Marsha Smith

Master of Philosophy (MPhil)

'Body Hair: a Cultural Study of the Technologies of Regulation and Management of Body-Boundaries'

A thesis submitted in fulfilment of the requirements of The Nottingham Trent University for the degree of Master of Philosophy

June, 2006

Marsha Smith
Master of Philosophy (MPhil)

'Body Hair: a Cultural Study of the Technologies of Regulation and Management of Body-Boundaries'

- abstract

In this thesis I explore 'body hair' and its management as a form of embodied cultural-production. This exploration begins with a critique of biomedicine and the status of body hair in relation to the body in general. I explore how this scientific model discloses the body as being individuated and self-contained; a body that is bounded and controllable and through which subjectivity emerges. However, body hair exists outside of the laboratory and is also constituted in the everyday management practices that are nonetheless conditioned by biomedicine. Looking at the messages of advertisements, the technologies of depilation and the experiences of beauticians and salon customers it becomes apparent that the 'smooth' subject is contingent upon a smooth body, and emerges only through specific body hair management practices. These practices are revealed to be problematic as body hair refuses to be ultimately controlled or 'smoothed'. Body hair is disclosed as a substance that can be managed through regular, technologised intervention and simultaneously as a potential disruption to biomedical accounts of the smooth subject. Throughout the thesis I develop the notion of a 'smoothing' culture, which is theorised more completely in the final chapter with a look at the machinations and technologies of smoothing. But inherent to smoothing culture and to smooth subjects is an anxiety about body hair; a concern about the body itself and its potential for disorder, incoherence, inconsistency and ambivalence. The aim of the thesis is the exploration of body hair management conceived of as a means of materialising and reconciling anxieties about the insecurity of the body. This conception necessitates forms of management that are explored as forms of embodied cultural production.

- introduction

This thesis seeks to identify the disclosure and management of body hair as processes of embodied cultural production. Body hair is something special in the way it grows in tufts and shafts over the whole surface of the body, in thick, coarse patches or in fine, silky drifts that are barely perceptible to the eye. Body hair grows in cyclical patterns but each hair is on a slightly different stage in a sequence. Body hair is attached to the skin, but it is 'dead' and can be removed from the body without apparent harm. It is a detachable body part. Some hairs grow more coarsely if you remove them and some grow back smoother and less noticeably. Body hair is made from the same material as nails and is a durable substance that does not decompose, even after years. Each body hair is attached to the skin via a follicle which is controlled by a minute muscle so that the hair shaft can be tugged upwards to trap air against the skin to keep the body warm. And body hair can hold sweat against the skin so it can evaporate and cool the body.

Body hair can be plucked out of the follicle and removed, or a metal blade can slice the shaft off midway through its growth phase. When certain types of laser-beam hit the skin, they vaporise the pigment that is located in every hair follicle and vaporise that follicle so the hair does not grow anymore. Body hair is something functional yet in our contemporary, western culture it is also seen as something dirty, a dead part of the body that need to be removed. It is seen as something that could infect a wound so it is shaved off where the skin is seriously broken. Its propensity to hold sweat against the skin means it is removed to stop the skin from smelling sweaty and stale. Body hair is seen as a problem when it grows in ways that it should not; when it pokes out

from under bikinis and knicker-lines and it produces stubble or beards which require management. It can be seen as a dirty, potentially infectious body part that needs to be constantly attended to.

How can these inconsistent readings and practices of body hair management be connected? Which interpretations of this substance are useful and within which contexts? What is the relationship between body hair management and modern subjectivity? If body hair is a substance that is both functional and removed as a redundant part of the body, then a cohesive explanation of it proves problematic. There are it seems, competing explanations of this substance, and different interpretations of its utility. So, it can be claimed that when it comes to body hair, not everything is 'going smoothly'. But I claim that we are living in a 'smoothing' culture, in the post-war west- a culture where fixed, stable and consistent explanations about the body appear to exist and where the disclosure and management of body hair operates to sustain this notion. Perhaps the millions of pounds spent annually in the U.K. [1] on body hair management might signal a particularly new form of anxiety that is at odds with the smooth, well-managed body of smoothing culture- the unwanted display of body hair and an out-of-control subjectivity. In this imagining body hair becomes the site of intensive regimes of management that seek to assert bodily control and to produce authentic forms of subjectivity.

If the disclosure and management of body hair are processes of embodied cultural production then it is to the fields of knowledge and practice that constitute body hair that I turn. I begin with a critique of biomedical accounts of body hair and the body,

[1] According to Reckitt &Coleman in 1997, the cosmetic depilatories market was valued at £22.9 million. *(Immac™, 'Review of the Cosmetic Depilatories Market 97-98)*

and this develops into an exploration of the practices of body hair management and removal. A theorisation of a 'smoothing culture' is then presented. The aim of the thesis is the exploration of body hair management-conceived of as a means of materialising and reconciling anxieties about the insecurity of the body. This conception necessitates forms of management that are explored as forms of embodied cultural production.

In the first chapter I identify that popular science claims the authority over what body hair and how it acts. By 'popular' I mean everyday, accepted and validated science, the science that backs up the promises of depilatory products and structures the approaches of specialists such as beauty therapists to body hair management. I refer to encyclopaedic reference materials, I use diagrammatic imagery to illustrate my critique and I explore the historical trajectory of biomedicine. Throughout the thesis I refer to biomedicine and by this I mean summarily, the area of science that involves the human body and its management. I define biomedicine as involving a conception of the body where empirical, observable body boundaries such as the skin or the membranes which separate internal organs, attest to an individuated, compartmentalised organisation of the body. According to these accounts, body hair is a functional organ as it mediates between the interior and exterior of the body through the body boundary of the skin which in turn is accountable for the upholding of the body in its individuated totality. It is also disclosed as a removable and durable body part. The ontology of body hair shows us many important features and characteristics of body hair; not least that it can be safely and effectively removed from the body.

In the second chapter I want to see how 'body hair' translates from the laboratory and the encyclopaedic textbooks into everyday smoothing culture through an exploration of body hair management as it translates in specialist practices, advertising and product promises, and in everyday attempts at becoming 'smooth'. This chapter draws extensively on fieldwork conducted in beauty salons in Nottingham from 2000-2002 where I experienced and observed various depilatory techniques, and took notes on clients' descriptions of their body hair management experiences. This chapter demonstrates that despite advertising promises of effective product interventions body hair keeps on growing- the safe and effective removal of body hair is critiqued. Semiotic analyses assess depilatory product advertisements as a way of comparing the promises of smoothing products with the everyday experiences of body hair management. Smooth subjectivity is supposed to be a stable and fixed form of identity based within smooth, self-contained, secure body, but 'the' body from which subjectivity emerges is found to be fraught with anxieties concerning the boundaries of the body. Body hair is shown to resist removal, and the attempts at management are explored as a process of body boundary management.

In the final chapter I explore further the significance of a contemporary 'smoothing culture' to body hair to management. Exploring the cultural features of smoothing situates the body within a history that has smoothing as a force of production. A focus on the mechanics of smoothing develops into a critique of the relations between the body, body hair management and technology. I explore grinding and abrasive techniques and look to forms of civilised or smoothed subjectivity for a more engaging comprehension of smoothing culture. Fundamentally smoothing is a form of cultural production that can be clearly seen in the practices of disclosing and

managing body hair- this form of embodied production is a means of both materialising and reconciling the anxieties about body boundaries- disclosed but never fully constituted by biomedicine, depilatory product promises and everyday regimes of management. A short conclusion at the end of the chapter emphasises and summarises the theoretical positions advanced throughout the thesis. A position of 'in-between-ness' is developed that attempts to pull together the seemingly disparate theoretical positions of biomedical essentialism and cultural constructionism through a focus on the theorisation of embodiment as a productive process.

-methodology

I have used an eclectic approach to exploring body hair and I state from the outset that the direction of thought has not been concerned with defining an essence of body hair or explaining it in some absolute manner. The thesis has not been concerned with decoding the imagery that presents body hair to some essential signifier, or even the validation of some scientifically essential conception of the body. I identify a schism between the official versions of body hair management and everyday experiences of it and this comes through in the thesis as an exploration of in-betweeness. This exploration is methodologically necessarily inconclusive because that is how I have encountered body hair. In the second chapter I have interspersed elementary semiotic analyses with extracts from recorded 'conversations' that took place from 2000-2002. These occurred at a beauty therapy salon in Nottingham and were anonymous because of the clients' requests for confidentiality. I have asked body hair experts (John Mason, Institute of Trichology, 3 different beauty therapists and a laser-treatment specialist) and company representatives (from Nair™ hair removal cream, produced

by Rekitt-Beckiniser) how they think body hair is managed through their techniques and products. I have asked experts such as and beauty therapists about their encounters with body hair and discussed the techniques they use to manage the substance that they encounter. They have demonstrated their techniques and shown me the results of their procedures. I have looked at adverts and product packages in ways that seek to detect the signals that smoothing culture circulates about smoothness and body hair. I took comprehensive field-notes, recorded spoken conversations and documented impressions of treatments to develop a sense of the constitution of body hair through management practices. What came out of these conversations was the theme of management and the difficulty in managing hair. I have chosen a few extracts to demonstrate the points I make during the second chapter, but in general, I used the material to build up a picture of body hair within smoothing culture as a complex, diffuse and multiple substance that any singular narrative of management could only partially illuminate. All of these 'methods' have been used, but I have not considered the use of a particular methodology. I have explored body hair in this eclectic, non-purposive way because body hair according to the encounters I have had with 'it', is not subject to a singular definition that would become apparent through the use of a particular methodology. In using 'body hair' I have attempted to signal the tension between the general categorisation and the specific experience by problematising the assumptions about the body and body hair that smoothing culture is permeated with. I claim that the positivist enterprise of quantitative data collection and analysis is implicated in a more general programme of cultural rationalisation. In occluding the more discordant aspects of body hair management, the promises of smoothing culture would be realised through my research. 'Body hair' would become another part of 'the' body, another harmonious

organ that would slot neatly into the anatomy of quantitative cultural studies. To 'prove' something about body hair would be to collude with a notion that body hair is available as a substance that can be totally disclosed which contradicts the development of the thesis. Instead I 'explore' body hair and smoothing culture and remain alert to the notion that a systematic approach fabricates generates a systematic account of body hair. My anti-method approach to exploring body hair is not the demise of methodology but an attempt to reflect the resistance's that body hair exhibits to quantification.

- biomedicine- reinforcing the boundary of the body

> '(R)eality is commonly assumed to be consistent and knowable... that the world has certain qualities and quantities, that they relate to one another in predictable proportions, and that they can be known.' (Mansfield 2000:138)

This chapter is aimed at making explicit popular science's drawing upon certain scientific models (Foucault 1966) and their account of the body. The organism, the skin and body hair are explained and observed in specific ways. I explore these explanations in order to detect how biomedicine distinguishes the boundaries or limits of substances, how it reveals their functions and properties and how it codes and interprets the utility of these substances. Through close attention to these substantive explanations and images I begin to theorise the ways in which biomedicine conditions the practices of body hair removal and management. I move to locate biomedicine within a wider field of scientific enquiry and connect 'the' body to a historical model that is understood as a narrative of relations. This model seeks to establish and validate a traceable, accountable and under-control genealogy of 'the' body. Body hair within this narrative of relations is revealed to be a protective mechanism and sensory device that functions to protect the skin and certain types of hair are distinguished as 'protective'; requiring management rather than total removal. The skin in turn, functions to uphold and protect the integrity of

the body. This protective function appears as a natural and imminent feature of body hair. It is accounted for in each and every stage of its growth, and is represented in diagrams that purport to reflect its disclose-able nature.

If 'the' body and 'body hair' can be definitively and securely accounted for and if the boundaries of the body can be controlled, then why does biomedicine operate to manage the body through the management of body hair? And is the total removal of some types of hair possible? I contend that these representations, codings and practices operate to constantly reiterate and re-establish these models of the body. They are not certain or incontestable forms of corporeal knowledge but instead operate to allow the concept of 'the' biomedical body to continue, and therefore the authorised and conditioning practices of biomedical science, as materialised through body hair management.

Biomedical science is understood in terms of explanations of the structure and organisation of the body and its segments, classification systems and hierarchies of organisms. It is concerned with setting boundaries, or orderly forms of knowledge. This occurs in order to reflect a supposed order of nature that biomedical inquiry distinguishes. I shall demonstrate that 'the' body, conceived of as a bounded totality, is the measure of all biomedical conceptions of corporeality. This measure extends from the explanations of the nature of cellular existence, to the explanations of internal organs and their functions, to the conception of the functions of body hair,

and to the narratives of hierarchical orderings of all bodies, both human and non-human.

Biomedicine operationalises the boundary distinctions that I explore in this chapter through extending and refining categorisations. These processes of distinction allow 'the' body to be detached from its context and attached to a spatial and temporal axis that appears to be an a-historical representation of corporeality, to be revealed through scientific enquiry. This axial conception of 'the' body then stands as the naturalised and authenticated foundations, or surfaces, upon which popular science enacts further refining adjustments. The notion that these distinctions can be secured depends upon the discerning of minute differences between corporeal manifestations, whilst managing to represent these findings as a totality; of body hair into specific phases of growth or particular hair types and functions.

The general premise of biomedical science has been the identification of a basic unit of measurement. This unit of measurement finds expression in the 'cell', although subsequent discoveries of units of molecular and genetic scale in DNA have occurred. In this chapter through the identification of cellular characteristics and behaviours I explore the types of organisation and 'nature' that biomedical science has revealed in order to demonstrate how these findings have been utilised to affirm the more general premises of historically preceding evolutionary biology. This premise, discussed in the later stages of this chapter, is that the location of the body at the summit of all

organic life is 'natural'. This 'naturalised' position finds expression through the representations of the body, such as those of the skin and body hair.

> 'With relatively few exceptions, organisms are built from cells... Animal cells are limited by a living, pliable plasma membrane which is capable of changes of shape throughout its functional life... As organisms became larger and more complex there was an increased need for methods of perception of changes both internally and from the outside world. In addition, an increase in overall size and complexity necessitated some internal communications network, in order that normal metabolism should continue without chemical activities interfering with some other process. Such an overall control would not only permit the larger organism to exist, but would ensure a more efficient way of life.' (Hard 1975:4,103)

It is the unit of measurement in the 'organism' or individual living being with interdependent parts, that we first examine. The organism has particular qualities and functions: primarily the capacity for self-regulation and self-organisation and it has become the material that biomedical science is generally concerned with analysing and reinforcing. The organism in biomedical classifications is the individual unit that represents the species or class of organisms that have the same characteristics, and represents simultaneously the individual and the category to which that individual belongs. The formation of hierarchical models that situate the different organisms in

relation to each other and the external environment take the singular body as the unit of measurement. This body is reinforced by the microscopic investigations of anatomical and physiological biology that demonstrate how the functions of the parts of the cell and the organs are directed towards the maintenance of bodily totality.

In this chapter, I attach the historical exploration of biomedicine onto a more detailed conception of 'the' body and body hair in order to advance the aims of the thesis. In exploring body hair as the site of intensive, technologised body boundary management, I am arguing that body hair management in contemporary, consumer culture has become a means of materialising and attempting to reconcile anxieties about the nature of the body. The skin, body hair and the concept of the organism are discussed according to how they are constructed through biomedical approaches; the ontological construction of these corporeal parts.

> 'The cell is the basic living unit of the human body--indeed, of all organisms. The human body consists of more than 75 trillion cells, each capable of growth, metabolism, response to stimuli, and, with some exceptions, reproduction. Although there are some 200 different types of cells in the body, these can be grouped into four basic classes. These form the fundamental tissues of the human body.... The next level of organization in the body is that of the organ. An organ is a group of tissues that constitutes a distinct structural and functional unit.' (Britannica 2000)

The human body, its structure, organisation and functions appear definitively accounted for in biomedical explanations (Britanicca 2001,2000; Bos, Das and Kapsenberg 1997; Brown 1995; Schaefer, Zesch and Stuttgen 1982; Hard 1975; Mackean 1973). These are the popular science claims of encyclopaedic texts and school textbooks. Popular sciences claims about the self-contained, complete and universal body are situated within a modernist historical trajectory. This modernist approach has been concerned with authenticating an anthropocentric view of the relations between humans, nature and culture through revealing the organisational boundaries that distinguish different bodies. These boundary distinctions are arbitrary, but this discretionary approach is normalised through the methods of concealment and naturalisation that are inherent to the scientific approach. These methods are reflected in, and constituted by biomedical science.

Biomedicine in revealing the corporeality of the skin, head and body hair as situates these as physical boundaries. The boundaries of the skin and body hair are reflected in the minute organisation of cells and in the general narrative of relations between all bodies, both human and non-human. Boundaries are set and reinforced through classifications and the identifications of 'orders of nature' (Dupre 1993) that biomedicine endeavours to objectively represent and calibrate. The theme of body boundaries is explored in various forms and in this chapter; the distinction of corporeal limits and ontological trajectories. I refer to the *axis of the body* as a way of

demonstrating how 'the' body is shown to be consistent and knowable and to be available as the same subject of observation despite differences in time and space. 'The' body is mapped onto a linear and causal model whose dimensions and functions are known and accounted for. According to biology these divisions do not occur arbitrarily but are structured according to how the body reveals itself to biological enquiry. 'The' body according to biomedicine reveals itself to the scientific observer. Biomedicine records and reflects this observable, empirical reality; it does not fabricate it.

The term 'organism' is used to denote the body and its segments. This term denotes the biomedical distinction of boundaries whereby the body and each body part is conceived of as a distinct entity.

The scientific descriptions and anatomical diagrams that reveal the layers of the body in minute proportions and portray its processes are perspectives that permeate any explorations of the corporeal. The detailed explanations enabled through particular techniques of visualisation and reproduction afford biomedicine unquestioned authority over the territory of the human physiology. The microscopic view of cellular activity, the clinical dissection of organs and laboratory experiments upon the body are scientific processes that reveal aspects of the body ordinarily escaping view:

> 'Cutting the body is central to the development of anatomical science and the understanding of the body in medicine... anatomical science sought to

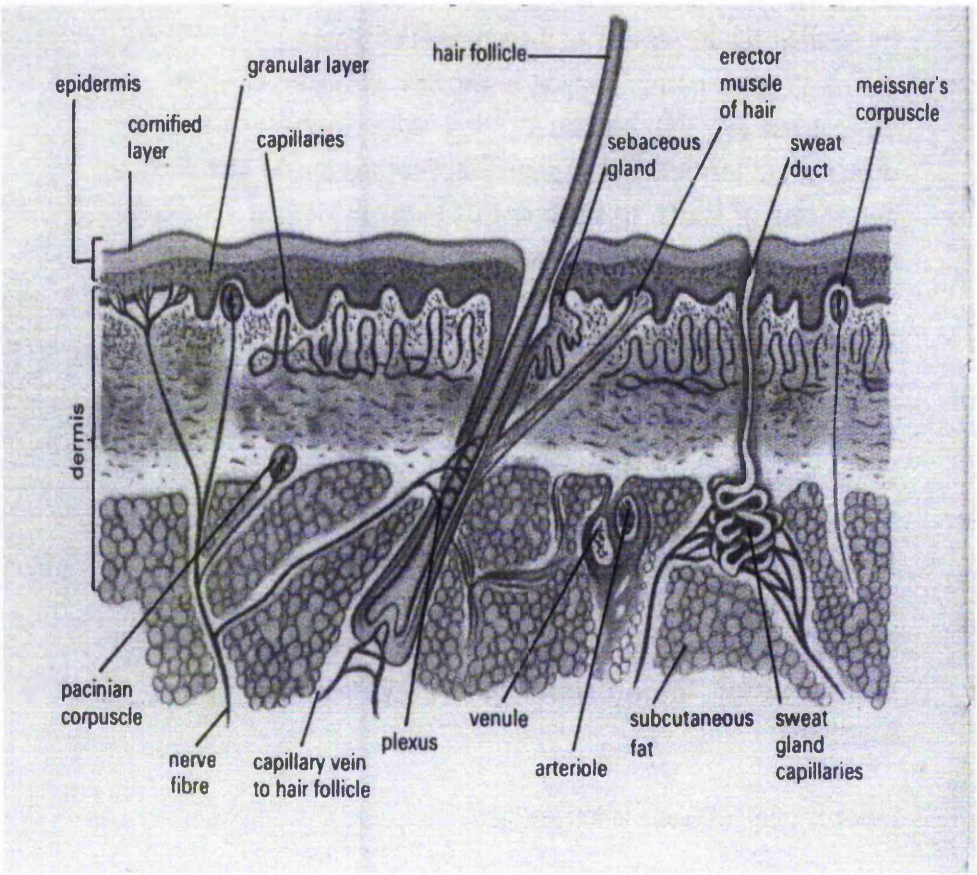
> visualize the non-visible, to mobilise visualization processes in order to produce new image-bodies. Early anatomical science developed through dissection of the body and systematic observation, to reveal the hidden order of things and construct the universal body of the textbooks.' (Featherstone et al 2000:7)

The apparent objectivity and neutrality that biomedicine distinguishes itself by ensures that the readings offered by this perspective remain relatively unquestioned. Popular biomedicine as espoused by encyclopaedic explanations exists as 'royal science' (Deleuze and Guattari 1987:367). This can be conceived of as a 'true' science that occupies a secure territory of acceptance and validity and which is accompanied by a privileged set of techniques and technologies that reinforce through naturalisation, the specificity of biomedicine's epistemology. At the outset it should be determined that I consider 'royal' (ibid 1987:367) science to be an irreducible field of relations that nonetheless is concerned with developing reductionist accounts of the 'natural' and 'social' aspects of embodiment (Dupre 1993, Hacking 1981, Feyerabend 1981). This reductionist account centres on the distinction and affirmation of boundaries that differentiate organisms into bounded segments that in combination, are the aggregate of the body as a totality.

In representations of biomedicine I find the codes that body hair, both of the head and body, are understood as ways of ordering segments into the conception of a corporeal totality. Body hair, despite the boundaries set through biomedicine, is a material that is always in the process of becoming. It is formed into a substance

through biomedicine, as I shall demonstrate in this chapter, but its materiality always escapes the limits that biomedicine attempts to impose upon it. In order to understand the coding of body hair that is operationalised in practices such as trichology and cosmetic depilation, I address body hair and conceptions of the body on biomedicine's own terms.

The anatomical diagrams that illustrate this chapter demonstrate a biomedical view which is refined and clarified, and the skin as a bodily covering and body hair as a sensory and protective organ are specifically represented. Each part of this diagram (Figure 1.) is categorically defined, distinct and ordered. This coherent diagram demonstrates each part of the skin and hair to be distinct but represents them in a hierarchical, causal form. The encyclopaedic knowledge referenced in this text occupies the same territory as skin and body hair, and is the basic or foundational material upon which knowledge about the body is developed. These representations of the skin are secured and validated and are no longer the subject of competing accounts and explanations.



(Figure 1.) of 'Layer of Human Skin' diagram in Hard, (1975)

> 'This picture of successive understanding in terms of a hierarchy of ever smaller and simpler structural components is...a dominant ideal of modern science...This position...suggests a strongly ordered and global structure to the universe...(and) seems to imply that in principle all our understanding of everything should be derivable from our understanding of the smallest structural components of the universe...For this reason,...(the bounded body) has become widely identified with the unity of science.' (Dupre 1993:4)

The visions of biomedicine do not extend far beyond the skin's immediate edges; the external environment is considered only in its effects upon the body (Schaefer, Zesch and Stuttgen 1982) and to confirm the ability of the body to maintain its singularity through various functions of defence and repair. The biomedical view of human anatomy and human physiology is directed inwards, towards the interior of the body and its parts and workings.

- the skin- the essential surface of biomedicine

> 'Within the biomedical discourses, 'the skin' is policed as the boundary which determines the ontological difference between one body and an-other. The skin becomes a means by which beings are constituted as separate and distinct. Indeed, the skin must be contained- as a container, it must be contained.' (Ahmed 1998:47)

The body boundary of the skin marks the material limit of the body and the site at which the essential nature of the body can begin to be revealed. The skin is the original boundary of biological epistemology and all other boundary distinctions extend from the positivist interpretation of the skin in which the 'real' or observed acts as a motivator for coding. The skin exhibits functions that seek to maintain this integrity. In this way positivist science operationalises and authorises body hair treatments that enable the skin to be fabricated as a controlled and ordered surface.

The view over the innards of the body: the organs enclosed by the layer of skin that is itself made up by minute surfaces classified to describe its segmentarity, are extended outwards to the visible features of the body. The skin is segmented into categories according to function and these include: 'Support- the skin acts a flexible physical support and covering for underlying tissues.' (McElwee 2000)[1];Hard 1975)

---

[1] : [WWW document] **URL**: http://www.keratin.com/aa/aa002.shtml- accessed 22.11.00

The skin upholds the body and is the general substance that structures the tissues of the body. 'Through its extensive blood supply and sweat glands, the...skin is able to maintain the constant temperature...' (Hard 1975) The maintenance of the body is further extended through the ability of the skin to alter its functions so that temperature variations do not disrupt the overall performance of the body. 'Waste materials such as salts and water are removed from the body via the skin.' (Hard 1975) The expulsion of products not needed by the body is reinforced by the skin's functions of:

> 'Protection- the epidermis prevents dessication of the internal organs....It prevents absorption of unwanted and potentially dangerous chemicals. Immunological defense- the epidermis...provides a passive defense against entry of opportunistic pathogenetic organisms. Skin performs an active role in immunity through immunological surveillance'(ibid)

In this way the skin is a physical barrier that contains within it responses to the external world that direct and limit the flow of the external world into the body.

> Sensory function- through the extensive network of sensory receptors we have sensations of pressure, texture, temperature and pain.' (Hard 1975)

The skin is segmented further into surfaces presents biomedicine with layers and a structure that:

> 'consists of three layers of tissue: the epidermis, an outermost layer that contains the primary protective structure, the stratum corneum; the dermis, a fibrous layer that supports and strengthens the epidermis; and the subcutis, a subcutaneous layer of fat beneath the dermis that supplies nutrients to the other two layers and that cushions and insulates the body.' (Britannica.com 2000)[2]

The mode of this description is one of distinction of layers, of surfaces (Foucault 1970) although this is concealed as skin is purported to be part of a singular body.

> 'The only unprotected tissue which has the living body on one side and the outside world on the other is the skin. Taken as a whole it is the body's largest organ; it is enormously versatile; it keeps out foreign agents; it keeps in bodily fluids.' (Smith 1978:482)

The skin is constituted as a discernible organ and object that belongs to the body as an aspect and expression of the completeness and autonomy. The skin as an organ manages itself and works at being itself (Ahmed 1998:49).

---

[2] [WWW document] **URL:** http://www.britannica.com/eb/article?eu=42389&tocid=0&query=human%20body - accessed 12.09.00

Although the formation of epidermal cells begins in the base of the dermis and moves towards the exterior of the skin and so from the specific to the general or small to large, the view of biomedicine begins at the exterior of the skin and focuses inwards through the utilisation of visualising technologies, although these visualising technologies are seen as incidental to biomedicine rather than constitutive of the body (Haraway 1991; Hacking 1983; Latour and Woolgar 1979; Foucault 1970). In this way biomedicine not only re-presents the actions of the body, it reproduces the actions that constitute the body, and it also orders these actions in a specific way (Dupre 1993; Panchen 1992; Ridley 1986; Jeffrey 1973; Foucault 1970).

There is movement through the layers of the dermis and the cells that go on to make up the epidermis move through the skin producing keratin and become hardened. The process ascends through several layers of the skin and is manifested through the interrelations of fluids and chemicals that interact to produce the cells that will form the exterior layers of the skin (Marks, Barton and Edwards 1988; Hard 1975). Each of these aspects demonstrates the segmentarity of the body without disrupting the general notion that the body is a totality.

> 'To allow communication with the environment, countless nerves--some modified as specialized receptor end organs and others more or less

> structureless--come as close as possible to the surface layer' (Britannica 2000)[3]

Another aspect of the skin is the sensory capability that it presents. The 'sensory nerves' that populate the upper surfaces of the epidermis alert the skin to changes in the environment and possible hazards to the integrity of the skin. Within the skin these nerves are organised from the general 'structureless' to the particular 'specialised receptors' and are ordered according to the functions they have in upholding the integrity of the skin. The nerves are placed into two distinct categories according to scale; large and small. The 'mechanoreceptors' are stimulated by sensations transmitted by body hair and any tractable movements of the skin, and alert the body to anything in motion across its surface. The smaller nerves are 'thermoreceptors' that are temperature-sensitive or the minute 'nociceptors' that react to contaminants such as chemicals that might damage the skin (Nathan 1969:60-69).

> 'The skin is the largest organ of the human body, and its principal physical function is that of a barrier....In addition, and perhaps most importantly, the skin has a complicated defense function....Its capacity to discern self from nonself is indeed challenging to the imagination when one considers the rich

---

[3] [WWW document] **URL**: ibid – accessed 17.10.00

> variety of exgenous substances to which it is continuously exposed.' (Bos, Das and Kapsenberg 1997:9)

The external environment is structured as a rather undifferentiated mass that the skin processes into codes that enact responses. This completed structure of the body is developed in relation to that which it is not- the external environment. Against this, the dissolution of a mass of external contaminants pose a potential threat to the security of the body boundary that is evidenced through the functioning of the skin and body hair. The development of these corporeal mechanisms is as a result of the responses to contaminatory effects.

> 'The human skin is primarily an organ of excretion...Intake of substances by the skin is not necessary for human existence and is in no way related to the physiologic development of homo sapiens in the course of evolution.' (Schaefer, Zesch and Stuttgen 1982:541)

This biomedical reading of the skin sets it as the barrier against the world that is the backdrop in the evolution of the body (Romanyshyn 1989; Schaefer, Zesch and Stuttgen 1982; Hard 1975). The concept of the skin as a divide that negotiates the communications between the body and the external environment is developed through the observations of cellular functions and the propensity of the human body for self-organisation and self-regulation.

> 'Thus considered, for the internal dynamics of the system, the environment does not exist; it is irrelevant.' (Maturana and Varela 1987:135)

The body develops against the external world and extends itself only through the deposition of substances that hold no utility. The environmental conditions have no measurable effects upon the development of the body and interactions are determined only by and through the individual. The skin is the barrier that is erected by the body to contain itself, but also to disclose to other entities, the difference between them.

> '(t)he skin becomes a means by which beings are constituted as separate and distinct. Indeed, the skin must be contained- as a container. It must not seep beyond itself until it ceases to be itself'. (Ahmed 1998:47)

This completed individual, bounded by skin only establishes and re-establishes contact with other bodies in a contemporary context, '(d)ue to the development of a 'civilized environment' which exposes the skin to innumerable substances'(Schafer, Zesch and Stuttgen 1982:541). The permeability of the skin is now reviewed against these man-made contaminants discovered by science. Biomedicine makes these minute, interior processes visible and illuminates the orders of the body by re-presenting what the body appears to disclose. The body is directed from within to secure against the external environment and fundamentally, the skin is represented as a limit or boundary. The epidermis is materially limited and this is in contrast to body hair as I will demonstrate.

- mediating smoothness- body hair as a sensory-organ

In this section I continue to utilise the findings of biomedicine in relation to body hair. This ontology constructs a coherent, functional and ordered representation of body hair and identifies temporal and spatial dimensions of hair that allow it to be mapped and attached to a more general conception of 'the' body.

Biomedicine does not explicitly code body hair as problematic, but it reveals body hair as having functional qualities that show how it *could* act against the autonomous subject. It grows continually, it has reflexive muscular power, and it is constructed in a durable form that cannot easily be displaced from the body.

Body hair in its general form is a universal substance, united at a chemical and structural level. This interpretation implies that it can be treated uniformly and in a general way; its management shows how 'the' body is a relevant and authentic category because even at the level of body hair, there is a generality in the body that can be detected. It is represented functionally and distinctions of the body in terms of gender or age, for example, are not explicitly expressed through body hair. It grows and re-grows upon 'the' body in patterns and in various densities and these express these bodily differences, but at a fundamental level encyclopaedic representations purport that body hair is materially equivalent. This is 'the' body as a universal subject/object of biomedical enquiry. Body hair appears upon the surface of the skin

as a visible substance but it is biomedicine that re-presents the minute features of body hair and its structure and organisation. By showing how body hair is organised, how it grows and what it is made of, biomedicine plots body hair according to a series of points along a temporal and spatial axis. It is these minute disclosures that narrate body hair as having a series of points of intervention.

Body hair is generally composed of keratin and it is keratin proteins that form the 'cytoskeleton' or minute frame of the epidermal cells. Keratin filaments form a protective structure around the nucleus of the cell and are similarly implicated in the role of protection of the epidermis they affect when expelled from the follicle out onto the skin. (McElwee 2000)[4] In this way body hair is disclosed as having a durable nature that cannot easily be displaced from the body.

> 'Hair fiber also helps with protection forming a tough barrier helping protect the epidermis from minor abrasions and/or from ultraviolet light.' (Mc Elwee 2000)[5]

Body hair is generally structured through a 'follicle' where the cells of the hair are manufactured; the follicle is located in the 'hypodermis', or the deeper surfaces of the skin. The follicle extends to the epidermis or outer surface of the skin and the hair shaft grows through this structure. Each hair shaft has its own muscle that pulls the

---

[4] [WWW document] **URL**: *http://www.keratin.com/aa/aa002.shtml-* accessed 22.11.00

hair to a erect position at low temperatures, this is known as the 'erector pili muscle'(Mc Elwee 2000; Paus 1997; Schafer, Zesch and Stuttgen 1982; Nathan 1969). This demonstrates that each and every hair has the mechanics to 'act' through its association with muscle, and in this way, each hair has the propensity to act in ways that challenge the notion of an autonomous subject. The muscles of the body can be used consciously. However, hair acts instinctively, or at least, not consciously. So, it is *implied* that each hair has the *capacity* to act against the body.

The notion that 'more than one hair type can be made by the same follicle at different times.' (McElwee 2000)[6] also demonstrates that body hair can be divided within itself and so resist ontological specificity. The follicle is the basic unit that assembles the basic hair shaft but depending on specific factors, the type of hair can be different. When accounting for body hair types the following features should be considered: '(s)ize, angle of penetrance through the skin, embryological time of first appearance, and structural variations in the hair follicles'.(Mc Elwee 2000)[7] These are the features that must be categorised and ordered so that the hair can be identified correctly but it is already admitted that this task is problematic due to differing hairs growing from that same follicle.

---

[5] [WWW document] **URL**: ibid- accessed 22.11.00
[6] [WWW document] **URL**: ibid- accessed 23.11.00
[7] [WWW document] **URL**: ibid- accessed 28.11.00

Particular hair types can be identified that are exhibited at particular stages in the life-cycle. The general substance of hair is divided into more specific categories. There is the 'lanugo' hair that is apparent in the foetus, the 'vellum' which covers the body surface before puberty, and 'terminal' or pigmented, coarser hair (Reference International 1984). In this way, at each stage of growth, in each form and appearance body hair can be mapped, traced and clearly identified so as to be secured against the axial arrangement of the body. With each disclosure concerning body hair, a boundary is simultaneously demarcated and an opportunity to intersect with a form of management is made.

The description of the manufacture of body hair states that they are located within particular areas of the dermis and are structured in a specific way, including gravitationally from bottom to top or from the exterior to the base. In this way, the hair within the follicle moves up through the layers of the dermis whilst retaining a 'papilla' or node that connects directly with the dermis. The hair follicle is connected to the general dermis through a specific surface that ensures that the flow of nutrients the hair needs to be manufactured is directed in a particular way. The follicles are the general structures that allow each hair shaft to be manufactured as they form a base and a structure that the hair cells form in and move through. The particular features of body hair are re-presented under the microscope as segments such as, 'matrix', 'root', 'shaft', 'medulla' and 'cortex'. These segments of body hair are distinguished in to the general; the root and shaft, and the specific; the medulla, cortex and matrix. This expresses the direction of the corporeal segmentarity as the parts of the hair

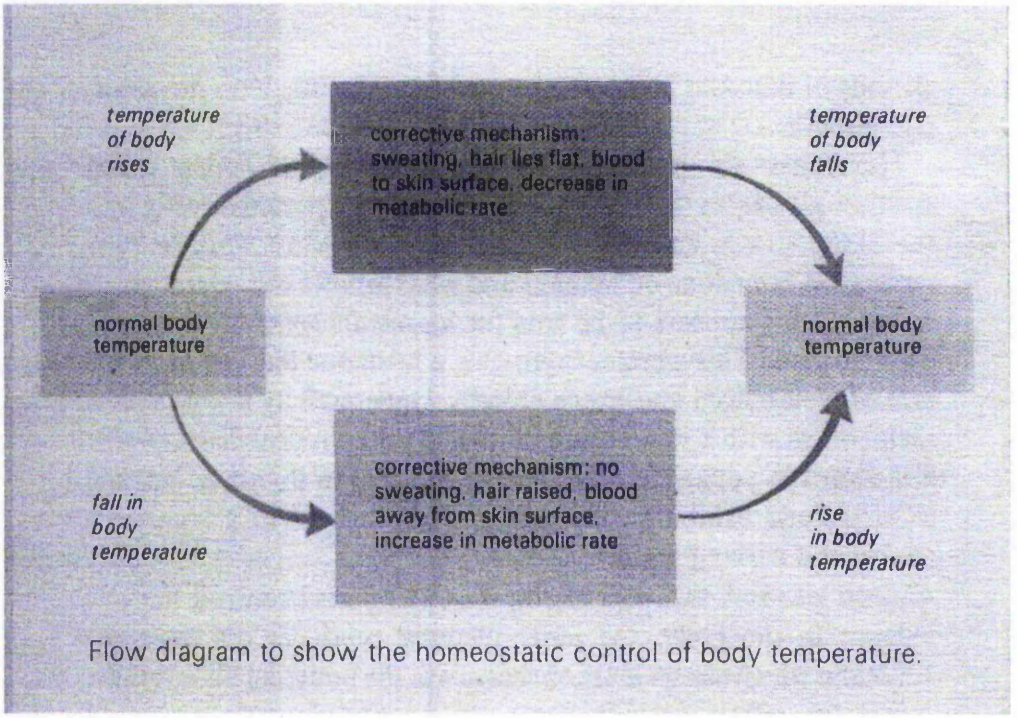
shaft and follicle are subsumed by the general totality. This also expresses that notion that demarcating each point in this cyclical process can open up a point of intervention for cosmetic treatments that are developed to interact with the hair at different stages. For example, waxing hair away requires that the hairs be half-grown so that the wax can adhere to the hair shafts properly. Chemical depilation can intervene at any stage in the growth cycle but may need to be left on the skin for differing lengths of time.

Eyebrow hair is a 'protective' area of hair above the eye sockets functioning to 'channel away sweat and any other fluids' (Mc Elwee 2000)[8] and shields the eye from light. The general features of the external environment are coded through the eyebrows into more specific categories of temperature, light and moisture. Eyelash hair provides a similar protective function and directs dust particles away from the eye. It similarly codes the general environment into contaminatory substances that enact further protective functions such as the eye blink. The eyebrows and eyelashes filter the environment into codes of threat and contamination and direct the flow of these codes over and through the surfaces of the body. In this way, certain types of hair are distinguished as 'protective' and coded as requiring management rather than total removal. This also discloses hair as mediating differing flows around the body that implies that the body is a site of interaction, exchange and flow rather than a fixed and distinct entity.

---

[8] [WWW document] **URL**: ibid- accessed 22.11.00

This diagram (Figure 2.) shows temperature regulation in body hair. Its representation in flow-chart form signals biomedical smoothness in the distinction of each aspect of the process into regular, ordered and predictable stages that are so under control that they can be represented in an abstract manner, yet still purport to reflect the admitted differences in bodily form.



(Figure 2.) 'Flow Diagram to show the Homeostatic Control of Body Temperature' in Hard (1975)

Hair growth is cyclical and all the follicles that produce body hair are evident in an individual from birth, it is the density, colouring and texture that changes rather than

the actual mechanism through which body hair is produced. (Reference International 1984; Hard 1975: 112). The hair follicle contains a mechanism through which the base of the hair shaft is constructed and developed. The actively emergent hair displaces the fully developed one from the follicle and this occurs in cyclical patterns.

> 'Hairs are manufactured by follicles. Essentially, these are tube-like pockets of the epidermis that extend through most or all of the depth of the skin and enclose a small papilla of dermis in their base.' (Britannica 2000)[9]

Body hair is represented in these biological diagrams as universal, averaged-out and ontologically-secured (Figure 3.).

> 'They lie at an angle to the skin surface. Two-thirds of the way up is a bulge, and attached to it are wisps of smooth muscle fibre that, on contracting, pull the follicle to a more or less perpendicular position.' (Britannica 2000)[10]

---

[9] [WWW document] **URL**: ibid -accessed 17.10.00
[10] [WWW document] **URL**: ibid -accessed 17.10.00

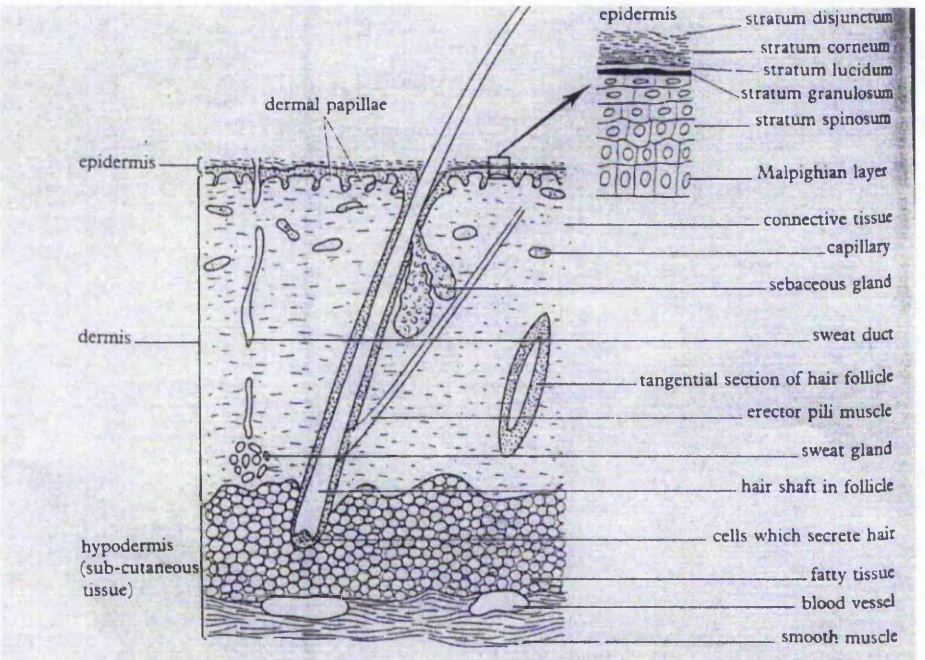


Fig. 15.1 Microscopic structure of human skin (scalp).

(Figure 3) 'Microscopic Structure of Human Skin (Scalp)' in Mackean, (1973).

The differences in specific durations of hair growth and the 'sympathetic link' between the hairs demonstrate, according to the trichological explanation (a specialist area of biomedicine concerned with diseases of the head-hair and scalp), a propensity for the body to maintain and regulate hair growth as a dominant mechanism for corporeal continuity. In this way, hair is positioned as displaying the same regard for bodily integrity that underpins the general biomedical conception of the body. This is head hair however, and I refer to it as away of signalling how biomedicine reveals the hairs on the head and body to be different and so authorises differential treatments.

Further, head hair, because of its propensity to grow for longer durations than body hair, means that it can be 'read' like a narrative that discloses information about the totality of the body[11]. For example by examining the hair in minute detail, the nutritional status of the individual can be ascertained through chemical analysis, the presence of drugs and chemicals can be detected, the application of technologies such as perming solutions and hair dyes can be seen: the individual hair represents the general body. In this way head hair 'stands in' for the body; the axial conception of 'the' body is evidenced in a consistent substance of observation.

> 'Hairs vary in colour, diameter, and contour. The different colours result from variations in the amount, distribution, and type of melanin pigment in them, as well as from variations in surface structure that cause light to be reflected in different ways.' (Britannica 2000)

The differing manifestations of hair are unified by an elemental similarity that develop from the propensity of the body to organise itself, even in cellular levels, against the external environment. The light refraction is subsumed by the mechanical property of the hair to protect the skin from temperature extremes and photo-sensitivity.

---

[11] See Ogle, R. R and Fox, M. J.(1998) 'Individualization of Human Hair: The Role of the Hair Atlas', Microscope, Vol 46:1 17-22 and 'Commercial Hair Analysis: Science or Scam?', Barrett, S. (1985), The Journal of the American Association, Vol. 254 1041-1045 and Mason, J. M. (1999) 'The Profession of Trichology, Module F1', Institute of Trichologists, London.

> 'Hairs may be coarse or so thin and colourless as to be nearly invisible. Straight hairs are round, while wavy hairs are alternately oval and round; very curly and kinky hairs are shaped like twisted ribbons.' (Britannica 2000)

Exploring how biomedical science sets boundaries connects in subsequent chapters with the specifics of dealing with body hair. In order to reanimate the understandings of what body hair is and what its functions are, we must understand how the boundaries of biomedical science were erected and thus see that this direction in communication is escapable. The application of some formal framework upon the world instigates some selective movements and tricks of the eye so that bodies fit into the spaces reserved for them. Distinctions must be adhered to and ambiguity must be minimised. This distinction has been expressed through the taxonomic boundaries of classifications.

The historical development of a hierarchical model of the body in relation to the external environment shows how the imposition of this body boundary has been naturalised. The precedence that biomedical science occupies within the territory of bodily explanations and causations ensures that its totalising representations resonate beyond established or 'royal science' (Deleuze and Guattari 1987:367-368) to condition everyday practices of body hair removal and management.

- ordering and organising body boundaries- the structure of biology

> 'Nothing in Biology in general, or in our own human life in particular, makes sense except in the context of memory, of history.' (Rose 1992:327)

In this section, I want to explore the notion that the classificatory schemes of biology operate within a wider context of evolutionary biology, that in turn effects the ontological approaches of biomedicine. '(O)ne of the crucial issues at stake is precisely how the organism is to be conceived of in terms of its boundaries and its boundedness as well as its components.' (Ansell Pearson 1999:148-149)

> 'The view (to take) to task is the conception of the organism..., which posits in a priori terms the unity, stability, and identity of the organism.' (Ansell ibid:148-149)

This is the problem of 'the' body, of how to situate it both materially and ontologically into a homogenous form whilst insisting on its disparate parts. This occurs through the implicit adherence to a narrative of relations.

> First, distinctions should, as far as possible, be sharp and practically decisive. That is to say, it should be possible to determine on which side of a distinction a thing falls, and preferably it should be possible in practice, not merely in principle.' (Dupre 1993:17)

> 'Classifications must also record degree and amount of diversity and complexity (while never violating the primary signal of phylogeny, or order of branching).' (Gould 1982:xvii)

Phylogeny is the evolutionary development of a body or groups of bodies, and the history of the development of bodies. The distinction of bodies into specific categories and classes is the assignment of boundaries that are not easily escaped. It is assumed that the exercise of biological classification and the biomedicine that develops from this was the revealing of an orderly, hierarchical world (Foucault, 1974). The themes of boundary distinctions, as represented in biological science, are classifications of bodies that validate the notion that there are distinct differences and aspects of similitude between corpora. Biological classifications minimise and conceal potential ambiguity through the incorporation of bodies into orders and schemes that divide and segment bodies in terms of degrees of similitude and difference.

> Main Entry: [2]**human**, Function: *noun*
>
> Date: circa 1533
>
> **:** a primate mammal (*Homo sapiens*) **:**

> **MAN**; *broadly* **:** any living or extinct member of the family (Hominidae) to which the primate belongs - **hu·man·like** /-m&n-"lIk/ *adjective* *(Merriam-Webster:2000* [12]*)*

From this definition, the problem of categorisation is demonstrated. This definition, although accepted in popular science, is of limited use. It exists as an abstract representation of the body that is purported to be universally applicable and fixed. However it also represents the inability of classifications to change at the more general level to accommodate change, but at an ontological level, they are used as general groupings that can accommodate a variety of differences in the body for example, without upsetting that general category (Dupre:1993).

> 'One of the first tasks of biology was to make meaningful generalizations about living organisms...The refinement of this process of recognition and grouping into the scientific study of the diversity of living organisms has given rise to.... systematics. The task of systematics, as an empirical science, is to produce systems of classification which possess the maximum explanatory power with respect to the observed patterns of distribution of features exhibited by living organisms...Such systems are hypotheses of the way in which variation in the living world is ordered and are used in biology for the storage, retrieval and communication of information and for the

[12] http://www.m-w.com/cgi-bin/dictionary- *accessed 27/05/00*

> making of reliable predictions and generalisations. They are based upon analysis of the distribution of as many features of living organisms as possible and aim to establish groups, the members of which possess one or more shared features which are group-definitive, their distribution among living organisms being particular to those members. ' (Jeffrey 1989:1-2)

The notion that there are objective properties displayed by bodies that can be discovered through careful examination allows for the naturalisation of a biological representation of the world; the positivist notion where substance is a reflection of matter. The classifications must contribute an aspect of understanding of bodies in the sense that they must disclose as much information about particular bodies as possible. This information can only be transmitted if ambiguity is minimised.

> That there are objective divisions between some distinct kinds of things would be hard to deny.'(Dupre 1993:5)

> 'The possibility of constructing such systems, of course, depends upon the occurrence of features with greater or lesser degrees of generality of distribution. If features were all randomly distributed, then each feature considered would produce a different way of grouping organisms and no one maximally informative classification, reflecting congruence of distribution of features, would be possible. However, the observed distribution of features is not random' (ibid)

The concept of species, for example, has developed through the transmission of secure bodily boundaries that are sedimented in linear formations and recapitulations. The security of the species depends upon the reproduction of a general whole that can accommodate and incorporate individual differences (Massumi 1999). Species is a 'molarity' of a naturalised category that has become sedimented or rigidified to the extent that it can be identified as a homogenous, unambiguous whole. Molar categories 'are subject to well-defined boundaries' (Ansell Pearson 1999:233). Individual bodies can be anomalous with each other and can communicate in differentiated ways, or alter their modes of structure whilst retaining an essential organisation; they can be plastic. The molecular category implies 'local connections between particles' (Ansell Pearson 1999:233) which shows the relations between cells within a body, the relations between organs within a body and bodies in relation to each other. Biomedicine structures relations between objects and bodies in a way that is linear or derivative. This concept is operationalised onto bodies through the universalising tendencies of cosmetic treatments.

The categorisation of bodies into molar categories allows them to be fitted onto a more structural schema. Revealing the 'natural' distinction between bodies and representing this through categorisation develops into revealing continuity between categories; an evolutionary narrative. The categorisation of body and into parts segments follows the lineage of a biology that has at its centre an 'arborescent' schema: '... what assumptions and investments are preserved uninterrogated in this

sort of metaphor?' (Mansfield 2000:141) The metaphor of the arborescent schema structures all life in particular ways and has an idea of an original point that can be referred back to through specific genealogies (Ansell Pearson 1999:197):

> 'The key metaphor used to explicate the... understanding of a world built out of stable identities... (is) the arborescent (or root System)... ' (Mansfield 2000:140-141)

This schema pervades Western thought (Deleuze and Guattari 1987:18) and is concerned with the connections between exterior appearances and interior organisation: 'things grow and diversify... we believe.' (Mansfield 2000:140-141) The single, unified source that can be traced back to some origins, however they may be concealed, develops into ever more specialised and diverse parts. The arborescent schema is a structured system where the parts coordinate in a hierarchy in which there is a notion of an essence that can be traced. This schema is examined in relation to the boundaries of bodies, change and transformation and for theoretical tools with which to cut away at the line drawn around the individual, body and the world beyond its measure. This underlying structure resounds in smoothing culture in the adherence of cosmetic products to a popular science schema, and in the notion that the surfaces of the body can be re-arranged into a smoothness that reinforces the underlying structure of the body. In order to classify 'the' body and 'body hair' is it necessary to

accept that this aim is founded upon a belief that bodies are distinguished prior to the application of classification:

> 'What I do want to deny, ...is the idea that is a generally appropriate and tractable question to ask, of an object, What is the natural kind to which it belongs? I claim, on the contrary, that such questions can be answered only in relation to some specification of the goal underlying the intent to classify the object.' (Dupre 1993:5)

> 'Most taxonomists today regard the 'correct' pattern of classification as in some way 'natural'....But it has not always been the case that those classifying animals and plants have aspired to a natural pattern.' (Panchen 1992:11)

This proves a difficult task: the biological exploration of 'the' body comes up against barriers and boundaries that appear to offer answers and illuminations concerning the body, but instead constructs paths of escape that are circuitous: '(the) final and incontrovertible tracing of the individual subject to its roots, according to a pre-fixed truth, is classically arborescent in its unquestioned logic.' (Mansfield 2000:142) The question concerning the naturalisation of the axis by which biomedical science measures the body and other bodies is revealed to be an exploration of the body as the

axis of biomedical science. In this way, what we find at the end of these explorations is the body in some shape or form, and again, the body that cannot be transgressed.

The increasing techniques of magnification that biomedical science develops ensures that the axis upon which the body is, and is mapped, extend invariably whilst remaining stable. The location of the body upon and as this axis infers a fixed point that would indicate any deviation precisely; it infers a classification and definition that is immutable. Any movement away from the fixed point assigned upon the axis to the body breaks the connections between the parts of the body but also between the body and its external environment. The narrative of hierarchies and lineages of the body is concerned with accommodating and accounting for the developments in biomedical science. Biomedical taxonomy or classifications further secure the boundaries of the body through their attempts to reduce ambiguity and extend universal utility for:

> '(p)erfectly sharp discontinuities between unchanging natural kinds (can) no longer be expected. The conception of sorting bodies into species as a fundamentally classificatory exercise has nevertheless survived. Indeed, the concept of a species traditionally has been the paradigmatic unit of classification. Classification is centrally concerned with imposing conceptual order on diverse phenomena.'(Dupre 1999:3)

The category has as its extensions, the phylum, the class, the order, the family, the genus and the species (Margulis and Schwartz 1982:4). These distinctions prevail in the approaches that account, explain and administer to the body through the permeation of biomedical classification and categorisations. The intention here is to offer an analysis of the scientific structures by which the location of the body has become naturalised as they contain the possibilities of understanding more fully the framework that bounds the descriptions of body hair growth and reproduction so securely. The arborescent schema and the linearity of much biomedical science has, as its origin, a taxonomy that distinguished bodies into species, type and kind.

Taxonomic level	**Humans**
Kingdom	Animalia
Phylum	Chordata
Subphylum	Vertebrata
Class	Mammalia
Order	Primates
Family	Hominoidea
Genus	Homo
Species	Sapiens

(Margulis and Schwartz 1982:4)

These distinctions were enabled through rules of nomenclature and hierarchy and were to reflect an important ontological divide in nature. The Linnaean (Linnaeus 1938;1737) hierarchy and classification system consisted of a hierarchy of categorical ranks, a set of rules for sorting bodies into taxa and a list of rules for naming taxa (Wiley 1979, Cain 1958). A fundamental concept of this system was the notion that all species taxa were thought to be comparable in some respect, as was the notion that classifications of species and genera reflect real groups in nature, whereas classifications of classes and orders are artificial (Cain 1958:148, 152-3). This distinction develops an essentialist position as species and genera are intellectually independent and have essential natures ordained by divine forces, but orders and classes are constructed distinctions; the first being real and the latter being artificial. This system was displaced by a system that rejected essentialism and thus the distinction between the lower and higher taxonomic categories (Sober 1980; Hull 1965).

There were, however, aspects of Linnaean categorisation that were synthesised, namely the relations of comparability between all species taxa and in some senses the distinction of the world beyond into lower and higher taxa. This takes the form of a distinction between organic and non-organic life and between human and non-human species. Another referent to the Linnaean system is the relations of comparability, as this is analogous to ordering along anthropocentric lines where the human is the measure of the world beyond. These developments constitute a refinement of a system rather than a challenge to it; the body boundary remains a measure of

distinction and a means of maintaining that difference through regimes of management.

> 'At the limit, all that counts is the constantly shifting borderline.'(Deleuze and Guattari 1987:367)

This schema was refined by evolutionary theory proposed as 'biology' (Britanicca:2001,2000; Bos, Das and Kapsenberg 1997; Brown 1995; Schaefer, Zesch and Stuttgen 1982; Hard 1975; Mackean 1973, Lamarck 1914) which ordered all life along a linear axis and depicted a forward progression in the development of bodies from the homogenous to the heterogeneous.

In order to accommodate and account for all forms and manifestations of corporeality, the same methods of measurement must be applied. These find expression in spatial and temporal calibrations. The difficulty with this vertical, linear model was the accommodation of temporal differences, as the axis and its anthropocentric temporal distinction requires that all species are collated and compared against other species and are then allotted a particular point along the axis to occupy. Although it was accepted that this 'order of nature' (Lamarck 1914:6) was constructed according to human values, the classification or species according to affinity or family resemblance both in exterior and interior organisation and structure (in limbs, respiratory or nervous constructions, for example) reproduced a form of distinction that takes as its measure, an ocular or visual anthropocentrism.

> 'It seems natural, therefore, that when we want detailed information about some part of our surroundings we first take a very close look at it. Such visual examinations are normally perfectly adequate for the day to day processes of living... we must remember that the visual gathering of detailed information relating to our surroundings, and the classification and study of such knowledge forms a large part of the discipline known as 'natural science'. (Bradbury 1967:1)

This measure remains related to the evolutionarily perfectionist model that places species in distinct categories and phyla of life (Ansell Pearson:1999,1997). The arborescent schema or the 'evolutionary tree' (Haeckel 1905) was introduced as standard iconography or form of representation for phylogeny. The classical conception of anthropocentrism was based on a divine conception of life whereas modernist thought was concerned with identifying the human body in a stage of evolution.

This iconographic representation of the arborescent schema has permeated 'all of Western thought from botany to biology and anatomy, but also gnosiology, theology, all of philosophy…' (Deleuze and Guattari 1988:18). The linear or axiomatic model is succeeded by an arborescent one that accommodates the differing temporal schemes of bodies and species by representing both temporality and complexity in a form that divides and differentiates itself.

> '(A)ll living and extinct beings are united by complex, radiating, and circuitous lines of affinities into one grand system' (Darwin 1985:433).

The 'tree' is a structured system where each part co-ordinates with one another, and where a hierarchy of essential truth can be established implicitly. Deleuze and Guattari write that: 'Arborescent systems are hierarchical systems with centres of significance and subjectification... In the corresponding models, an element only receives information from a higher unit' (1987:16). Everything in the 'tree' relies for its values on other elements in the structure. This structure is distributed as a hierarchy which necessarily subordinates one body to another. This posits that identities are stable and fixed, and that a successive revealing of the parts of this 'tree' will allow us to access a fixed and essential nature.

In this way all life is related by degrees and by distances that accommodate both evolutionary and temporal changes. The arborescent schema provides an origin and continuing present and allows for increasing specifics in taxonomy to develop. The accommodation of increasing complexity and specificity are structured however by a hierarchy that culminates in the individual human, both as measure and as assessor of this arrangement. This schema locates the individual human at the centre of all life and proposes a series of movements towards the human form that all life has been transforming and evolving towards. Thus, the human at the top of the structure is related in degrees of separation to all it surveys. This relation involves classificatory

techniques and relations of utility that render all other bodies as the backdrop upon which the human is developed. The human as origin and destiny is expressed in this model as any relation between any hierarchy or class is an exhibition of a part of the schema which always has as its purpose, the positioning of all life around the human (Foucault 1970). Although the notion of the 'tree' is invoked and the linear model appears to be discarded, the 'one grand system' (Darwin 1985:433) relates everything within one narrative, distinguished into categories of organic and non-organic and progressively into kingdoms, phyla and species. This ensures that the narrative, encompassing all as it does, is a narrative of relations.

> 'Variation is found to be ordered in a hierarchical manner which is strongly supportive of the hypothesis that all living organisms are related genealogically to one another, to a greater or lesser degree, by way of eventual common ancestry.'(Jeffrey 1989:1-2)

These relations may radiate along lines of descent but remain linear in the sense that they are all contained within one system and one line, however visible or invisible those ties may be. Any trace or genealogy must refer back through careful excavation and illumination: an ancestry or relation to the human that was the essential motivator or teleology of evolution, as the differences between organic beings becomes ever differentiated but 'their genealogical arrangement remains the same' (Darwin 1985:405). This invokes an attachment of purpose and normality into the arborescent schema as 'natural selection' relates solipsistically to the human and its place in the

structure, and the modes of classification that normalise this location through a presentation of a reality that confirms this organisation. The selective movement of 'nature' towards the body finds reinforcement in the techniques of capture that anthropomorphise processes of 'life' and are revealed in the minutiae of scientific constellations.

> 'It is certain that they have nothing to do with a structure, which is never occupied by anything more than points and positions, by arborescences, and which always forms a closed system, precisely in order to prevent escape' (Deleuze and Guattari 1988:203)

The problem of evolution is one of movement; are the distinctions between species, family, order, etc ever undermined? Species must surely be, but at the higher levels of the schema transgressions become less likely. The concept of arborescence suggests that diversification will always take place at the lower levels of ordering. To prevent 'escape', ontological developments must be continuously coded and incorporated into the schema. Evolutionism undermines classification; as a result the calibration of bodies now entails continuous movements between types of bodies and causes. With regards to body hair this operates as the sorting of body hair into certain categories whilst continuing to relate them to 'the' body. This is categorising body hair as substance to be removed such as armpit hair, or to be retained as an essential body part in the way that head hair has come to be calibrated. What remains is the commitment to referring these categorisations to 'the' body. This occurs through

armpit hair being treated as a potential contaminant to the body as it is linked to holding sweat and its fluidity against the skin. This in turn relates the skin as a solid structure that upholds the body. Head hair discloses information about the state of the body in general as it falls out or grows unevenly if there is illness in the body, or the body becomes poisoned. So, head hair is related causally to the general integrity of the body.

The problem with these explanations is that they inappropriately conceal 'the complexity of becoming' (Ansell Pearson 1999, 1997) or the range and array of objects, forces, systems of information and bodies that must be considered when attempting to account for any understanding of the body. Body hair exists outside of the laboratory and off the pages of medical textbooks. When body hair is re-contextualised in the next chapter, it becomes clear that the un-containability of body hair in everyday settings poses a threat to the very systems of order that contemporary culture is predicated upon.

The central theme to this chapter is the identification of the processes and ontological developments that give rise to the conception of the body as a closed-system; namely that the body is concerned with maintaining the boundaries of the body. Biomedicine operates to simultaneously conceal the construction of the body and offer it up as a natural 'substance' that has propensities to be managed through body hair management regimes. 'Substance' refers to formed matter (Deleuze and Guattari

1987) suggesting that nothing is inherently revealed, instead it becomes substantiated through various interventions and applications of force, including those practices of everyday body hair management.

So to summarise, this chapter has been concerned with exploring the historical development of 'the' body and the notion that the boundaries of the body are fabricated through the methods of biology. Because in order to: 'make a claim to separate status as an individual, we need a plausible history of ourselves, which recounts our past in such a way as to confirm our identity.' (Abercrombie et al 1986:33) Biomedical science has marked and represented the body and its environmental context in specific ways. The view of the territory that science occupies is a geometric space, a 'linear vision which gives special place to a notion like perspective or point of view, with its implications of fixity or stability and its preference for processes like inspection and detached, objective analyses and observation. Such a fixed perspective tends to eclipse movement.' (Romanyshyn 1989:14). This is a territory of order, hierarchy and a tableau through which is built the layers of organs, dermis, epidermis and follicles that constitute the human border; a bodily territory that is stable, secure and smooth. Just as general biological classification operates to impose order and security within epistemology, the minute observations of biomedicine over body hair are attempts to find a method of securing body boundaries: the scales are different but the level of abstraction is the same. At each of these levels, existing as part of a narrative of relations, is the notion of

abstraction- another word might be extraction. The notion of extracting 'the' body of smoothing culture from its current context, and inspecting it according to the rules of its construction, is furthered in an exploration of body hair management practices which reveal that there is always scope for refinement in biomedicine, precisely because there is ambiguity. The refinement however, is shown to proceed in a manner that always seeks to reconcile ambiguity- the materialisation of the notion that 'everything is going smoothly' or that body hair management is safe, effective and easy.

To become smooth, to manage body hair, requires that the representations of popular science must be translated into everyday forms. Smooth subjects must make body hair management seem effortless, they must conceal its fabrication as it is the end-result, the high-touch finish that is central in smoothing culture. In the next chapter I want to explore how 'body hair' translates from the laboratory and the encyclopaedic textbooks into subjective experiences of management. Body hair is demonstrated in the next chapter to be an indication of the body in process. Specialists, adverts and products and individual experiences of management all attest to the notion that for body hair to be 'going smoothly', it requires an array of interventions. I contend that for everything to be 'going smoothly', body hair cannot be left to its own devices. Its ambivalence and the threat that it constitutes to the ontological status of the body ensures that at every opportunity, its management is mediated.

- becoming smooth- between resistance and reconciliation

In this chapter I want to see how 'body hair' translates from the laboratory and the encyclopaedic textbooks, into everyday smoothing culture through an exploration of body hair management as it translates in specialist practices, advertising and product promises, and in everyday attempts at becoming 'smooth'. Centrally, the reinforcement of a specific conception of embodiment as espoused through anatomical biomedicine permeates conceptions of body hair. I consider that the strategies of biomedicine occur in order to secure the status of the knowledge it produces. Yet it is the logic and representation of a specific type of corporeality that permeates and extends itself into a diffuse array of arrangements because the axis upon which biomedicine is ordered has specific effects upon the conception of the body. It is the entity of the body that is the central agent of these arrangements. Isolating the scope of biomedicine's explanative permeations of the body denies us the opportunity to address the coding of body hair, the technologies that are developed to deal with this bodily manifestation, and the forms of knowledge through which we understand its anatomical functions and purpose. This organismic permeation should not be reduced to a strategy but should instead be conceived of as an 'assemblage' (Ansell Pearson 1999, 1997, Deleuze and Guattari 1987) or an assembled arrangement of human and non-human bodies, technologies, representations and strategies that appear to converge as the body.

The aim of the thesis, which is the exploration of body hair management conceived of as a means of materialising and reconciling anxieties about the insecurity of the body, is furthered in this chapter through a focus on the process of body hair management. The arrangement of the body with tools and techniques and the application of forces fabricate smoothness. Smooth subjectivity is supposed to be a stable and fixed form of identity based within smooth, self-contained, secure body, but 'the' body from which subjectivity emerges is found to be fraught with anxieties concerning body boundaries. The machinations along the boundaries of bodies are political, that is to say they are ongoing practices of territorialisation and deterritorialisation that 'become' (Bogard, 2000; Ansell Pearson, 1999, 1997; Deleuze and Guattari, 1987). 'Becoming' is a process of construction operating both at the level of bodies and the social; in the sense of developing disciplines, bodies of knowledge, subjectivities and the tools with which to construct knowledge and corpora.

There is *not* a seamless transition or realisation of 'body hair' as disclosed by biomedicine into smoothing culture. Or that individual experiences of body hair and its management is reflected in encyclopaedic models or in adverts for bikini-line cream. Instead, smooth subjects become engaged in practices that submit their body hair to various smoothing interventions. 'Body hair' is 'put into place' through various mediations and reconciliations in attempts to smooth away the differences between subjective manifestations and a general, cultural conception. This putting into place does not occur on an individual level; rather it is mediated through various smoothing processes.

In the previous chapter I showed how biomedicine offers functional accounts of the skin, body hair and the conception of the body or organism itself. These revelations of derivative functionality offer sites of intervention through which smoothness can be materialised or fixed into place. I contended that these sites of intervention were simultaneously sites of potential resistance because biomedicine did not reveal the interior essence of the body; it multiplies its surfaces and extended the boundary which constituted 'body hair'. This multiplication of boundaries occurs with a concurrent development of regimes of management.

I have critiqued the arborescent schema as proposing a narrative of relations which in effect traps any conception of body hair through a functional relation with the skin and the skin with the body in general. A theorisation that overcomes these limitations is the one offered by Deleuze and Guattari (1987) in *A Thousand Plateau's Capitalism and Schizophrenia Vol. 2'* They propose a different symbol from the tree in their conception of 'rhizome' which represents the complexity and constant transformations that they associate with the body. A rhizome is a subterranean fungal growth that expands in each and every direction, from any number of random points and interconnections. Whereas the arborescent schema delineates a singular and solid core of expansion from which all other branches proliferate, a rhizomatic view sees life as expanding haphazardly from any point, in any number of directions, without a centre or singular purpose. The arborescent schema sees all life as traceable back to an originary point, which I have identified as the always-already formed human body. This gives rise to fixed and immutable

forms of identity and a stable conception of subjectivity. This has shown to be effective upon notions of technology that are always tied to an already existent type of body; technology can only ever be an add-on to the body. I have problematised this approach to the body because technological developments alter the ontology of body hair. Body hair, as related to subjectivity, seems to require smoothing rather exist in this smooth form 'naturally'. So, to free the substance of body hair form this static categorisation that becomes less and less applicable as body hair ontology develops, I look to rhizomatics as a way of theorising body hair in its multiplicity and complexity. I have claimed that specific individual body hair management is a way of reaffirming the general abstract premise, of the body, because of a narrative of relations that biomedicine reveals as linking every body and every body part in degrees of functional distance and proximity. A rhizomatic model of the body does not have the unity of the arborescent model but this is viewed by Deleuze and Guattari as the 'nature' of nature. This is followed by Dupre in his text *'The Disorder of Things'* (1993). He does not follow Deleuze and Guattari intently or explicitly but does propose a notion that of science that exposes it as an inherently dis-unified project.

> 'It is the denial that science constitutes, or could ever come to constitute, a single, unified project.' (Dupre 1993:1)

I follow Dupre in his insistence that the underlying assumptions of biomedicine, in the mode of biological science, are at odds with the very findings of biomedical ontology and that this is particularly evidenced by body hair. The rhizomatic

model that Deleuze and Guattari propose is a model of the heterogeneous, denoting the interconnection of a number of lines and trajectories. The rhizome links apparently disconnected forces and effects in a way that recognises their distinction and the notion that they come from completely different orders. Traditional, western biology has sought to produce, from an array of mobile and unstable forces and materials, a unified, stable model of the body and a singular and fixed conception of the subject. This is biological epistemology as a smoothing narrative that is reflected in a neutral system of representation; the arborescent model as a narrative of relations. However, as I have shown and will continue to demonstrate, body hair is unstable and its materiality has the propensity to destabilise the more abstract concepts of 'the' body though its insistent in-containability. As Dupre contends, the very revelations of science show that the complexity of life cannot be contained within one singular narrative, and I contend that biomedicine shows that body hair has the propensity to resist smoothness in many aspects of its materiality. The connections between these differing lines and forces are not understood in terms of origins and causes and the insistence that this will lead to the discovery of an eventual irrefutable truth. This manifests itself in smoothing culture in the promises of 'ultimate' hair removal or 'permanent' depilation, claims which always prove less simple than they appear, as is shown in this chapter. What I am interested in extracting from the notion of the rhizome is an alternative way of approaching the body and body hair which escape essentialist interpretations. A constructionist notion of a contingent and arbitrary history is only partially useful here when it continues to assume the body to be a material limit which is shaped by cultural forces. An in-between position

can use a theory of rhizomatics in its focus on surfaces, the boundaries that are created in the process of these interconnections and the production of new bodily arrangements that incorporate tools and forces. At this point I want to signal that the complexity of evolution and the complexity of body hair management are not well represented by an arborescent schema. Instead, out of the laboratory, body hair changes and transforms according to an array of different materials and forces that are distinct; a laser-beam and a shaft of hair, a skin surface and a mineral-oil based lotion. These connections are not permanent or routine and they cannot be explained and accounted for except in a theorisation that is concerned with 'variation, expansion, conquest, capture, offshoots' (Deleuze and Guattari 1987:155-156) rather than fixity, stability and essentialist revelations. This theorisation seeks to understand the production of smoothness and the smooth subject as 'the construction of a 'social assemblage', a plane of consistency composed of the most diverse and jumbled materials- bodies and body parts, bits of information, signs, resources, equipment- that 'operationalizes' according to principles of smoothing.' (Bogard 2000:273)

In this chapter I explore how subjects become smooth through body hair management and whether this constitutes a defence of its original status or its refinement into a new, smoothed form. In order to 'become what you are' (Lury 1998 76-104), you must become smooth. I explore how certain products act to resurface the skin as a way of exploring body hair and prosthetics. Instead of cutting open the body to reveal its essential nature, post-war smoothing culture requires instead that bits of the body are cut off in order to fabricate a smooth

body and subjectivity. I contend that this form of cosmetic surgery is more problematic than is made apparent in smoothing culture because body hair is a substance that always resists smoothness and so removing it requires the use of force. I examine the products and treatments available to manage hair in terms of the forces they exert over body hair.

Through a focus on smooth subjectivity as presented in depilatory product adverts I explore what signals are transmitted within smoothing culture about what becoming smooth means, and how it is constituted. I have interspersed these elementary semiotic analyses with extracts from recorded 'conversations' that took place from 2000-2002. These occurred at a beauty therapy salon in Nottingham and were anonymous because of the clients' requests for confidentiality. I took comprehensive field-notes, recorded spoken conversations and documented impressions of treatments to develop a sense of the constitution of body hair through management practices. What came out of these conversations was the theme of management and the difficulty in managing hair. I have chosen a few extracts to demonstrate the points I make during the chapter, but in general, I used the material to build up a picture of body hair within smoothing culture as a complex, diffuse and multiple substance that any singular narrative of management could only partially illuminate.

The previous chapter has been concerned with exploring the attempts of a visually-anchored positivist epistemology to stabilise the concept of 'the' human body. I demonstrate that within smoothing culture, there is a division between

everyday 'reality' and popular encyclopaedic representation when it comes to body hair. Despite the continuous attempts to 'fix' or smooth the body in a biomedical model, the concept of 'the' body remains inherently ambiguous and body hair in its individual specificity demonstrates this in everyday ways as this conversation extract attests: 'even though I get my chin waxed once every two weeks, I still have to pluck the hairs out everyday 'cause you get the odd ones that grow through, I still have to keep the hair under control every day 'cause it just keeps on growing otherwise.'

The attempts to make the body more 'itself' through treating body hair, inevitably alter the conception of what constitutes 'the' body and 'body hair'. Biomedical classifications are not discarded because of ontological developments; the ambiguous reality of categorical applications operates to allow refinements and smoothing to occur. To 'become smooth' is the simultaneous development of regimes of management and the refining of categorisations that secure and authenticate body hair on an ontological level. The trope of smoothing changes the materiality of 'body hair'. This resistance to the apparent finality and closure of body boundaries as materialised in body hair is advanced through technical developments in response to body hair 'itself'.

But in smoothing culture, this mediation is purported to be effortless, safe and effective. The anxieties over body boundaries that body hair manifests are seemingly under control. Body hair in its specificity must not contradict the general categorisation of 'body hair'. Any differences such as excessive or coarse

hair, or hair that grows in unwanted areas must be subject to forms of boundary securing. This securing is operationalised as remedial and refining treatments. The surfaces of body hair get re-arranged into smoothness and this reflects an internal consistency or regularity that is supposed to be the natural order of 'the' body. This occurs so that ontological continuity can be maintained through practices that continuously translate body hair in relation to the interactions that it is encountered through; the development of 'Brazilian' and 'back, sack and crack' waxes constitute an continuity because they develop waxing practices, refine and re-establish relations between client and beautician and transform the potential display of bodies within smoothing culture. To continue to claim for a trope of smoothness is to emphasise the notion that body hair can be accessed and intervened upon in an array of ways that inherently change both the notion of what body hair *is* substantively (substance as formed matter) and the types of subjectivity that are fabricated through this changing ontology. Body hair is always-already being translated in endless sequences of extraction and deposition where is gets configured as a means of tracing an absent body as in forensic approaches to body hair, or as the evidence that discloses negligent professional conduct as occurs in legal cases concerning head hair and scalp burns or adverse reactions to hair colourants.

I have focused on body hair and the notion that its manageability allows subjects to materialise smoothness. Body hair is shown to be manageable and this shows, in turn, that the body is manageable. Body hair has become the site of intensive

regimes of smoothing that validate on an everyday and individual level, the more general category of 'the' body.

Body hair can be burnt off as it is now known that the follicles contain pigments that disintegrate under the force of certain laser beams ('Light Touch System' laser therapy promotional material, 2000). The skin can be treated with creams that prevent hair from growing in the first place (Jolen 'Shave Minimising Lotion', product packaging, 2002) and eyebrows can be dyed, plucked and tweezed into shape. The axial organisation of 'the' body as implied by popular science acts as an ontological framework along which smoothing regimes operate. It implies an always-already present body that body hair upsets and destabilises when it grows out of control. Body hair management, as I have already stated, becomes disclosed in smoothing culture as a means of asserting stability and security over body boundaries. Body hair is translated until it fits with this organisation; it is cut off, tweezed into shapes, and dyed into different shades. In these ways body hair is reconciled into smoothness. Its differences are reconciled into forms that demonstrate an inherent manageability. But part of the body that is smooth does not need managing and so body hair must be revealed by biomedicine to have substantive properties that simultaneously threaten smooth subjectivity and offer ways in which that threat can be reconciled.

The explorations of biomedical ontology reveal body hair to materialise an array of opportunities for intervention and these potential sites of intervention act to operationalise the smoothing of body boundaries. However, it was also claimed in

the previous chapter that biomedical ontology reveals body hair in ways demonstrate its need for maintenance and management. In short, biomedical ontology of body hair positions it as always-already resisting smoothness and so whilst purporting to reveal some essential nature, is actually engaged with offering body hair up as a site of body management. I claim this should be understood as a process of reconciliation and resistance. With each revelation about body hair, a boundary is fabricated and with each demarcation of a boundary, a resistance to it is produced. With this in mind, I look to the resistances that biomedicine inherently associates with body hair and the interventions the smooth subject must submit his/her body hair to in order to reconcile these differences. Of course, in the claim that becoming smooth is a process, I show how these forms of reconciliation always lead to further resistances'.

It is not that becoming smooth is never achieved, but that smoothness may be fleeting, partial and discontinuous. Biomedicine posits that smoothness is achievable and body boundaries can be secured, but this sits uncomfortably with the ontology of body hair it produces; body hair is always growing, always requiring intervention. I claim that becoming smooth is a process rather than a result and that this process is not always 'going smoothly'. By this I am referring to shaving-rash, in-growing hairs, waxing burns, depilatory cream burns, nicks and cuts and all of the effects of smoothing that occur when part of the body is cut off, burnt away, ripped off or pulled out.

- body hair- substantive resistances

Body hair is positioned as a substance that conceals the surfaces of the body and as an in-between substance that is both alive and dead and inside and outside of the body and so it occupies an uncertain position upon the boundaries of the body. As biological epistemology develops into the ontological concerns of biomedicine, body hair becomes coded from a universalised substance to a particular problem requiring specific, targeted treatments. It is through the maintenance of body hair and its smoothing into manageable forms, that the boundary of the body is both fabricated and maintained. This suggests that there is an inherent propensity for the body to seep beyond the limits identified by biology and enacted upon by biomedicine. This is the 'inherently untidy experience' (Douglas 1966:4) of the body; the propensity of body hair to grow and re-grow despite the technological interventions used to remove it. Its ambivalent position upon and within the boundaries of the body means that is has the potential to disrupt the modes of boundary distinction. It occupies a categorical position that is not just ambivalent, but its coding as either alive or dead, inside or outside, is not dependent on an essential nature but rather on the context in which it appears.

In this chapter to become smooth is shown to be a *process* that requires effort and investment; it also requires forces to be applied to the body in structured, and sequential ways in order to effect smoothness. Smoothness is an effort because body hair is always resisting the process of smoothing. According to the

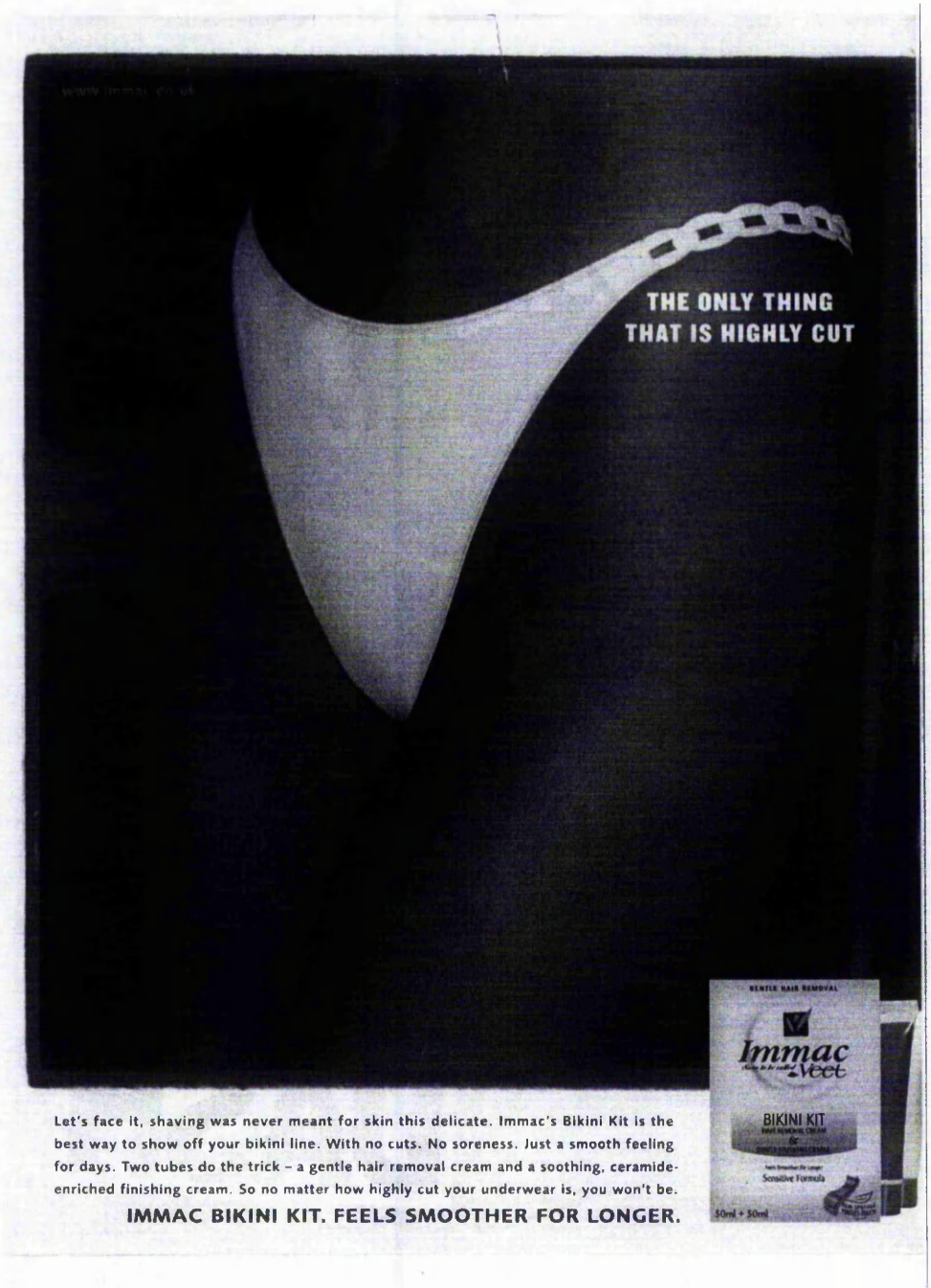
resistances that body hair manifests, the obstacles to becoming smooth are the effort in continual removal, the safety issues inherent in removing a part of the body and the effectiveness or specificity of treatments. However, smoothness is promised to be effortless, safe and achievable; the difficulty, the danger and risk and the ineffectiveness of smoothing regimes must be concealed. This is because they threaten the very systems of order that underpin smoothing culture (Kristeva, 1982). If body hair cannot be controlled, then the hierarchical schema of 'the' body is destabilised. Becoming smooth must be concealed, despite the notion that becoming smooth requires tools, techniques, arrangements of bodies and information to operationalise according to the trope of smoothness (Bogard, 2000). Becoming smooth is concealed because in smoothing culture the finish is important. The process is always-already succeeded by the results of smoothness. We should always-already appear as if we are smooth. This concealment occurs through the structuring, ordering and sequencing of becoming smooth as will be explored in the section that engages with the 'instructions on the pack'. But before this, I turn to depilatory adverts as they circulate within smoothing culture as a mediating device that proffer images of models that have become smooth, accompanied by the promotion of technologies that purport to collapse the difference between imagining smoothness and becoming smooth.

- adverts- promises of reconciliation

These effects of becoming smooth will be explored, but first I want to demonstrate that the smooth subject, in becoming smooth, is assumed to be in a

libidinal state of anxiety. After this focus on adverts, I theorise this process of anxiety and reconciliation in relation to smooth subjectivity in returning my attention to Kristeva (1982) and the notion of abjection. I am going to look at an array of adverts and pictures from 'lifestyle' or 'celebrity' focussed magazines as a way of showing how body hair is represented in smoothing culture as resisting smoothness and how these products and images operate to simultaneously acknowledge the anxieties and reconcile them. I employ an elementary semiotic analysis (Penn 2000 in Bauer and Gaskell (eds) 2000; Williamson 1978) which seeks to detect the forces of signification present in images, and the relationship these images assume with the viewer/consumer[1].

To show this I want to explore an advert for 'Immac Bikini Kit' which featured in Marie-Claire magazine, July, 2002. (Figure 4.)



(Figure 4.) 'Immac Bikini Kit' which featured in Marie-Claire magazine, July, 2002.

In this advert the image is dominated by the smooth, tanned skin of the crotch area of a female body with the face unseen. Cutting across the expanse of smooth, softly shining skin is the bright, white knicker line that cuts across the woman's hips in a 'highly cut' fit. The knicker line slices through the soft flesh to manifest a contrast with the curves of golden flesh. The woman's legs are slightly crossed but her hips juts forward towards the camera. The denoting of a faceless female form, crotch area on display, watched but not necessarily looking back, signals the detached view over a passive sexualised body. However, this advert is for a woman's magazine and I claim that it actually operates upon a different set of connotations. The legs are slightly closed to reinforce the non-sexual nature of the pose and the jutting hips signal a confident lean towards the camera. The pose is inviting but also intimates secrecy and a notion of non-sexual, shared intimacy between the viewer and the model. The focus upon the crotch area asks the viewer to look closer, to inspect the area in order to check if any pubic hairs are on display. Ordinarily pubic hairs would be tufting out from over the knicker line but this expanse of bare flesh is utterly and effectively depilated, the connotation being that the viewer can take a really good look because that is what they have to do if they wear knickers like this. Compare and contrast, have a really good look, the model doesn't mind because she knows she is smooth.

This inviting, confident and conspiratorial pose operates as a reconciliation of the resistances about removing pubic hair that are relayed in the text of the advert. In the main frame of the advert, to the right, positioned by the string of the knickers is the text: 'the only thing that is highly cut' which suggests the notion of being

'highly strung' or and insecure. This belies the anxiety and insecurity that can accompany a revealing of the body of its most intimate areas. The insecurity manifests itself in the fear of being 'caught out' or exposed as being in possession of a body that is not under control. The bikini line can be an insecure area of the body as pubic hair often grows beyond the confining apparatus of knickers. The notion that a single, residual hair can destabilise the whole process of becoming smooth is reinforced by the expanse of bare skin. This acts to increase the chance of a hair being found which in turn allows the security of the product's effectiveness to be demonstrated as the skin is indeed, totally depilated.

The text in the lower part of the advert is where the resistances of body hair are located. The process of becoming smooth is stated and the anxiety inherent in the smooth subject in any attempt to achieve this smoothed state in their own body is exposed. By using the word 'cut' the advert signals the anticipation of hair removal using a razor. The resistance that pubic hair manifests when removed by razor blade is explicitly expressed: 'Let's face it, shaving was never meant for skin this delicate. Immac's Bikini Kit is the best way to show off your bikini line. With no cuts. No soreness. Just a smooth feeling for days.' The idea being that development in the technology has surpassed the make-do aspects of razors. The blade is posited as undiscerning and harsh- liable to cut and make the skin sore. The blade does not 'fit' the skin in this sense, it is not appropriate, efficient or fundamentally smooth. The blade and the bikini-line do not fit together smoothly. The other idea that is promoted here is that there is a specialisation of product for specific areas of the body. The technology has itself been refined and smoothed

into specificity. The resistance that pubic hair manifests is reconciled by the promises of the product and reinforced through the model's smoothed body that represents an overcoming of these resistancess.

I also want to analyse another advert that engages with this theme of pubic hair and the difficulty in becoming smooth in this area of the body. 'Veet Bikini Kit' featured in Company magazine, September, 2003 issue. (Figure 5.) This appeared again, in a woman's magazine. This advert confirms the assumed position of the smoothed subject in relation to smoothing culture in a subversion of expectations over display of the pubic area.

This image is dominated by the cropped figure of a white female in a white bikini, face concealed, adopting an open and inviting pose. The model is pictured reclining in this exhibitionist pose against a tropical backdrop of a palm-fringed, white sandy beach. It is in the accompanying lettering that the significance of the image is signalled by the phrase in white: 'this summer put stubble trouble behind you'. It is a product specifically for the pubic area and attention is diverted for a more close inspection. It is the female figure that commands the viewer's attention, the connotation being that whilst she is shown with face concealed, the viewer can focus intently upon her figure and as the viewer's gaze moves across the image, it is comes to rest on the pubic area. Between the woman's legs, poking out like errant pubic hairs, are the fringes of a palm tree. At first glance the palm tree branches look suspiciously like tufts of escaped pubic hair and so the viewer focuses in before the connection is made. This advert operates on several levels

that disclose some specific aspects of smoothing culture. The advert denotes a holiday product for women- this concept requires no translation. But it is the pose of the woman and the play on looking and being caught looking that reflects the trope of smoothness in a specific way. In smoothing culture smooth subjects are always-already expected to be smooth. To be 'caught out' becoming smooth is to demonstrate that body hair management is a process not an end-result. The 'defensive position' (Kristeva 1982) that the body must adopt in relation to its waste material is subverted here as the woman's pose invites the viewer to inspect the contours of the body in its open, confident pose.

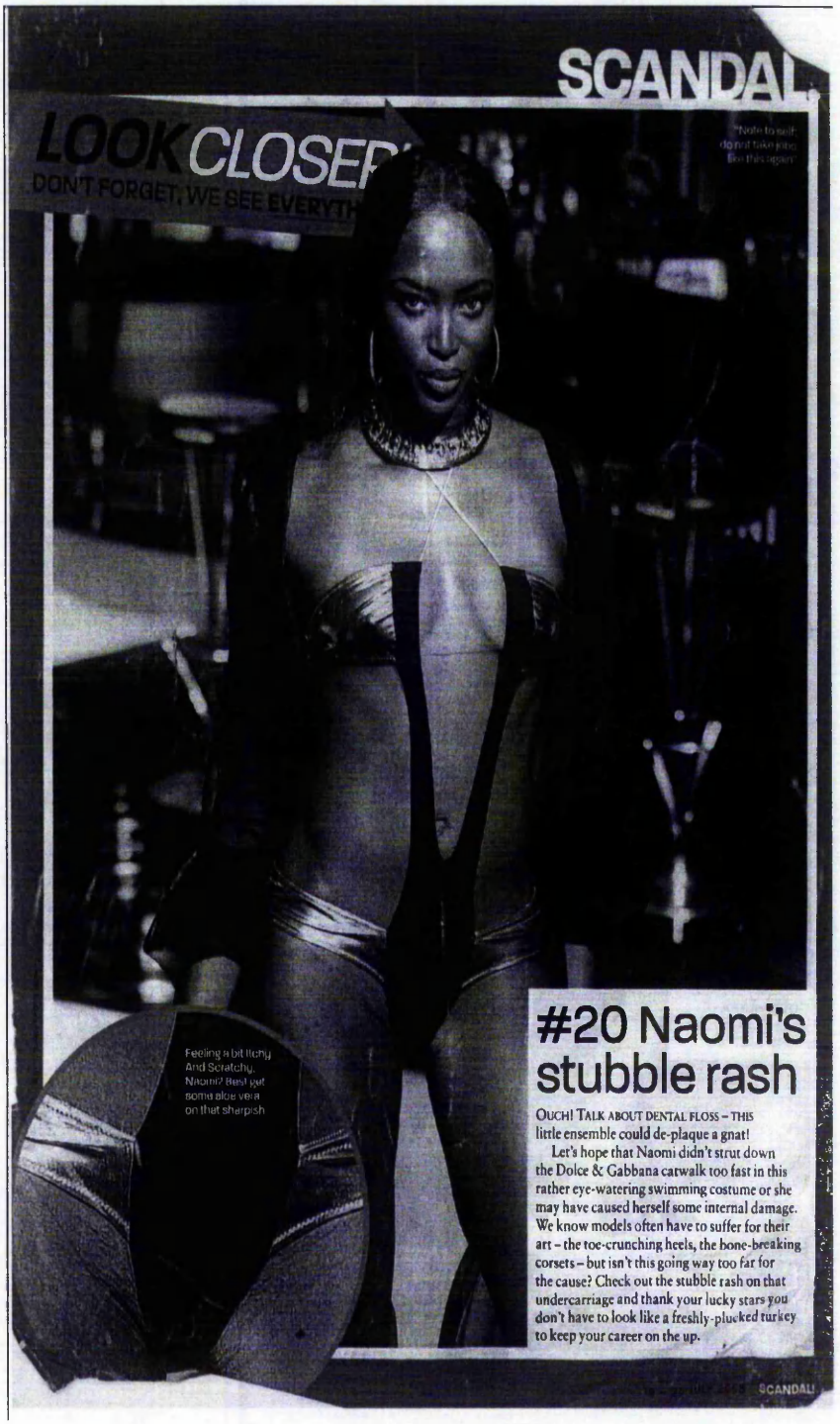
(Figure 5.) 'Veet Bikini Kit' featured in Company magazine, September, 2003 issue

These adverts operate to reconcile the difficulty in removing coarse, deeply-rooted pubic hairs and the notion that this technology to operationalises becoming smooth. The promoted product operates on a different stratum, as it does not inadvertently remove a layer of skin as razor blades do, but intersects upon pubic hair in a different way. Depilatory creams contain a substance that dissolves the structure of hair by intervening upon keratin, the basic component of hair. Because the structure of the hair is broken down, the hair fragments and can be scraped off the skin. These chemical depilatories operate to intervene upon hair that is already growing from the skin. It does not penetrate the layer of the skin and so is posited as protecting this bodily stratum. The notion in the adverts of

'for longer' denotes an acceptance of the limits of the product; that they do not act on hair that is still within the bounds of the skin. However, in the 'finishing' creams that come with the product act to penetrate the skin surface and deposit a layer of chemical that resurfaces the hairless skin and reinforces the smoothness imparted by the product. This 'finishes' becoming smooth. Until of course, the hair begins to sprout forth again.

A contrast to these smoothed images and the smooth subjects they represent come in the form of a 'Heat!' magazine, July, 2003 expose of a famous catwalk model and her bikini line 'stubble rash'(Figure 6.). The semiotic devices are used this time to subvert the process of resistance and reconciliation. In this photograph, the model takes centre stage and her pose with legs apart, arm pushed back and chest jutted out denotes a sexually confident and open pose that presumes and anticipates a sexually attentive gaze. The 'rather eye-watering swimming costume' reveals a pubic area that has been depilated but is in the process of growing back, and shows evidence of the resistance that pubic hair offers smoothing regimes. The picture features a close-up on the left of the page showing in graphic details, the 'stubble rash' and the shafts of pubic hair that are beginning to emerge from the skin. This 'stubble rash', according to the beautician I spoke to, is actually post-waxing in-growth. That is "when you wax hair away, you literally rip it out of the skin, roots and all. So, when the hairs grow back, sometimes the skin has already grown over the hole so to speak. So it can't get out of the skin and turns in on itself and makes little bumps like these. A way to get around this is to exfoliate or scrub the skin away to expose the hair so

it can grow out ok. Sometimes though, in-growth can get infected and you need to get that sorted out at the doctors." This attests to the notion that with every act of becoming smooth, with every reconciliation, a resistance is fabricated. The pose and initial inspection denotes a confident relation with the viewer that is subverted as the viewer realises that everything is not 'going smoothly'. Removing pubic hair is shown to pose problems when it begins to grow back. The adverts fixed their images at the point of removal and the end-result. This stubble rash exposes the process of becoming smooth and the notion that pubic hair does grow back and in order to remove it, there has to be some growing, and so there is always the risk of exposure in the time between removal, regrowth and the next opportunity for removal.



(Figure 6.) 'Heat!' magazine, July, 2003

Again, the beautician had to say this: "When you wax, you need a bit of hair for the wax to grip onto. Because the wax and the fabric strip can only grip hairs that are at least five millimetres long. So, you need to let it grow out a bit in between treatments." This photograph and the quote from the beautician illustrate a central aspect of becoming smooth, that it is a *process that needs to be concealed* if smooth subjectivity is to be maintained.

- 'look closer! 'don't forget, we see everything'- concealing the process of becoming

No one subject can identify their individual body in an exact way, with the representations of the body that appear in encyclopaedias or medical textbooks. These images are always-already abstracted, a perfected and ultimately smoothed version of ourselves. However, on a daily basis we can maintain our bodies in ways that do reflect these idealised representations. The general is kept intact by the particular; 'the' body within smoothing culture is realised in every daily chin shave, every laser-treatment course that is booked and with each waxing strip that is ripped off the skin. Cultural smoothness as dependent on the construction of order and the systematic putting-into-place of objects and bodies.

Body hair is coded as waste material and it must be effectively smoothed from the body, disposed of and these smoothing practices should be concealed if possible. There is an inherent tension between the waste that is always-already coded as dirt, becoming smooth and the process in between where the 'dirt' has to be

actually dealt with. Part of becoming smooth is the notion of concealing the process of becoming smooth. This picture from 'Heat!' magazine, August, 2003 shows a pop singer 'caught out' by her hairy armpits (Figure 7.).

(Figure 7.) 'Heat!' magazine, August, 2003

The presentation by the singer of a 'super-polished' image is resisted by the sprouts of armpit hair that shows she has been 'caught out' by her body hair. In the adverts for depilatory creams, the viewer was invited to inspect the skin for any traces of hair. In this photograph the viewer's attention is brought to the hairy armpit as it is circled and a comment attached. Instead of the view being invited, the body hair is exposed in a way that implies the viewer was not meant to see the hair but instead this becomes the focus of the whole picture. This notion that an errant body hair upsets the view across the body is disclosed in these extracts from these conversations: " A lady at our work has this hair growing out of her neck, near her ear and it is so thick and long I can't help but notice it every time I see her... I keep thinking she'll see me staring but I just can't help it." And "I've got this gross hair that grows here (points at neck) see?... I tweeze it out but you have to let it grow a bit first and I'm always paranoid that people might see it." This reader's letter from a magazine in a section titled 'Cringe' repeats this sentiment:' ...As I was admiring her dress, I noticed some fluff spoiling her plunging neckline... here, let me pull it off for you.' Imagine my embarrassment and mine when the 'thread' was actually a long, dark hair attached to her chest.' (New Woman magazine, April, 2001). The notion that a hair growing out of place upsets the process of becoming smooth through an inherent disruption to the reconciliation that complete hair removal manifests. Every hair, even a singular one as suggested above, comes to represent the un-containability of the body and acts as a reminder that becoming smooth is a continual and high-maintenance series of operations. This quote from a mother talking about her teenage daughter

who had begun to shave her legs illustrates this sentiment: "When I saw she had shaved her legs, my heart sank because she had really fine, blonde hair that you could hardly see. And I told her 'once you start shaving you have to keep it up 'cause it makes it go darker and thicker so you'll have to keep shaving it. I don't think she knew how much hassle it is 'cause even one black hair on your leg looks awful and now she'll have loads". In this way, the coarse edge is constructed when a razor blade is used on body hair; this requires ever more intense regimes of management to avoid being 'caught out'.

This getting caught out also extends to becoming smooth through salon treatments. The salon treatments such as waxing or laser-treatments occur in private settings in a confidential manner. This is a means of extracting the client from 'everyday' life and concealing the processes by which they become smooth. Beauty therapists also dispose of all waste materials that are generated in the process of smoothing away body hair: "we use clean, new equipment every time, we change towels, spatulas and everything. We dispose of all of the stuff like the old wax with all the hair in it and we wash and clean the unit that we laser with because even though you use a conducting gel, there are still traces of the burnt skin on it." This process of disposal directs the flow of bodily 'wastes' away from the body even when they have left the body for: 'nothing must escape coding'. (Deleuze and Guattari 1987:142). In this way the abjected body parts continue to be coded and controlled as they flow through smoothing culture (Roderick ,1997) because, especially with body hair, they have a propensity to reappear. Biomedicine revealed that body hair is not easily displaced and it is a durable

product of the body. Beauticians have to operate to direct the flow of wastes around the salon, as this beautician reveals when asked about any procedures that are followed to keep the salon in a clean and hygienic order: "First, when you rip off the wax strip, you always bin that, and do it in a way that the client doesn't see all the hair and old wax. Then you clean away the towel, wipe down the surfaces in between each treatment. You mop the floors afterwards, pour the dirty water down the drain at the back. So, yeah we do follow procedures so that everything is kept clean for our clients." The sequence of order of becoming smooth requires both the redirection of bodily parts and the subsequent redirection of those bodily parts into other smoothing systems such as drainage systems, laundry-cycles and post-treatment sterilising procedures.

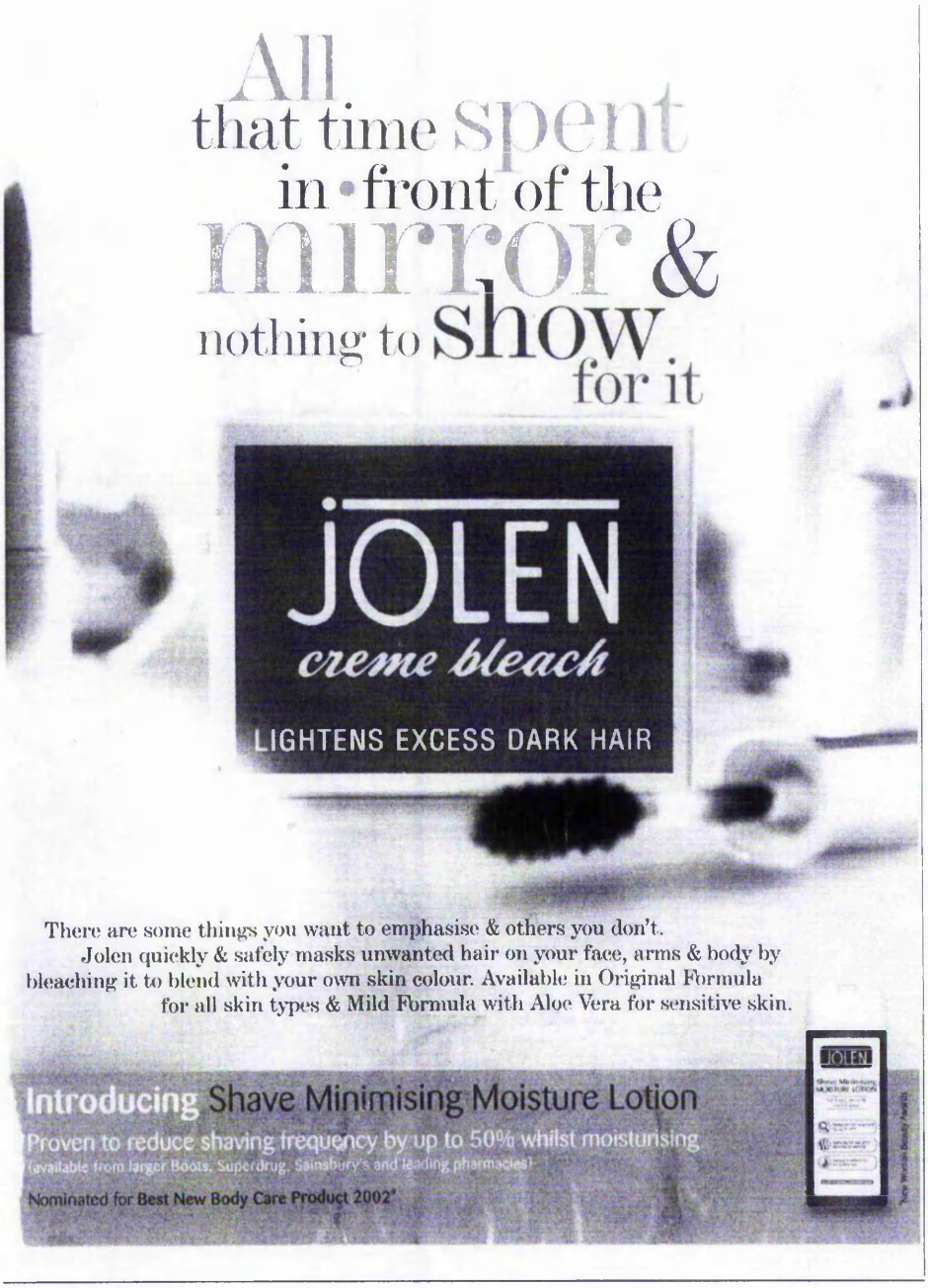
It is not just that removed body hair is waste, but that it symbolises for the body, the notion that that one body could get mixed up or contaminated with another through encounters with their residual traces. This in turn threatens the ontological security of the individual, self-contained body from which smooth subjectivity emerges.

Clients also present themselves to beauticians in ways that disclose that becoming smooth precedes the operations of experts: as this beautician claims: "well I definitely see girls who have had a quick pluck of shave before they get here. You can tell and sometimes you can bring it up, politely of course, and they always say 'oh, I know but I am just so hairy that I was really embarrassed' and then you can

say 'don't worry'. But I just think that they are coming to get a treatment but they don't even want me to see how hairy they are!"

In this quote I acknowledge that becoming smooth must be concealed, or at least the effort that goes into this must be hidden because it attests to the difficulty in removing hair from the body. The previous adverts intervened upon body hair as it left the surface of the skin and were concerned with removing hair as a means of resurfacing the body to become smooth. In the next advert, it is the temporal aspect of body hair and its cyclical growth which allows the product to intervene upon body hair. It is the text in this advert for 'Jolen Creme Bleach' as featured in Marie-Claire magazine, 2002 (Figure 8.) that is attended to: 'All that time spent in front of the mirror and nothing to show for it.' The text operates to acknowledge the anxieties that time and effort can be expended in the process of becoming smooth and that this is expected to be disclosed through effective treatments that simultaneously attest to this effort and operate to conceal it: in this case, by making the hair invisible. The cream bleaches out the pigment in the hairs and 'lightens excess dark hair'. The text acknowledges the resistance of hair in its propensity to grow in noticeably dark form and in excessive amounts but this text is placed at the bottom of the pack and the product name and function above this acknowledgement implies that it can be resolved by the effective force of the product. The product intervenes with the hair once it has grown out of the skin surface but it does not seek to remove it but to 'mask' it instead. By referring to the mirror, a connection is established that implies the viewer is themselves looking into a mirror. But all that appears is the text and product picture, the

viewer's face is not shown; he/she are rendered invisible. This is not a negative implication; rather it operates to demonstrate that the viewer would not even have to look in the mirror to inspect for 'excess hair' because the product would have always-already dealt with it. All that is left is the product, the text and an already absent smooth subject that has already become smooth.



(Figure 8.) 'Jolen Creme Bleach' as featured in Marie-Claire magazine, 2002.

- following the 'instructions on the packet'- becoming smooth

There is an inherent tension between body hair as waste that is always-already coded as dirt, and becoming smooth and the process in between where the 'dirt' has to be actually dealt with. Kristeva's notion of 'abjection' (1984) alerts us to the processes through which parts of the body are channelled away from the body through rituals or practices that seek to defend the body from its own flows and bodily cycles, that attest to the permeability and instability of subjectivity. As Grosz states:

> 'There is an 'intermediate' category of objects, midway between the inanimate and the bodily. These are various 'detachable' parts of the body, its excretions, waste products, and bodily by-products... these 'objects' that were once part of the subject's body... Detachable parts, separable parts of the body- urine, faeces, saliva, sperm, blood, vomit, hair, nails, skin- retain something... of a body part even when they are separated from the body.' (Grosz 1994:81)

I claim that body hair removal needs to be concealed and contained through ordering practices or 'instructions on the packet' so as to allow the smooth subject to minimise or collapse the difference between becoming smooth and being smooth. By following sequences of removal, by disposing of the 'waste' in

sanctioned and 'hygienic' ways, these body parts are encountered and dealt with as objects-becoming waste rather than as an actual body part. Following prescribed instructions to become smooth also signals the notion that flows of waste in conjunction with tools and techniques must be directed around the body to fabricate smoothness.

The instruction booklet for this home waxing kit shows clearly (Figure 9.), the 'step-by-step' approach that allows the smooth subjects to manage their experience of hair removal by following a prescribed and pre-set sequence. The instruction booklet for 'Immac Aquasystem Warm Wax Roll-On' is structured according to assembly of the product, application of the wax according to body part to be depilated, refilling the unit and cleaning it. This diagrammatic sequence of pictures discloses becoming smooth as a sequenced set of procedures that has distinctive temporal and spatial dimensions and involves a mixture of water, temperature regulation, timing, testing, application, physical action and information to consider after the process has occurred. Kristeva posits that subjectivity is connected with the separation and integrity of the body, but that this subjectivity is always-already questionable; it is a process not a fixed materiality, not because there are more general, cultural identifications of the body that subvert its singular autonomy but instead that on an individual and everyday level, the body is always experienced as provisional. I continue to state that body hair attests to this leakiness in its inexorable growth and regrowth.

Following Kristeva's notion of abjection, I look to how beauty therapy operates to get rid of body hair; a form of cosmetic surgery. The notion that body hair can be literally removed is a means of allaying the anxiety that body boundaries cannot be contained. By removing hair, the problem is literally removed and even though hair re-grows, a monthly waxing treatment can keep leg or armpit hair 'under control'. This sets into motion a process where treatments defend the body against hair. Body hair management manifests a 'defensive' position because it can be mobilised to secure body boundaries. It can be removed to literally amputate the 'problem'. This demonstrates how body hair is treated as an abject substance and how removal acts as a defensive manoeuvre. However, I contend that Kristeva, on focussing on the systematic management, coding and removal of body hair and the subjectivity that emanates from the directing of bodily flows, inherently relies on a biomedically essentialist account of the body. The flows of the body are coded and are used as a way of fabricating and defending smooth subjectivity.

> 'Never used wax before? Here's a step-by-step guide to perfect results and, we promise, your legs really will be smoother for longer.' (Immac Aquasystem Warm wax Roll-On Promotion in Marie-Claire magazine May, 2002)

The instructions are detailed and exact and follow a designated order. Becoming smooth is about directing the flows of the body in specific, coded way where they intersect with technologies such as this waxing system. The qualities of the product impart specific smoothing effects and specific modes of being directed

around and away from the body. The wax is promoted as viscous, fluid and 'easy to rinse off'. The substance is pliant, it moulds to the surface of the skin in a 'thin layer' that grips the hair shafts and attaches itself, forming a new surface. This surface is then bonded to another surface- a fabric strip- and this assumes the form of a new surface that contains these different elements. These heterogeneous elements are made to homogenise within a surface that has as its purpose, the removal of the hair and the enactment of skin smoothing.

A depilatory instruction leaflet in a way brings attention to becoming smooth as an assembled arrangement involving a diverse array of artefacts and the body. (Bogard 2000) It appears that becoming smooth requires that everything is in order, the body is positioned correctly, that the application unit has to positioned correctly and rinsed properly afterwards. But it is not just that orders have to be followed. These orders are reinforced by a series of warnings that act to show when an order is going out of sequence or a procedure is not 'going smoothly'. Initially this takes the form of contra-indications or factors that suggest that the product will not 'fit' with the user because of: 'spots, cuts, varicose veins, beauty spots, broken, irritated or sunburnt skin, or skin that has suffered an allergic reaction to waxes in the past'. This presumes a differentiated consumer *before* the product is applied (and so assumes that if these contra-indications are followed then this makes the application of the product more specific and effective). However, even when this sequence of orders is followed and all precautions have been taken, the risks involved are still apparent even if the subject is now smooth: 'after waxing, it is likely that the skin will be slightly red. This effect will

disappear within 24 hours. To relieve discomfort, apply a cold compress. In the case of sensitive skin, poor blood circulation, stinging, burning sensation or bruising, apply a cold compress to the skin. If this sensation persists, seek medical advice' (Immac 2003). This is the damage to the body that occurs when instructions or the orders are not followed. This is the literal damaging of the body that also signifies the damage to the systems of ordering the body within smoothing culture. The body that transgresses the boundaries of prescribed action risks the well-being of their body in the process. I look here to the 'instructions on the packet' as a way of demonstrating how becoming smooth requires a simultaneous acknowledgement and reconciliation of the resistances that body hair manifests.

Following instructions is the imagining that through the repetition of order, the body and body hair can be made to conform to smoothness. However, this depends on body hair remaining the same and the context remaining the same. So body hair cannot be extracted from its context because it mediates the relations between the boundary of the body and the external environment and its removal places the skin in a new context that may be harmful and fabricate new forms of resistance.

Immac

IMMAC AQUASYSTEM WARM WAX ROLL-ON : HEAT WITH HOT TAP WATER

PRECAUTIONS: READ BEFORE USE.

WARNING: OVERHEATING WAX CAN CAUSE BURNS. FOLLOW DIRECTIONS FOR USE

(1) BEFORE WAXING

- If you are using IMMAC AQUASYSTEM Warm Wax for the first time, or on a new body part, always test the wax on a small part of the area you wish to treat, following the directions for use. Wait 24 hours before using properly to ensure you have no skin reaction.
- Do not use on spots, cuts, varicose veins, beauty spots, broken, irritated or sunburnt skin or on skin which has suffered an adverse reaction to waxes in the past.
- IMMAC AQUASYSTEM can be used on legs, underarms, bikini line, and arms but is not suitable for use on the face, breast, perianal or genital areas.
- Waxing is not suitable for diabetics, the elderly and people taking prescribed medication for acne.

(2) WHEN WAXING

- It is important to hold the skin taut with one hand before removing the strip. Remove the strip in one swift and decisive movement peeling against the direction of hair growth (ankle to knee). Peeling it off slowly will cause discomfort.
- When removing hair, never lift the strip upwards as this may cause bruising. Keep it parallel and as close to the skin as possible.
- If the wax feels too hot when applied to the skin, wash off with cold water.

(3) AFTER WAXING

- After waxing, it is likely that the skin will be slightly red. This effect will disappear within 24 hours. To relieve discomfort, apply a cold compress.
- In case of sensitive skin, poor blood circulation, stinging, burning sensation or bruising, apply a cold compress to the skin. If this sensation persists, seek medical advice. #155699

DIRECTIONS FOR USE

WARNING:

- *OVERHEATING WAX CAN CAUSE BURNS*
- *DO NOT HEAT IN MICROWAVE OR SAUCEPAN WITH BOILING WATER.*
- *DO NOT HEAT WITH BOILING WATER FROM THE KETTLE.*

IMPORTANT

- *Hair removal is effective only if the hairs are at least 5 mm long.*
- *Make sure the skin is clean, dry, not irritated and free of creams and oils.*
- *Read the precautions and the leaflet carefully before use.*

- 1 - HOW DO I ASSEMBLE THE ROLL-ON APPLICATOR? -

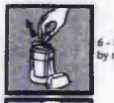
1 - Remove the Blue Cover

2 - Remove the roll-on applicator by lifting tag and remove the wax refill

3 - Allow the tap water to run until it is very warm (between 55°C and 60°C, too hot for the hand to bear for any length of time) BUT NOT BOILING

4 - Fill the reservoir up to the MAX line.

5 -Reinsert the wax refill and press firmly so that it clicks on to the top of the container.



6 - Remove the protective foil seal and ensure that the refill is fixed by running thumbs along edge of refill, pressing down firmly.

7 - Ensure that the applicator is dry and press down onto the bottle until you hear a clicking noise. Check that the applicator is firmly fixed onto the neck of the bottle.

8 - Wait 3 minutes, timed by your watch, until the wax is ready. Leave the bottle the right way up.

- 2 - HOW DO I KNOW IF THE WAX IS READY TO USE?-

- Carefully test the temperature of the bottle with your hand to ensure it is not too hot to hold. If the bottle is too hot, place it in a safe place and wait for it to cool down sufficiently.
- When it is ready, the wax should be liquid. Turn the bottle upside down and run the roll-on applicator without squeezing it on a strip until a layer of wax appears. The roll-on should turn easily and be coated with wax. If this is not the case, wait one minute, keeping the product in the upside down position.

- 3 - HOW TO APPLY AND REMOVE THE WAX -

IMPORTANT - READ BEFORE USE

- *When you are satisfied the wax is ready to use, carefully apply a small amount of wax on your wrist to ensure the wax is not too hot. If the wax feels too hot, leave for a minute before trying again.*
- *DO NOT SQUEEZE THE BOTTLE, the wax will naturally flow towards the roll-on while in the upside down position. If the wax in not rolling out smoothly and easily, it is not warm enough.*
- *If this occurs at the beginning of the hair removal session, wait for a further minute keeping the product in the upside down position and try again.*
- *If this occurs during hair removal, the water may not be warm enough: empty the reservoir (see part 4) and refill with hot tap water.*

LEGS

How should I apply the wax?

1- Hold the roll-on applicator bottle upside down with the thumb on the back of the bottle and the fingers on the front of the bottle. Do not squeeze the bottle.

2- Roll the applicator slowly down the leg in the direction of hair growth (from knee to ankle) leaving a thin layer of wax on the leg. The area covered by the wax should be shorter than the area covered by the strip. One layer of wax is sufficient. Never cover the whole leg with wax in one go.

Between applications, keep the bottle upside down in the blue cap (use the wedge on the lid to balance the bottle).

How should I apply the strip?

Immediately place the strip over the layer of wax, smoothing it on in the direction of hair growth (from knee to ankle). Ensure about 1 cm at the bottom of the strip is wax-free to grip when removing.

How should I remove the wax?

Hold the skin taut with one hand and with the other hand, grip the bottom of the strip. In one swift and decisive movement, remove the strip, peeling against the direction of hair growth (ankle to knee). When removing hair, never lift the strip upwards, but keep it parallel and as close to the skin as possible. Repeat as necessary.

EACH STRIP may be used to remove a layer of wax up to 3 times.
Once used on one side, two strips may be stuck together and used double.
After use, strips may be rinsed with water in order to re-use for the next hair removal session.

Only use on underarms or bikini line if you have experience with waxing.

UNDERARMS

How should I apply the wax?

Cut the fabric strip in half.
Underarm hair tends to grow in 2 different directions, so it will require removing in 2 stages.

Lift the elbow up and well back and hold the skin taut with the same hand.
Apply the wax by rolling upwards towards the elbow for the upper part of the underarm.

How should I remove the wax?

Apply a fabric strip in the direction of hair growth (towards the elbow). Smooth firmly.
Then, holding the skin taut, immediately, swiftly remove the strip downwards, against the direction of hair growth.
Then, for the lower part of the underarm, repeat the process in the opposite direction.

BIKINI LINE

How should I apply the wax?

Cut the fabric strip in half.
Only use on small areas at a time.
Holding the skin taut, apply a thin layer of wax in the direction of hair growth.

How should I remove the wax?

Immediately smooth on a fabric strip. Hold skin taut with one hand and peel off against the direction of hair growth with the other hand, keeping the strip parallel and as close to your skin as possible.

- 4 - HOW DO I REPLACE THE REFILL ? -

1- Remove the blue cap and the roll-on applicator by lifting the tag
2- Take out the empty wax refill by pushing on the side with your thumbs and throw away.
3- Empty the water from the reservoir.
4- Rinse the applicator with warm tap water and dry it thoroughly. (A single drop of water can affect the performance of the wax).
5- Insert the new wax refill and follow instructions 3 to 8 in part 1 to heat the wax.

- 5 - AFTER USE -

IMMAC AQUASYSTEM warm wax roll-on is water rinsable, allowing you to wash off any residual wax. Once you have finished removing hair, follow the instructions mentioned previously to empty the reservoir. If wax remains in the refill, store the right way up to avoid leakage.

The Aquasystem heating method has an International Patent Application pending.
IMMAC, VEET and AQUASYSTEM are trade marks.

(Figure 9.) 'Immac Aquasystem Warm Wax Roll-On'

However, I want to claim that becoming smooth requires more than body hair. It requires an arrangement of the body, tools and techniques according to specific instructions. Kristeva continues to connect her conception of abjection to a body that cannot be transcended. The matter of the body is translated into a series of substances that that are directed and limited in various ways that operate to configure subjectivity in terms of the limits and defences against these bodily flows. The body 'itself' has to be accomplished; this is what body hair discloses through its many manifestations and forms.

Becoming smooth operates on the surfaces of bodies and between them. Structures and identities seek to fix the body and subjectivity, but I have shown that this is inherently and insistently problematised by body hair. This produces a challenge to the basic unit of biomedicine in the individuated body, and the autonomous subjectivity of smoothing culture.

> 'The problem with this conception is that it pre-judges questions of evolution...by individuating organisms without due regard for the 'complexity' of their becoming.' (Ansell Pearson 1999:148-149)

It has been demonstrated so far in the thesis that body hair is never 'going smoothly'. A theorisation of the in-betweeness is found in 'becoming' and the potentials that this concept unleashes for the body. Whilst I am not concerned with an explicit critique of Deleuze and Guattari (1987) as used by Bogard (2000), I follow their notion of the subject as a collection point of an infinite and random

flow of impulses, flows and connections of an array of disparate elements. Selfhood and the body are the boundary sites around which these forces and arrays of elements meet, overlap, connect and disconnect. Body hair is an assembled arrangement as I have shown which disrupts and challenges the division of the world into 'coordinated parts- fixed truth, knowing subjects and simple representation.' (Mansfield 2000:139) Deleuze and Guattari (1987) in *'A Thousand Plateaus'* seek to reveal the complexity of 'things'; bodies, tools, utterances, as a way of freeing the body from the linear, derivative and fixed structures of the arborescent schema. Body hair imagined in this way escapes the functional categorisations of biomedicine. These forever reproduce body hair in the same way without ever acknowledging the complexity it represents within in the varied contexts in which it appears.

> '(N)ot fixed structures, but sites of continuous organization and disorganization; they are loci of force and power relations that construct and deconstruct… as a surface effect.' (Bogard 2000:273)

This reading connects with the exploration on body hair that I have charted as it escapes the fixed structures of the narrative of relations and focuses on body hair as it materialises itself in the multiple connections between hand and hair, eye and razor, advert and product, sweaty scent and smoothing lotion, wax strip and hair follicle. And also with the effects of these extractions and depositions; razor burn, in-growing hairs, stubble-rash and the way in which these constitute new assemblages that then fabricate still further opportunities of becoming smooth in

post-shave balms, specialist shaving preparations, pubic hair dyes and decorations. Without recourse to these fixed structures of meaning and identity, body hair can be conceived of in all its complexity rather than always having to be relegated to the margins of the body as a redundant sensory organ or a waste material. The materiality of smoothing, of producing hairless skin is realised through a resurfacing, a re-sculpting of a boundary that in turn reinstates that body boundary; the actions of shaving, waxing or tweezing for example and their restoration of a smoothed, hairless skin surface. In the bathroom the trajectory or the sequential development of the razor and the machinations of its ergonomic development collide with coarse underarm hair that in turn collides with agendas of scent and secretion and territorial markings. This is the realisation of shaving; when these differing elements meet in a banal battle of hair removal.

What is the play at these margins? It is the exteriority through which we conceptualise and bound embodiment. The human here is understood as a component of a machinic assemblage or network, and thus the razors, creams and behaviours that collide at the point of blade upon skin are not extensions of a body already formed, autonomous or independent. Instead they are forces of materiality that exhibit their own limits, agendas and trajectories but that resonate together as a moment of blade upon skin.

Centrally, the reinforcement of a specific conception of embodiment as espoused through anatomical biomedicine permeates conceptions of body hair. I consider that the strategies of biomedicine occur in order to secure the status of the

knowledge it produces. Yet it is the logic and representation of a specific type of corporeality that permeates and extends itself into a diffuse array of arrangements because the axis upon which biomedicine is ordered has specific effects upon the conception of the body. It is the entity of the body that is the central agent of these arrangements. Isolating the scope of biomedicine explanative permeation's of the body denies us the opportunity to address the coding of body hair, the technologies that are developed to deal with this bodily manifestation, and the forms of knowledge through which we understand its anatomical functions and purpose. This organismic permeation should not be reduced to a strategy but should instead be conceived of as an 'assemblage' (Ansell Pearson 1999, 1997, Deleuze and Guattari 1987) or an assembled arrangement of human and non-human bodies, technologies, representations and strategies that appear to converge as the body.

But why is this arrangement ordered and maintained in certain ways? What is it about smoothness that is reflected so clearly in body hair management? Smoothness has been signalled thus far in relation to body hair management and as a way of understanding the biomedical production of bodies. The explorations in previous chapters on biomedicine and the practices of body hair management are to be set in a wider context with a discussion and elaboration of smoothing culture. In the next chapter I explore further the historical, technological and technical aspects of smoothing; smoothing as a trope of social production.

- the mechanics of smoothing

> 'I ask the reader to imagine society as a production of 'smoothing machines'. Smoothing machines mark the surfaces of bodies... generally in term of purity or perfection... Many disciplinary technologies take the form of smoothing the body, understood as 'fitting' the body to a model of subjectivity and a functional regime.' (Bogard 2000:269)

In this final chapter I explore further the significance of a contemporary 'smoothing culture' to body hair to management. The smooth, individual, self-contained and autonomous subject is the central unit around and through which smoothing culture operates. A smooth subject has a body that is marked by regimes of body hair management; a machining of the body into smoothness. Smoothing culture *appears* under control, everything fits together as it should and everything is properly and efficiently managed and maintained. Smoothing culture appears to allow the smooth subject to be treated evenly, consistently, safely and comfortably. Smoothing is the creation of surfaces, the multiplication of surfaces, the fitting together of materials and subjects; the productions of the social. However, as has been demonstrated smoothing requires force, produces resistance and is to be seen as a process; a defence against the anxiety that the body must forever be engaged with shoring up a defensive position (Grosz, 1994; Kristeva, 1982; Douglas, 1966) and with fabricating smoothness. Exploring the cultural features of smoothing situates the body within a history that has smoothing as a

force of production. A focus on the mechanics of smoothing develops into a critique of technology. This is then related to smooth subjectivity and finally a theorisation of smoothness and 'becoming' (Bogard, 2000; Ansell Pearson ,1999, 1997; Deleuze and Guattari, 1987; Canetti, 1962) is advanced.

Smoothing has a lengthy technological lineage that is not innate to modernity (Bogard, 2000; Ansell Pearson, 1999; Deleuze and Guattari, 1987) but is explored here in relation to contemporary body hair management. If we see culture not as a machine, but *to machine* (Bogard, 2000) then we need to look at how this machining occurs.

To explore smoothing within modern culture requires an exploration of what is exactly meant by this term. Further, it is through this exploration that I find a fuller understanding of the qualities of surfaces and how they are encountered and theorised within modern culture: 'through the manipulation, or rotation, and inscription of the flat plane.' (Grosz 1994 :116-117) The body and body hair are treated as planes of inscription and these inscriptions of cultivation and depilation are dependent upon grinding, polishing and coating processes. Thus, the identification of a trope of smoothing depends on my signalling the very mechanisms through which these inscriptions are achieved; the civilising process of modernity finds expression in body hair management that is a form of extraction and deposition. The technical and mechanical features of smoothing; demonstrate how surfaces are constructed through the rearrangement of other surfaces. The creation of one surface requires the negation or overcoming of

another; fundamentally smoothing is a form of production that can be clearly seen in the practices of disclosing and managing body hair. The principles of grinding, polishing, abrasion and coating are reproduced contemporarily in biomedicine, cosmetic products, aesthetic notions of hair cultivation and in the processes of hair depilation.

A summary exploration of the abrasive process formulates a useful template with which to compare seemingly disparate aspects of smoothing culture. In smoothing culture the archaic forms of grinding techniques have continuously been developed and refined. However, it is now the body of the modern subject that is abraded, polished and smoothed in ways that are intensive, everyday and domesticated.

> 'It has been shown for instance, that grinding and abrasive technologies are basic to the production of the earliest tools, and to the origins of industry in general. Without them, it is difficult to imagine the development of human civilization, and indeed, such tools seem to almost to belong to the very idea of civilization.' (Bogard 2000:271-272)

> 'The history of grinding technology originates with the discovery of abrasive minerals, and continues with the development of abrasive products and machine tools to help satisfy man's perceived needs for manufactured products to ensure his survival and well-being.' (Malkin 1989:11)

There are several types of grinding, all of which are forms of abrasion; the removal of a surface through the contact with another harder surface or the process of scraping or wearing away of surfaces in contact with one another (Oxford Dictionary of Current English 1992). Polishing and coating are the 'finishing' procedures whereby surfaces are successively treated with substances that fill in minute perforations and produce a surface in a shiny, glossy and smooth refinement. The forces used to machine proto-tools into smoothness for human survival are now used ubiquitously to machine bodies into smooth subjects.

Grinding is used in many manufacturing processes to produce a fine surface finish on an object and to bring the size of an object to within very fine tolerances- using varying intensities of successive force to produce a specific effect or finish. Each step of the process is the successive repetition of the previous steps or the multiplication of surfaces. For many products grinding is only one step in a finishing process that involves additional similar operations such as honing, lapping, polishing, and buffing (Malkin, 1989; Rolt, 1965). It might appear that the buffing or polishing, for example, of surfaces requires less force but in fact, these are increasingly intensive forces. They operate on successively minute levels in a multiplication of surfaces. The more smoothed the surface, the more multiple its surfaces are. The production of an apparently singular surface is the fabrication of multiple, uniform surfaces that resonate together as a singular surface. There are extensive expressions of the surface relations and their features

and manipulations in modern cosmetic technologies and I wish to signal that smoothing techniques permeate many diverse disciplines and domains of modern culture.

The process of grinding occurs through the abrasive operations of many particles contained within a 'wheel' or homogeneous, abrasive object. This same mechanism can be identified in depilatory products. Heterogeneous elements that function as a homogenous force can be seen in the composition of a waxing strip, a depilatory cream, hair shampoo or post-shave balm. All of these appear as a functional mass, but are in fact constituted by minutely distinct particles or parts. Each exhibits a surface but functions to manufacture another surface; viscous molecules of depilatory wax attach to hair shafts and in hardening, form a mix of wax and hair that can be pulled from the skin surface through the application of a fabric surface. This mixture, of wax, hair and cloth form another surface that operates to produce a hairless and smoothed leg, armpit of chest. This might seem disparate from the process of a grinding wheel but the theme of surfaces, forces and fabrications of surfaces is the same. Grinding is all about the play between surfaces; one overcomes another, one surface wears away or dispenses with another: the fabrication and construction of surfaces is fundamentally applicable to the fabrications of smooth subjects.

But this wearing away is contained, controlled and fabricated into a useable form in the shape of a cutting tool: '(e)ach abrasive grain is a potential microscopic cutting tool. The grinding process uses thousands of abrasive cutting points

simultaneously and millions continually'. (Malkin 1989:9) In smoothing culture, the everyday cutting away of body hair from chins, legs, underarms and bikini-lines can be seen as a cultural elaboration of these grinding processes. Technology and the technics of smoothing are figured as central to smoothing culture because becoming smooth requires depilatory technologies. In the following section I explore further the relations between the body and smoothing culture through a of critique technology.

- *technology and smoothing*

Critiquing the relations between technology and the body signals that smoothing technologies, are, like biomedicine, operating upon on a set of assumptions. I explore the extent to which technology within smoothing culture operates to stabilise or destabilise the boundaries of 'the' body. I state that smoothing culture positions technology as a means of revealing the true 'nature' of the body whilst simultaneously concealing the role of that technology.

In smoothing culture ever more sophisticated technologies for bringing body hair under control are produced; razor blades come with 'new, improved' blades that are 'surrounded by soft cushions' have the razor that has a 'rounded pivoting head' that 'fits your every contour'[1] to guarantee a closer, longer lasting shave. 'Light Touch'[2] laser therapy promises 'gentle permanent hair reduction' in a

[1] Extracted from 'Venus' razor advert from Gillette for Women, as featured in Marie-Claire magazine, May, 2002.
[2] Taken from 'Light Touch' brochure, 2001.

treatment that is 'fast gentle and safe'. Waxing techniques such as the 'Brazilian' or 'Hollywood' remove hair from the genital areas in techniques that allow shorter and tighter underwear to be worn and for the body to be displayed in more explicit ways. Depilatory creams come with 'ceramide enriched finishing'[3] creams that add a layer of chemicals to the skin that smooth in to the skin to make the skin softer to the touch. When the prominent high street chemists, Boots Plc, claim to stock around 150 hair management products in most of their high street stores[4] and another chemist, Superdrug, around 100[5] and when the U.K. the cosmetic depilatories market was valued at £22.9m. in 1997 it can be claimed that technological body hair management is important to smoothing culture.

So, we appear to desire the qualities of smoothness and the comfortable fitting-in, the well-oiled, easy movement and the frictionless encounters that occur in smoothly measured blends and mixes. Smoothness is power, control, order and communication (Bogard 2000; Deleuze and Guattari 1987; Canetti 1962). Smoothness is perfection and the accomplishment of a quality that signals easy pleasures, comfort, cleanliness, order and effortless interactions. These features are the comfort, safety and convenience of modern, technological culture.

In smoothing culture technology is not about looking inwards towards a corporeal essence, but outwards towards a multiplying number of possible connections.

[3] Extracted form 'Immac Bikini Kit' advert from Veet, as featured in Marie-Claire magazine, May, 2002.
[4] According to Boots Plc *Press Office Information Pack*, issued in 2001.

Instead of a disconnection from nature and a destabilising of the boundaries of the body, the surfaces are rearranged into smoothness.

> '(T)he evolution of the human gets configured on this schema as if it could be simply understood in terms of a self-directed evolution...A 'machinic' approach, then, will not treat machines as projections of the human but rather in terms of 'monstrous couplings' involving heterogeneous components that 'evolve' in terms of recurrence and communications...Human are both component parts of a machine and combine with other forms of organic and nonorganic life to constitute a machine. (Ansell Pearson 1999:141-142)

The essence is taken as emerging from these connections in the fabrication of a smooth subject and in the refining of the 'natural' body into a 'smooth' one. These refinements can occur through biomedical technoscience, which constructs corporeal surfaces through the testing and application of specific ontology's. The apparent fixing of body boundaries that occurs in biology is actualised or operationalised in biomedical technoscience; at each turn a surface is made to stand for an essence. However in smoothing culture there is always a 'new, improved' version of 'the' body and so the surfaces of the body and technology are rearranged yet again. Technology can not be easily separated as something

[5] According to Superdrug Chemists, spokesperson from the Stockists Information department in 2002.

different from the body when the refining of the body depends so many of technological interventions. It is not the distinctions but the combinations of 'things' that is central to smoothing culture- but the combinations of 'things' that develop upon a premised that there were distinctive objects and subjects prior to the mixing.

The positive interpretation of technology, is as an add-on to the body that extends and intensifies the capacities of the body- this is intrinsic to the visions of modernity (Ansell-Pearson, 1999, 1997; Haraway,1991; Romanyshyn, 1989). This is a result of a particular, western historical trajectory that is anthropocentric. Technology however complex, is always added to a body already formed and authenticated.

In smoothing culture these promises have been developed into types of technology that can be incorporated into the body; hair depilatory creams, hair removal laser-beams, body hair retardant deodorants and scalp conditioners. This incorporation of technology operates on both the physical level of an addition to the body, and in the sense that technologies such as the razor are domesticated and form an intimate relation with the body:

> 'External objects, implements, and instruments with which the subject continually interacts become, while they are being used, intimate, vital, even libidinally cathected parts of the body image.' (Grosz 1994:80)

This is the repositioning of the body into another form or category which destabilises the distinction between the body and the machine.

So smoothness is both an essential actuality of an object and also an aspect of surface identity Smoothness in modern society equates with many things; speed, efficiency (Der Derian 1998; Romanyshyn 1989; Virilio 1977), sensitivity, fit and appropriateness. Let us look further at the culture of smoothness, in which smoothed bodies reside and explore further the cultural context of smoothing. The focus on technology is evidence of its pervasiveness within modern culture. Modern culture relates implicitly to technology as the 'social and personal impact of technology has become one of the defining issues of the present' (Mansfield 2000:148).

It is the tools and technologies of modern culture that demonstrate the positive manipulations of objects and bodies into smoothness, and the potentially opposing associations of manipulating these surfaces. Tools and technologies are reflections of power; of everything 'going smoothly'. And they appear as an admittance that there are always-already oppositions to smoothness; inefficiency, disorder, discomfort, contamination, risk and inertia. Tools range from early forms of stone cutting and grinding (Malkin 1989; Canetti 1962) to contemporary laser-beam hair removal. What links and unites these tools is the technology or as 'tekhne' (Oxford Dictionary of Current English 1996), meaning art or skill. That is, the successive practices that gives way to perfected, smooth and efficient movements and results. These become artful, mastered and technological.

I want to situate the argument in- between the role of technology that appears as a recording and measuring device and as a set of transformative apparatuses (Romanyshyn, 1989). The notion of technology as transformative is located within a modern episteme and resounds specifically with the uses of technology to smooth the surfaces of the body. These uses of technology within smoothing culture operate at the level of a general trust and belief in popular, encyclopaedic science and in the mundane activities of daily face shaving, leg waxing and eyebrow plucking, or as transformative devices. Somehow smoothness is the process of making something more complete and more itself. Smoothing technologies or processes reveal the true 'nature' of the body or the object.

> 'The technology to which we have been acclimatised for decades, centuries and millennia seem to us to be perfectly in tune with what we imagine to be our true selves.' (Mansfield 2000:148)

Our 'true selves' or unaestheticised selves, however appear to be incomplete, unfinished, rough and disordered and centrally, in need of smoothing. This correction of 'nature' takes the form of modern cosmetic technologies. It appears to be signalled that the body and objects are manufactured into this state of smoothness through specific processes and these processes are centrally related to technology. The 'social and personal impact' of technology is the impact of smoothing. In smoothing culture it appears that technology enables the revealing of our true or natural selves. We are acclimatised to this technology, it becomes

natural itself through our repeated and continuous exchanges with it and it appears that technology is only the means by which we access of true, smooth selves.

Technology and smoothing relate in the sense that they are features we associate with smoothness- consistency, safety, efficiency and speed. Technology allows us to finish off or smooth bodies and objects. This is an aesthetics of 'disappearance' (Virilio 1977) whereby the speed and efficiency of modern smoothing technologies negate and overthrow the disorder and inefficiency of nature. The always-already focus on smoothness as the means of overcoming these negative oppositions of nature ensures that these features disappear. The problematic hair that covers female underarms is not visible in modern advertisements, instead the focus is directed to the completed, smoothed body that is fabricated. This is the actualisation of smoothing and its overcoming of 'nature' and risk of incompleteness and ambiguity. This risk may be the discomfort of hirsute roughness, the contaminatory aspects of body hair within sterile medical operations or the risks of exposing non-depilated skin that betray some inefficiency in body management techniques. This betrayal is literally matter out of place (Kristeva, 1982; Douglas, 1966); the hair out of place that technology has failed to control. The array of available technologies minimises these risks and promotes smoothness as achievable and not simply desirable. This occurs as part of a historical trajectory where technologies have featured as essential components of modern cultural development. Bodies and the technologies that reside within modern culture are related through interactions that have occurred

throughout 'decades, centuries and millennia' (Mansfield 2000:148); the body then exists in a form that requires smoothing.

Technology enables smoothing, and this is an aspect of our cultural definitions of the present. Modern culture is about smoothing, and this also says something about what appears as the backdrop to culture: nature (Grosz 1994; Haraway 1991, 1990; Jordanova 1989). The true nature of the body is revealed through smoothing; skin is scrubbed of debris and dirt to reveal soft, fresh contours, teeth are brushed into whiteness and cleanliness and hair is razored from the skin to show off its smooth and silky surface. The vast array of smoothing tools or technologies are evidence of the myriad of methods by which we produce ourselves as smoothed bodies: skin buffers, polishers and scrubs, nail files, hair combs and brushes, facial peels, dermabrasions, skin bleaches and brighteners. This is the ambivalence of 'natural- authenticity' that smoothing culture attempts to conceal or gloss over.

Technology then, is part of modern culture and is viewed as a *necessary and intrinsic aspect to the smoothing of the body*. It is part of cultural history and appears to be developed in order to reveal the true nature of the body. Indeed this resonates fundamentally with adverts; hair removal products reveal smooth, silky skin and the body is represented as not being properly identified without these regimes. Hair is smoothly conditioned into shining tresses and this is shown to be returning hair to its naturally glossy state. Technology here then is shown to be positive- everything is 'going smoothly', the products deliver their promises and

bodies revel in the comfort and ease enabled through smoothing technologies. The 'finish' or end-result of operations such as leg shaving, eyebrow plucking and the plastic manufacturing of razor holders are central to these cultural artefacts. Modern plastics and surfectant technologies invite tactile association through the specific machining and control of surface appearance, as epitomised in modern depilatory and hair conditioning products. These 'high touch' surfaces are the result of smoothing technologies- modern plastic extrusion and polishing, synthetic coatings with 'soft touch' rubber handles and even the 'guard wires' over razor blades. All of these technologies invite tactile exchange within a context that is controlled through the laboratory-tested, 'quality-managed' procedures of commercial product manufacture. The smoothness of manufacturing is effected in the efficient, managed production of products, in the testing for safety and in the use of quality tests and customer trials. These stages in the machining of smoothness ensure that the theme of 'going smoothly' (Bogard 2000; Canetti 1962) is continued as a process of control and management. The smoothing of metals to a polished or sharp consistency, the extrusion of plastics that are polished into uniform shapes, the application of moisturising creams to post-lasered skin are all forms of 'finishing', but also forms of smoothing that are essential. By this I mean that the surfaces fabricated are achieved through the use of smoothing forces and procedures; they are constructed and yet they also purport to be essential; to express an irreducible aspect of the product. Surfaces and essences exist simultaneously within the trope of smoothing as they are aspects of the same theme and force.

However, technology is also imagined within modernity as problematic to the commitment of the human as a self-contained and autonomous subject. As technologies enable the transformation of the body's dimensions, then it may become more difficult to sustain the security of the boundaries of the body (Lury 1998, Shildrick and Price 1998, Shildrick 1997). The post-war period extends and intensifies the legacy of linear, scientific and rational perspectives in form of smooth subject production. Romanyshyn in *'Technology as Symptom and Dream'* (1989) contends that this is not just an aesthetic turn, but 'that styles of human perception change... and the world itself changes.' (ibid:32) He is invoking constructionism in the admission that the body is subject to cultural forces that mean subjectivity can never be comprehended without proper attention to the context within which it is situated.

Technology in modernity is both an imagining of the overcoming of physical limitations and inadequacies, but also a fear that the body is being rendered redundant: 'human beings are having to learn new ways of inhabiting technology, in which the world is approached through the mediation of technological environments, on the one hand, and the ways we will have to cope with technology inhabiting us, on the other' (Featherstone et al 2000 :11). Romanyshyn (1989) acknowledges the transformation of the body through these technological and perspectivising developments in an anxiety over the situating of a universal, essential body; this is a body that belongs to nobody. In his conception, the technological interventions of modern culture are based upon the dissective procedures of modern biomedicine which disclosed the human body as ordered

and mechanistic. The pain and physical resistance that is entailed in removing body parts is manifested in a detached and machinic approach to the body. This sees pain as an emotion that can be overcome by the rational reasoning; becoming smooth is a necessary part of overcoming the limitations of the body. Body hair is a malfunctioning part of the body that needs to be fixed by removal. This approach relates the body to cultural trajectories of determinism and reductionism (Dupre 1993):

> 'Activity has become a function: inspiration and expiration as respiration; communion as ingestion, digestion, elimination. The body is a technical matter, a problem to be solved. I know this body. We all know it. But is known at a *distance* from life, from the body in its living situations... The inside has truly become the outside when all bodily activities have been rendered visible as technical functions.' (Romanyshyn 1989:17)

Romanyshyn contends that the fabrication of linear perspective has instigated a departure of the subject from its context and I have explored how this kind of vision is contemporarily manifested in depilatory adverts. It is not that linear perspective is innate to modernity, it predates it, but it does find a particular kind of contemporary intensification in modern adverts.

> 'What linear perspective vision achieves is a kind of geometrization of the space of the world... a created convention which not only extends and elaborates the natural power of vision to survey things from afar, but also

> elevates that power into a method, a way of knowing, which has defined for us the world with which we are so readily familiar.' (Romanyshyn 1989:33)

This 'way of knowing' is, for example, contained in the promises of modern, depilatory products that have safety, ease of use and state-of-the-art technology embedded in their design and representation. The geometrisation of linear perspective has enabled measurement, comparison, diagramming and the industrial-scale of post-war manufacture and so these features become domesticated and familiar in mass-produced depilatory products. The promises of biomedicine find expression in linear perspectives legacy of facts and figures that confirm the efficacy of these products in their confident skin smoothing claims.

The body may be distinguished from its context within modernity but within contemporary, smoothing culture it is re-attached via the consumption of hair management products that establish a confident, safe, efficient and predictable means of fabricating a smooth subjectivity. Technology at its most everyday; the razorblade, demonstrates the notion of human redundancy within modernity may be assuaged in the ergonomic considerations of these products. Within ergonomics- the post-war development of human-oriented technology, the human body is situated at the centre of technology. The technical development of products is directed towards human alignment and convenience in 'inclusive design' (Whitfield and Langford 2000 [6]) where the accommodation of the human

[6] Whitfield and Langford (2000): [WWW document] **URL**: http://www.ergonomics.org.uk/ergonomics/definition.htm accessed on 7.3.2003.

body is the central factor in the refinement of products. Within contemporary culture, the body is still central and perhaps more intensively so, as the site of smoothed subjectivity. Far from rendering the body obsolete, the designs of depilatory creams and waxes seem to confirm the stability of the body through the confident claims that 'everything is going smoothly'.

In Romanyshyn's (1989) conception technology has realised the aims of modernity in an utterly knowable subject, but that this subject is somehow always-already absent. This is not a literal, material absence but the anxieties that subjects experience in modern, smoothing culture in relations to their own bodies. Technological smoothness is about the production of a kind of corporeal aesthetic that appears to answer through the ultimate control over the skin surfaces, the anxieties about the body that echo throughout Romanyshyn's text. Perhaps the millions of pounds spent annually in the U.K. [7] on body hair management might signal a particularly new form of anxiety which is the unwanted display of body hair and the out-of-control subjectivity that is at odds with the smooth, well-managed body of smoothing culture.

- smoothing and subjectivity

[7] According to Reckitt &Coleman in 1997, the cosmetic depilatories market was valued at £22.9 million. *(Immac™, 'Review of the Cosmetic Depilatories Market 97-98)*

> '(T)he civilized body characteristic of modern Western societies is highly individualized in that it is strongly demarcated from its social and natural environments. The civilized body also has the ability to... internalize a finely demarcated set of rules about what constitutes appropriate behaviour in various situations.' (Shilling 1993:150-151)

Smooth subjectivity and the production and presentation of a smoothed body are intrinsically linked. Appropriate behaviours are manifested in codes of personal space, touching and status and stigma (Shilling, 1993: Elias, 1978) but also in the display of bodily surfaces- deemed appropriate if well-managed and properly depilated. This notion of corporeal distinction, individuality, bounded-ness materialises smooth subjectivity. Isolation of the body- the protection of boundaries are archaic corporeal behaviours (Canetti, 1962); smooth subjectivity emerges through bodies that are civilised, demarcated and distinct- bodies that have avoided being incorporated and remain distinct..

I look now to Canetti's (1962) conception of corporeal incorporation and connect this with contemporary smooth subjectivity. He highlights the ways in which modern cultures retain elements of archaic ones in the very actions of bodies. He argues that modern forms of embodiment are organised and act according to historical relations and necessities. For Canetti, the template for abrasion is the human teeth. The teeth are the most 'striking natural instrument of power in man...' (Canetti 1962:242); simultaneously natural a corporeal materialisation of smoothing proto-tools and as a technological template. These proto-tools have the

function of incorporation or the internalisation of a substance of object that was external. The concept of incorporation is interesting because it demonstrates the processes by which one thing becomes another. This is central because in modern, smoothing culture, subjectivity is not about being literally incorporated, but about *maintaining bodily integrity*. The refining and re-surfacing of the body within modern, smoothing culture is a form of incorporation whereby a rough, unfinished body becomes a smoothed, controlled body that reflects its integrity, it actual, proper and true self through its smoothed surfaces. Smooth subjectivity emerges when the fear of incorporation is minimised; subjectivity occurs at the level of bounded, individuated bodies.

> 'The gradual civilizing of the body has taken place in the context of changes in the major *fears* facing individuals and the dominant mode of *social control* characteristic of societies. Fears of attack in relatively unregulated societies are increasingly replaced by social 'fears' of shame and embarrassment in modern societies.' (Shilling 1993:151)

It seems as if the fear of incorporation has been transformed rather than negated into the construction of smooth subjectivity through body hair management. The 'shame and fear' in contemporary culture, is the presentation of bodies that are not under control and this presentation of control is reflected through body hair management. Bodies within smoothing culture need to be incorporate smoothing technologies and to be re-surfaced in order to for smooth subjectivity to emerge and reflect the integrity of smoothing culture; this is the notion of smoothing

culture not as a machine, but to machine (Bogard, 2000; Deleuze and Guattari, 1987).

Bogard (2000) makes more general claims about the historical trajectory of smoothing, modernity and subjectivity. Bogard is concerned with the surfaces of the body, taking his cues from Deleuze and Guattari (1987) and their contention that bodies are surfaces and their explorations in how bodies come into being through interactions with an array of forces and materials:

> '(W)e observe the construction of a 'social assemblage', a plane of consistency composed of the most diverse and jumbled materials- bodies and body parts, bits of information, signs, resources, equipment- that 'operationalizes' according to principles of smoothing.' (Bogard 2000:273)

I respond to this quote as a way of promoting an idea of a smooth subjectivity that is dependent upon an array of artefacts and forces- conceived of as a human body. Within smoothing culture this assemblage has included an array of products and techniques that are singularly concerned with smoothing the surfaces of the body and fashioning a smooth subject. This exposes the difficulty in distinguishing the smooth subject's body and its actions from the development of culture and technology. Smoothness according to Canetti (1962), Bogard (2000) and Deleuze and Guattari (1987) is detected in historical developments of culture such as the biological organisation of the body and 'nature', but I contend that in smoothing

cultures this smoothing is detected in fabrications of subjectivity, and specifically in the subjectivity's of smooth, hair-managed bodies. Bogard, alluding to Deleuze and Guattari (1987), states that the various actions, forces and arrangements that allow for the constitution of smoothness in any form, is the production of a 'plane of consistency'. This is a 'hybrid form where the most heterogeneous matters are made to resonate together in a homogenous mixture.' (Bogard 2000:272) He is stating that within smoothing culture, there is a reconciliation between various seemingly disparate elements that fabricate new forms of subjectivity. It appears that in smoothing culture this mix of hybrid forms operates to secure the boundaries of 'the' body and minimise the anxieties over bodily insecurity. The production of smooth subjectivity depends upon the right blend of things operating in just the right way. However, when we acknowledge that the body might be an arrangement of 'things' it upsets a fundamental concept; that the body is a natural and imminent given. A mixture depends on proportions that may vary and be unbalanced, and this way of seeing the smooth subject in relation to technology links to another view- that there are some 'things' that cannot be diluted, mixed or unbalanced- and biomedicine purports that the body is one of them. So the notion of the tool and an essential nature or function is related to the human, because the human has some identifiable essence, and tools and technology are extensions of the human body. When I look to essentialism or biomedicine, and to constructionism I find that the relationship between the human and technology is, like smoothing, much more complex (Bogard 2000; Ansell Pearson 1999,1997; Haraway 1991; Romanyshyn 1989; Deleuze and Guattari 1987).

- conclusion- theorising smoothness

Throughout this exploration of body hair a tension between the biomedical disclosure and the everyday regimes of management of body hair has been signalled. This tension highlights the theoretical approach I have sought to develop- a position of in-between-ness that seeks to highlight the difficulty in reinforcing a conception of body hair that attaches it to a fixed, stable and essential conception of the body, and from which a fixed form of subjectivity emerges. But this problematising of essentialist biomedicine is not a straightforward acceptance of the opposing position of social constructionism. If social forces produce the body, then what produces the social? This implies power beyond the social. Body hair manifests itself in an array of diverse ways: a waste product of the body, a problem to be resolved and treated by cosmetic technologies, a sensory device of the skin and a physical trace of an absent body Because of this, I find the binary opposition between biomedicine and social constructionism both theoretically and materially an unproductive one.

I have signalled that body hair is manipulated in ways that fabricate certain types of subject. What I want to leave behind is the 'social' part of constructionism in favour of 'culture' which to me means artefacts, tools and technologies as well as bodies. This implicitly signals the notion that tools and technology, buildings, spaces and places are all part of a wider situation in which to explore body hair Romanyshyn, 1989; Canetti, 1962). Constructionism looks outwards to the forces

that shape the body and to the ways in which bodies constitute culture. But this perspective over exterior forces implicitly accepts the foundation of the body upon which culture is fabricated. Bodies conform to prevailing aesthetic ideals; they discipline themselves into habits and routines and manipulate their surfaces through regimes of management (Shildrick and Price, 1998; Shildrick, 1997; Grosz, 1994). But the body is the substance that cannot be escaped or transcended. Body hair can be cut off, plucked and dyed into shapes, plucked and waxed but the material resistance and substance of body hair remains the same- as disclosed by biomedicine.

However, it is in the very construction of the biomedical ontology of body hair that I find the challenges to essentialism that social constructionism has overlooked. The resistance to the finality and closure of the boundaries of the body that body hair manifests are disclosed by biomedicine itself. By dropping the 'social' and concentrating on the construction, I develop a position on theorising body hair that is in-between. An in-between position signals the very 'nature' of body hair as a mediator of body boundaries and as a substance that appears in different contexts, to differing effects and reactions.

The position I develop as one of in-between-ness accepts that there has been a destabilisation of a fixed and stable notion of the body and the subject (Lury, 1998; Shildrick and Price, 1998; Shildrick, 1997; Grosz, 1994), but that it has not been abandoned within smoothing culture. The fabrication of the type of body that popular science valorises is still the objective of body hair management

regimes. It is the process of authenticating this type of body that is shown to be problematic. Constructionist accounts demonstrate in various ways that the smooth body is an arbitrary historical construction that is subject to change and contestation.

The debate between modernity and post-modernity regarding the body continues to develop in the very constitution of body hair. I have used the 'substance' or formed matter of body hair to explore how an account of body hair as an utterly knowable body part, is a premise of modernity as operationalised by biomedicine. Modernity is characterised by the objective and neutral observation of the body in order to reveal its internal dimensions and organisation. These revelations can be attached to a more general narrative of history in which all bodies, human and non-human, are related in a hierarchy according to the similarity or difference from the body. This account of the body and nature can be detected in the epistemological accounts of biology, and the ontology of biomedicine.

The anxiety that the body is being destabilised and rendered redundant within modernity (Romanyshyn, 1989) is perhaps assuaged within smoothing culture where surface marries depth, technology allows the human not to be less-human, but more human in a smoothly secured subjectivity. Body hair management assuages this anxiety through its capacity to be removed without apparent harm to the body, and thus 'act' as the means through which the body is refined into a controlled and contained site of corporeality and smooth subjectivity. So, smoothing is about machining and the extraction and deposition of surfaces

through the collisions and interactions of forces. These encounters are seen through the historical lens of technology or the perfection of encounters; smoothing is abrasion, grinding, blasting, coating and polishing. Technology is understood to reflect not only material machining in terms of technics but it also reflects the notion of technique that is perfected, and practised to a level of competence.

In a post-modern account, showing how body hair might disrupt fixed and essential representations of the body proves more problematic because there is no post-modern theorisation of body hair. Instead there are theorisations of the body and body boundaries (Shildrick and Price, 1998, Shildrick, 1997; Grosz, 1994; Kristeva; 1982; Douglas, 1966) and of popular science itself (Romanyshyn, 1989; Martin, 1987). These disrupt the totalising claims of popular science through the exposure of biomedicine to be a historical construction. Biomedicine is shown to operate not according to a historically progressive revelation of the body and body hair which is fixed and authentic, but according to a discourse that that is dominant but not incontestable. The arborescent narrative of relations is shown to be an abstract fabrication that requires constant and continual validation and reiteration. The fixed and stable forms of subjectivity that emerge from fixed and secure bodies are shown to be insecure, inconsistent and disordered. The essentialist representation of the body is shown to be the outcome of a series of normalisations that occur at the behest of other competing accounts of the body. Constructionism seeks to validate these alternative accounts of the body/of bodies. However, as far as I am aware, no constructionist account has sought to validate a

differential account of the body through an exploration of body hair. I want to state that body hair has been overlooked in constructionist accounts in their concern with the more general challenges to fixed and essential accounts of the body. The texts I have used focus on exploring the boundaries of the body and the type of subjectivity that emerges from them in a way that attends to their unstable and insecure propensities (Kristeva, 1982; Douglas 1966).

These differentiated accounts of the body claim that nature is inherently social and that there is no natural or original body which operates as an ahistorical and transcendent model upon which claims to authenticity of authority can be objectively founded (Shildrick and Price, 1998, Shildrick, 1997; Grosz, 1994; Haraway, 1991; Martin, 1987). Through explorations of bodies as particular, specific, inconsistent and partial, these theorists seek to produce accounts of the body that are specific, particular and unstable but no less valid. Fundamentally, these texts demonstrate that, against a fixed and immutable model of the body, that bodies are processes. Following this, body hair management can be understood as a process through which the body is constituted and signal the problems that maintaining body hair can manifest; that the body is not natural, but fabricated. I have proposed throughout the thesis that body hair management is a form of embodied cultural production.

I have sought to explore how body hair as revealed by biomedicine, is a substance that allows the boundaries of the body to be continually and constantly managed and reiterated. Because body hair is durable, it resists total removal and it grows

back despite removal, it is disclosed as a site of intensive and everyday maintenance through which the more general category of the body is maintained. If the body and body hair can be definitively and securely accounted for, if the boundaries of the body can be controlled through body hair management, then why does smoothing culture operate to manage body hair? It is not that body hair is certain or incontestable but actually that they *are* uncertain and contestable.

'Body hair' is always-already open to dispute and so it offers opportunities to allow the body to 'become' (Bogard, 2000; Ansell Pearson, 1999, 1997; Deleuze and Guattari. 1987). Or put another way, if body hair, or any part of the body and centrally the body itself, were definitively accounted for by biomedical science then the body as a site of cultural production would be static, unchanging and defunct. It is precisely because biomedicine implicitly configures body hair as requiring management that it continues to develop and extend its ontological range. What a position of in-between-ness seeks to expose is the continuing usefulness of biomedical ontology within smoothing culture, and to utilise the constructionist challenges that seek to reinsert body hair from the laboratory into smoothing culture. Through a view of body hair as a process of smoothing- of extraction and deposition, and the body as a site of extraction and deposition, a view of body hair management is developed- one of 'becoming' (Ansell Pearson, 1999; Deleuze and Guattari, 1987). Smoothness is about surfaces and the play between things; objects, subjects, bodies, tools and forces and how they continually intersect and effect one another (Bogard, 2000; Ansell Pearson, 1999; Deleuze and Guattari, 1987).

In short, becoming smooth and managing body hair fabricates 'a plane of consistency composed of the most diverse and jumbled materials- bodies and body parts, bits of information, signs, resources, equipment- that 'operationalizes' according to principles of smoothing.' (Bogard 2000:273) This notion of consistency implies that becoming smooth means organising and controlling heterogeneous elements that appear as a homogenous form. Bogard (2000), following Ansell Pearson (1999, 1997) and Deleuze and Guattari (1987) claims that the body is an 'assemblage'. This is an arrangement of diverse elements that should be understood not in terms of essence but in terms of surfaces and how they fit together with diverse and disparate elements in order to become smooth. This process is understood as a machinic heterogenesis (Deleuze and Guattari: 1986). By machinic, I reiterate that I mean *to* machine or the endless play of extraction and deposition that is the continuing transformative force of smoothing culture.

The emergence of body hair does not emerge from a genealogy of human evolution that can refer body hair back towards some point of origin and subsequent linear development, rather the notion of becoming produces specific types of body boundaries, one of which is body hair, another being the skin- living systems and their boundaries are involved with transversal becomings or assemblages (Deleuze and Guattari 1987). The machinic assemblage of the 'body' connects disparate elements in differing fields in consistencies that resonate

together in a distributed conception of 'body hair'- body hair is viewed according to this position; as an 'assemblage'.

'Becoming' seeks to assert the complexity and the mixtures of things and the premise of these assembled arrangements in everyday and ongoing life. When we seek recourse to the 'truth' or essence of body hair, to be found within its now-made-visible structures, we imagine smoothness to be a state of total control (Canetti 1962). Instead through a focus on the 'connections between certain multiplicities' (Deleuze and Guattari 1987:23) we are instead moved to focus on the exteriorities of the body. These are not superficial surfaces as an exploration of body hair demonstrates, but rather the points where boundaries are formed and where the play between forces and materials are exhibited. The direction of thought has not been concerned with defining an essence of body hair. It has not been concerned with decoding the imagery that presents it, to some essential signifier, or even some essential conception of the body. Rather it is concerned with how body hair becomes read or coded, how images and presentations of smooth bodies flow into view and how body hair emerges in particular settings. From the outset, our cultural concern with smoothness and its desired features are part of an intrinsically related cultural history that narrates the development of the modern body within a setting of material forces and practices. This finds its expression in the contemporary era of consumer culture and in the array of products that facilitate the smoothing of the body.

To sum up, modern culture is concerned with smoothness, this smoothness is a concern with surfaces because they materialise the historical trajectories of encounters between bodies, substances, objects and forces. Surfaces are about appearance, but also about reflecting some internal aspect or characteristic of a body or object. Surfaces indicate depth, internal control and organisation as well as reflecting inscriptions. Smoothness functions to minimise differences, to promote efficiency, fit and order. It signals speed, quantification, certainty and reveals the 'true' nature of bodies and objects. Smoothness overcomes and is against difference, disorder, inefficiency and inertia and this is manifested in smoothing culture as the removal and maintenance of body hair through the use of new technologies, which enable the fabrication of a smooth subjectivity. Bodies are thought of as territories of becoming which map and trace out generations of identities and forces (Ansell Pearson, 1999, 1997; Deleuze and Guattari 1987). The themes of smoothness that map out body hair are inextricable from the bodies from which and through which they emerge. Body hair grows, is removed or un-anchors itself and grows again. It flows between boundaries and its porous machinations illustrate how the fabrications of the becoming body evolve in ways that mobilise boundaries. The assemblages of elements that attempt to limit body hair are thus interrelated with its becoming. Body hair is constituted in part by the very regimes that seek to contain and manage it. In contemporary culture smoothing is about maintaining bodily integrity; and so body hair management is understood as a form of embodied cultural production that materialises and reconciles the anxieties involved with maintaining this integrity.

Ansell Pearson (1997) Viroid Life. Perspectives on Nietsche and the Transhuman Condition Routledge

Ansell Pearson (1999) Germinal Life. The Difference and Repetition in Deleuze and Guattari Routledge

Bogard (2000) 'Smoothing Machines and the Constitution of Society' in Cultural Studies 14 (2)

Canetti (1962) Crowds and Power Penguin Books

Deleuze (1994) Difference and Repetition trans. P. Patton, Athlone Press

Deleuze (1990) Logic of Sense trans. M. Lester with C. Stivale Columbia University Press

Deleuze (1995) Negotiations trans. M. Joughin Columbia University Press

Deleuze and Guattari (1987) A Thousand Plateau's Capitalism and Schizophrenia Vol. 2 Athlone Press

Deleuze and Guattari (1977) Anti-Oedipus: Capitalism and Schizophrenia trans. R. Hurley New York : Viking Press

Der Derian (1998) (ed) The Virillio Reader Blackwell Readers Series, New York: Blackwell

Douglas (1966) Purity and Danger: An Analysis of the Concepts of Pollution and Taboo Routledge

Elias (1978) The Civilising Process Vol. 1 : The History of Manners trans. E. Jephcott New York: Urizen Press

Foucault (1982) 'The Subject and Power' in Michel Foucault 'Beyond Structuralism and Hermeneutics in Dreyfus and Rabinow (eds.) New York

Foucault (1981) The History of Sexuality Vol 1.: An Introduction Penguin

Foucault (1974) The Archaeology of Knowledge Penguin

Foucault (1973) The Birth of the Clinic Penguin

Haraway(1991) Simians, Cyborgs and Women Free Association Books;

Harway (1997) Modest_Witness @Second Millenium.FemaleMan Meets OncoMouse. Routledge

Kristeva (1982) The Powers of Horror- An Essay on Abiection New York: Columbia University Press

Martin (1987) The Woman in the Body. A Cultural Analysis of Reproduction Open University Press

Nathan (1969) The Nervous System Oxford University Press

Probyn (1993) Sexing the Self: Gendered Positions in Cultural Studies Routledge

Roderick (1997) 'Household Sanitation and the Flow of Domestic Space' in Flow. Space and Culture. Issue 1

Romanyshyn (1989) Technology As Symptom and Dream Routledge

Shields(1997)'Flow as New Paradigm' in Flow. Space and Culture. Issue 1

Shildrick (1997) Leaky Bodies and Boundaries. Feminism, Postmodernism and (Bio)Ethics, Routledge

Shildrick and Price (eds) (1998) Vital Signs- Feminist Reconfigurations of the Bio/logical Body Edinburgh University Press

Additional Materials

Reckitt and Coleman Products Ltd. (1998) *'Review of the Cosmetic Depilatories Market' :97-98*

Boots Plc (issued in 2001) *Press Office Information Pack.* Superdrug Chemists

GCI Healthcare, (18.2.2003), 'Nair For Men' depilatory cream Press Release

Reckitt and Coleman Products Ltd. (1998) 'Review of the Cosmetic Depilatories Market' 97-98

Reckitt and Coleman Products Ltd. (1998) *'Review of the Cosmetic Depilatories Market':97-98*

Nair Invitation (18.02.03) '*Hair Facts and Figures'*, press promotional material, GHI Institute

Nair Promotional literature (2003) '*Quality Management'*

Permanent Hair Reduction promotional leaflet (2001) '*Light Touch'*

Gillette(2002) '*Mach3® Turbo'* razorblade advert,.

Immac™,(1998) *'Review of the Cosmetic Depilatories Market 97-98'*

Ogle, R. R and Fox, M. J (1998) 'Individualization of Human Hair: The Role of the Hair Atlas', Microscope, Vol 46:1 17-22

Barrett, S. (1985), 'Commercial Hair Analysis: Science or Scam?', The Journal of the American Association, Vol. 254 1041-1045

Mason, J. M. (1999) 'The Profession of Trichology, Module F1', Institute of trichologists, London.

Media Resources

Tim Dowling *'This may hurt a bit'* article, *'Real Lives'* section, *The Guardian* 15.01.03.

Julie Burchill *'If it moves- shave it'*, *The Guardian*, 15.01.03

'Hairy Women' programme by Landmark Productions, for *Channel Five*, 2002.

Internet Resources

Tampax (2000) *'Tampax Compak information'* available at **URL**: http://www.beinggirl.co.uk/teen/older/pages/p_tampax_allabout.jhtml accessed on 7.3.2003.

Tampax (2002) *'Feminine Hygiene Market Update'* available at **URL**: http://www.nonwovens-industry.com/Nov021.htm accessed on 7.3.2003.

University Of Nottingham Online Planning Resources (1991) *'The Use of Dropped Kerbs and Tactile Surfaces at Pedestrian Crossing Points'* available at **URL**: http://www.nottingham.ac.uk/sbe/planbiblios/bibs/local/LP05c.html accessed on 7.3.2003.

Department for Transport (1999) *'Guidance on the Use of Tactile Paving Surfaces'* available at **URL:** http://www.mobility-unit.dft.gov.uk/tactile/4.htm accessed on 7.3.2003.

Immac (2002) *'Home Solutions' Homepage'* available at **URL**: http://.homesolutionsnews.com/rbdocs/uk/immac/product_page/product.html accessed on 12.02.02.

Whitfield and Langford (2000) *'Definition of* Ergonomics' available at **URL**: http://www.ergonomics.org.uk/ergonomics/definition.htm accessed on 7.3.2003

Encyclopaedia Britannica Online (2000) '*Human Body Article'* available at **URL**: http://www.britannica.com/eb/article?eu=42389&tocid=0&query=human%20body - accessed12.09.00

List of Figures used:

(Figure 1.) Hard (1975), 'Layer of Human Skin'

(Figure 2.) Hard (1975), 'Flow Diagram to show the Homeostatic Control of Body Temperature'

(Figure 3.) 'Mackean (1973), 'Microscopic Structure of Human Skin (Scalp)'

(Figure 4.) Marie-Claire magazine (2002), 'Immac Bikini Kit' advert featured in Marie-Claire magazine July, 2002.

(Figure 5.) Company magazine (2003), 'Veet Bikini Kit' advert featured in Company magazine, September, 2003 issue

(Figure 6.) 'Heat!' magazine, (July, 2003)

(Figure 7.) 'Heat!' magazine, (August, 2003)

(Figure 8.) Marie-Claire magazine (2002), 'Jolen Creme Bleach' advert featured in Marie-Claire magazine, 2002.

(Figure 9.) Marie-Claire magazine (2002), 'Immac Aquasystem Warm wax Roll-On' promotion in Marie-Claire magazine May, 2002.