Chapter 5
Fitness environments - amodern interpretations

Blurring embodied boundaries.

In the last chapter, I attempted to briefly illustrate how a corporation such as NordicTrack, acting as a center of translation, attempts to enroll and mobilize diverse actors into networks that achieve sufficient stability to be representable, intelligible and inhabitable as fitness environments. In this chapter, I examine how these environments become more difficult to fit within the clearly defined and bounded categories of the modern constitution. Following this I examine how this opens up the possibility of re-imagining the types of political, ethical, and moral communities recognized and critically examined by geographers.

To facilitate an examination of the ambiguities in these environments, this chapter begins by considering the location of the body. Can the body be located in the environments of fitness outlined in the previous section? In order to begin to answer this question it is necessary to consider the similarities between the images in figure 5.1 and figure 5.2, and how they perhaps are both implicated in the production of cyborg, hybrid entities.
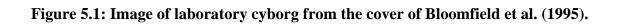
Figure 5.1: Image of laboratory cyborg from the cover of Bloomfield et al. (1995).

Figure 5.2: Image of home cyborg taken from NordicTrack Web-site.

Both figures displace a number of the categorical boundaries that Latour claims are the foundation for the "modern constitution." First, they register the production of bodies that are neither wholly natural nor wholly technological but simultaneously both, in that it is extremely difficult to separate them into their human and machinic components. The image in figure 5.3 represents the process by which models of the ideal body are produced in the lab, neither by humans nor machines alone, but by humans and machines in particular combinations, in other words, by hybrid, cyborg assemblages. Central to the production of the models of the fit body discussed in the previous chapter are various techniques of measurement, by which the workings of the body are measured and figured out. In order to "work-," or "figure-" out the body in this way, special items of equipment are set up within the laboratory. This is schematically represented in figure 5.3.

Figure 5.3: Laboratory apparatus for rendering the body visible. From Bloomfield et al. (1995:53).

It is through such combinations of human bodies and imaging, measuring, and analyzing devices that the body is rendered visible. As Crawford (1996:73) notes

> today's cybermedical devices present biological evidence that seems quite different from that produced by earlier imaging technologies. The operators of these machines are the new anatomists of the increasingly detailed human landscape revealed through sophisticated techniques for rendering three-dimensional objects. Not only is the human body unveiled by these machines; it is also made mobile. Rather than rely on the lengthy lists of data recorded at different times, physiologists now use digital technologies to model dynamic systems.

This rendering and mobilization of the body takes place in the context of the laboratory, a Latourian "theater of proof, a physical space where the objects of science are said to be free from rhetorical distortions, faulty visions, and the inadequacies of the lesser senses" (1996: 67). The body rendered "visible" by sophisticated imaging and data collection technologies in this space, can now be made mobile by being represented in scientific texts and practices, engineering principles, and in a whole range of contemporary popular mediascapes, as part of "texts that represent the human body through a mix of images, words, and measurements in an attempt to chart and, by implication, to master biological functions" (1996: 67).

Through the translation activities of corporations such as NordicTrack, strategies which involve the mobilization of a whole range of intertwined and mutually constitutive networks of technological, textual, and social actors, the cyborg in the first image is inextricably bound up in the construction of the cyborg in the second. This is because the technologically rendered body, now made mobile, is domesticated through being projected and incorporated into the space of the home. This occurs through the TV infomercials, magazine articles, and Internet pages that continuously claim to best represent and speak for the ideal, scientifically worked out body. In these advertisements, the claim is made that your body has been worked out for you - in other words that an ideal corporeal template exists, made visible by science, in to which your body can be made to fit, but only if you exert sufficient effort and self-responsibility.

The body rendered visible by the imaging and data collection/analysis technologies above also finds its way into the home through being embodied in the very fitness technologies that individual consumer subjects purchase in order to work out at home. This can be illustrated by referring back to the NordicTrack *Leg-Shaper,* which is designed with the "body in mind". As this example illustrates, the body mobilized in the lab as data is incorporated into the design, shape, form, and operation of fitness machines.

The ideal body is also embodied in the design of these fitness machines in the guise of electronic monitors which are provided in order that the consumer subject might better be able to position his or herself in ideal biophysiological zones. Thus, as noted in the previous chapter, NordicTrack fitness machines are increasingly sold with features such as the "Polar wireless heart rate monitor" which is supposed to "eliminate the guess work through heart rate control" and

which, by providing "instant feedback", allows the user to train in his or her "optimal heart rate zone" (NordicTrack, 1997). In the case of the NordicTrack PowerTread Treadmill, the user simply enters his or her weight and height as variables and the "treadmill automatically adjusts the incline and speed to maintain" the "proper heart rate" (NordicTrack, 1997).

Algorithms play a crucial function here. Indeed, as Schuurman (1997) notes, "one doesn't have to look further than a Stairmaster machine to recognize the means by which algorithms are literally shaping bodies". Algorithms are what Latour calls "black boxes" because once "coded and embedded in a machine, their rational processes are concealed". However, in being built into the design of fitness machines, algorithms "allow the transfer of the same scientific logic across scales from outer space to the inside of human bodies". Additionally, in the case of the NordicTrack PowerTread, and most of the fitness machines which embody motivational feedback devices, one's ideal target heart rate is calculated on the basis of extremely few and limited variables - namely one's height and weight. However simplified, such algorithms nevertheless function to weave the machinic body together with the human body, a process which can be seen in figure 5.2.

In light of these observations, it becomes harder to locate, or perhaps more accurately to separate bodies into those found in the lab, those incorporated in the design of fitness equipment, and those found in the home. The body here is a mobile entity and its boundaries are not fixed, but instead is tied to longer networks. Perhaps then, both figure 5.1 and 5.2 represent the mutual working out of entities in which the boundaries between human and machine are particularly difficult to position.

The second boundary which is blurred by the images in figure 5.1 and figure 5.2 is the boundary separating the categories of subject and object. In the second image particularly, positioning this boundary is extremely problematic. As noted in the previous chapter, a modern reading of this image positions the human as subject and the NordicTrack as object. However, who really is the subject and object here? In the same way that the body in the lab is only made known to scientists through technologies, the body-(s)pace of the individual consumer subject is only made visible through technologies. Self-monitoring of the heart is especially important in how the individual subject comes to objectify and subjectify itself. Illustrating the importance of this in popular culture, an article in *Business Week* (1996) pointed to the necessity of monitoring the heart. The article, entitled "machines you can take to heart", surveyed the current range of fitness technologies, the "ultimate focus" of all of these being "the most important muscle of all, the heart". Accordingly, the article suggested that "perhaps the most useful exercise aid you can buy is a heart monitor". In most instances a separate purchase of such machines is not necessary however, because today's fitness machines "come with all sorts of snazzy panel displays that make heart-watching easier than ever". It is through the collection of flickering LED's on the control console of a NordicTrack cross-country ski-machine, treadmill or rider, that the human subject sees his or herself rendered visible. In such ways does the subject becomes its own machinically produced object, its vital rhythms informationalized as data. The consumer subject is therefore also the "object" of a technological gaze, through which s/he comes to more fully

know his/her self as a subject, perhaps illustrating the hybrid processes of what Latour (1993) calls quasi-objectification/subjectification. In this case, subjectivity and objectivity might be thought of as co-productions, neither embodied completely in the "human" or "machine" but in both. And importantly, in this process of quasi-objectification/subjectification, vision is simultaneously embodied and disembodied, or rather, it is simultaneously embodied in human and non-human actors, in the sense that the disembodied technological gaze of the pulse monitor is an integral part of what constitutes the embodied gaze of the consumer.

Subjectivity is also co-produced in the sense that the individual makes sense of his or herself as a fit consumer - flexible, low-risk, streamlined, response-able, and actively responsible - through entering into intimate relations with fitness machines. By attempting to embody ideals of fitness the individual comes to see his or her self as a fuller, truer, and fitter self. This faster, fitter, more flexible self, must emerge machinically, or technologically, if it is to survive.

Figures 5.1 and 5.2 also point to the fact that nature and culture are not produced as separate ontological realms, but instead are produced as effects of the translation of networks which are simultaneously natural and cultural. The body rendered visible as "natural" is already a technological, and therefore a cultural body. However, while fitness machine manufacturers are translating hybrid networks in this way and others they are simultaneously mobilizing the ontologically purified and separated categories of nature and culture.

Illustrative of this is the fact that in the marketing of technologies that transform and reshape the space of the body to fit current bodily ideals there is often an appeal to the "naturalness" of technology, and an emphasis on the degree to which technology works in harmony with the body and to which it is engineered to smoothly mesh and efficiently interface with the shape/space of the body. Fitness technology advertising is replete with such examples. For instance, the cam engineered to provide the correct resistance for Nautilus users is taken from the natural form of a sea shell. The Body Trek from Body Master is advertised as "Working the Body the way the Body Works", while the Precor transport is described as "very forgiving to the body...and very fluid". Similarly, according to NordicTrack (1997),

A NordicTrack skier glides your body through a natural, non-impact range of motion that gets all your muscles working together to reduce stress, improve your heart, lungs, flexibility, muscles, energy, endurance, and much more.

Explicitly naturalizing fitness technologies by appealing to their ability to effortlessly mesh with the natural body is extremely important. Technology, as artificial, as a cultural product, is the natural body's 'other', that which is foreign to it, and whose inanimacy, unnaturalness and inhumanity gives animacy, naturalness and humanity to the 'organic' body. Technology is less of a constitutive "other" if an appeal is made to its "natural" character, especially if this is in the context of promoting the desire to maximize the potential of the "natural" body. The aesthetics of this working together of nature and culture shape the consciousness of the consumer in that it makes it easier for the consumer to imagine the "naturalness" of human machinic fusions. The

machine no longer becomes the other, the outside of the body, the unnatural. It now must appear to be natural in order that the fit consumer subject has a healthy, "natural" relationship with technology.

Obviously then, there is a blurring of the nature/culture boundary in many advertising technologies which implicitly recognizes the kinds of translation that are going on. At the same time there is always constant reaffirmation of the boundaries between these categories which exist as familiar reference points for consumers. Not to do this, to suggest that the naturally embodied subject is complicitous in the proliferation of hybrid, monster-like figures, and therefore is perhaps only partly in control, makes extremely bad marketing sense.

There is one more boundary to consider here, and that is the construction of the boundary of male/female. ANT and its proponents, including Latour, are remarkably silent about questions of gender and its performative construction. This is perhaps symptomatic of their broader failure to engage with questions of gendered embodiment. Haraway is much more attentive to these questions, something which gives her cyborg politics an apparent edge over ANT when it comes to the gendered technoscientific construction of hybrid entities. Haraway suggests that the figure of the cyborg is a post-gender figure, potentially transgressing and disrupting dominant gender regimes. Developing this point, both Longhurst (1995) and Balsamo (1996) argue that the female body-builder is such a disruptive cyborg figure. There is considerable justification for this claim because, just as the categories of subject/object and nature/culture are displaced across the boundaries of human and non-human in the construction of fitness environments, so also might the categories of gender. However, what is also true is that the dominant cyborg fitness figure loose on the plains of contemporary American mediascapes is not the figure of the female body builder but that of the NordicTracking subject (or any other fitness machinically tracked subject), a figure which is far from being disruptive of hegemonic gender regimes. Indeed, such images are part of the performative reiteration and construction of these gender regimes.

Furthermore, the very design of fitness technologies embodies a gendered technoscientific gaze. Figure 5.4 illustrates this. In this advertisement, a gendered "objective" scientific gaze is mobilized to truthfully reveal the workings of the body. The body mobilized like this is then incorporated into the design of fitness equipment which in this case, is named after Gallileo, "a man who changed all the rules". The same manufacturer claims that before it created this line of strength equipment, it "studied the most efficient system known to man" (see figure 4.3). In the same way, the mobilization by NordicTrack, of Kenneth Cooper, the scientific "Father of Aerobics", reinforces the gendered technoscientific gaze involved in the mapping and mobilization of bodies on and within hybrid networks.

Figure 5.4: Advertisement for Galileo strength equipment by Trottor which appeared in
***Fitness Management* (May, 1996).**

Such evidence suggests that it is not unfair to claim that despite Haraway's optimism, the cyborg figures visible in a myriad of mediascapes do not lead to the destabilization of dominant gender regimes. If anything they reinforce the hegemonic gendered bodily ideals against which standards of disability and unfitness are judged.

Given the inter-related ways, discussed above, in which boundaries are blurred and simultaneously maintained, the process of "working-out" the body then can perhaps be rethought in the following way. Importantly, it involves a mobilizing of gendered scientific truth, cited/sited in the space of the laboratory, a "theater of proof", where the natural body is sighted by a range of visual technologies. This technologically co-produced model of the "natural" body, mobilized through technologies of measurement and visualization within the laboratory, is then used in the process of mobilizing fitness technologies, which are in turn offered to consumers as technologies of self-mobilization, while all the time what are being mobilized are hybrid networks of human/machine, subject/object, and nature/culture.

The spatial ambiguity of amodern fitness environments

Once mobilized as actors within these networks through purchasing a cross country ski-machine, step machine, treadmill, or cross-trainer, the hybrid, cyborg consumer subject experiences additional environmental ambiguities that disrupt the boundaries of the spatially embedded categories, of scale, distance, inside and outside, real and virtual.

Most importantly perhaps, there is no "real" displacement associated with these fitness environments. Instead there is a mobilization of the self within simulated landscapes of exercise and electronically monitored and scientifically defined target rates and zones. This can be seen in the case of the PowerTread which NordicTrack claim is the perfect machine for those who want the "ultimate exercise experience" because it enables one to "move in and out of the aerobic zone to build greater endurance and cardiovascular fitness" (NordicTrack, 1997). Indeed, in the case of such human-machinic fitness environments, it might be that the exertion traditionally expended by getting from one geographical place to another is now expended by getting from one physiological (s)pace to another. Perhaps these home fitness environments point to a condition where "there is no future in long journeys....physiological corporeality suddenly becoming the final yardstick of the measurement of movement. Only, of *movement on-the-spot,* right inside an animal body that has become the ultimate planet" (Virilio, 1995:109). Similarly, in the case of such fitness environments, it appears that "on the ground there is no more 'forward' and 'backward'; it is just the ability to move and not to stand still that counts" (Bauman, 1995: 89).

Devoid of real displacement such fitness environments instead offer enhanced self-mobility registered by the navigation of environments characterized by greater risk and uncertainty. To encourage and enhance the appeal of these self-navigation aids (which easily run up against the problem of user boredom) there is an attempt to market the ability of these machines to accurately register simulated movement through simulated landscapes. As noted in the previous chapter, higher-end NordicTrack fitness equipment incorporates attempts at accurate simulation

of challenging "real" terrain. The "programmable 7-window electronic workout" on the NordicTrack ProPlus skier therefore gives the "user"

> the choice of 4 pre-programmed hill climb workouts, or 7000 random hill programs for unbeatable variety with the touch of a button. Also displays speed, distance, time, calories, pulse, 20 independent arm and leg tension settings and optional race course (NordicTrack, 1997).

Such simulated exercise landscapes have been developed further by Tectrix, pointing to one of the possible futures of the "natural landscape" in fitness environments. Its advertising copy is worth quoting at length;

> The Tectrix VR Bike is the first of its kind to combine state-of-the-art virtual reality software with top quality aerobic fitness equipment. The machine integrates a recumbent exercise bike, sophisticated, VR software and a 20-inch color monitor, providing a level of interactively never before experienced in the exercise market. The rider pedals along in the virtual world, exploring the physical terrain in any direction he wishes. For example, he may travel along one of four bike paths, or choose to leave the path and cross over hills and through valleys on grass, dirt or asphalt. Or decide to explore and old graveyard or barn filled with cows. Or see what happens when he pedals across a lake or cliff, or crashes into a tree or even a butterfly. One of the most amazing features is its ability to network groups of VR Bikes. Riders can travel together casually through the virtual world, or compete against one another in a challenging virtual race. The rider is able to move as one with the unit that combines the seat, the pedals and the handlebars, using his weight to lean and steer through the virtual reality world. The rider can shift gears up and down, brake, and view his statistics, which include workout length, elapsed time, miles traveled and calories burned. He can also switch back and forth between a ground view and an aerial view of his route, which is especially useful on the race tracks to keep an eye on the other racers (Tectrix, 1997).

Such an example points how the "the natural environment" is reproduced as a virtual simulation, a simulation which nevertheless remains part of material human-machinic fusions (see Appendix 1 for a further example of this). Indeed, the "users" of such machines work-out inside an ambiguous experience of space, "caught between the referential and the simulative modes of experience", "connected to a topography of screens and monitors...[that]..give us the language and images that we require to reach others and see ourselves" (Olalquiaga, 1997:xix, 93).[1]

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[1] The design discourse of Transnational Corporations such as the electronics giant Phillips reveals that such experiences are being built, if only hyberbolically at the moment, into such environments. For example, according to Phillips, "we're moving towards a post-television society. Television is no longer limited to a specific location, but is becoming a circuit, a spatial information microclimate to be absorbed by the sense: a new and diffuse environmental decoration". Additionally, in the eyes of Phillips, " as the home becomes more polycentric, the demand for personalized sets will increase, sets which express our own personality and satisfy our specific needs. Even though services may be the soul of television, the body itself is not without a heart". (http://www.phillips.com/)

Additionally this case points to the possibility that "real" "nature" is not necessarily required as a physical backdrop in the construction of fitness environments. Hull and Michael (1995:1) attempted to scientifically examine this question. In their study,

> people recreating outdoors and people recreating indoors assessed their moods at the start, middle, and end of their brief (less than 2-hr) leisure experiences. Moods changed slightly but significantly, and some of these changes were consistent with predictions that leisure reduces stress. Contrary to expectations, recreating near nature produced no more restoration than did recreating indoors, away from nature.

The lack of the use "natural" surroundings might be made all of the more acceptable if the results of "scientific" studies such as that above are mobilized in the design and marketing of fitness technologies.

The imperative to streamline the body, to reduce it to the minimum necessary for low-risk, highly flexible, and rapid response performance, is mirrored in the design of fitness technologies. Perhaps within this context it seems reasonable to suggest that

> Bits of one's body also go. *One loses weight,* for example, to be in shape: one slims down to improve reflexes, synapses. Only, in so doing, one also eliminates natural territory by making it more "conductive" more streamlined. This is where INFRASTRUCTURES such as the hippodrome come in, *the real space of the place where the race is held suddenly becoming the real time of a route.* The 'territorial' body is thus rigorously configured in the manner of the 'animal' body (Virilio 1995:104).

The infrastructure in this case is the home fitness machine, which now becomes all the space necessary for the reconfiguration of the body, a potentially endless route in which no physical obstacles are encountered, a limitless track, a territory produced which promises unhindered, resistance-free exercise. In supplying a borderless exercise landscape without the problem of trespass, the threat of mugging, the danger of becoming cold, these machines reorganize space into real flatness combined with simulated mobility, "condensing an otherwise vast landscape onto a small frame" (Olalquiaga, 1997:xix).

This friction-free track increasingly also eliminates the "real" impact of the space that is seeks to replace. This is particularly so with treadmills, which are marketed through their ability to offer as little an impact on the user as possible. For instance, LifeFitness offers "FlexDeck" a patented shock absorption system on its treadmills. The BodyTrek treadmill offers "natural lower body motion" providing "the user with a smooth, fluid exercise that simulates walking or jogging without the impact". This is exercise without the hazards associated with "real" exercising through the provision of a non-impact "natural" environment, one that is free from the risks of running on "real" ground.

However, while offering these interpretations of the spaces simultaneously consumed and produced within the context of fitness environments, it is important not to suggest that this is accompanied by a replacement of "real" spaces and models of exercise with forms and spaces that are somehow merely artificial or virtual. Indeed, if one even begins to historicize these fitness environment then differences between "real" and "artificial" forms of exercise becomes increasingly hard to define. "Real" bicycling may take one through the "natural environment", but it is an experience mediated by a technology, albeit a simple one. The same is true of cross country skiing, rowing, and even in-line skating, which is now available in simulated form. From such a perspective these forms of "real" exercise can be seen as earlier cyborganized, hybrid relationships in which bodies and machines are worked together in and through particular spaces producing particular environments.

What the interpretations above do suggest however is that it is extremely difficult and problematic to attempt to accurately and definitively position the boundaries between different "things" and different spaces. In *The Art of the Motor*, (1994:155) Virilio suggests that the increased mediation of reality by technologies means that all positioning becomes increasingly difficult. In this context,

> with confusion setting in between the *real space* of action and the *virtual space* of retroaction, all *positioning* is, in fact, beginning to find itself in an impasse, causing a crisis in all position forecasting. [2]

Notwithstanding the sweeping nature of such a claim, it does seem that in the case of fitness environments such a suggestion rings quite true. Here the body is not something fixed but is difficult to locate. In fitness environments the body is simultaneously rendered mobile and immobile, through embodied and disembodied gazes. At the same time it moves through and partly constitutes different spaces - homes, laboratories, corporations, retail outlets, mediascapes, cyberspace - the boundaries between these ever more difficult to locate. In this case, the experience of space becomes one perhaps captured by Olalguiaga's (1992:xix) term - "pscyhasthenia", defined as "a disturbance in the relation between the self and surrounding territory, a state in which the space defined by the co-ordinates of the organism's own body is confused with represented space".

Perhaps then, given the discussion in the previous two sections, home fitness environments are not as easily located on the dualistic poles of subject/object, real/artificial, natural/cultural, and human/machinic. It might make more sense then to talk of the construction of environments as involving the mobilization, and thus the governmentality, of diverse groups of human and non-human actors by centers of translation such as NordicTrack, which attempt to speak for the networks that they translate and in doing so create environments as an effect of this translation. While this environment appears clearly bounded and appears to fit within the categories of the

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[2] Italics in original

modern constitution, in light of the discussion above its categorical and spatial topographies might be more difficult to map.

(A)moral amodern geographies of fitness

   Given the ambiguous nature of the environments discussed above, any effort to position categorical boundaries as an academic practice might be seen as form of purification insofar as it is an attempt to fix the position of "things" within the boundaries of particular world-defining categories. It also remains blind to the processes of translation from which fitness environments are constructed. But the politics of positioning, as a politics of purification within fitness environments, is also extremely important in terms of the "real" effects it has for the lived experiences of those embodied subjects who cannot be enrolled as actors within consumer fitness environments, and who therefore, by implication must not be fit to act.

   What does it mean to be "fit" or "unfit" in contemporary neo-liberal societies? In *Postmodernity and its Discontents* (1997:14) Bauman suggests that the contemporary criterion of "purity" is the "ability to participate in the consumerist game". Those who fit into such a scheme of purity are those "free individuals", where freedom is defined in terms of consumer choice, who possess the required resources to actively respond to the enticements of the consumer market.

   As suggested in the previous chapter, one way that this ideally fit consumer is produced is under the sign of Nordic Body. NordicTrack fitness equipment is marketed by suggesting that it offers its users the ability to get on the right track, a track which will lead the actively responsible individual to a state of embodied consumer fitness. By fitting into this track, NordicTrack consumers can therefore possess the ability to buy all that they need to buy in order that they may be all that they can, and should, be, without carrying excess baggage, and without existing in a state of immobile dependence and disability.[3] NordicTrack is therefore a strong contributor to the images projected in contemporary mediascapes of "immaculate" fitness, images consisting of "half-technological bodies", defined against "disability and physical decay" (Olalquiaga, 1997: 11). The ideally fit consumer produced under the sign of the Nordic Body might then be thought of as "the superman" of today, someone which Virilio (1995:117) suggests is "the superequipped, able-bodied person controlling the environment without having to stir".[4]

   This consumer fitness is characteristic of forms of governmentality in which the ability to consume and possess greater and greater amounts of life-enhancing commodities - in terms of risk-reducing, flexibility-improving, and response-ability quickening - is paramount. The individualization of the responsibility to provide oneself and one's immediate dependents with the safety net necessary to survive in increasingly risk-filled, contingent, and uncertain conditions manifests itself through the imperative to consume, and thus to be enrolled as an actively responsible actor within actor-networks. One must be incorporated into networks of humans

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[3] For more about the construction of disability in American culture see Thompson, R. G. (1997).
[4] Italics in original.

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and machines, one must be part of the "right disposition of things" arranged so as to lead to the most "convenient ends" of corporations such as NordicTrack. The task of becoming oneself through practices of self governmentality must be done as part of the governmentality of larger commodified actor-networks of humans and machines.

Thus, what Luke (1989:1995) calls the "consummative governmentality" of networks of humans and non-humans might be thought of as what generates the criterion of consumer purity and fitness. But as Bauman (1995:283) notes, this is also a government which, by holding high the lifestyle of a shopping mall stroller as the paragon of happy humility and the good life,

> by that standard disqualifies a growing number of its subjects -invalids, unemployed, deskilled, racially discriminated-against, single mothers - as inept and imperfect and unfit to improve on the ground of being flawed consumers ill able to afford frequent shopping-mall strolls. This is a government which, in the name of episodic life of those who 'can afford it' draws an ever thicker line and digs an ever ditch between those who can and those who cannot. This is a government which splits the society it rules into citizens defined as satisfied consumers and flawed consumers defined as flawed citizens.

This consummative governmentality clearly demarcates the boundaries between fit consumers and those who are unfit to consume and who therefore become the new "impure". These "flawed consumers", left outside as a "problem", as the "dirt" which needs to be "disposed of" (Bauman, 1997:14) are those that cannot be mobilized as actors-within the networks that corporations such as NordicTrack seek to translate. This immobility, this refusal to self-mobilize, is redefined in terms of an irresponsibility, an indifferent, lethargic, and (a)pathetic unfitness. One is unfit if one has not been able to shop for/in the best "body-shop" and one has not been able to "just do it" for oneself. One is dependent, and thus irresponsible, if one refuses to be actively self-mobilized within commodified actor-networks.

In this context, the important questions become those of connection and mobilization within and part of the fittest commodified networks of humans and non-humans. The "impure" citizens that Bauman speaks of are impure because they have not yet been mobilized and translated within the hybrid networks that make up fit contemporary embodied environments. That is not to say that they are not actors within hybrid environments, but the "right', or perhaps more accurately the "wrong" "disposition of things" in these other, unfit environments involves varying arrangements of human bodies, syringes, drugs, deteriorating public housing, prisons, existing together as networks of morally irresponse-able (un)well-faring and warfaring human and non-human actors.

The individualization of responsibility to become fit is therefore part of the fragmentation and purification of life into sharply divided fit and unfit environments. Indeed, as Bauman (1995:155) suggests,

postmodern life models aim at splicing the life-process into a series of (ideally) self contained and self-enclosed episodes without past and without consequences, and as a result tend to render human relations fragmentary and discontinuous: they bar the reconstruction of lasting networks of mutual duties and obligations

However, despite the clear division between fit and unfit environments, and the apparent individualization of actors within both environments, there are indeed networks of mutual duties and obligations, but these duties and obligations are limited. This is because they are restricted to a select and small group of people, namely one's immediate family, and also because they are networks formed of mutual duties and obligations not only between humans but also between human and non-human actors. From the perspective of a cyborg, hybrid, or amodern geography, both fit and unfit environments are ontologically impure - both are actor-networks, formed from the (im)mobilization of different networks of humans and non-humans. Thus, while the logical conclusion of ANT is that everything is constituted from networks, this is only conceptually and critically useful if it is combined with a recognition that there are differences between the mobilization and governmentality of different types of networks, and that these have very real and sharply differentiated "environmental effects". Ontologically, Latour (1997:4) may claim that "a network has no outside". However, in terms of their experienced environmental effects, networks do create very "real" insides and outsides.

Suggesting that environments are constituted from hybrid networks necessarily involves a recognition that the boundaries of the communities existing as constitutive elements of these environments do not stop at the human but extend to encompass both the human and non-human as part of hybrid collectives. Indeed it is these hybrid "collectives which constitute the topography of political and ethical community, communities which are ever lengthening as larger and larger numbers of non-humans are enlisted by the technologies of science, governance, and market into networks that are increasingly global in reach" (Whatmore, 1997:47). From this perspective, political, ethical, and moral communities are relational, and this relationality extends to non-human actors. As Whatmore suggests, there is therefore a need for "instituting a relational understanding of political and moral agency which centers on a recognition of the social embodiment and environmental embeddedness of the (re)configuration of 'individuals' and 'communities" (1997:37).

Whatmore suggests that such a network inspired relational understanding of political, ethical and moral community has a number of advantages (1997:47). First, it "releases 'nature' and non-human beings from their relegation to the status of objects". Second, she suggests that the perspective of hybrid relationality "substantiates an intersubjective understanding of ethical agency and community by which corporeal connectivities between differently constituted actants can be traced in particular material circumstances". Finally, Whatmore asserts that this perspective "liberates the geographical imaginary of ethical communities". These are positive developments to the extent that they open up a critical space in which these "objects" must be considered as actors within contemporary political, ethical, and moral communities. They

therefore might open up a space for the consideration of how "environmental" questions are also questions involving cyborg, hybrid, and amodern constructions of politics, ethics, and moralities.

Yet these possibilities must be qualified for a number of important reasons. First, because what counts as ethics in contemporary neo-liberal societies remains thoroughly individualistic. Again, Foucault's work is revealing here. In an interview titled *The Ethic of the Concern for the Self as a Practice of Freedom*, Foucault suggests that ethics in the Greco-Roman world was conceived in terms of a taking care of oneself, a "practice, an embodiment, a style of life" (1997:281-282). Importantly, ethics was also the conscious practice, and concrete form, of freedom. In the Greek context for example, "a man possessed of a splendid *ethos*, who could be admired and out forward as an example, was someone who practiced freedom in a certain way" (1997:286). In contemporary neo-liberal societies a similar understanding of ethics as *ethos* can be observed, epitomized in the Nietszchean figure of the ideal NordicTracking subject consumed by the will to consumer self purity through machinically mediated care of the (dis)embodied self. Importantly however, individual consumers pursuing such ideals rely on experts in the guise of technoscience, corporate advertising and the media to supply them with their ethical rules for living. Thus, even if, as Whatmore suggests, new spaces are opened up for a reconsideration of the ways that communities are co-constructed, this will remain a long way from the individualist ethics of the self, defined purely in terms of humans, that gives neo-liberal communities their politics, however hybridized or cyborganized they may really be.

Second, a clearer distinction must be made between ethics and morality in the consideration of the construction of hybrid environments. This distinction is difficult because, as Bauman convincingly illustrates, moral concerns have been subsumed within the "philosophical/political task of working out the prescriptions of an ethical code" (1995:4). In this situation, responsibility has been shifted back to the individual but

> this privately owned and managed meta-responsibility Mark II is not a responsibility for listening to the moral instinct or following moral impulse, but for putting one's bets on an ethical pattern likely to emerge victorious from the war of expert promises and/or popularity ratings (Bauman, 1995:5).

Ethical responsibility, defined as the rules of behaving which lead to the optimum care for oneself, has subsumed morality, defined as responsibility for the other in the face of the ambivalence of good and evil. For Bauman however, morality is more fundamental than ethics in that it is not merely a set of rules, as is ethics, but is the responsibility to "exercise one's freedom of authorship and/or authorship as a choice between good and evil". From this perspective then, an environmental morality is preferable to an environmental ethics, providing author- and actorship are recognized as co-constructions between humans and non-humans. Perhaps then hybrid moral communities may be able to exercise the choice between better or worse, but always ambivalent, environmental ethics.

However, and third, the necessity that humans be morally responsive to non-humans in the process of morally responsible environmental decisions may not go far enough insofar as it still locates moral responsibility within the human actor. If environments are hybridized communities then it might not merely be that both humans and non-humans possess agency, ethics, and morality as individual actors, but rather that agency and morality are co-constructed, and therefore exist somewhere "in-between", as it were. It might then be that agency and morality are exercised by larger and longer, simultaneously global and local, humachinic entities (Luke, 1997). If this is the case it may be that it is not with us as humans, or they as non-humans, but with the agency possessing hybrid/cyborg networks where humachinic morality is registered, a morality which is registered not only on "human terms".

Conclusion: Reconstructing the "human" in human geographies.
Do such musings then mean then that a cyborg, hybrid, or amodern geographical imagination is somehow less human than others? Perhaps not, insofar as the constitution of "our" humanity is partially, yet apparently unavoidably machinic and technological. We make, are made, come to know ourselves, and come to be known as "human" through and with the aid of non-human actors such as NordicTrack ski-machines, and together we, and they, or perhaps us, are formed as constitutive elements of contemporary lived environments. The non-human then must not be the other against which "human" geography is defined.

Such suggestions can perhaps open up a space for what might be (un)comfortably interpreted as an amodern or even de-human geography, part of what Luke (1995) terms a "critical dehumanities".   Words like "dehuman" automatically provoke strong morally motivated responses. However, it is important to note that such suggestions do not imply a call for some anarchical amorality, for a devaluation of the rights of "humans" in favor of the "inhuman" rights of stone, metal, or rubber. It is, rather, a recognition that these non-human "objects" are integral to the constitution of our "human", "subjective" landscapes. They, as part of "us" must be included and represented, perhaps as part of what Latour terms "the parliament of things", within the realm of what counts as an actor in the environments mapped by critical geographical imaginations.

A "human" geographical imagination which ignores the role that the non-human plays in the co-construction of dehuman environments may be therefore telling only half the story of the constitution of these environments. Gregory may therefore be only partially correct when he suggests that "in seeking to connect the history of the body with the history of space...Lefebvre was striving for the production of a genuinely human geography in exactly this sense" (1994:416). Connecting the history of the body with the history of space is necessary, but, as the chapters in this thesis have attempted to show, these are not the only connections that are worth tracking. Rather, recognizing connections between bodies, machines, and spaces as the networks of "things" that simultaneously constitute contemporary environments and blur the boundaries between categories such as nature/culture, subject/object, and human/non-human, might prove to be a move leading to a more (un)comfortably (de)human geography.