarity with the deeper aesthetic meanings of this elaborate visual staging of the feminine glow: 'The beauty business has gone big on "glow", a multitasking term slapped on everything from body oil to blusher. But is it just a marketing ploy, or is there more to it?' (2017, p. 1). The visual production of a glowing effect on the hair and face of the white female model used in this article suggests that Ferrier knew something about the historical association between a glowing hue and ideal femininity (Dyer, 1997). In this context, it is not accidental that the desire to produce a glowing effect has once again become a driving force in cosmetics marketing. Despite the contemporary buzz around a glow as a post-racial aesthetic phenomenon, the standardized visual staging of it often reproduces the old Victorian tropes of femininity in terms of the embodiment of passivity, sexual purity and the moral chastity of the ideal white woman.

> In beauty, as in most industries geared around selling you things you probably don't need, buzzwords are everything. Take the latest to enter the beauty fold: 'glow'. Abstract and ethereal, it is loaded with meaning. Put this on your

> face, says the cream, and you will look . . . what? Healthy? Young? Pregnant? Because glow is the ultimate signifier of inner health.
>
> *(Ferrier, 2017, p. 1)*

Ferrier's analysis of the glow as 'Young? Pregnant? and inner health' shows that the 'glow' represents not only a visual image of youthful femininity, but also that it signifies transcendent whiteness. These adjectives are also code for the absence of dirt and pigments from skin. It is in this context that the discursive construction of premature ageing as a problem of 'pigment accumulation' points to the erasure of women's visible signs of difference and lived experiences. It is in this complex and contradictory way that visual tropes such as glow and agelessness facilitate the erasure of women's lived experiences and situated bodies. In our age of post-racial, neo-liberal epoch, the trope of the feminine glow has been de-historicized and severed from its historical roots as a symbolic means of deleting the greasy, stressed, underpaid and over-worked oily shine on photographic images of underpaid white women and the non-white immigrants of previous centuries.

It is in this broader historical context that the discursive framing of the glow as a marker of ideal femininity points to a contemporary attempt at attenuating inequalities against women and inequities among women in terms of race, class and age. Societal pressure that women must glow at any age requires that women must also always appear happy and healthy at any age. However, discursive association of glowing with the ideal white woman does not prevent the cosmetics industry from rebranding other tropes which historically encoded racializing and working-class-based significations such as grease and sweat as the new shining effect to non-white female consumers. In 2017, a style reporter for *The Guardian* used a young black female model to illustrate how to apply cosmetics with the shining effect on black faces. Instead of the usual visual standard of the white female with long golden hair, the black model in this caption had her hair 'covered up' with a white headcover (hijab). The black model gained a greater shining effect with each additional layer of powder on her face that culminated in turning her black face to a 'whitish' glittering mask (Sidow, 2017). Covering up the black female's hair with a white headscarf and covering up her face with layers of shimmering whitish powder sought to produce the effect of an artificial glitter. This is another example of the contemporary erasure of women's racial and ethnic identities. This marketing strategy also de-historizes the racializing roots of the trope of the shine itself.

> There are many sad things about coming back from holidays. For one, it's the beginning of the end for that glowy skin you only get after about a week away from your desk and in the fresh air. But with a little prep and a bit of shimmer, you can fake that dewy look all year. Here is how I do it.
>
> *(Sidow, 2017, p. 1)*

The suggestion that people with black skin can 'fake that glowy skin', instead of glowing from the 'inside out', suggests that black skin lacks the inner qualities

of whiteness. In the place of the absent whiteness, the naturally black skin of the model in this story is covered up with layers of artificially produced shining glitter. In the above story, the intersectionality of class, race and gender facilitated the triple erasure of black women's lived experiences by covering up the black model's face with layers of artificial glittering whiteness. It is in this symbolic covering-up of the blackness with layers of a glittering white mask that it is critically important to recall the colonial-era covering-up of the sweaty, greasy and exploited labouring bodies of the colonized servants. Covering up women's labouring bodies with fake glowing and shining masks also gestures back to the nineteenth-century Victorian practice of using white aprons, white gloves and white hats to disguise and disavow the unpaid and the underpaid women's domestic labour by converting women's labour power into a visual display of labour leisure (McClintock, 1995).

In the twenty-first-century neo-liberal age, the biomedicalization of ageing is one of the ways in which the labouring, racialized and ageing bodies of women are discursively erased and replaced with artificially produced bodies which show no traces of its social, historical and material conditions. Women's own desire to appear fresh and younger-looking at any age requires that they openly participate in hiding all traces of the visible signs of their everyday struggles with unpaid, underpaid work and stressful living conditions. It is also worth stressing that the anti-ageing industry also targets younger women with the same alarmist messages that their bodies are exceedingly vulnerable to the harmful effects caused by urban pollution, artificial lights and the overall stresses of modern life (Sator, 2006; Silva & Carneiro, 2006; Symrise, 2017). These strategies externalize the causes of the stress and pollution from their economic and social structures and reduces them to essentialist gendered vulnerabilities which women's bodies are uniquely liable to experience.

Additionally, these marketing strategies further entrench the biomedicalization of ageing which compels women to willingly seek and consume expensive anti-ageing products in order to ameliorate their visible signs of ageing and stress. The very concept of anti-ageing entails the deletion of ageing as a contagion which must be medically intervened in and eradicated. As result, the anti-ageing discourse is the antithesis to the concept of 'graceful' ageing. On the contrary, anti-ageing is the denial that ageing is a complex process and a socially acceptable part of the human condition. Instead, as a concept, anti-ageing is an imperative that seeks to delete the causes and visible signs of ageing (Petersen & Seear, 2009). A quick glance at the plethora of advertisements for anti-ageing products reveal repeated attempts to treat ageing as something which should be considered a medical condition (Brown & Knight, 2015).

> A content analysis of 710 advertisements from two prominent Australian women's magazines, from 1960 to 2010, was conducted. Analyses showed that advertisements provided a narrow range of images representing women's physical appearance. The underlying messages were that ageing is problematic and that it had become unforgivable to show any signs of ageing.
>
> *(Brown & Knight, 2015, p. 74)*

Framing visible signs of ageing in women as 'unforgivable' reinforces women's own self-surveillance and self-biomedicalization. Once the idea that showing visible signs of ageing is unforgivable in women is internalized by the women themselves, it becomes easier for the cosmetics industry to enlist neo-liberal imperatives which encourage women to actively 'fix' and transform their bodies to be younger, healthier and ageless. For the marketers of anti-ageing products with skin-whitening effects, the primary message to women is that they must strive to maintain their youthful appearance at any age. It is equally important to stress that the anti-ageing industry depends on continually reinforcing messages that women's bodies and skins are already always flawed, damaged, weak and diseased (Adams, 1997; Ayo, 2012; Braun, 2009; Cairns & Johnson, 2015; Ellison, 1990; Gibson, 2006). The discursive framing of women's bodies as already always weak and flawed shows that engaging in anti-ageing consumption does not empower women because if visible signs of ageing in women are 'unforgivable' the only acceptable embodiment for women is agelessness (Brown & Knight, 2015, p. 74).

Of course, the anti-ageing industry is always ready to 'help' women achieve a younger-looking and desirable appearance at any age. In addition to using the fear of looking older as a socially unforgivable mantra, the anti-ageing industry appeals to women as rational and self-governing agents capable of reading these complex messages and reaching their own decision as to whether or not to participate in anti-ageing consumption (Ayo, 2012; Gibson, 2006). However, treating women as rational beings is just a ruse. This is because if showing their visible signs of ageing is an unforgivable stigma for women (Brown & Knight, 2015, p. 74), then engaging in anti-ageing consumption becomes a coercive imperative based on sexism and ageism. The social imperative that women must appear ageless at any cost is evidenced not only in popular advertisements for anti-ageing products, but also in scholarly papers published in peer-reviewed medical journals (Brown & Knight, 2015; Calasanti, 2007; Fairclough, 2012; Jermyn, 2012; Mire, 2012; Winterich, 2007).

Additionally, the coercive imperatives that women must strive for remaining attractive, youthful-looking and active at any age exploits also women's fear of exclusion and marginalization. Women who fail to appear desirable and youthful at any age are discursively deleted (Angus & Reeve, 2006 Brown & Knight, 2015; Calasanti, 2005; Granleese & Sayer, 2006; Petersen & Seear, 2009; Winter, 2007). The pressure for women to appear ageless and attractive at any age is not only a powerful disciplinary instrument. It is also a powerful instrument with immense disciplinary power because it is often reinforced with scientific rhetoric that claims that biomedical breakthroughs have created limitless capacity for molding and transforming the human body into being younger and healthier at any age (Immunocologie™ DNA Boost CellDefense™ Crème ad for anti-ageing cream by Immunocologie LLC) (Petersen & Seear, 2009).

There is also an emerging beauty medicine niche market which includes beauty doctors who advise women on how to achieve their quest for ageless beauty (New Beauty, 2011, 7(2)). Of course, marketing the dream of ageless beauty to women is not a new phenomenon. Feminist theorists in philosophy, social sciences and

biomedical disciplines have revealed the relentless pressure on women that they must see their bodies as 'naturally flawed', in need of correcting, transforming and disciplining is as old as history itself (Adams, 1997; Balsamo, 1998; Heyes, 2006; Morgan, 1998; Shildrick, 2002). What is critically important is that once women accept the idea that their bodies are naturally flawed, it becomes easier putting in place the necessary social, political, economic and technological infrastructure and concomitant ideological apparatuses to shape and delimit women's lives according to a narrow normalizing beauty standard.

In responding to these complex constraints, women often engage in self-normalization practices to 'improve' their physical appearance through such means as elective surgeries and anti-ageing consumerism (McCrea, 1983; Moran & Lee, 2013; Morgan; 1992; Tunaley et al., 1999; Worcester & Whatley, 1992). It is this context that the expert-driven anti-ageing discourse reinforces women's own self-surveillance and self-normalization. These coercive strategies are effective because they are often promoted through lofty rhetoric of self-empowerment and do-it-yourself brochures which encourage consumers to identify their own imperfections and seek remedies through such strategies as elective surgeries, dieting, exercise and the consumption of anti-ageing products (Ayo, 2012; Balsamo, 1998; Heyes, 2007; Heyes, 2006; Sator, 2006; Silva & Carneiro, 2006).

It is critically important to expose and challenge the coercive demands that women must aim to attain ageless embodiment. In the popular culture and social media, the discursive construction of ageless beauty is reinforced with visual images of females with 'perfect skin'. Using the faces of models with glowing skin reinforces the normalization that technical intervention is the only way to fix and transform women's bodies and make them ageless and desirable. Advertisements for anti-ageing products often use visual images of young women with 'hyper-pigmentation disorders' looking distraught and stressed, followed by images of the same models with smooth and glowing skin with smiles on their faces. These pseudo-pigmentation disorders include 'age spots', 'redness', 'dark circles around the eyes', 'acne' and 'irregular complexion'. The category also includes photo-ageing and dull skin and is still expanding (New Beauty, 2010, 6(4)).

In the anti-ageing visual discourse, images of models with airbrushed radiant skin reinforce spurious claims that anti-ageing products can give consumers scientifically proven ageless embodiment (Prakash & Majeed, 2008; Symrise, 2011 ad for SymWhite® 377). For example, a 2012 issue of the leading anti-ageing magazine, *New Beauty*, featured an ad for an anti-wrinkle serum called StriVectin®. The ad used the standard visual marketing technique involving a series of images of the same model which illustrated progressive disappearance of her wrinkles until the final image showed the same model's face as smooth, radiant and totally free from wrinkles.

> two weeks boosts skin luminosity, optimizes clarity; 8 weeks, reduces the size, length and depth of wrinkles; diminishes the look of pores.
>
> *(ad for StriVectin® in New Beauty, 2012, 8(4), p. 19)*

Aesthetic imperatives of luminosity and glowing skin have already become obligatory standards of beauty for women. These coercive imperatives require that women must engage in extensive self-transformation to strive for these impossible and unrealistic standards. Even when the target of 'fixing' and 'transformation' a woman's most private parts, such as vaginal surgeries, these invasive interventions make women glow from inside out. This insidious marketing imperative was underscored by a 2008 issue of *New Beauty* (Volume 4, Issue 1) which featured an advertisement for 'Vaginal Rejuvenation and Aesthetic Surgery' services on behalf of Dr. John R. Milkos and Dr. Robert D. Moore of the Atlanta, Georgia, Urology Associates. This advertising is significant because vaginal surgeries are the latest controversial and increasingly lucrative emerging area in the cosmetics surgery industry (Braun, 2009; Moran & Lee, 2013). In this advertisement, the familiar narrative that the female body is naturally flawed and in need of fixing and normalizing through surgical interventions is reinforced with the after-surgery promise of a youthful outward radiance that comes with acquiring a new 'designer' vagina.

> We all want to look and feel vibrant, youthful and beautiful. Our faces are just the beginning-even the most private parts of our body can affect our self-confidence and body image.
>
> *(Ad for vaginal rejuvenation and aesthetic surgery,* New Beauty, 2008, *4(1), p. 172)*

The above promotion for vaginal surgery procedures shows that marketing a glowing and ageless embodiment to women goes much deeper than removing age spots, hyper-pigmentation and wrinkles. It reveals that women's bodies are subject to endless fragmentation and fixing all in the quest to make women appear younger-looking and desirable to men. Consequently, as a means of acquiring the untenable embodiment of ageless skin, anti-ageing therapeutic whiteness is implicated in the intersectional dynamics of race, class, gender and ageism.

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4

RACIALIZING CONSUMPTION

Skin-whitening and the global look

This chapter situates the globalization of skin-whitening biotechnology as a contemporary practice and industry which promote a symbolic investment in whiteness. It also examines the extent to which the globalization of skin-whitening facilitates and reinforces racialization and Eurocentric femininity. The globalization of skin-whitening is examined here as a contemporary diffusion and circulation of whiteness. Detailed content analysis of technical reports, scholarly literature and promotions for skin-whitening products will be conducted. The aim is to interrogate the extent to which the globalization of skin-whitening products, which promise to 'whiten', and 'brighten' the dark skin of non-white women, reinforces the racialization and biomedicalization of women's bodies and skin. In this work, skin-whitening is defined as a lucrative global trade with profound ethical and social implications. Consequently, this chapter critically interrogates the extent to which dynamics of race, class and gender intersect and reinforce the globalization of skin-whitening primarily to women (and men) in the Global South.

Framing the global diffusion of whiteness through skin-whitening

> Global Skin Lightening Cream Market – Vendor Landscape: The analysts authoring the publication explain the nature and future changes in the competitive scenario of the worldwide companies that are profiled in the publication guide, some of key players that includes in the study are L'Oréal S.A., Beiersdorf AG, Unilever PLC, Procter & Gamble Company, Shiseido Company, Estée Lauder Companies Inc, Avon Products Inc., VLCC Health Care Limited, Lotus Herbals Private Limited, Clarins Group, Himalaya Global Holdings Limited, Kaya Limited, Kanebo Cosmetics Inc., RichFeel Hair & Beauty Pvt. Ltd., Eveline Cosmetics, Rozge Cosmeceutical, Bio Veda Action Research Private Limited, Civant LLC, Sabinsa Corporation & Sanora Beauty Products.
>
> (Digital Journal, 2019, p. 1)

While niche marketing strategies makes it hard to accurately assess the actual market share of the skin-whitening industry (Glenn, 2008, p. 3), the names of the firms which are mentioned in the above quoted passage reveal that leading transnational corporations are engaged in the skin-whitening global trade. The research and development and marketing aspects of the skin-whitening industry have been addressed elsewhere in this book (see Chapter 5). This chapter seeks to interrogate the extent to which dynamics of race, class and gender intersect, in complex and contradictory ways, and reinforce the global transmission of whiteness through skin-whitening consumption in the Global South (Asante, 2016; Glenn, 2008; Osuri, 2008). This focus seeks to situate the globalization of skin-whitening as a key aspect of contemporary material and discursive re-articulation, diffusion, circulation, reproduction and the symbolic investment in whiteness (Ashikari, 2005; Gram, 2007; Glenn, 2008; Jesús, 2005; Osuri, 2008; Saraswati, 2010). In addition to being a lucrative market, skin-whitening can be defined as a symbolic investment in whiteness by non-white people (Glenn, 2008; Shroff, Diedrichs, & Craddock, 2018). As a symbolic investment in whiteness, skin-whitening entails a conscious consumption of skin-lightening products for the aim of achieving corporal transformation by reducing or preventing the presence of melanin, the pigment that is responsible for skin colour (Goon & Craven, 2003).

As an industry, the makers of skin-whitening products often use segmented niche marketing which skews the overall status of this economic sector. However, available data reveals that skin-whitening is a major global economic sector. For example in 2016, the skin-whitening market in Ghana alone was estimated to be worth $US10 bn (Biakolo, 2016). Also a 2009 survey estimated the skin-whitening market in the Pacific Asian region alone to be worth €13 bn (Pitman, 2009). Available data estimates the skin-whitening market to range from a few billion $US to as high as $US300 bn (*Digital Journal*, 2019). However, despite discrepancies which exist in the available data, many reports produced by the industry itself show that skin-whitening is one of the fastest developing sectors of the cosmetics industry. The following quote from a recent market report shows how niche marketing strategies are being used by the skin-whitening industry:

> Skin-whitening is one of the rapidly growing segments of the global beauty industry. The global skin-whitening market holds vast growth potential, with maximum opportunities emerging from the rapidly expanding Asian markets. Skin lightening products that prevent or inhibit pigmentation (including brown spots and freckles) and consist of anti-aging features are gaining popularity, particularly among customers in the western world. Although skin-whitening products were initially aimed at facial care, the trend has changed with companies offering products for overall skincare. Another trend witnessed in the skin lighteners market is the introduction of whitening products for men.
>
> *(Cision PRWeb, 2009, p. 1)*

Its expansion to Asia, Africa and other parts of the world, including North America and Europe, has led to more aggressive research and development and mass marketing of skin-whitening throughout the world (Biakolo, 2016; Glenn, 2008; McDougall, 2013; Wray, 2015). Consequently, the skin-whitening industry aims to reach as many consumers as possible (Asante, 2016; Biakolo, 2016, Glenn, 2008). The following quote shows the globalizing reach of the skin-whitening industry:

> From Mumbai to Mexico City, from Shanghai to Sao Paulo, skin-whitening, is a significant trend. In fact, according to Euromonitor, 2010, the global skin lightening market is predicted to reach $10 billion by 2015 driven by new market development in the west and sustained growth in Asia Pacific.
>
> *(Ollagnier, Moran, & Fe Boo, 2011)*

There are variety ways to consume skin-whitening products. There are also various branding classifications. There are skin-whitening products which are branded as whiteners, lighteners and brighteners (Cision, 2009). There are edible cosmetics, oral capsules; concentrated serums, creams, lotions and soaps with skin-whitening properties (Symrise, 2017). Regardless of the means by which these products are delivered to the body, a common feature of all the formulations of skin-whitening is suppressing or reducing natural pigment (melanin). Some scholars have argued that the contemporary boom in skin-whitening consumption, especially in Asia, reflects local societies' preference for 'lighter skin tones' (Leong, 2006; Yeung, 2015). These critics often insist that skin-whitening in Asia is a sign of a 'cosmopolitan modern trend' (Ashikari, 2005; Saraswati, 2010).

Other scholars have claimed the skin-whitening boom in Asia can be contributed to the deeply entrenched colour-coded social hierarchies within Asian societies (Jagarnath, 2016; McLoughlin, 2013; Nadeem, 2014; Shrestha, 2013). Those who take an anti-colonial approach to this practice argued that the skin-whitening trend in Asia and the rest of the Global South must be understood in the context of entrenched colour-coded social hierarchies based on the intersectionality of caste, class, ethnicity and nationality (Jagarnath, 2016; Nadeem, 2014; Osuri, 2008). These researchers and critics reveal overwhelming evidence that those with lighter skin tones often occupy positions of political, social, economic and cultural advantage (Glenn, 2008; Hussein, 2010; Nadeem, 2014; Osuri, 2008' Persaud, 2005). What these critics show, in their different ways, is that the combination of local preference for lighter skin tones confound Western influences and these complex processes could explain the sharp increase in the popularization of skin-whitening in Asia (Hussein, 2010; Shrestha, 2013).

The defenders of the rise of the skin-whitening trade in the Asia and other parts of the Global South often claim that Western corporations are just fulfilling local demand for whiteness (Gram, 2007; Prasso, 2005). Those who advance this position insist that the contemporary skin-whitening boom in the Global South reflects less on Western influence and more on local preference for lighter skin tones (Ashikari, 2005; Leong, 2006). What these critics often fail to appreciate is that the local and

the global interact and influence one another. Second, contemporary globalization of skin-whitening often promotes images and ideas which privilege Eurocentric femininity (Gram, 2007; Hussein, 2010; Kreshen, La Tour, & Alisha, 2014; Xie & Zhang, 2013). In this work, Eurocentric femininity is defined as a systematic diffusion of the imagination and ideas which privilege Western standards of beauty.

Research shows that in nineteenth- and twentieth-century United States history, both African Americans and immigrant women from Eastern and Southern European countries often used skin whiteners, hair straighteners and elective surgeries to 'soften' their ethnic and racially distinct features (Glenn, 2008; Peiss, 1998). Peiss showed that in nineteenth- and early twentieth-century United States, European female immigrants used skin-whitening cosmetics in the hope of mimicking the idealized 'Anglo Saxon' features of the 'native' women (1998, p. 149), determined to achieve a 'proper white American appearance'.

> Bleaching creams continued to be marketed to white women well into the twentieth century; J. Walter Thompson compiled a list of 232 of them for sale in 1930. Advertisers used traditional appeals to gentility, social climbing, and Anglo-Saxon superiority.
>
> *(Peiss, 1998, p. 149)*

In the contemporary context, skin-whitening is marketed to women regardless of their ethnicity, nationality or racial differences (Shrestha, 2013; Yeomans, 2014; Yeung, 2015). For white women, skin-whitening promises to remove visible signs of ageing and make them appear glowing and younger-looking (Mire, 2014). For non-white women, skin-whitening produces a paler skin tone by suppressing melanin function and synthesis (Abraham, 2017; Biakolo, 2016; Glenn, 2008; Osuri, 2008). In this context, skin-whitening is a symbolic investment in whiteness and the industry stresses the message that white is better, healthier and cleaner. Therefore, imperatives of colourism, racism, ageism and sexism are the driving forces behind transnational corporate slogans that fair skin is healthier and prettier to women and men, regardless of ethnicity or racial difference. The same imperatives are driving skin-whitening in the Global South (Hunter, 2015; Hussein, 2010; Jagarnath, 2016).

Racializing consumption of whiteness

Skin-whitening does not just promulgate racializing and sexist messages. Some of these products also contain toxic chemicals such as hydroquinone and mercury (Glenn, 2008; Williams, 1992). While the skin-whitening trade is rapidly expanding globally, concerns have been raised over the potential health risks of skin-whitening containing hydroquinone and mercury (Adinde, 2018, BBC, 2005; Williams, 1992). Products containing these toxic chemicals are banned in Europe, Asia and Africa. However, a 2% level of hydroquinone in skin-whitening products is considered 'safe' and is a legal over-the-counter (OTC) product in the United States. Repeated calls from medical experts finally forced the FDA to act. In 2006, the US Food &

Drug Admiration (FDA) proposed banning hydroquinone-based OTC skin-whitening products. However, the move faced overwhelming rejection by the American Academy of Dermatology Association (AADA) (The United States Federal Register, 2006). The AADA claims that skin-whitening products containing 2% hydroquinone are safe to use.

> The American Academy of Dermatology Association (the Academy), representing 15,000 dermatologists, opposes the U.S. Food and Drug Administration's (FDA) proposed rule that would establish that over-the-counter (OTC) skin bleaching drug products containing hydroquinone are not generally recognized as safe and effective (GRASE) and are misbranded.
>
> *(The United States Federal Register, 2006)*

As the most authoritative dermatological medical body in the United States, the AADA's decision to oppose banning hydroquinone-based OTC skin-whitening products has had profound ethical and health implications. This case shows that as a practice, discourse and industry, skin-whitening is implicated in the intersecting oppressive forces of racism and sexism. The belief that gaining achieving skin a few shades lighter would help one gain access to better opportunities and help lead to a happier life is driving women in the Global South to embrace skin-whitening.

> In Nigeria, 77% of the country's women use skin-lightening agents, compared with 59% in Togo and 27% in Senegal. But the largest and fastest-growing markets are in the Asia-Pacific region.
>
> *(Abraham, 2017, p. 1)*

To women and men in the Global South, skin-whitening promulgates the promise of self-transforming experiences which could change their lives to happier and more successful ones (Abraham, 2017). In this context, skin-whitening mediates and promulgates the commodification of whiteness both as an ideology of Eurocentrism and as a lucrative market (Asante, 2016; Glenn, 2008; Liu, 2018; Nadeem, 2014; Shrestha, 2013). Mass consumption of whiteness in the Global South is also one of the effects of neo-liberal discourse and a style of marketing strategies which promulgate consumerism as a marker of individualism and subjectivity (Asante, 2016; Nadeem, 2014; Shrestha, 2013). Social media plays a critical role in the global promotion of skin-whitening to women and men in the Global South. Asante revealed how neo-liberal self-promotion and the use of social media have popularized skin-whitening in Ghana. A neo-liberal style of marketing, which addresses the individual as a rational consumer with subjectivity, agency and self-transformation, is used in one popular YouTube site run by a former Ghanaian beauty queen.

> Through critical discourse analysis of an interview with a former Ghanaian beauty queen (Nasara) on YouTube, it became evident that she utilized

> specific neoliberal ideologies to discursively frame 'skin bleaching'. The concurrent interpretations of skin toning speak to the spaces where gender, race, class, and social status intersect to create particular subjectivities and produce particular discourses at specific times.
>
> *(Asante, 2016, p. 87)*

Neo-liberalism places a premium on consumer choice and deflects the racial privilege of whiteness as an outcome of personal achievement (Dyer, 1997; Lipsitz, 2006; Kintz, 2001). As a result, neo-liberalism deflects skin-whitening as an expression of subjectivity and fashion and white privilege is explained away by pointing to post-racial and colour-blind democracy (Lipsitz, 2006; Kintz, 2001; Shrestha, 2013). This makes it harder to resist racism and sexism under the neo-liberal capitalist order. In *Performing Virtual Whiteness*: *The Psychic Fantasy of Globalization* (2001), Kintz argued that in the neo-liberal era 'the complex mixture of high technology and U.S. cultural politics has made white supremacy paradoxically both more powerful and more invisible' (p. 333).

I argue that nowhere else is the visible invisibility of whiteness more visually, symbolically, economically and culturally on display than in the skin-whitening industry (Abraham, 2017; Picchi, 2017). Using neo-liberal imperatives of colour-blind democracy and rational choice consumerism, blatantly racist images and ideas are promoted through skin-whitening advertisements. These strategies often frame whiteness consumption as a choice-based self-transformation with no racist or sexist implications. Neo-liberal consumer choice and post-racial democracy are mobilized to defend even the most the blatantly racist language and images which are promoted in ads for skin-whitening products (Conor, 2017; Hall, 2017). As a result, racist and sexist tropes are continually mobilized to promote skin-whitening consumerism.

Whiteness and the global look

This section traces how the neo-liberal discourse of informed consumerism (Rudman, 2006) reinforces and helps the globalization of a new high-end skin-whitening biotechnology. The emerging high-end skin-whitening industry is led by transnational corporations (Digital Journal, 2019; Global Industry Analysts, Inc., 2018; Liu, 2018). Second, promotions for high-end skin-whitening often use images of European and light-skinned non-European models to market these products to non-white consumers (Goon & Craven, 2003; Hussein, 2010; Mak, 2010; Nadeem, 2014; Shrestha, 2013). Third, repeated use of blatantly racializing tropes in promotions for skin-whitening products often get deflected and attenuated by resorting to the neo-liberal discourse of rational choice theory (Chadha, 2005; Conor, 2017; Hall, 2018; Khan, 2018; Ray, 2010). Fourth, more positive sounding terms, such as whiteners, brighteners and lighteners are used to rebrand and transform skin-whitening into a lucrative and globalizing market. The skin-whitening market now includes a thriving anti-ageing wellness industry (Mire, 2014).

Marketers of skin-whitening products who promote to consumers in the Global South often equate having or acquiring it with personal success, feminine desirability, consumer satisfaction and health promotion. Consequently, these neo-liberal marketing schemes help minimize public awareness and resistance to the aggressive promotion of skin-whitening. As a result, sleek marketing strategies continue to play a significant role in the globalization of skin-whitening biotechnology. Promotions for skin-whitening products often combine an appeal to wellness with the acquisition of whiteness as both trendy and desirable consumerism. In this context, skin-whitening biotechnology has become a new site for what Lipsitz called 'possessive investment in whiteness' (The United States Federal Register, 2006, p. 105). That is to say that contemporary globalization of skin-whitening biotechnology signals consumer-active participation of symbolic and therapeutic investment in whiteness. As a sign of symbolic of investment in whiteness, skin-whitening biotechnology points to a complex dynamic of class-, gender- and ageism-based system of exclusion and inclusion, empowerment and marginalization, accessibility and lack of accessibility to these 'desirable' commodities.

As an embodied symbolic investment in whiteness, skin-whitening signifies the material acquisition of technically mediated lighter skin tones (Leong, 2006; Nadeem, 2014; Shroff et al., 2018; Shrestha, 2013). The material and symbolic investment in consumable whiteness is framed as a catalyst to class mobility or achieving youthful-looking, desirable femininity. Whether it defines class distinction or is in the name of anti-ageing wellness, the symbolic embodiment of whiteness through skin-whitening practices facilitates the homogenizing standards of beauty. There is overwhelming empirical evidence that skin colour affects how people are perceived and evaluated (Hall, 2013; Osuri, 2008; Rinaldi, 2008). In *Colour of Life Achievements: Historical and Media Influence of Identity Formation Based on Skin Colour in South Asia* (2010), Hussein shows how advertisements for skin whiteners in India draw on colour-coded social hierarchies and the stigmatization of those with dark skin tones, while equating lighter skin tones with personal happiness, social mobility and desirable femininity.

> . . . building on sign values of images, language and narratives of the ads of the skin lightening product, Fair & Lovely, the association of light skin with emotions of 'happiness', 'achievement', 'confidence' and largely 'acceptance' is revealed in South Asia. By creating subjectivities these ads also produce stereotypes connecting derogatory status to dark skinned individuals and privileging status to the lighter skinned ones.
>
> *(Hussein, 2010, p. 403)*

Contemporary global circulation of skin-whitening signals a globalized diffusion of consumable whiteness which reinforces racism and sexism. The globalization of skin-whitening biotechnology represents exemplary moment of contemporary diffusion of Eurocentric whiteness (Glenn; 2008; Hall, 2013;

Shrestha, 2013). Extensive use of social media and the internet have facilitated the dissemination of skin-whitening as commodities, discourses and technologies. These strategies have made skin-whitening into a lucrative global market and an aesthetic phenomenon with profound social, ethical and political implications Adinde, 2018; (Davids, 2015; Glenn, 2008; Jagarnath, 2016). Hall argued that skin-whitening should be considered a pathological consumption and one of the negative effects of globalization (2013).

> Globalization is manifested via idealization of light skin. On the basis of light skin as worldwide physiological ideal there evolved a prerequisite to enhanced quality of life. The result precipitated the bleaching syndrome as social pathogen among people of color. Western social work academies have been less privy as a result of its disqualification from public discourse.
>
> *(Hall, 2013, p. 552)*

As an effect of globalization, the consumption of whiteness is marketed to consumers in the Global South within the framework of individual desire for self-transformation and happiness (Fuller, 2006; Reddy, 2007; Runkle, 2006). However, advertisements for skin-whitening often recuperate and rebrand older tropes of scientific racism and aesthetics of white supremacy by turning them into still recognizable marketing signs of neo-liberal-era apolitical consumerism (Conor, 2017). In the continent of Africa, first signs of skin whitening market came into critical focus the 1970s, which in 1976 promoted the famous Nigerian anti-colonial singer and song writer Fela Kuti to write a song he called 'Yellow fever'. Yellow Fever harshly critiqued skin bleaching among Nigerian women (bandcamp, n.d.; Song Meanings, n.d.). In this song, Kuti (1976) linked skin bleaching among Nigerian women to psychological trauma caused by imperialism and globalization.

There are media and technical reports filled with empirical and statistical data that in different parts of the African continent, skin-whitening has become a lucrative economic enterprise with profound health, social and ethical implications (Biakolo, 2016; Cooper, 2016; Fuller, 2006; Rehman, 2017). Despite the existence of overwhelming evidence that skin-whitening causes profound health and psychological harm, transnational corporations continue to promote false claims that skin-whitening promotes the health and happiness of consumers (Daniells & Bird, 2009). Often, promotions for skin-whitening products use labels with such misleading claims as made from 'natural' ingredients from 'local' medicinal plants. References to 'locality' and 'natural ingredients' reinforce lay consumer perceptions that skin-whitening promotes the health and wellness of consumers.

> An extract from the Asian plant Osmanthus fragrances may be a possible skin lightening ingredient, according to Taiwanese Scientists. The plant is already used commonly in Asia as flavor additive for tea and other beverages and is in high demand as a fragrance ingredient.
>
> *(Daniells & Bird, 2009, p. 1)*

Thus, whereas in the colonial era, tropical regions were cordoned off as zones filled with diseases and degeneration (Anderson, 2003; Bashford, 2004), currently tropical flowers and fauna are said to contain properties which can be used in the formulations of skin-whitening and anti-ageing products. These examples underscore the complex and the multi-directional forces which are driving the globalization of the skin-whitening industry. Despite corporate claims that tropical flora and fauna have skin-brightening and health-promoting properties, corporations continue to use a colonial-era discourse which still associates warmer tropical climates with hyper-pigmentation, heat and humidity and dark skin tones with disease and degeneration. As a result, the promotion of skin-whitening to women and men in the Global South continually entice consumers with relentless messages associating fair skin tones with social success, cleanliness and corporeal purity (Conor, 2017; Hussein, 2010; Mcloughlin, 2013; Nadeem, 2014; Shrestha, 2013).

Youthful femininity and whitening modernity

As noted in earlier in this chapter, and elsewhere in this book, some critics claimed that the contemporary phenomenon of the skin-whitening boom in Asia reflects less on Western influence or the pressure of globalization. Instead, these critics assert that the skin-whitening-boom is a corporate response to local consumer demand for skin lighteners and that Asians' desire for lighter skin is based on a traditional preference for paler skin tones (Ashikari, 2005; Leong, 2006; Saraswati, 2010). However, there is compelling evidence that the persuasive marketing rhetoric and overwhelming use of images of Caucasian and non-Caucasian light-skinned models are used to entice consumers in Asia, Africa and the Caribbean with the same messages which equalize lighter skin with personal happiness and class mobility (Adinde, 2018; Glenn, 2008; Hall, 2013; Osuri, 2008; Shrestha, 2013). The following data appeared in a recent report, showing that the skin-whitening market is expanding:

> Globally, the demand for whiteners is climbing, projected to reach $31.2 billion by 2024, up from $17.9 billion in 2017, especially in Asia, the Middle East and Africa, according to market intelligence firm Global Industry Analysts. Routine skin whitener uses ranges from 25% in Mali to 77% in Nigeria, and it's 40% in China, Malaysia, the Philippines and South Korea, according to the World Health Organization.
>
> *(Liu, 2018)*

The rates of skin-whitening product use in Nigeria (77%) and Ghana (40%) – African countries where the majority of the people have black skin – demonstrate the overwhelming global demand for whiteness. While it cannot be denied that the traditional preference for pale skin tones do exist in many traditional societies, the contemporary globalization of skin-whitening cannot be reduced to local preference for pale skin (Ashikari, 2005; Leong, 2006; Prasso, 2005). It is pertinent to stress that skin-whitening discourse promotes a homogenizing beauty standard

which equates pale skin with personal success, respectability and social recognition (Biakolo, 2016; Rehman, 2017). As result, contemporary globalization of skin-whitening reveals complex patterns of gender, ethnicity, class and caste-based social stratifications and historical preference for lighter skin tones. These complex dynamics reinforce the consumption of skin-whitening as a means to achieve class mobility and ideal femininity (Liu, 2018; McLoughlin, 2013; Nadeem, 2014). Drawing on post-racial, post-colonial and post-modern neo-liberal discourses, some critics and researchers claim that skin-whitening expresses subjective taste or that it is an inevitable effect of late capitalist modernity (Gram, 2007; Saraswati, 2010). For example, in *Cosmopolitan Whiteness*: *The Effects and Affects of Skin-Whitening Advertisements in a Transnational Women's Magazine in Indonesia* (2010), Saraswati claimed that the Asian desire for 'whiteness is not the same as the desire for "Caucasian whiteness"' (p. 15). This claim is predicated on a double theoretical move, which fails upon closer examination. First, Caucasian whiteness is a socially constructed category. This is to say that Caucasian whiteness has no essential or fixed essence (Goldberg, 1993; Jacobson, 1998; Lipsitz, 2006).

Second, Caucasian and non-Caucasian models with pale skin are often used in promotions for skin-whitening products. Saraswathi called this phenomenon 'cosmopolitan whiteness' (2010, p. 15). What is cosmopolitan whiteness in this context, if it is not a sign of Caucasian whiteness? In order to resolve this ontological and epistemological impasse, Saraswathi made two contradictory conceptual moves by essentializing Caucasian whiteness as an ontological essence and by universalizing Caucasian whiteness as a sign of trendy and fashionable cosmopolitan modern consumerism. In this way, the essentialist approach to 'Caucasian whiteness' is reinforced as just a sign of cosmopolitical global modernity. As a result, the skin-whitening boom in Asia is explained as an effect (and the affect) of post-essentialist globalization. However, cosmopolitanism and Caucasian whiteness are situated concepts with specific histories. These terms are associated with Western geographical spaces and with the European colonial diffusion of Western values onto non-white bodies and spaces (McClintock, 1995; Mohanram, 1999). Consequently, transnational corporate diffusion of consumable whiteness through skin-whitening to the Global South is rooted in European colonial history (Hall, 2013; Shrestha, 2013). This is to say that the contemporary branding of 'cosmopolitan whiteness' cannot be severed from its specific historical, cultural and geographical location. The language used in advertisements for skin-whitening products attest to the Eurocentric foundation of the skin-whitening industry.

> Skin-whitening advertisements dominate the landscape of Indonesian women's magazines. Often, these whitening advertisements appear on the first page of such magazines. In the June edition of the Indonesian *Cosmopolitan* (hereafter referred to as Cosmo), Estée Lauder's 'Cyber White' ad appeared on the inside front-cover spread of the magazine. In the following issue of the Indonesian *Cosmo* (July 2006) Kosé's Sekksei whitening ad with the slogan 'Skin of Innocence' appeared as the front-cover gatefold. Neither of these

> transnational ads employs Indonesian models: a Caucasian woman models the 'Cyber White' ad, and a Japanese woman models the Sekkisei ad.
>
> *(Saraswati, 2010, pp. 15–16)*

The passage quoted above paints a picture in which Indonesia's urban spaces are colonized by an aggressive symbolic invasion of whiteness. This symbolic colonization is underscored by the fact that advertisements for skin-whitening products in that country do not use local models. It is highly suggestive that marketers for skin-whitening in Asia use globalizing tropes with distinctly colonizing imperatives such as 'Cyber White'. This and the use of 'Caucasian' models masquerade under the guise of cosmopolitan globalization, revealing colonizing imperatives of the promotion of skin-whitening products to consumers in the Global South. These aggressive marketing strategies reveal that globalization of skin-whitening represents a contemporary rebranding of older forms of Eurocentric diffusionism. This is not to suggest that consumers in Indonesia or elsewhere in the Global South lack agency. My point is that these colonizing marketing schemes reinforce colour-coded hierarchies. The primary point I wish to stress in this work is that the globalization of skin-whitening is a corporate-driven and transnational and globalizing market which furthers and entrenches colour-, caste- and race based hierarchies. Consequently, it is pertinent to locate and contextualize that cosmopolitan whiteness is not a new concept and instead it is the outcome of a rebranding of the old colonial trope based on making a class-, gender- and race-based stratified social order (Larocca, 2017; Shrestha, 2013). It is in this historically specific context that cosmopolitan whiteness reasserts itself through such aggressive signs as 'Cyber White' to push for the marketing of consumable whiteness as an abashing celebration post-racial neo-liberal Western globalization (Kintz, 2001). It is pertinent to ask what gives Caucasian models the ability to assume a neutral, universal face for skin-whitening ads directed at non-white women and to what extent this phenomenon represents the reassertion of hegemonic whiteness (Dyer, 1997; McLoughlin, 2013; Nadeem, 2014; Shrestha, 2013).

The hegemonic symbolic power of whiteness makes Caucasian whiteness appear unmarked, neutral and non-specific (Dyer, 1997). This is the reason that only Caucasian whiteness can convey complex meanings such as 'cosmopolitan modernity'. This is also the reason that skin-whitening marketeers often associate the globalization of skin-whitening with modernity (Prasso, 2005). The white subject's ability to assume a universal status allows it to pass itself off as unmarked, as in case of Caucasian models in skin-whitening ads in the Global South, and reveals what Dyer called the 'disembodied embodiment of whiteness' (1997, p. 4). Taking up the position of the universal subjecthood gives white people the ability to deflect locality and their ability to assume unmarked positions. These are some of the enduring features of hegemonic whiteness (Dyer, 1997, p. 30). The ability of whiteness to assume an unmarked and neutral position allowed, for example, the *Fortune Magazine* report to be pitched to potential investors in the booming

skin-whitening market in China as though it is just another business report and that skin-whitening is just another commodity.

> Modernity and tradition – it is a raging battle among global beauty giants vying to win the face of Chinese women. There's French giant L'Oréal pitted against Japanese Shiseido, both of which being challenged by U.S. leader Estée Lauder and a handful of Chinese companies that draw upon the desire for traditional skin beautifiers by putting herbs and animal proteins into the product.
>
> *(Prasso, 2005, p. 1)*

Contrasting 'modernity' (read as white) against 'traditional' (read as non-white) reveals the symbolic position of hegemonic whiteness as a global signifier, whereas traditional can only be local. The symbolic association of whiteness with modernity positions white skin as a catalyst for progress (Anderson, 2003; Blaut, 1992). In this report, Prasso also claimed that 'China is a country where barely any women used cosmetics decade ago' (2005, p. 1). However, the fall of communism resulted in loosening the Communist grip on Chinese society. As a result, in the 'early 1990s, Chinese women were eager to embrace the aesthetics of the modern world' (Prasso, 2005, p. 1). In this context, the mass consumption of skin-whitening in the post-Communist China can be celebrated as a diffusion of Western neo-liberal capitalist modernity.

A critique against Asian cosmopolitan whiteness

In *Cultivating Japanese Whiteness: The 'Whitening' Cosmetics Boom and the Japanese Identity* (2005), Ashikari offered an interesting but ultimately contradictory account of the contemporary rise in skin-whitening among Japanese women. Ashikari claimed that as a social phenomenon, skin-whitening appeared on the Japanese market in the 1980s. This makes the skin-whitening boom in Japan a relatively recent phenomenon.

> Since the late 1980s, consumption of 'whitening' cosmetics has remained at consistently high levels, and a 'white' complexion has been considered trendy and desirable in contemporary Japan.
>
> *(Ashikari, 2005, p. 73)*

This means skin-whitening is not rooted in Japanese tradition. Instead, it reveals that skin-whitening is an emerging practice and industry in Japan. To find out reasons why Japanese women considered skin-whitening trendy and desirable, Ashikari conducted an ethnographic study based on a series of interviews with Japanese women who used skin-whitening cosmetics. Based on the results of this survey, Ashikari concluded that the rise of skin-whitening in Japan should not be understood as a 'reflection of Western values' (2005, p. 73). Ashikari insisted that

'This social phenomenon should not be understood simply either as a reflection of admiration for the West, or as an expression of traditional values of female beauty in Japan' (2005, p. 73). Ashikari admitted that transnational firms are the driving force behind the 1980s skin-whitening boom in Japan. This is a legitimate assertion because similar trends of skin-whitening proliferation have been noted in India, Indonesia and other countries in Asia, Africa and the Middle East (Abraham, 2017; Asante, 2015; Biakolo, 2016; Liu, 2018; Osuri, 2008). Ignoring well-documented evidence that skin-whitening is a globalizing phenomenon throughout Asia, Africa and the Middle East, Ashikari proposed a third hypothesis that asserted that skin-whitening among Japanese women symbolizes a unique Japanese racial whiteness: 'the skin tones of Japanese people are recognized and expressed as a dichotomy of "white" and "black"' (2005, p. 73).

However, it is not clear how a consumer phenomenon that is barely a few decades old was essential to Japanese identity. The second problem with Ashikari's theorizing of Japanese women's skin-whitening practices is the role of blackness in the Japanese symbolic system. It is not clear why Ashikari's informants considered blackness as an inferior colour, that it was an even unmentionable otherness against which Japanese whiteness is symbolically asserted. It is obvious blackness is not unmentionable in Japanese racial identity. Failing to explain reasons why blackness is considered an offensive skin colour in Japanese society and that skin-whitening is a recent and globalizing phenomenon, Ashikari insisted that skin-whitening among Japanese women reflected on the racial foundation of Japanese identity so that the whitened skin of the women in this survey represented 'a symbolic physical characteristic for identifying the Japanese people' (Ashikari, 2005, p. 73). How the Japanese identity of whiteness can be dependent on something which came to that country only few decades earlier is not clear. Ashikari claimed that her informants in that survey considered blackness an undesirable otherness. However, this argument is based on a highly problematic hypothesis. This is because Ashikari has already noted that skin-whitening was a recent phenomenon which began in Japan in the 1980s. Second, Ashikari has also noted that the skin-whitening market in Japan is driven by transnational corporations which often use young and Caucasian models in advertainments for skin-whitening in Japan (2005, p. 82).

It is not clear why skin-whitening is a deeply rooted part of the Japanese symbolic system that it requires threatening blackness and Caucasian models to promote it to Japanese consumers. It is more reasonable to admit that the emerging phenomenon of skin-whitening in Japanese society is an effect of globalization and using Caucasian models in skin-whitening promotions was not limited to Japan. Also, as the following passage from Ashikari's work examined here shows, these products promulgate Eurocentric hegemonic whiteness:

> The sensation of whiteness (shiro) on your skin (Helen Rubinstein). The Best shortcut to whiteness (Givenchy). Let's cultivate whiteness, every day (Clinique). What I have touched is a drop of white science (Yves Saint-Laurent).
>
> *(Quoted in Ashikari, 2005, p. 73)*

Slogans in the above quote: 'The sensation of whiteness (shiro) on your skin (Helen Rubinstein)'; 'The best shortcut to whiteness' (Givenchy); 'Let's cultivate whiteness, every day' (Clinique); and 'What I have touched is a drop of white science' (Yves Saint-Laurent) clearly speak of the diffusion of Eurocentric whiteness into Japanese bodies. The slogans in the above quote indicate that skin-whitening is not 'indigenous to Japanese society but that is an effect of Western "white science"'. These phrases also suggest that Japanese women can experience 'white science' by consuming it as a commodity. However, experiencing white science through skin-whitening represents an individual consumer choice and not a collective symbolic act of Japanese whiteness. Ashikari tacitly admitted that skin-whitening in Japan was 'trendy' and a 'desirable' phenomenon (2005, p. 82).

Another problem with Ashikari's work examined here is Japanese women's ambivalence toward Caucasian whiteness. For example, Ashikari's informants considered Caucasian whiteness as 'inferior' to their own artificially cultivated whitened skin (2005, p. 82). If Japanese consumers considered Caucasian whiteness as inferior to their own Japanese whiteness, how are we to understand the overwhelming presence of Caucasian models in skin-whitening advertisements in Japan? Ashikari struggled to explain the overwhelming presence of Caucasian models in skin-whitening ads in Japan and referred to her informants to explain the role of Caucasian models:

> Japanese people's attitude towards the image of Caucasian skin is paradoxical. My informants, mainly women, insisted that Japanese skin was 'superior' to Caucasian skin. Although many of my informants had had little personal contact with Westerners, they all made more or less identical negative comments about Caucasian women's skin, saying, for example, that it was 'rough'; 'aged quickly'; and it had 'too many spots'.
>
> *(Ashikari, 2005, p. 82)*

As a good anthropologist, Ashikari quoted the words of her informants to explain the overwhelming presence of Caucasian models in skin-whitening promotions in Japan. It is not clear why Koreans, Chinese and Japanese models were not often used in skin-whitening promotions in Japan. However, the strategy of using primarily Caucasian models in skin-whitening promotions in Japan raised several highly problematic questions. First, if Ashikari's informants considered their own technically produced whitened skin 'superior' to that of the Caucasian models in skin-whitening ads in Japan, what function do these Caucasian-looking models perform in the symbolic production of Japanese whiteness? This question is pertinent because there seems to be a profound fascination with *Caucasian skin* among Ashikari's informants.

Ashikari's analysis of the cultivation of Japanese whiteness through skin-whitening practices heavily depends on the othering, essentializing representation of an imaginary Caucasian whiteness and threatening unspeakable blackness. Another theoretical move in Ashikari's *Cultivating Japanese Whiteness* is the way in which the concept of the

'North' is mobilized as a marker of 'uniquely' Japanese whiteness (p. 82). In Ashikari's *Cultivating Japanese Whiteness* (2005, p. 82), the North functions as an imagined spatial source of Japanese whiteness. If Northern Japan represents the 'true' source of Japanese whiteness, then what are the symbolic significances of threatening blackness and Caucasian whiteness in the making and unmaking of Japanese whiteness? While the author never explained the source of Japanese fear of blackness or fascination with Japanese whiteness, this strategic othering is key to Ashikari's *Cultivating Japanese Whiteness*. Ashikari anticipated these contradictory claims thereby shifting the analysis away from the thorny issue of the skin-whitening phenomenon and turning it into one about revealing the ecological roots of autochthonic Northern Japanese whiteness.

> Our preference for white skin originated from *Akita bijin* (an Akita [a northern prefecture] beauty-Akin being a northern prefecture) or *Tohoku bijin* (a Tohoku [northern region] beauty)-Tohoku is a northern region. It is a domestic matter and it has nothing to do with *haku-jin* (Caucasians).
>
> *(Ashikari, 2005, p. 82)*

Once again, if Japanese whiteness had nothing to do with Caucasian whiteness, then, how do we account for Ashikari's informant's deep fixation with Caucasian skin? As a rule, advertisements often use idealized images to entice consumers to purchase products. This marketing logic could explain the extensive use of models with Caucasian features to entice Japanese consumers to purchase skin-whitening products. This question is pertinent because Ashikari's Japanese informants seemed to have strongly, and primarily negative, views about the quality of 'Caucasian skin' by calling it 'rough' and 'inferior' to their own Japanese skin (Ashikari, 2005, p. 82). In this work, Ashikari had turned Caucasian whiteness into an objectified otherness.

> Nevertheless, in Japan many images of *haku-jin* women (literally, white people, Caucasians) are used in advertisements for whitening cosmetics as well as other make-up products. Most informants do not pay attention to the fact that those models are Caucasians. Caucasian models appear to be transparent symbol of 'world culture' and of 'universal beauty' in the Japanese mass media.
>
> *(Ashikari, 2005, p. 82)*

On the contrary, by expressing strong and value-laden judgments of Caucasian skin, Ashikari's informants did pay considerable attention to Caucasian whiteness. In fact, the idea that Japanese whiteness is 'superior' to Caucasian whiteness is the conclusion of this survey. By stating that Caucasian models in skin-whitening advertisements in Japan stand for the 'transparent symbol of world culture' and 'universal beauty' (p. 82), Ashikari revealed what seems an epistemologically and an ontologically unresolvable Japanese ambivalence toward Caucasian whiteness.

> When my informants look at a beautiful young Caucasian model in an advertisement with a slogan, such as, 'for making your skin beautiful and young',

> they can simply see 'young' and 'beauty' in the model's face. They are looking at a beautiful woman in the advertainment, but not particularly a beautiful Caucasian woman.
>
> *(Ashikari, 2005, p. 82)*

The passage quoted above convincingly reveals the power of Eurocentric whiteness as a global signifier of universal beauty. Many scholars have noted how the symbolic power of whiteness frames the globalization of skin-whitening. For example, in *Fair and anxious: on mimicry and skin lightening in India* (2014), Nadeem conducted an ethnographic study in India designed to find out reasons why people bleach their skin. The author's conclusion of this survey revealed how interlocking imperatives of gender, class and caste drive the transnational promotion of skin-whitening in India.

> Rather than viewing this kind of cultural mimicry as a form of false consciousness, I argue that it represents an anxious love for the 'other' that is conditioned by power relations.
>
> *(Nadeem, 2014, p. 224)*

Perhaps it is this *anxious love for the 'other'*, albeit at times masquerading under the purview of 'transparent cosmopolitan' whiteness, which can explain the deadly obsession with pale among women and men in the Global South. Thus, anxious love for the 'other' can also be interpreted as an effect of Western based transnational cosmetics companies' aggressive promotion of skin-whitening to consumers in the Global South. In *Threatening consumption: managing US imperial anxieties in representations of skin lightening in India* (2013), Shrestha examined the social and psychological effects of the skin-whitening industry in India. In this work, Shrestha explored the extent to which aggressive marketing of skin-whitening to women and men in the Global South contradicts US claims that it represents a post-racial democracy (2013, p. 104).

> Discourse analysis of news media accounts indicates that orientalist colonial tropes of Indian primitiveness, traditionalism, and gendered difference intersect with American post-racial ideology to disassociate American consumers from an Indian consuming public. Thus, representations of skin lightening attempt to ease imperial anxieties around the United States' faltering economic dominance due to the rise of emerging economies like India by reviving nationalist narratives of American exceptionalism.
>
> *(Shrestha, 2013, p. 104)*

In the work quoted above, Shrestha astutely revealed complex economic and discursive drivers behind the contemporary popularization of skin-whitening in India and elsewhere in the Global South. It is pertinent to stress that US-based firms are leading the promotion of skin-whitening in Asia, especially in India, Malaysia, India, China, Hong Kong, Thailand and Japan (Digital Journal, 2018; Liu, 2018;

McDougall, 2013; Prasso, 2005). As a practice and an industry, skin-whitening reveals entrenched economic interests and racialist imperatives inside the United States itself and elsewhere in the West. It also reveals how these economic interests and racializing imperatives are promulgated through transnational corporate promotions for skin-whitening products to women and men in the Global South.

> Not only does this obscure racism and colorism in the United States, it also impedes recognition of the overlapping conditions of transnational commercialized beauty culture and industry within which white/light beauty standards and skin-whitening products flourish.
>
> *(Shrestha, 2013, p. 104)*

Indeed, transnational commercialized beauty (Shresha, 2013, p. 104) had been noted not only by critics, but also by the financial media as well. The following, and final, section brings into focus skin-whitening as a technology which acts by suppressing or reducing the synthesis of the skin's own pigment, melanin, thereby producing ghostly looking pale skin. The aim of this analysis is to closely examine the social and ethical implications of the desire to acquire this ghostly looking whiteness.

Ghostly-looking whiteness

Goon & Craven (2003) revealed that the technological production of ghostly looking pale skin of the non-white other is one of the sinister aspects of the skin-whitening industry. The authors defined skin-whitening is a 'state-of-the art scientific modification' which requires the literal draining of the skin of its natural pigment, melanin (2003, p. 6).

> The message promoted is contradictory: the texts advocate halting the natural production of melanin within the body in order to bring about what they call a 'natural' or 'true' beauty-in actuality an artificially-enhanced and genetically-unnatural whiteness. The beauty discourses at work within these texts refer to an understanding of 'beauty' strongly rationalised by Enlightenment naturalisation of splitting, colonial notions of white power, and class-based constitutions of paler-skinned aristocracy.
>
> *(Goon & Craven, 2003, p. 10)*

In the work cited here, Goon and Craven argued that the ghostly pale skin of the non-white other, which is produced through skin-whitening, reveals a symbolic, material and technological effect of whiteness (2003, p. 10). Material and symbolic violence in whiteness, through skin-whitening, is rooted in a colonial legacy of white domination of the non-white other.

> The 'gaze' constructed through these texts is neither 'coloured' nor 'white': these texts market the production of a hybrid creature, a dream-doll with

> Asian features and Caucasian skin. The reader is invited to participate in a most ironic conflict of return- the reconstitution of colonialised values through the application of state-of-the-art scientific modification.
>
> *(Goon & Craven, 2003, p. 10)*

In this context, the contemporary globalization of skin-whitening registers a moment of extreme commodification of whiteness as an act of 'reconstitution of colonialised' and colonizing values of Eurocentricity and White Supremacy. In addition to suppressing the proper function of melanin, the skin-whitening industry promotes homogenizing standards of beauty and global racism. Models with a Caucasian appearance or the non-Caucasian models with extremely pale skin are used in skin-whitening promotions to women and men in the Global South (Goon & Craven, 2003, p. 3).

Yet, despite proclaiming the arrival of an era of colour-blind democracy, in reality, neo-liberal commodification of whiteness reinforces the increasing power of hegemonic whiteness. The central message that whiteness is the colour of success was underscored by a 2017 controversial advertisement for Dove body wash, which targeted African American consumers. The ad begins with a black woman quickly removing her brown shirt (a symbolic reference to her brown skin). Instantly, the black woman's body turned white and her other features turned into what can be described as Caucasian appearance. The underlying message is that blackness is dirty that can be washed away with Dove body wash (Picchi, 2017). When it was published, the Dove body wash commercial received strong public outcry because it targeted African American consumers thereby violating the American discourse of a colour-blind post-racial democracy. Yet, little attention is paid to similar racist promotions, which equate whiteness with personal happiness and professional success when they target consumers in the Global South (Brown, 2019).

Skin-whitening is a penetrating and violent technological intervention but it is often promoted as gentle cleansing of the unwanted 'dark/yellow' skin tones of non-white women (and men) and replacing the brown, black and yellow skin of non-white consumers with a technologically produced pale skin. Discursive articulation of skin-whitening as harmless enables these powerful products to be openly marketed directly to consumers (Yeomans, 2014). These marketing strategies often deflect critical examination of skin-whitening as a biomedically induced suppression of melanin. Therefore, it is necessary to bring into focus that skin-whitening reinforces anti-melanin biotechnology. Consequently, anti-melanin biotechnology is literally and symbolically an expression of hegemonic whiteness.

> Tyrosinase inhibitors and other agents that affect the melanin biosynthesis pathway are widely distributed in plant materials. These natural ingredients offer safer alternatives to hydroquinone, for the use in topical skin lightening compositions. Such actives would offer additional functionalities as sunscreen boosters, moisturizers, or 'anti-aging' ingredients, thereby supporting skin health, and reducing the appearance of wrinkles.
>
> *(Prakash & Majeed, 2008, p. 15)*

It is not clear how ingredients which actively suppress the skin's own natural defence shield against harmful effects can at the same time be able to provide better 'sunscreen boost' or 'wrinkles fighting' capacity. However, despite broader social and health implications, skin-whitening is being increasingly integrated into the global economy (Biakolo, 2016; Chipalkatti, 2014; Khan, 2018; Rehman, 2017). As a result, the damaging effects of skin-whitening have been transformed into the promotion of wellness. It is in this complex and contradictory way that advertisements for skin-whitening products reveal the discursive power of hegemonic whiteness. Consequently, skin-whitening has been transformed historically from a destructive practice to a normalized, medicalized and highly lucrative global market (Biakolo, 2016; Davey, 2016; Chipalkatti, 2014). An interlocking theoretical approach and the content analysis methodology used in this work have revealed complex social, political and economic strategies which facilitate the systematic integration of skin-whitening to the global economy and as a key vector in the dominant biomedicine. This work has also revealed how dynamics of colourism, racism and sexism intersect and enable the global diffusion of whiteness through the skin-whitening industry.

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5

ENTREPRENEURIAL INNOVATION IN SKIN-WHITENING BIOTECHNOLOGY

Ethical and social implications

This chapter focuses on the sociological approach to the research and development and mass marketing of skin-whitening biotechnology as an unregulated but lucrative sector of the healthcare (and wellness) industry. The aim of this analysis is to reveal the multi-layered and complex social and economic policies and discourses which have enabled the rise and the globalization of anti-ageing and skin-whitening bioecology as an unregulated and privatized healthcare industry. In this work, anti-ageing and skin-whitening biotechnology as an emerging and privatized healthcare niche market that promises to reverse the visible signs of ageing and make the users' faces and skin appear youthful and healthy. Anti-ageing and skin-whitening biotechnology are promoted to consumers as a painless, easily accessible and less invasive means of achieving a youthful appearance and anti-ageing wellness. These complex and intersecting dynamics will be revealed through careful content analysis of promotional brochures, technical reports and scholarly works pertaining to skin-whitening biotechnology.

This analysis will pay special attention to the role of scientific language as an enabling tool from the research and development stage, and the production and marketing of anti-ageing and skin-whitening biotechnology. It will be revealed how researchers in anti-ageing and skin-whitening biotechnology seek to find the most effective way to produce powerful products and promote them directly to consumers without addressing regulatory oversight. The work will also show how ideas and concepts around *premature ageing* are discursively constructed as pathological signs of unhealthy ageing, which can be remedied by consuming anti-ageing products. This chapter places strong emphasis on the key role researchers play in the innovation and the globalization of skin-whitening and anti-ageing biotechnology. The roles of researchers in the anti-ageing and skin-whitening industry include setting up start-up (incubator) biotechnology firms which facilitate procuring investment, conducting research, producing marketable products, writing

scholarly journal articles and books, technical reports and marketing brochures for anti-ageing and skin-whitening products.

A careful examination of these extensive sources utilized for this work will reveal the extent to which globalization and normalization of anti-ageing and skin-whitening depend on the biomedicalization of ageing and discursive construction of visible signs of ageing as symptoms of 'disease', and degeneration and decline. Women are the primary target of the anti-ageing and skin-whitening industry. As a result, analysis of the material examined in this chapter seeks to provide critical insight into what extent globalization of anti-ageing and skin-whitening biotechnology reinforce the biomedicalization of ageing, ageism, sexism and racializing dynamics.

Making skin-whitening biotechnology into an anti-ageing wellness industry

There are skin-whitening products which are marketed primarily in the name of anti-ageing wellness. The same products are also marketed to consumers to produce skin-whitening effects (Bird, 2008; Chipalkatti, 2014; Dunn, 2018). As a result, this work uses the concepts of skin-whitening and anti-ageing interchangeably to signal and critically analyse a lucrative and often unregulated biotechnology sector with profound ethical and social implications. This chapter begins by mapping out key economic imperatives, technical innovations and promotional strategies which are the primary drivers behind the globalization and normalization of anti-ageing and skin-whitening biotechnology. Skin-whitening and anti-ageing biotechnology is based on spin-off biotechnology schemes through which innovations in the life sciences are transformed and commercialized into unregulated but lucrative business ventures (Mire, 2012). However, despite lacking publicly and medically recognized criteria to define what constitutes as anti-ageing and skin-whitening biotechnology, the category has become a major emerging driver in the commercialization of biotechnology innovations (Dunn, 2018; Jones, 2018; Mire, 2012). Innovations in anti-ageing and skin-whitening biotechnology is often promulgated under banner of 'science-based anti-ageing wellness' (Magalhães, Stevens, & Thornton, 2017). Whether it is promoted under the banner of skin-whitening or anti-ageing, niche marketing strategies have made skin-whitening and anti-ageing an emerging vector of the globalization of unregulated biotechnology with profound health, social and ethical implications (Chipalkatti, 2014; Gram, 2007; Pitman, 2009; Zhu & Gao, 2008).

Promoters of anti-ageing and skin-whitening biotechnology have identified non-medical pseudo-pathologies which have no medical status such as 'age spots', 'sun damage', pollution, stress and 'bad lifestyle' (Bradley et al., 2015; Darlenski, Surber, & Fluhr, 2010). Nevertheless, terms such as age spots and hyper-pigmentation have not been recognized as legitimate medical conditions. It is in this context that these pseudo-pathologies have come to be associated with anti-ageing and skin-whitening discourse and practice. As a result, removing and reducing unwanted

pigmentations signs is used to discursively articulate anti-ageing and skin-whitening as legitimate practices (Chipalkatti, 2014; Wray, 2015; Magalhães et al., 2017). In this context, anti-ageing (with or without skin-whitening) claims are conceptualized as a source of health promotion (Prakash & Majeed, 2008; Yeomans, 2014). Consequently, 'curing' pigmentation problems is a recurring theme in the anti-ageing and skin-whitening discourse.

Brochures and technical market reports for anti-ageing and skin-whitening promulgate the 'therapeutic' benefits of these products without any verifiable evidence to back them up. However, despite lacking verifiable evidence of their medical efficacy, promotions for anti-ageing and skin-whitening products are widely circulated in major internet clearing houses, health spas and online shops run by leading corporations (Farris, Zeichner, & Berson, 2016). For example, in 2011, leading online cosmetics clearing website Cosmeticsdesign.com/USA published a technical report with the headline 'Formulating Towards Fairer skin- Formulator's Guide' (Ollagnier, Moran, & Fe Boo, 2011).

This technical brochure is significant because the information therein explicitly links skin-whitening biotechnology as a form of health and wellness promotion. Advertising such as ones cited above reveal aggressive marketing around 'recuperative whiteness' in the skin-whitening and anti-ageing industry. This type of advertising is troubling because it has the capacity to reinforce sexism, ageism and racism. Consequently, the globalization of skin-whitening and anti-ageing whiteness reinforce the biomedicalization of ageing, sexism and racialization.

Anti-ageing whiteness: a site of 'unregulated' proprietary economy

The globalization of skin-whitening biotechnology dovetails and interacts with the anti-ageing wellness industry (Utroske, 2017). Second, the biomedicalization of ageing depends on the idea that visible signs of ageing are symptoms of disease and decline (Neill, 2012; Petersen & Seear, 2009). As a result, the biomedicalization of ageing reinforces the globalization of the skin-whitening and anti-ageing wellness industry (Giacomoni, 2005; Global Industry Analyst Inc. 2018). In this context, the biomedicalization of ageing reveals complex ways in the industry reinforces the normalization of ageism, sexism and racialization against women. Consequently, a thorough understanding of the phenomenal success of the industry is important. This knowledge is critically pertinent because it could help researchers, educators and those involved in health policies to develop proper tools to confront and resist the sexism, ageism and racism promulgated in the advertising of the anti-ageing and skin-whitening industry.

The biomedicalizing of ageing is highly damaging to older people, especially to older women, because the fear of looking old reinforces women's own self-normalization as being youthful-looking is often seen as desirable (Calasanti, 2007; Winterich, 2007). Thus, in the final analysis, the aggressive promotion of anti-ageing and skin-whitening biotechnology seeks to intervene in women's ageing

bodies in the name of restoring and fixing them back to being youthful-looking and desirable (Henning, 1999; Mire, 2014). Consequently, advertising for anti-ageing and skin-whitening industries reinforce social constructions of women's bodies as inherently vulnerable to stress, pollution and bad lifestyles. In turn, anti-ageing and skin-whitening biotechnology is offered as a suitable means to protect women's bodies from ageing (Henning, 1999, p. 17). Furthermore, the discursive association of skin-whitening biotechnology with anti-ageing wellness reinforces whiteness as a legitimate strategy in the fight against visible signs of ageing, such as age spots and hyper-pigmentation (Henning, 1999; Winterich, 2007).

It is not only brochures, but also technological reports and expert testimonies are used to back up anti-ageing and skin-whitening biotechnology. However, often these expert testimonies, brochures and technical reports contain legal disclaimers, which undermine the legitimacy of their 'therapeutic' efficacy. Almost all the glossy anti-ageing and skin-whitening technical reports which have been examined for in this book contain a legal disclaimer (Cosmeticsdesign-europe.com, 2017). Nevertheless, despite the inclusion of legal declaimer clauses, the promoters of anti-ageing and skin-whitening biotechnology have successfully reached millions of consumers with their marketing message. It is reasonable to assume that repeated reference to cutting-edge scientific innovation has created a public perception of therapeutic potency of these anti-ageing and skin-whitening products.

As a result, in the place of the absence of verifiable evidence, scientific-sounding concepts and catchy metaphors are used. This style of marketing can be called *scientificated deception* for the following reasons. First, almost always, brochures for these products use visually dazzling images and enticing text messages which seek to reinforce and legitimate unsubstantiated therapeutic claims. Second, scientificated deception, in the sense used here, addresses the discursive strategy which invests scientific potency and regenerative power with the consumption of products with unproven therapeutic claims. Third, as a marketing discourse, scientificated deception in the skin-whitening and anti-ageing discourse depends on consumer acceptance of the unsubstantiated therapeutic efficacy of these products.

As a symbolic representation, scientificated deception can be defined as a signifying repertoire which enables and reinforces a skin-whitening and anti-ageing lifestyle. This is done by using the media, including social media, as an ideal conduit to reach potential consumers with messages of DIY skin-whitening and anti-ageing wellness consumerism. In this context, scientificated deception facilitates the mainstreaming of the skin-whitening and anti-ageing industry. The dual strategy of enticing consumers with unproven therapeutic claims, despite adding disclaimers to these promotions for legal reasons, show the contradictory nature of the skin-whitening and anti-ageing industry. In this way, scientificated deception is a marketing strategy through which the makers of anti-ageing and skin-whitening biotechnologies directly appeal to consumers with false promises of 'ageless beauty', and 'youthful-looking skin' without providing credible evidence of the therapeutic efficacy or risks which may be associated with these unregulated biotechnologies. These marketing strategies work because they appeal to the social and economic benefits of anti-ageing and skin-whitening practice.

This is often done by linking using anti-ageing and skin-whitening products with reducing the 'social burden' of an ageing population, and by stressing the benefits which can be gained from engaging in anti-ageing and skin-whitening consumerism as a desirable, healthy lifestyle among members of an increasingly ageing population in developed countries (Calasanti, 2007; Petersen & Seear, 2009; Rinaldi, 2008). Consequently, skin-whitening and anti-ageing biotechnology is predicated on an unproven promise of ameliorating the visible signs of ageing and reducing the public burden in healthcare costs required for caring for an ageing population (Petersen & Seear, 2009). In this context, anti-ageing practice is often seen as a desirable personal initiative, which could also have broader positive social outcomes. In this context, DIY anti-ageing and skin-whitening consumerism links a personal desire for erasing visible signs of ageing with reducing public healthcare costs (Calasanti, 2007; Cheek, 2008; Giacomoni, 2005). In turn, this strategy requires conceptualizing ageing as a painful physical and psychological decline and ageing people as an economic and social burden to society. These powerful themes and discourses reinforce the sharp rise in the direct-to-consumer anti-ageing drive (Calasanti, 2007; Cheek, 2008; Winterich, 2007).

It is pertinent to stress that the skin-whitening biotechnology with anti-ageing claims facilitate much broader commodification of health itself and the biomedicalization of ageing (Clarke, Shim, Mamo, Fosket, & Fishman, 2003; Ester & Binny, 1989; Petersen & Seear, 2009). Therefore, it is imperative to define and delineate the concepts of the commodification of health and biomedicalization of ageing in order to fully appreciate why these concepts play central roles in the promotion of anti-ageing and skin-whitening biotechnology. In *The Biomedicalization of Aging: Dangers and Dilemmas* (1989), Estes and Binney defined the biomedicalization of ageing as a concept with two important features. First, it pertains to the conceptualizing ageing itself as a 'medical problem' (Ester & Binny, 1989, p. 587). Second, praxis and medical discourses are created and normalized in the service of biomedically intervening and ameliorating those symptoms which are associated with ageing (Ester & Binny, 1989, p. 587). While Estes and Binney's definition of ageing seems a bit dated, in reality this definition is still highly relevant as it succinctly captures some of the leading ideas behind the medicalization of ageing.

More recently, Petersen and Seear offer a highly important definition of the biomedicalization of ageing (Petersen & Seear, 2009). In *In Search of Immortality: The Political Economy of Anti-Aging Medicine* (2009), Petersen and Seear have defined the biomedicalization of ageing as a 'faulty epistemological premise' (p. 268), which is based on the belief that ageing is a disease 'requiring technological intervention' (p. 268). In turn, the biomedicalization of ageing facilitates the social acceptance and institutional support of the anti-ageing industry.

> As sweeping promises regarding the 'revolutionary' potential of anti-ageing medicine are made, financial, industry, government and public support becomes ever more contingent upon those promises being realised.
>
> *(Petersen & Seear, 2009, p. 268)*

It is in these complex and intersecting ways that social, institutional and financial forces are mobilized to help launch a multibillion-dollar unregulated anti-ageing enterprise. As a result, despite lacking a proper regulatory framework, the *mainstreaming* of anti-ageing biotechnology has successfully been normalized. Mainstreaming strategies of the anti-ageing industry include not just marketing schemes, but also the development of expert networks, corporate links and the strategic use of diverse media to help frame a positive conception of this field (Petersen & Seear, 2009, p. 269).

These products include retinoids, vitamins, peptides, polyhydroxy acids and botanicals (Verschoore & Nielsen, 2017; Zhu & Gao, 2008), and because these products are not regulated, their therapeutic claims cannot be substantiated. Often, clever branding strategies are used to create the impression that these are accessible and health-promoting products. One such term is *cosmeceutical* (Bradley, Griffiths, Sherratt, Bell, & Watson, 2015; Draelos, 2009): which are topical cosmetics *intended* to enhance 'beauty' through the inclusion of medicinal actives to cosmetic formulations (Dureja, Kaushik, Gupta, Kumar, & Lather, 2005; Preeth & Karthinka, 2009, p. 1217). It is pertinent to stress that almost all the skin-whitening products with anti-ageing claims are branded under the label cosmeceutical (Preeth & Karthinka, 2009). Although the term cosmeceutical has no legal standing, according to the United States Food and Drug Administration (FDA), Health Canada, and the European Union, nevertheless, products with hyphenated -ceutical signs such as *nutraceutical*, *skinceutical* and *dermaceutical* are directly marketed to consumers (Gupta, 2014; Pitman, 2008; Whitehouse, 2017). These deceptive marketing schemes have already blurred the regulatory boundaries between cosmetics, pharmaceuticals and food (Giacomoni, 2005; Gupta, 2014; Lintner et al., 2009; Sabinsa, 2018; Verschoore & Nielsen, 2017; Whitehouse, 2017; Wray, 2015).

In this context, unregulated anti-ageing and skin biotechnology has been systematically integrated into the broader medical domain under the purview of wellness and health-prompting imperatives (Preeth & Karthinka, 2009). Integrating anti-ageing and skin-whitening cosmeceuticals into the healthcare services is based on the claim that these products could permanently erase visible signs of ageing and could make users' skin lighter, healthier and younger-looking (Prakash & Majeed, 2008; Symrise, 2017). Consequently, cosmeceuticals with skin-whitening and anti-ageing properties have emerged as key drivers in the commercialization of new biotechnologies (Amer & Maged, 2009; Babamiri & Nassan, 2010; Bird, 2008; Brandt, Cazzaniga, & Hann, 2011; Global Industry Analysts Inc., 2018; Symrise, 2017). Marketing plays a leading rule in this process by enticing consumers with dazzling visual images and compelling promotional rhetoric which appeal to the globalized desire for youthful-looking and lighter skin tones (Wray, 2015).

Many brochures and technical reports for skin-whitening and anti-ageing products use images of youthful-looking female models and make the promise that these products could halt or even reverse the process of ageing. Available data for skin-whitening and anti-ageing products reveals repeated use of scientific metaphors such as *stem cell technology*, *botanical extracts* and *vitamins* to entice consumers.

And yet, these brochures often contain legal disclaimer. However, whether they are promoted as beauty food or anti-ageing drinks, the social appeal of these products depends on direct marketing to consumers and a heavy emphasis on cutting-edge scientific innovations and unproven therapeutic efficacy (Lubrizol, 2012). The following advertisement is typical of the deceptive use of scientific language to entice a consumer to purchase often expensive products with unproven therapeutic claims.

> The future of skin care just got 4 times brighter. From the creators of SilkPeel® Dermalinfusion™ and the research teams at Stanford University comes the new Lumixyl Topical Brightening System, a breakthrough in skin brightening technology.
>
> *(New Beauty, 2010, 6(2), p. 93)*

Ads such as the one quoted above are an example of deceptive but nevertheless effective promotions direct to a consumer and of a DIY neo-liberal healthcare model (Clarke et al., 2003; Cheek, 2008; Neill, 2012). These promotions reinforce the sharp rise in the research and development and the mass marketing of anti-ageing and skin-whitening biotechnology (Chipalkatti, 2014; GBI Research, 2013; Yeomans, 2015). As a result, a strong emphasis on DIY wellness lifestyles plays an important role in the systematic normalization of anti-ageing and skin-whitening biotechnology. There is also macro-level corporate investment in setting up the necessary infrastructure, which reinforce the social and economic dynamics of skin-whitening and anti-ageing biotechnology as a multibillion-dollar unregulated enterprise worldwide, which blur regulatory boundaries for cosmetics, food and drinks (Cosmeticsdesign-europe.com, 2018; Whitehouse, 2017).

There is also governmental and non-governmental institutional support for the skin-whitening and the anti-ageing industry. Institutional support helps with such tasks as securing research grants and setting up favourable social policies. What this research seeks to reveal is how the anti-ageing and skin-whitening option is a site through which scientific innovations in molecular biology and genomics are translated, transferred and commercialized (Tambo, Almeer, & Alshamrani, 2016). Ii is in this context that innovations in skin-whitening and anti-ageing biotechnology work within the purview of generating marketable knowledge (Bauer & Gaskell, 2002; Gerlach et al., 2011; Krimsky, 2003; Jacob, 2003). Furthermore, innovations and commercialization of skin-whitening and anti-ageing biotechnology requires a legitimating discourse that frames these unregulated spin-off biotechnologies as necessary to the public good. Thus, the appeal to consumer desire for longevity and a youthful appearance, and the promise of reduced social costs in caring for an ageing population reinforce the rise and globalization of the anti-ageing industry.

Consequently, associating skin-whitening and anti-ageing biotechnology with wellness requires appealing to ageing as an undesirable and social burden. The biomedicalization of ageing, especially in women, is the primary driving force behind the rise of the anti-ageing industry (Calasanti, 2007; Cheek, 2008; Spindler & Streubel, 2009). For women, visible signs of ageing reinforce the DIY anti-ageing

practice. It is pertinent to stress that women's fear of losing this desirable femininity is one of the primary drivers of the promotions of anti-ageing products directly at white middle-class women (Cheek, 2008; Henning, 1999; Winterich, 2007). However, when skin-whitening is marketed to non-white women, the whitening effect of these products is often underscored as a marker of class affluence and as a symbolic embodiment of 'modernity' (Ashikari, 2005; Chipalkatti, 2014; Gram, 2007; Osuri, 2008; Wray, 2015).

Consequently, the intersectionality of race, gender, femininity and ageism play critical roles in the globalization and the strategic *niche marketing* of anti-ageing and skin-whitening biotechnology. It is in this context that the intersectional approach to the sociological understanding of the proliferation of anti-ageing and skin-whitening biotechnology is highly relevant. Throughout this work, intersectionality is used to reveal ways in which ageism and the fear of ageing among women reinforce the systematic devaluation of women's bodies and subjectivity. Intersectionality is also a critical tool in revealing that the globalization of the anti-ageing industry facilitates ageism, sexism and racism. The biomedicalization of ageing in turn reinforces economic interests of the multi-national corporations behind the research and development and globalization of anti-ageing and skin-whitening biotechnology (Pitman, 2005; Sabinsa, 2018; Symrise, 2013). Advertising skin-whitening and anti-ageing products is also widely disseminated in high-end glossy magazines, online shops, health spas, upscale wellness boutiques and department stores. These products are also distributed on websites and in the offices of physicians, many of whom are also skin-whitening and anti-ageing entrepreneurs (Katz & McBean, 2008; Sadick, Dinkes, & Oskin, 2008; Verschoore & Nielsen, 2017).

Many of these medical entrepreneurs have their own lines of anti-ageing, skin-whitening and skin-brightening product brands (Singer, 2006; Pomerantz Lutsig, 2010). What these multi-layered and complex strategies reveal is that the rise and globalization of the skin-whitening and anti-ageing market is closely linked to the normalizing that ageing is a disease and that fighting ageing is a moral duty (Cheek, 2008, p. 974; Winterich, 2007, p. 54). In *Aging, Femininity and the Body: What Appearance Changes Mean to Women with Age*, Winterich (2007) noted that 'Women are bombarded by ads invoking them to "fight" aging' (p. 51). Winterich (2007) has also noted that 'the media play a central in distributing an ageist ideal of femininity and beauty through their over-representation of young women' (p. 51).

It is in this context of the over-representation of youthful-looking models in the media and the demonizing of older-looking women that 'curing' the visible signs of ageing is discursively and systematically legitimatized within the purview of promoting health and wellness (Berneburg et al., 2008; Giacomoni, 2005; Rinaldi, 2008). Consequently, the proliferation, normalization and globalization of anti-ageing and skin-whitening biotechnology can be best understood as key aspects of the emerging wellness consumerism (Larocca, 2017). Furthermore, anti-ageing and skin-whitening practices could further reinforce the broader privatization of healthcare services and the commodification of health itself (Clarke et al., 2003; Gerlach et al., 2011; Krimsky, 2003; Rose, 2007). In this context, we could say

that biomedicalization of ageing supports DIY anti-ageing wellness. In turn, anti-ageing wellness entrenches the commodification of healthcare services so that the responsibility to be healthy and 'look young' is promulgated as a moral responsibility of individual consumers to achieve and maintain (Calasanti, 2007; Cheek, 2008; Clarke et al., 2003).

The commodification of 'health itself' has become a personal responsibility which can be fulfilled through 'access to the knowledge, self-surveillance, prevention, risk assessment, the treatment of risks, and the consumption of appropriate self-help/biomedical goods and services' (Clarke et al., 2003, p. 162). Advertisements and expert advice for anti-ageing and skin-whitening products appeal to the commodification of health and personalization of health itself (Zion Market Research, 2017). The commodification of health and the biomedicalization of ageing reinforce anti-ageing consumerism. As a result, anti-ageing discourse must be understood as a key aspect of the ascendance of the neo-liberal healthcare model (Krimsky, 2003; Salter & Faulkner, 2011; Scheper-Hughes, 2003). In the neo-liberal context, the commodification of health itself supports the reconceptualization of health as a highly prized individual responsibility (Clarke et al., 2003, p. 171; Scheper-Hughes, 2003). The commodification of health and the biomedicalization of ageing explain the system of transformation of healthcare goods and services from the domain of publicly funded and guaranteed by the welfare state to a privatized and the profit-driven enterprise that encourages self-directed healthcare consumerism (Imison & Schweinsberg, 2013; Salter & Faulkner, 2011; Scheper-Hughes, 2003; Snyder, Dharamsi, & Crooks, 2011; Turner, 2012).

Anti-ageing is an aspect of the emerging wellness lifestyle, and the commodification of healthcare goods and serves facilitates accessibility to those who can afford the asking prices and excludes those who cannot afford to participate in these practices. The proliferation of globalized access to healthcare services in diverse areas such as reproductive tourism, globalized organ trade and increased marketing of anti-ageing and wellness spas tourism are manifestations of neo-liberal-driven examples of the commodification of healthcare goods and services (Clarke et al., 2003; Imison & Schweinsberg, 2013; New Beauty Magazine SPA™, 2013, 1(1); Salter & Faulkner, 2011; Scheper-Hughes, 2003). These complex processes reveal that the sharp rise of the multibillion dollar anti-ageing and skin-whitening industry is part and parcel of a broader commodification of health and the transfer of knowledge generated by publicly funded research and development in life sciences and biomedicine corporate control and in the benefits to private individual investors (Clarke et al., 2003, p. 181; Krimsky, 2003, p. 61).

A key element in the commodification of health and wellness through anti-ageing and skin-whitening discourse and practice pertains to the aggressive biomedicalization of ageing and the racialization of beauty. The conflation of beauty with anti-ageing wellness facilitates a discursive collapsing of youthful appearance and being healthy (Berneburg et al., 2008; Mulholland, 2008; Sadick et al., 2008). In almost all the anti-ageing advertisements I came across for this research, most conflate a youthful appearance with being healthy (Yeomans, 2015b; Symrise, 2013).

This is further evidenced in corporate marketing strategies that frame the visible signs of ageing, especially in women, as both a health and an aesthetic concern (Kockaert & Neumann, 2003).

The discursive equation of idealized femininity and youthful appearance with being healthy has profound sexism and ageism implications. The following advertisement is an example of the misleading but persuasive ways in which youthful femininity is promulgated through promotions for anti-ageing products directed at women:

> Unlock your skin's potential to reverse the signs of aging. Empower your skin to renew itself complete growth factor support. GF-DNA serum contains a unique blend of all growth facts found in young, healthy skin and thee nourishing plant extracts go enhance your skin's ability to diminish signs of aging and restore a more youthful appearance. This pure, concentrated formula is engineered with advanced stem cell technology based on the latest research into the anti-aging effects of human growth factors.
>
> *(Benev Progressive Skin Science™ [advertisement]. New Beauty, 2008a, 4(4), p. 61)*

It is pertinent to stress that anti-ageing marketing is increasingly going global (Yeomans, 2014). These messages that beauty and youth are equal to being healthy and that being old is a sign of disease and decline are transmitted to women living in different parts of the word, regardless of race, class and ethnicity, so that they are encouraged to make their skin and bodies healthy-looking and youthful-looking by reversing those signs (Symrise, 2013; Yeomans, 2014). These marketing strategies have coercive implications in that women who fail to consume these products could be excluded and punished for showing signs of ageing or for failing to whiten and brighten their skin. Consequently, the aggressive promotion of anti-ageing and skin-whitening biotechnology and the concomitant discourse have the capacity to promote and enforce intersecting oppressive imperatives of sexism, ageism and racism.

The anti-ageing industry often uses subtle but coercive biomedicalizing rhetoric which commands that women fight visible signs of ageing by using anti-ageing products based on 'advanced' research and development, with no 'downtime' and no hospital visits and with no need for their doctor's authorized prescription (Symrise, 2017; Tambo et al., 2016). Advertisements for skin-whitening and anti-ageing promote messages of purifying and cleansing the ageing bodies and skin of women and restoring them to a brighter and youthful-looking status (Solabia, 2010; Symrise, 2017). The following advertisement is an example of the deceptive ways in which lay consumers are enticed with powerful but unsubstantiated therapeutic benefits of anti-ageing whiteness:

> Preserving an even skin tone, free of dark spots, is the secret of a radiant youthful looking skin and is getting growing attention by consumers all around the world – skin radiance is not far from becoming even more important

> than wrinkles. The concern is clearly more sensitive in cities where skin is exposed to many pollutants directly affecting the quality of the skin. Based on its original research on the effect of particulate pollution, Symrise Cosmetic Ingredients is now introducing natural solutions targeting negative effects like hyper-pigmentation specifically induced by diesel exhaust particles.
>
> *(Symrise, 2016)*

The above quote is another good example of how the biotechnology, pharmaceutical and cosmetics industries entice consumers, primarily women, with the message that looking youthful is not only easily achievable, but it is also easily accessible by consuming products which could cleanse and purify their bodies and skin and make them younger-looking and radiant. These persuasive messages press onto the consumers that one must do everything possible to fight the visible signs of ageing by shielding one's skin, using powerful anti-ageing biotechnologies and by reducing stress. As a result, these promotions covey powerful messages which place the moral responsibility of being healthy and youthful-looking onto consumers. These strategies often create the necessary condition for ordinary consumers to 'voluntarily' want to seek products which could supposedly help them attain health and remain youthful-looking. The following advertisement shows how the anti-ageing and skin-whitening industry heavily depends on clever but deceptive marketing schemes. This brand is called *SymWhite®Plus*. The product itself is widely distributed by a major biotechnology firm, Symrise. However, the brochure contains an explicit legal disclaimer which nullifies its therapeutic claims.

> Brightens the skin and soothes from stressed skin. Offers potent efficacy even for sensitive skin. Outstanding clinically proven skin brightening ingredient. Nature-inspired: derived from a powerful brightening molecule that exists, naturally in pine tree combined with nature-identical Bisabolol.
>
> *(Symrise, 2015)*

It is critically important to stress that the maker of SymWhite®Plus, Symrise Group, is a German-based corporation, which was formed in 2003 by a merger between the German companies Haarmann & Reimer and Dragoco (www.symrise.com/company/organization/history/). Second, the claim that SymWhite®Plus is a 'clinically proven product' with 'outstanding quality' cannot be verified, which raises an unavoidable question that if the product is clinically proven and effective, why is it necessary to include a legal disclaimer to the very brochure for the SymWhite®Plus? It is worth quoting the brochure once again to highlight the contradictions between the supposed clinically proven benefits and the legal declaimer contained within the same brochure for a supposedly anti-ageing product based on cutting-edge biomedical innovation.

> Symrise makes no warranties, either express or implied, as to the accuracy or completeness of the information set forth herein. Symrise expressly disclaims

> any implied warranty of merchantability and fitness for a particular purpose. Prospective users are requested to determine for themselves the suitability of Symrise materials and suggestions for any use prior to their utilization. Any necessary approvals from regulatory authorities for finished products must be obtained by the prospective user.
>
> *(Disclaimer notice added to the brochure for SymWhite® Plus. Symrise, 2015, p. 4)*

In the passage quoted above: 'Prospective users are requested to determine for themselves the suitability of Symrise materials and suggestions for any use prior to their utilization' (Disclaimer notice added to the brochure for SymWhite®Plus. Symrise, 2015, p. 4.), it is not clear how lay consumers might be able to assess the risks and efficacy of this product. However, the inclusion of a legal declaimer in the brochure for a product that claims that it could 'cure' visible signs of ageing, restore health and relieve stress illustrates how deceptive marketing facilitates the proliferation of anti-ageing products with dubious claims.

These contradictions further illustrate how anti-ageing corporations place total responsibility of assessing the risks and efficacy of these unregulated products onto the consumers. Therefore, it is not surprising that the plethora of products with powerful anti-ageing claims almost always contain an explicit disclaimer. The dual strategy of making unsubstantiated claims and the inclusion of a legal disclaimer shows that these are unregulated products (Ollagnier et al., 2011; Symrise, 2013). Nevertheless, using suggestive terms such as 'active' ingredients and 'clinical test results' appeal to millions of lay consumers.

Skin-whitening and anti-ageing innovations: unverified and unregulated

From the medical perspective, the cosmetics and the food regulatory regimes' – especially those in Canada, the US and the European Union – claims that skin-whitening and anti-ageing products contain 'active' therapeutic ingredients would make them pharmaceutical (Draelos, 2009). However, as noted earlier, the anti-ageing and skin-whitening industry is well aware of the legal implications associated with marketing products with unsubstantiated therapeutic claims as cosmetics. As a result, terms with no legal standing, such as *cosmeceutical*, are used to appeal to lay consumers while avoiding legal challenges (Draelos, 2008). For the dual aim of appealing to consumers and avoiding legal constraints, ambiguous terms and legal disclaimers are used to avoid potential legal consequences for promoting products with unproven therapeutic claims directly to consumers (Dover, 2008; Lintner, Mas-Chamberlin, Mondon, Peschard, & Lamy, 2009).

Another way in which the anti-ageing and skin-whitening industry avoids legal constraints is by using online distribution and marketing sources to promote their products and for the purpose of information dissemination. The following advertisement illustrates sleek online marketing strategies which have helped in the

popularization of skin-whitening and anti-ageing biotechnology. The brochure for this product is available on a number of popular online sites.

> From the day we are born, we are constantly exposed to a series of external aggressors like UV rays, pollution, or visible light – collectively referred to as the exposome. These stressors trigger a reaction sequence often leading to inflammation and hyperpigmentation. To preserve and enhance our skin's natural brightness, we need to take into account these subtler and more complex interconnections between the skin and its environment. SymBright™ is the first brightening solution targeting skin's overreaction to environmental stress.
>
> *(Symrise, 2017, p. 1)*

It is worth noting that the advertisement here begins with an announcement that the product is the result of a 'breakthrough' in scientific innovation and that it was designed to remedy the problem of 'hyperpigmentation'. Second, the ad discursively associates *hyper-pigmentation* with women's bodies thereby suggesting that women's bodies and skin are uniquely vulnerable to the harmful effects of modern living. It is in this context that this advertisement positions skin-brightening biotechnology as a 'technical skin' which could shield and protect women's vulnerable bodies from the harmful effects of urban pollution, artificial lightening and stress.

To underscore women's unique vulnerability to the stresses and strains of modern living, an image of what appears as a younger-looking female behind a silhouette of softly glowing light tacitly suggests that woman need protection from the negative effects of urban pollution and stress and that anti-ageing products can protect women from these negative environmental aggressors. The image also points to the Western notion of *recuperative whiteness* (Anderson, 2003). The concept of recuperative whiteness had been defined and explained in Chapter 2 of this book. Here I refer to it to stress that SymBright™ targets women with the 'brightening solution' to a pseudo-symptom of 'hyper-pigmentation' (Symrise, 2017, p. 1). In this way, the discursive positioning of women's bodies and skin uniquely as already always at risk from ordinary encounters with the stresses of modern living reinforces and legitimizes the research and development and mass marketing of these biotechnologies.

Furthermore, the trope of *brightening protection* in skin-brightening biotechnologies points to contemporary and globalized diffusion and circulation of consumable whiteness. The historical association of whiteness with therapeutic benefits has been fully explicated in Chapter 2 of this book. Here, the primary focus is to capture the technological and marketing drivers behind the rise of the skin-whiting and anti-ageing industry.

Biotechnological skin and 'shielding' whiteness

This section further delineates the intersecting strategies of innovation and marketing schemes which facilitate the globalization of the skin-whitening and

anti-ageing industry. The alleged benefits of therapeutic whiteness are one such strategy. These therapeutic benefits facilitate the production and mass marketing of consumable whiteness (Chipalkatti, 2014). Therapeutic claims in skin-whitening biotechnology are hard to document. This category may include products one can pour on the skin as well as ingestible products with anti-ageing, whitening effects (Wray, 2015). As a globalizing signifier of 'therapeutic' wellness, skin-whitening biotechnology discursively reinforces the notion that whiteness is both an ideal notion of femininity but also as a site of wellness (Prakash & Majeed, 2008; Symrise, 2017; Yeomans, 2014).

The discursive collapsing of the pursuit of wellness with the pursuit of youthful appearance plays a critical role in creating and reinforcing the globalization of whiteness in terms of wellness, but also by promising consumers the appearance of desirable femininity. Suggestive metaphors such as 'radiance' and 'brightness' imbue these products the promise of 'regenerative' wellness. In this way, regenerative wellness in skin-whitening biotechnology is marketed to women regardless of ethnicity, race and nationality. As a result, the association of anti-ageing practice with wellness has systematically transformed and rearticulated standards of femininity and beauty from matters of subjective aesthetic taste to one of the normative pursuit of 'healing beauty' (Rinaldi, 2008, p. 1037).

By linking attractiveness and wellness, then, plain-looking or showing visible signs of ageing can be considered a sign of lack of self-care or a symptom of decline (Calasanti, 2007, p. 338; Winterich, 2007, p. 52). In this way, the discursive association of ageing with disease and decline also links visible signs of ageing with ugliness and undesirability. Consequently, the biomedicalization of ageing facilitates an objectifying discourse of ageism and sexism. In doing so, the globalization of anti-ageing whiteness discursively and materially reconfigures the female body into a malleable object which could be broken down and reshaped in the quest for achieving health and a youthful-looking appearance. Thus, the reconceptualization of a youthful appearance as the global standard of health and youth facilitates and reinforces an endless quest for achieving 'agelessness' beauty and anti-ageing wellness.

For example, the cover of the *New Beauty* (2008b, 4(1)) positioned *ageless beauty* not as a figure of fantasy, but something which could be achieved by any woman and at any age. The cover conveyed a powerful message that ageless beauty can be achieved by consuming appropriate anti-ageing products. This type of messaging is particularly salient because the magazine is the first ever popular source which widely disseminates wellness and anti-ageing brochures. Of course, it is not only in *New Beauty*: almost all brochures for anti-ageing stress that the consumption of the right products can result in lasting beauty and improved wellness. The idea that youthful-looking skin is possible at any age by using appropriate anti-ageing measures is aggressively promoted to women around the world not only via brochures and advertising on online sites, but also through glossy magazines and medical professional advice to consumers (Katz & McBean, 2008; Kockaert & Neumann, 2003).

These strategies are powerful instruments of the biomedicalization of ageing and normalization of ageism, racism and sexism towards women. It is pertinent to stress that discovering the 'secrets' to eternal youth is not new. What is new with the current anti-ageing discourse is the belief that ageing itself can be forestalled forever, if one consumes the correct anti-ageing products. Furthermore, the discourse of ageless beauty makes ageing itself a personal choice. Consequently, instead of seeing ageing as a normal phase of one's life, showing visible signs of ageing has become a powerful disciplinary instrument for normalizing the anti-ageing lifestyle (Spindler & Streubel, 2009). The very idea that ageing can be reversed, halted or even deleted has profound implications in that it can reinforce exclusion and marginalization based on ageism (Calasanti, 2007, p. 338; Cheek, 2008, p. 974; Winterich, 2007, p. 55).

As indicated earlier, the idea that the human body can be made to remain younger-looking (ageless) was underscored in the *ageless issue* of the first anti-ageing glossy magazine, *New Beauty* (2008c, 4(1)). The cover page of this issue of the magazine featured the supermodel, Heidi Klum: her face looks 'flawless', 'free of blemishes' with frozen smile that displays her exceedingly white teeth and a gleamingly radiant face. Heidi Klum's long blonde hair and her perfectly smooth white skin reinforce the caption: 'can you achieve ageless beauty?' (*New Beauty*, 2008b, 4(1)). The implication of this question is clear: ageless beauty is possible for those who want to achieve it. It suggests that it is not just fashion models and film stars, but that ordinary women can also achieve ageless beauty.

The fantastic but unrealistic promise of ageless beauty and eternal youth entices consumers with unsubstantiated scientific claims, which are often reinforced with DIY anti-ageing consumerism. In turn, the fear of ageing and the concomitant social exclusion and stigma associated with looking old could best explain the expanding phenomenon of the anti-ageing industry (Yeomans, 2014; Zion Market Research, 2017). Currently, publicly available market reports show widely varying data numbers regarding the anti-ageing and the skin-whitening market share. So, in addition to lacking a regulatory framework, there is also the problem of knowing the extent of this market. For example, most anti-ageing cosmetics have skin-whitening effects. However, these products are not always marketed as such. It is common to see the same products being marketed for anti-ageing use and their context altered to be marketed as a skin whitener in another context. For example, in 2009, a market report, 'In-Cosmetics Asia focuses on skin lightening trend', estimated the skin-lightening market in Asia alone to be worth €13 bn (Pitman, 2009).

In 2018, a report published by Global Industry Analysts Inc., estimated the skin-lightening market in Africa, Asia and the Middle East to reach $US31.2 bn by 2024 (Global Industry Analysts Inc., 2018). What the two market reports cited above have in common is that they do not seem to include anti-ageing products to white women. Clever niche marketing and constant rebranding to other categories such as 'cosmeceuticals' and 'brighteners' makes this industry highly flexible. This fact, in turn, makes it hard to gain an accurate assessment of the extent and full impact of the anti-ageing and skin-whitening industry (Babamiri & Nassan, 2010; Bird, 2008;

Brandt et al., 2011; Draelos, 2009; Farris et al., 2016). Thus, flexible rebranding and strategic niche marketing could explain the widely varying market figures of the skin-whitening and the anti-ageing industry. Whatever the case might be, what is very clear from publicly available data is that the anti-ageing and skin-whitening industry targets women with the promise of forever youthful, biotechnologically produced new skin. This discourse has already entered the medical practice as well. Thus, in *Topical and systemic therapies for the aging face*, Glaser & Rogers (2001) stressed medically 'appropriate' use of products with skin-whitening effects in anti-ageing rejuvenation procedures.

> Many cosmeceuticals and drugs are available to treat and augment therapy for the aging face. Patients frequently have misconceptions about the use of these agents, and it is important that today's cosmetic surgeon know how to maximize the benefits while minimizing side effects. The role of retinoids, antioxidants, hydroxy acids, bleaching agents, moisturizers, and sunscreens are reviewed as they relate to skin rejuvenation.
>
> *(Glaser & Rogers, 2001, p. 189)*

Consequently, niche marketing schemes and clever branding and rebranding schemes skew data collection, thereby making more accurate assessment of the anti-ageing and skin-whitening market share near impossible (Gupta, 2014; Lubrizol, 2012; Pitman, 2009). The promise of bright, youthful skin through the consumption of skin-whitening and anti-ageing products is reaching consumers all over the world. This global success is noted by the anti-ageing and skin-whitening industry. Headlines such as *Skin-whitening products: A brighter future?*(Chipalkatti, 2014) and *Whitening worldwide* (Wray, 2015) clearly point to the globalizing drive of the skin-whitening biotechnology industry. The globalization of skin-whitening and anti-ageing biotechnology follows similar patterns and the globalization imperatives of other forms of privatized healthcare goods and services, such as the wellness and medical tourism (Iriart, Franco, & Emerson, 2011; Prakash & Majeed, 2008; Saravanan, 2013; Salter & Faulkner, 2011; Turner, 2012; Zion Market Research, 2017).

The similarities between other forms of loosely regulated health tourism industries and skin-whitening, and anti-ageing, biotechnology services include the systematic integration of anti-ageing services to wellness spas and rejuvenation tourist packages (Katz & McBean, 2008; McDougall, 2012). These trends are the latest enabling sites through which anti-ageing biotechnology has been normalized (Sadick et al., 2008). Through these intersecting dynamics, new knowledge is generated, translated and transferred to consumers who can afford the asking prices. As a globalizing phenomenon, the anti-ageing industry is anchored in the United States (Pitman, 2013). However, the market is fast expanding to other continents and countries – especially Pacific Asian countries because people living in these parts of the world have easy access to electronic information and lighter skin tones are considered desirable in many Asian countries (Pitman, 2009).

As already noted several times in this chapter, and elsewhere in this book, innovations in anti-ageing and skin-whitening biotechnology require the active participation of consumers and fast and global access to information and persuasive marketing strategies. These factors are the key drivers of the globalizing success of the skin-whitening and ant-ageing industry. The internet serves as the primary anchor for the anti-ageing and skin-whitening industry because it is the fastest and cheapest means to widely disseminate sleek and enticing brochures which promulgate the therapeutic benefits of brightened, youthful-looking skin and anti-ageing wellness directly to consumers (Yeomans, 2015b; Gupta, 2014; Whitehouse, 2017).

Furthermore, increasingly, government websites promote anti-ageing as both a self-responsibility and a social good. Consequently, citizens are encouraged to look after their health and wellbeing. These processes further encourage and reinforce discourses, practices and policies which facilitate and normalize active anti-ageing consumerism. These strategies have the capacity for furthering and entrenching the systematic ageism and exclusion of older women (Calasanti, 2007, p. 342; Cheek, 2008, p. 974). In *Healthism: A New Conservatism*, Cheek (2008) offered insightful analysis of the coercive imperatives which reinforce anti-ageing healthcare consumerism: 'The advertisement speaks of body age as opposed to actual age, trumpeting, "imagine how you'll feel when you take a few years of your body age"' (p. 975). The following section further explores how the unregulated anti-ageing and skin-whitening biotechnology has been systematically incorporated into regulated healthcare biomedicine and how the promise of new and youthful skin through anti-ageing consumption depends on the powerful scientific-sounding marketing.

'Scientification' of the anti-ageing industry

It is remarkable how, without legal foundation and without verifiable evidence of its therapeutic benefits, anti-ageing biotechnology has become a lucrative economic sector (Utroske, 2017). Revealing deceptive marketing techniques used in the promotion for anti-ageing products is one of the primary tasks of this book. It is critically important to reveal how skin-whitening and anti-ageing became a globalizing economic sector without legal standing and with little critical public attention. In his work I suggest that the global success of the skin-whitening and anti-ageing industry is due to number of factors. One the primary drivers is deceptive but clever marketing which often tacitly recuperates and transforms Western discourses on aesthetic beauty and healthy living by rebranding colonial discourses around race, gender and health and by reformulating these disparate discourses into a more contemporary repertoire of anti-ageing wellness consumerism.

Through clever but pseudo-scientific construction, false pathologies such as age spots, hyper-pigmentation and photo-ageing, which are not medically valid diagnoses, the skin-whitening and anti-ageing industry has become the fastest growing skincare niche market (McDougall, 2012). Pseudo-scientific marketing schemes immensely facilitate the material and discursive reconstitution of the

natural processes of ageing into visible signs of disease and decline (age spots, hyper-pigmentation, photo-ageing, etc.) which can be remedied with skin-whitening biotechnology. In the specific case of anti-ageing and skin-whitening advertising, a false marketing strategy is often used to reinforce invalid claims such as these products promote health and can reverse ageing. Therefore, false marketing in skin-whitening and anti-ageing promulgates unproven therapeutic benefits of whiteness. This type of false marketing works because it draws from other familiar discourses (see Chapter 3 of this book). Here it suffices to say that false marketing has influenced the contemporary popularization of skin-whitening and anti-ageing consumerism (Wray, 2015). The association of skin-whitening biotechnology with therapeutic wellness has made it easier to tacitly integrate these unregulated biotechnologies into broader skincare biomedicine (Farris et al., 2016; Riahi, Bush, & Cohen, 2016).

The following is an advertisement for a high-end anti-ageing product. The product makes therapeutical claims but there is no verifiable evidence to back them up. In the absence of verifiable evidence, proprietary symbols such as ®, ™ and other scientific-sounding metaphors with no legal status are mobilized to imply therapeutic benefits.

> New PhotoDefense® Color Radiance SPF 55+. Instant Perfection, Incomparable Protection. PhotoDefense® Color radiance SPF 55+ with patent pending Photoplex® provides incomparable anti-aging protection against the skin damaging effects of UVA/UVB exposure, oxidative stress, and advanced glycation. Ultra-light hydrating crème provides a natural even coverage, with an impeccable finish and a touch of radiant color. Skin is instantly perfected. Every day skin looks flawless and radiant while powerfully protected from the aggressors that wreak havoc on skin.
>
> *(CellCeuticals [Advertisement]. New Beauty, 2012a, 8(2), pp. 4–5)*

Phrases such as *PhotoDefense® Color Radiance SPF 55*, *Photo-plex®*, *Cell-Ceuticals* were arbitrarily created by simply splicing together familiar terms. First, words like photo and defence are common concepts in the English language with various meaning depending on the context. Second, these concepts can be found in advertisements for sunglasses, sun creams and lotions with UVA/UVB protection claims. Both of these facts suggest that there is an attempt to say that *PhotoDefense® Color Radiance SPF 55* can protect the user's skin from the *damaging effects of UVA/UVB exposure, oxidative stress*. The ad also promises that the product could give the user a *flawless and radiant* look. Time and again the ad appeals to the consumer's desire for health and wellness, a youthful appearance. This type of deceptive and often contradictory meaning-making is not new. Instead, it is more widely used in advertisements and popular culture in general (Bartthes, 1972).

In *Mythologies* (1972), Barthes offered critical insight into the centrality of myth-making through semiotic production and interpreting of meanings encoded in texts and images. According to Barthes' semiotic analysis, a sign is composed of a

signifier (i.e., photo, defence, etc.,) and a signified (i.e., providing protection and promoting anti-ageing wellness). The aim of this semiotic process is to convey easily understandable messages (Bartthes, 1972, p. 114). Barthes demonstrates that the semiotic process of signification (meaning-making) requires two distinct but closely related steps. First, it requires the arbitrary selection of concepts and images and making them into meaningful and decodable (readable) signs. Second, the meaning which was created in this arbitrary way can be presented in simple and familiar ways that can be easily grasped at a glance by those who share a common language and tradition.

Barthes argued that most advertisements require at least these two steps of meaning-making and often work at a more complex level of signification he called *mythology*. At the level of myth, meanings enter a broader cultural practice which enables complex and varied interpretations of the same semiotic signs (Bartthes, 1972, p. 114). Of course, this is a very simplified version of Barthes's complex and highly theoretical work. Here, the primary aim is to show that similar strategies are used to make, normalize and globalize unsubstantiated therapeutic claims which are promulgated in the anti-ageing and the skin-whitening products. This is done because these scientific-sounding concepts appeal to consumers (Lintner et al., 2009). The relentless pursuit of wellness and the dream of achieving 'ageless beauty' suggests that segments of ageing and affluent classes are willing to purchase expensive products with unverified anti-ageing therapeutic claims (Prakash & Majeed, 2008; Sabinsa, 2018; Symrise, 2017; Verschoore & Nielsen, 2017).

As already noted, commodification of the scientific discourse is critically important to the globalization of skin-whitening and anti-ageing biotechnology. Anti-ageing and skin-whitening is an aspect of a much larger wellness industry that furthers the privatization of healthcare (Dunn, 2018). This process is complex, and all these aspects cannot be addressed in this project. Here, the primary focus is to reveal how the anti-ageing and skin-whitening industry has become one of the primary drivers of the wellness industry. Even researchers working in space, such as with NASA, are enlisted to promote anti-ageing and skin-whitening biotechnology (McDougall, 2012). The following ad is for an anti-ageing night cream called Révive®. The concept itself is highly suggestive in that it tried to discursively link the cream's alleged ability to revive the skin with a breakthrough in Nobel Prize-winning research.

> Regenerate your own skin cells. Dr. Gregory Bays Brown, noted plastic surgeon, creates this intensely hydrating night cream to bring younger, radiant, more luminous skin to light. Renewal Epidermal Science (RES) technology, which includes patented Nobel Prize winning, and bio-engineering ingredient, encourages skin cell renewal. The non-surgical approach to scientific skincare.
>
> *(advertisement for Révive®, New Beauty, 2012b, 8(2), p. 11)*

It is imperative to stress that powerful but deceptive marketing has already affected the systematic transformation of cosmetics as being a symbol of glamour and fashion to a new medicalized system in which beauty, fashion and style have come to be viewed as essential features of wellness (Katz & McBean, 2008; Mulholland, 2008; Sadick et al., 2008). The regulators are aware of the process of transforming cosmetics into drugs with little evidence that that process is slowing down. For example, in 2012, the FDA sent a strongly worded letter of warning to Lancôme USA, regarding Lancôme's promotion of cosmetic products as drugs (Yukhananov, 2012). The FDA objected to the language of this advertisement because it claimed that the cream had the capacity to penetrate deep inside the body and remove the visible signs of ageing, thereby reversing the. This, in turn, suggested that the cream made drug claims. However, such misleading language in this ad is almost ways used in all anti-ageing products. It is not clear why the FDA singled out Lancôme USA for warning.

> The U.S. Food and Drug Administration said Lancôme USA, a L'Oréal unit, claimed some of its skin creams could 'boost the activity of genes' or 'stimulate cell regeneration' to reduce signs of aging. Any product that is intended to affect the structure or function of the human body is classified as a drug, the FDA said, according to a warning letter posted on its website on Tuesday. Companies are not allowed to sell drugs in the United States without demonstrating to the FDA that their products are safe and effective.
>
> *(Yukhananov, 2012, p. 1)*

While the FDA warning letter to L'Oréal was a step in the right direction, in reality, anti-ageing claims, such as having the ability to remove visible signs of ageing (i.e., age spots, photo-ageing and hyper-pigmentation), is commonly used in all anti-ageing products. These types of deceptive marketing strategies have already created the necessary condition for favourable public perception which has facilitated the mass commercialization of unregulated anti-ageing and skin-whitening biotechnologies with unproven therapeutic claims (Dover, 2008; Tambo et al., 2016). This process is moving towards a complete integration of the cosmetics and pharmaceutical industries (FDA, 2019). It is not clear why the FDA go after all the firms which use false anti-ageing claims. The FDA letter of warning to a single cosmetics firm received wide media coverage and that was perhaps the aim.

> The Warning Letters appearing below illustrate an important legal distinction, the difference between a cosmetic and a drug under the Federal Food, Drug, and Cosmetic Act (FD&C Act). Under the FD&C Act, a product intended to diagnose, mitigate, treat, or prevent disease, or to affect the structure or function of the body is classified as a drug (FD&C Act, Section 201(g)). If such a product is not generally recognized by qualified experts as safe and effective when used as labeled, it is a 'new drug' (FD&C Act, Section 201(p)) and

> requires an approved New Drug Application to be marketed legally in the United States (FD&C Act, Section 505(a)).
>
> *(FDA, 2019)*

The lack of legal enforcement and the public desire for easily accessible products with anti-ageing claims has made anti-ageing and skin-whitening into a lucrative entrepreneurial healthcare sector (Dunn, 2018; Draelos, 2009). Marketing these unregulated products in the emerging markets has also been successful. Saudi Arabia is an interesting case: when marketing advanced biotechnologies to people in Saudi Arabia, a different niche marketing strategy is used. Instead of reference to NASA engineering and Nobel Prize-breakthrough science, a more traditional language of Muslim spirituality and care of the body and soul during the annual Muslim Pilgrimage to Macca and Medina are stressed.

> Cosmeceutical industry and market have great potential to change population perception, acceptance, uptake and utilization of beauty and personal care products. With increasing fascination among young vibrant populations including annual large Muslim pilgrims and visitors, the cosmeceuticals product market partnerships and investment technology advancements should be supported in new emergence potential strategic market ties and solutions.
>
> *(Tambo et al., 2016, p. 1)*

If one overlooks this utter cynicism of exploiting the Hajj Pilgrims to promote cosmeceutical biotechnology, then it becomes clear that during the Hajj pilgrimage millions of Muslims come to Saudi Araba. Furthermore, the majority who go to Hajj each year are ageing individuals going to Hajj for 'spiritual purification'. However, still pilgrims could purchase these products for their own use or as gifts for friends, family members and colleagues back in their homelands. Thus, marketing anti-ageing cosmeceutical to millions of ageing Muslim pilgrims is another example of the multifaceted niche marketing that characterizes the phenomenal success of anti-ageing biotechnology. Similar niche marketing process are taking shape in other emerging in Asian countries (Amer & Maged, 2009; Brandt et al., 2011; Zhu & Gao, 2008). Similar trends exist in other parts of the world, including Europe and North America (Dunn, 2018; Utroske, 2017; Yeomans, 2013). In this following passage from a 2018 Forbes business report, the figures show that anti-ageing is a lucrative market force which cannot be brought under east regulatory constraints.

> According to an analysis done by Orbis Research, the global anti-aging market was worth $250 billion in 2016 and is estimated to be growing at a compound annual growth rate (CAGR) of 5.8%, to reach $331.41 billion by 2021. Creams, sprays and supplements are changing the way we take care of ourselves. And I've observed that anti-wrinkle, sleep and

> internal nourishment are the major product types rising up in the trending anti-aging market.
>
> *(Dunn, 2018, p. 1)*

These market figures show the extent to which the anti-ageing industry depends more than on deceptive marketing. These reports can attract increased 'strategic collaborations' between innovators, investors and entrepreneurs in the anti-ageing industry. The following quote illustrates one such merger which took place a few years ago in the United States.

> Three companies have come together to design, develop and manufacture what they say will be the next-generation of peptides for anti-aging and hair loss prevention cosmeceuticals. Despite only getting together to collaborate in recent months, CA Botana International, StemNext and Molecular Botanicals have already developed a first series of products including a peptide-based formulation.
>
> *(Yeomans, 2013)*

It is pertinent to ask how does an industry become so big and globalizing with little or no legal constraints? To grapple with this salient question, it is necessary to pay attention to what Rose (2007) called *bioeconomics* (p. 31). The rise of the anti-ageing and skin-whitening industry shows the dynamic relationship between the economic interests of various actors in biology, life sciences, molecular biology, genomics-oriented innovations and the emerging and largely privatized healthcare industry. In *The Politics of Life Itself*: *Biomedicine, Power, and Subjectivity in the Twenty-First Century* (2007), Rose outlined biomedicine (bioeconomics, p. 31) as a site of economic interest and as a social value (p. 31).

> Conducting at the molecular level, biology and medicine require large periods of investment, the purchase of expensive equipment, the maintenance of well-staffed laboratories, a multiplication of clinical trials, financial commitments for measures required to meet regulatory hurdles- in short, allocation of funds on a large scale over many years before achieving a return.
>
> *(Rose, 2007, p. 31)*

The rise of anti-ageing biotechnology (i.e., cosmeceutical and skin-whitening) had become one of the fastest ways of achieving a return on investment. Consequently, the mass promotion of unregulated biotechnologies with no regulatory hurdles to overcome or verifiable evidence of therapeutic efficacy has become an easy way to create immense wealth for investors (Jones, 2018; Pitman, 2013). In addition to profound social interest in health and wellness, economic interests are among the primary drivers behind the emergence, institutionalization and globalization of anti-ageing biotechnology (Dunn, 2018; Jones, 2018; Utroske, 2017; Zion Market Research, 2017). In this way, the lack of legal constraint and the potential lucrative

return in investment have facilitated the globalization of anti-ageing biotechnology. These processes have been made possible by collaborative efforts in the research, development, commodification and globalization of a plethora of anti-ageing products and by profound social interest in health and wellness.

> The desire to maintain a youthful image combined with an emerging global market with disposable income has driven the development of many new industries. The cosmeceutical industry is based on the development and marketing of products that lie between cosmetics and pharmaceuticals. Today, there are over 400 suppliers and manufacturers of cosmeceutical products, and the industry is estimated to grow by 7.4% by 2012. Although a number of products advertise predictable outcomes, the industry is largely unregulated and any consumers of cosmeceutical products should consult a dermatologist prior to use.
>
> *(Brandt et al., 2011, p. 141)*

What the above quote shows is that consumer desire for restoring a youthful appearance has taken the place of verifiable evidence when it comes promoting anti-ageing products with unproven therapeutic claims, and that unscrupulous entrepreneurs are willing to fill this void created by the public desire for anti-ageing wellness. Consequently, ageing consumers' desire for remaining healthy and youthful plays a key role in the globalization of the anti-ageing industry (Bird, 2008). These anti-ageing biotechnologies often include ingestible products such as yogurts and wrinkle drinks (CBC, 2012).

There are even anti-ageing perfumes already in the market (Pitman, 2008). Branding such as *beauty food* or *anti-ageing drinks* are commonly used to market new products and they also promise a potential return on investment (Pitman, 2013; Pitman, 2005).

> With strong market growth continuing to characterize the market for cosmeceutical products, a new report stresses that women aged over 50 will continue to be the core market as greying baby-boomers search out natural anti-aging solutions. Fuelled by the growing availability of high-performance cosmeceutical products, a new report from Datamonitor stresses that this category is likely to show robust growth during the course of the next five years.
>
> *(Pitman, 2005, p. 1)*

Targeting 'greying baby-boomers' with anti-ageing messages will further entrench inequality, exclusion and ageism among women. While a quicker return on investment attracts investors for promoting anti-ageing biotechnologies, the industry also draws on the long history of Western philosophy and scientific discourses through which women were expected conform to social standards of attractiveness and youthful appearance at any age (Spindler & Streubel, 2009; Winterich, 2007).

Complex and intersecting forces of economic imperatives and DIY healthcare consumerism have created the necessary social, economic and political frameworks which support ageism against women. These multi-layered and complex social and institutional settings support the globalization of anti-ageing biotechnology (Dunn, 2018; Jones, 2018; Utraske, 2017). These intersecting and complex dynamics have facilitated the creation of massive wealth for individual entrepreneurs. This is done through social and business policies which support the production of marketable knowledge and private wealth-making strategies (Bauer & Gaskell, 2002; Jacob, 2003; Magnusson, 2005). It is in this context that the anti-ageing industry is deeply implicated in the intersecting dynamics of ageism, sexism and racializing imperatives.

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INDEX