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Goldsmiths Anthropology Research Papers

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“The conception of a control mechanism, giving the position of any element within an open environment at any given instant (whether animal in a reserve or human in a corporation, as with an electronic collar), is not necessarily one of science fiction. Félix Guattari has imagined a city where one would be able to leave one’s apartment, one’s street, one’s neighborhood, thanks to one’s (“dividual”) electronic card that raises a barrier; but the card could just as easily be rejected on a given day or between certain hours; what counts is not the barrier but the computer that tracks each person’s position – licit or illicit – and effect a universal modulation” (Deleuze 1992).

Introduction: why thinking with human microchip implants?

On 16 May 2006, the CEO of Applied Digital and chairman of VeriChip Corporation, Scott Silverman, suggested on a Fox News television show, *Fox & Friends First*, the implantation of RFID (radio frequency identification) chips into the arms of guest workers and immigrants in the U.S. when he was invited to answer the anchors’ question: ‘Could implanting a microchip into guest workers coming into the US solve our illegal immigration problem?’¹ The question is situated in the context of the Bush administration’s

call to know ‘who is in our country and why they are here’ in the midst of immigration policy reform in the U.S. Silverman also added: ‘We have talked to many people in Washington about using it as an application for a guest worker program. But we cannot say today that they have actually bought it for immigration purposes.’ RFID chips have been approved by the FDA (Food and Drug Administration) in 2004 for medical applications such as the identification of high-risk medical patients and their medical records in an emergency and clinical situation.

¹ Transcript of the Fox & Friends interview with Scott Silverman available at: www.spychips.com/press-releases/silverman-foxnews.html (last accessed September 2007).

Before this period, RFID chips have been used to identify animals (livestock, laboratory animals, pets) for decades. Non-implant RFID tags are also found in a number of consumer products, library books, passports, security access cards, keys, transport payment cards and inmate tracking devices. Today, human microchip implants have also a wide range of uses on top of medical ones, ranging from scientific or artistic experimentation to identifying VIP customers and paying for drinks in nightclubs.

This essay is primarily concerned with the proposal of implanting biochips into guest workers and immigrants in the U.S. Clearly, there are numerous problems in deploying such a project – technical problems, ethical problems, political problems and the list goes on. However, this essay is not intended to be a feasibility study nor a commentary. It is rather an inquiry into the assumptions that render such a project ‘thinkable’ today and the various networks (e.g., military-industrial complexes) that make up the context in which it arises. The purpose here is to bypass or transcend the pompousness of the proposition, of this ‘spectacle’ as it were, in order to ‘slow down’, that is, to closely examine what it is that makes possible in our society today to,

not only come up with such a project, but also to respond to it in the way that more than a few have. Furthermore, this mapping exercise allows us to sketch out what it might imply in relation to our conception of the body, of the migrant body, of science and technology, and their relationships to borders and neoliberalism. How does the development of state-of-the-art identification technologies in the view of increasing the policing of borders through a further transgression of body boundaries intersect or challenge current theoretical debates about the body? Here we note (and make use of) the productive tension that exists between the desire to control, identify, fixate, and the mobility of bodies, the dispersal of devices, the volatility of information, the accumulation of databases; and in turn, the tension between the disembodied tendencies of ‘flexible bodies’ and the reifying functions of ‘bio-citizens’, which lay at the crux of the project of identification. If one considers these apparent tensions as contradictions or ambiguities, then they become helpful in bringing our attention to the cultural presuppositions associated with the RFID chip implant project for migrants. As the latter proposal naturally stirs outrage among the ‘public’, the project

is considered here as an intervention, an 'event',² that can be used in order to think about current conceptions of the body implied by the use of biochips for the identification of one body among other bodies in movement. In other words, to turn 'matters of fact' into 'matters of concern'.³ Thus fully part of this 'event' are the various responses to the project as expressed mainly on the internet (e.g., blogs) as well as in recent publications. A large portion demonstrates anxiety with regards to the project, expressed in terms of dignity of the person, body integrity and the right to privacy, for example. As arguably the role of anthropology is to not view those claims as givens, public perceptions of VeriChip's proposal are considered here to be part of an assemblage that is productive of the 'other' (e.g., animals, prisoners, soldiers, migrants, etc.) but that simultaneously fixates a kind of universal view of the human body from a seemingly generalised expression of anxiety. In this regard, RFID chips not only serve as an 'event' but also as a subject of a 'making of kinds'.⁴ Moreover, it acts as an object that can further a reading of contemporary racialization and biopower, and of the role that fear can play within military-industrial complexes in which science/biotechnology is a part. Hence, the project raises issues

of: bioethics, citizenship, class, race, but most importantly, it brings to the forefront the question, and indeed the promise, of identification.

In aiming to explore the various corners of the project as such – that is, as a 'promise' – this essay addresses the politics of hopes and dreams, so to speak. What makes an 'effective' or 'good' promise? That is, what can a promise say about strategies of control and the assumptions (about the body, science, borders, etc.) that make that control work? In that respect, how can one examine the temporal dimension of RFID chips alongside its more obvious spatial aspect? Furthermore, how can one look at the proposal of a technological fix and fetishism as a type of practice that reinforce a certain view of the body? What are the implications of shifting an idea of

² According to Alain Badiou, an event is the appearance of something foreign in a situation that cannot be encompassed within it. It breaks through the order of things, making possible new ways of thinking, acting, and being (Igram 2005: 565). Here I am also inspired by Brian Massumi's use of the concept, which point toward a collision of relationships often ignored, the creative potential of conflict (Massumi 2007).

³ Latour, B. 2004. 'Why Has Critique Run out of Steam? From Matters of Fact to Matters of Concern', *Critical Inquiry* 30, 225-48.

⁴ More on Donna Haraway's making of kinds later in this essay.

identification based on representation (i.e., documents) to one based on the body itself? In other words, what do RFID chips tell us about the relationship between data and flesh, between biology and technology, between ontology and epistemology, and ultimately our relationship to 'nature' and 'objects'?

Why thinking with human biochip implants? This essay could be seen as an ethnography of something that has not happened yet; or more accurately as an attempted 'anthropology of having ideas'. It is an object-oriented analysis that gives importance to the role of RFID chips and considers their deployment as an 'event' in their capacity to create new relations and affect an analysis of the various entanglements of the state, medicine and industry. It is about seeing where following a microchip through its participation in the assemblage of a body can take us, for it has been suggested once⁵ that anthropology is at least (or at most) an endeavour of the imagination, in which expanding the imagination can have the productive role of contributing to a better understanding of our current concerns. It is about giving special attention to a body as it might be presumed by the said RFID project in order to map out this body while

making use of a metaphor of tracking and a methodology of networks. If disbelief acts as a background and if imagination is used as a resource, then a sci-fi anthropology of sorts becomes relevant and productive. This does not preclude the thorough use of historical data (as indeed is used in many good science-fiction works). Following the presentation of a relevant theoretical background that addresses body boundaries, this essay will describe the political and technological context in which the VeriChip proposal emerged. It will then address more closely the techno-scientific aspect of the project and link it to scientific legacies of certain aims and desires. It will then turn to the economic rationale behind such a project and map out related processes of racialization and the making of kinds in the context of policing borders in the 'modern nation-state'. Finally, it will return to the project of identification and the assemblages it brings forward in order to suggest certain implications on contemporary conceptions of the migrant body.

⁵ Geertz, C. 1988. *Works and Lives: The Anthropologist as Author*, Stanford: Stanford University Press.

Challenging the body: bodily circuits

There is urgency in talking about the body. This is clearly suggested by the very idea of the VeriChip project. However, again, the point is not to naively denounce the project but rather to use it as an instance in furthering our comprehension of contemporary ideas of the body, that is, the modalities of power in which certain bodies are produced. There is nothing new in focussing one's attention on the body as an object of theoretical analysis. There exists solid literature that has expanded our understanding of how certain bodies are made. Part of the aim of this essay then is not only to build on this literature but to carefully weave in an analysis of technoscience in relation to neoliberalism, migration and practices of the state. The literature of medical anthropology is populated with accounts that address issues related to what could be summarised as 'biopower' (as proposed by Michel Foucault), but 'medical anthropology' maybe has become somewhat of a misnomer, for, as the VeriChip project demonstrates, biopower is not solely a matter belonging to medicine or health systems but is deeply intertwined with matters of labour, state control, law, and

bio-industries. This suggests that the body is increasingly being understood as permeated by various flows that have not necessarily been associated with bodies in the past.

Studies that take into account those diverse yet meaningful entanglements include cases of body (and body parts) commodification, which in many instances help highlight power relations regarding race, gender, and class. For instance, Scheper-Hughes (2001a: 1) identifies the 'professions' (e.g., reproductive medicine, transplant surgery, bioethics and biotechnology) as having contributed to the increasing financial objectification of the body, which can be 'bartered, sold or stolen in divisible and alienable parts'. Thus 'body economics' or what Cohen (2004) calls 'bioavailability' (i.e., where a body contingently matters as an articulation of markets, relations of dis/affection and the presence of a technical apparatus) are intimately linked to 'body ethics' given the close link between the expansion of body-commodifying possibilities, the spread of global capitalism and the simultaneous time/space collapse in terms of the movement of bodies/body parts. A classic example is the trafficking of organs from the global South to the North. On the other hand, as Lock (2001) demonstrates

in her study of the Human Genome Diversity Project (HGDP), the mission of 'immortalizing cell lines' saw the procurement of body cells and tissues – which make it 'increasingly difficult to say where the body is bounded in time, space, or form' (Landecker 1999: 221; in Lock 2001: 74) – highlight the racial politics behind such projects. While the HGDP adopted a discourse of the 'universal man' and the 'book of life' as a whole, the project took on a neo-colonial flavour once targeted indigenous groups contested the endeavour (ibid.: 73-4).

A slightly different way of looking at entanglements of market and bodies is to look at flows operating between 'nature' and 'culture'. Lury (2002) summarises the debates about the changing status of these categories by suggesting the collapse of the differences between nature and culture. Drawing on Haraway's metaphor of 'implosion', where nature and culture have become deeply entangled, and Rabinow's argument of 'inversion' (or 'biosociality'), where culture has become the model for nature (1996), she discusses the 'branding of nature' and the 'making of kinds' by arguing that 'at the same time that nature and culture are produced as isomorphic, any relatedness between nature and culture is disappeared' (ibid.: 589).

Perhaps a more eloquent example is that of Haraway (1997) herself in her discussion of the marking and branding of transgenic organisms via the introduction of proprietary corporate signatures into genomes. As such, OncoMouse™ is not only a breed of mouse genetically engineered to get cancer, that is, a mouse that has value in relation to medical research, but one that can be traded as well, that is, a mouse that has value as a legally recognized intellectual property of Harvard Dupont. Similarly, not only can Monsanto assert property rights in the genetically engineered plants or transgenic organisms it produces, but it can also legally restrict their reproduction by introducing a marker (or Universal Product Code) in the organisms' genome, enabling the enforcement of their patent rights.

Such traffics inform a landscape of marking which has the potential to be applied to bodies, therefore raising in a particular light questions of property and selfhood. Significant to our purposes here is the scale of contemporary marking practices in the view of identification. Because more far reaching than, for example, the star of David marking Jews in concentration camps during the Second World War, microchip implants shelter a plethora of relationships specific to late capitalism

and biotechnology. The RFID chip is used here in similar ways as Donna Haraway (1991) used the mythical and promiscuous figure of the Cyborg as a strategy for bringing forth pressing issues and interconnections which challenge an essentialist view of bodies and technologies; in turn, calling for a kind of resistance that makes use of the creative potential of transgressions of borders in order to form coalitions based on affinity rather than identity. This is what she designates as the 'making of kinds' – a concept that is most useful here – as a way of relating to one another that moves away from essentialist notions of race, gender and class, yet without erasing those relations of inequality.

I am a biocitizen

The present discussion on identification has a specific relationship to the idea of 'identity' in anthropology. It is interesting to note that a fair number of ethnographies of groups situated at geographical borders have mainly focussed on the negotiation of cultural identity at the frontiers of nation-states. Studies belonging to such 'border anthropology' (e.g., Donna and Wilson 1993) are oftentimes problematic because they take the state for granted.

In other words, they conform to the constructed borders upon which the nation-state depends and then only address 'identity'. Far from claiming that identity does not exist, I wish however to specify that this essay does not concern itself with such debates. A second generation immigrant myself, I know from experience that identity is a complex phenomenon. It is nevertheless useful to delineate the link between 'identification' and 'identity' as it is framed in the present essay. Identification suggests a process, and indeed, a project. Identification bears the idea of incompleteness, of something to be achieved, of work to be done. On the other hand, identity, while widely discussed and questioned in scholarly works, brings us back to a tension between essences (e.g., 'identity politics') and identity as being used in the context of certain claims, that is, identity as a (political) technology. Thus identification brings our attention directly to the process, the *techné* of tracking something that is inherently mobile and changing, such as identity. In that sense, identification does not concern itself with identity politics, for it brings forward the politics of identity politics itself. It makes clear (or has the capacity to) that the primary role of identity is a technological one (such as my own personal claim

above), explaining its mobility, and thus problematising it without having to assume, accept, or reiterate essences.

Clearly, this essay takes as its framework propositions that 'alter' the body, alongside analyses which might seem to have, at first look, a stabilising effect on the body by virtue of their reiteration of the body's materiality, but which really, again, display practices of and on the body. I am referring here to the literature on 'biocitizenship'. For instance, Ticktin (2006) discusses how certain asylum seekers in France (the 'sans papiers') used the infection of HIV as a technology to obtain status in France due to the country's policy, which bans the deportation of illegal immigrants in situations where their health condition is serious enough. Petryna (2002) brings forward the idea of 'therapeutic citizenship' in her study of post-Chernobyl Ukraine and argues that 'strategies of the making of citizens' were constituted from the bottom up by those affected by the accident through their claims for biomedical resources, social equity, and human rights. Rose & Novas (2004) argue that 'biological citizenship', as emerging from current developments in technoscience and biomedicine, poses a challenge to existing conceptions of national citizenship and contributes to the destabilisation of nation-

states (ibid.: 440). In short, ideas around biocitizenship are useful in thinking about the fact that, whereas technoscience and biomedicine seem to contribute to the increasing volatilization of the flesh in the form of alienable information and valuable data as summarised above, the material body is, in contrast, simultaneously appropriated as an object of citizenship claims in interaction with state practices. Thus, this confirms the complex and ambiguous dynamics that constitute the body, which lie at the heart of the RFID chip problem. In the case of biocitizenship, at issue here is also the project of identification in a sort of self-referential process that raises important questions and implications in terms of agency: what does one gain/lose from being identified by one's biology?

‘Project RFID’

To consider RFID chips as a ‘project’ does not suggest that they are part of a ‘programme’, a kind of grand scheme or conspiracy on the part of the manufacturers or their supporters. This would be conflating the object of analysis with the analysis itself. Rather, it is about surveying the significance of a particular ‘public’ response to a particular type of new technology, and combining it with an understanding of the emergence of relations between objects, between humans and non-humans, and between humans and other humans, which is happening now based on an imagined future. From that perspective, ‘project’ here takes its meaning from its definition as a verb (to predict, to expect, to calculate, to cast, to propel), while also carrying the spectre of its definition as a noun, as a way of reminding us that even if a project might not be planned and may seem messy or anarchic, it is still something that can be understood.⁶

VeriChip is the manufacturer behind the first human implantable RFID chip cleared by the U.S. Food and Drug Administration (FDA), in 2004, for medical uses in the United States. On their website, we can read that VeriChip was formed in December 2001,

following the events of 11 September 2001 when they observed that New York firemen wrote their badge ID numbers on their chests in case they were found injured or unconscious.⁷ The webpage also includes a paragraph on Hurricane Katrina where they demonstrate the benefits of human-implantable RFID microchips from their ability to identify victims quickly and accurately by virtue of the ‘always there’ quality of the device. Thus the RFID microchip is used as an automatic identification method where data can be stored and retrieved remotely using radiowaves.

The human-implantable VeriChip is 11 mm long and 1 mm in diameter composed of a coil of wire and a hermetically sealed microchip within a glass capsule covered with a tissue-bonding plastic. The coil serves as an antenna that powers the passive chip

⁶ For example, Feyarabend (1993) might have argued otherwise, but here I am working within a framework of (Foucauldian) power/knowledge. Although Feyarabend’s argument is insightful for the history and philosophy of science, to depict something anthropologically as emerging out of a process of anarchy would have vastly different theoretical, and I would argue, practical implications in terms of an analysis of biopolitics in this particular case.

⁷ Corporation FAQ: www.verichipcorp.com/content/company/corporatefaq (last accessed September 2007).

via radiowaves, which can then signal a unique electronic 16-digit number that can be picked by a proprietary VeriChip RFID reader in order to link the number to a web-based medical record database⁸ (in the case of the VeriMed application, for example, for patient identification). The chip is inserted just under the skin in the tricep via an outpatient procedure that is said to be quick and painless.⁹ Each VeriChip owner is given a unique subscriber number at the physician's office after having filled out a Patient Registration Form that then enables him or her to log onto the VeriMed Patient Registry (using a VeriMed ID and password) where he or she can maintain a profile.¹⁰ The manufacturers are also careful in mentioning that the database is secure and that the microchip is not a tracking device imbued with GPS (Global Positioning System) capacities and that the passive microchip needs a scanner to be activated with a low power and low frequency electromagnetic field (the scanner must be inches away from the chip to be able to read it).

VeriChip is not the only RFID company, although it is arguably the most powerful proponent of the human-implantable microchip. The technology is much more widely used in RFID tags in supply-chain and consumer products, where the chip stores information about

a product or an item in the form of a uniquely numbered code – similarly to a barcode, except that RFID tags are read via radiowaves rather than lasers, and allow the identification of each individual item, not only types of products.

Several sources available on the web¹¹ suggest that the origins of RFID technology can be traced back to radar technology being developed in the 1920s, during the Second World War. Radar detects and locates an object by the reflection of radiowaves it sends out. Some sources consider the first remote identification device to be a radar transponder (transmitter-responder) system called IFF (Identification Friend or Foe) launched by the British army in 1939:

⁸ Foster, K. R. & J. Jaeger. 2007. 'RFID Inside: The Murky Ethics of Implanted Chips', IEEE (Institute of Electrical and Electronics Engineers) Spectrum Online : www.spectrum.ieee.org/mar07/4939 (last accessed September 2007).

⁹ Idem.

¹⁰ VeriMed FAQ: www.verimedinfo.com/faq.asp#r6 (last accessed September 2007).

¹¹ Including a paper by 'one of the original five scientists from Los Alamos National Laboratories that developed this technology for the federal government'. Landt, J. 2001. 'Shrouds of Time: The History of RFID', Association for Automatic Identification and Data Capture Technologies: www.aimglobal.org/technologies/rfid/resources/shrouds_of_time.pdf (last accessed September 2007).

Radar signals used by IFF-equipped British craft would be within a certain frequency range, which in turn would be picked up by other IFF-equipped planes. Those planes would then send back a signal in that range but with greater amplitude, allowing an airman to identify it as a friendly plane. While relatively simplistic and still not fully functional, it was a major advance in solving the identification problem (Kleefeld 2005).

The United States Department of Defence massively funded research on RFID at the MIT Auto-ID Center in the 1990s, although much developmental and implementation work also happened in the 1970s and 1980s – mainly within academia – around transportation, personal access and animal tracking. In the 1960s, companies developed the commercial application of RFID tags for anti-theft electronic article surveillance. The 1970s saw the beginning of RFID tags for tracking cattle; more recently in 2004, the U.S. Department of Agriculture (USDA) initiated a 29-state pilot program to use RFID in case of disease outbreaks.¹² In the 1970s, RFID was being used for highway toll payments, a principle similar to more recent public transportation payment methods (e.g., Transport For London's Oyster card). Today, alongside the U.S. Department

of Defence, Wal-Mart is the strongest driver behind RFID tag research and development and commercial application (Medosch 2006: 4).

In terms of tracking specific individuals, VeriChip already offers 'solutions' for patients (Patient Identification), infants (Infant Protection) and the elderly (Wander Prevention). The corporation has also been reported to having been lobbying the Pentagon for the right to implant chips in U.S. soldiers and military personnel. The literature mentions that a former secretary of the Department of Health and Human Services, Tommy Thomson, is a partner at the lobbying law firm of Akin Gump and is a director of VeriChip.¹³

The online literature on RFID, whether corporate, governmental, academic, private (e.g., blogs) or public (e.g., forums, newspapers), is practically endless. What I want to highlight is that, while our main focus is on the human-implantable RFID project as related

¹² 'Food Safety Research: A Focus on Animal Identification Pilot Program', USDA-Agricultural Research Service: <http://grande.nal.usda.gov/fsrio/research/fsheets/fsheet12.pdf> (last accessed September 2007).

¹³ Francis, D. and B. Mayers. 2006). 'Company Trying to Get Under Soldiers' Skin', Examiner; www.examiner.com/a-232630-Company_trying_to_get_under_soldiers__skin.html (last accessed September 2007).

to migrant workers and immigrants in the U.S., the controversy is part of a much larger debate on what has been coined, and widely adopted, as 'spychips' among the sceptic portion of the 'public'. Indeed, the concern that comes up most often is that which is related to the number of potential uses of RFID tags. As the list gets longer and the versatility of the technology cannot help but expand, 'abuse' is the main fear. That fear is expressed in different ways according to the comments available on the internet. Two main expressions of fear stand out among RFID critics: privacy and human dignity.

The most prevalent form of fear seems to clearly pertain to questions of privacy – including the security of the device itself – often expressed in technologist terms. Thus one can divide the privacy concerns into two sets: one expressed by 'consumers' (e.g., Albrecht and McIntyre 2006) and another by 'technologists'. The consumer contestation of RFID tags is mostly expressed as an invasion of one's private life. RFID is described as the next step after barcodes but with enhanced capacities enabling 'real time' inventories of retail products. Similarly, access cards allow entry to certain places but simultaneously indicate the location (and times of entry/exit) of the enterer (usually a worker). Ironically, similar oppositions

to those of consumers can stem from 'anarchist' communities (e.g., Anarchist Federation 2006) as part of a critique of a surveillance society akin to Orwell's Big Brother. Indeed, an additional aspect of the critique, which is also shared by technologists, is that RFID technology is being imposed from the powerful above (i.e., large corporations and the government). Privacy concerns additionally pertain to worries about the vast amount of information that is being collected, its purpose, and who exactly can access it. As several critics point out, the biggest flaw of RFID tags at present is their ability to be cloned. As media theorist Medosch mentions: 'The problem with relying on those systems is that they give a false sense of security. The number of web-pages about RFID hacks is myriad' (Medosch 2006: 7).

At this point, it is also interesting to highlight how abuse scenarios are constructed. This is often spoken in terms of potential, within a 'slippery slope' framework, also expressive of mistrust:

The most simple *abuse* is in the potential for corporations and individuals with tag readers and access to RFID databases to do silent electronic searches without the knowledge or permission of the person being searched [...]

Realistically, the proprietary nature of most corporate databases will mediate, but *not eliminate*, the danger of this type of abuse [...] While the presence of chips will not always indicate the presence of an individual, it will be accurate enough to provide *impetus for* such use [...] Although RFID is still prohibitively expensive and readers are only reliable within close proximity (2-3 meters) to a tag and rarely capable of reading multiple chips simultaneously, these limitations are only *temporary*. (Hill 2006, emphases mine).

As the VeriChip website demonstrates, the 'privacy war' is the privileged one at the moment, with online information geared towards reassuring actual and potential users/customers about the security of the device. On the other hand, there is a parallel war going on, which is characterized by concerns about human dignity. In the case of VeriChip, it could be argued that claims to 'humanitarian' motives related to 9/11 and Hurricane Katrina, for example, are part of that game.

But let us now consider some instances of opposition with regards to human-implantable chips. A post from the blog *Slashdot* asserts, 'I bet Mr. Verichip is kicking himself that his company didn't exist back in the grand old

days of slavery. He would have made a killing' (posted by Digital Autumn, 2 June 2006).¹⁴ Another blog called *Immigration Chronicles* had a comment articulating a similar concern in a different manner:

An imbedded chip demeans the human dignity the immigrants have come here to experience. They might have been treated like slave labor in their host country and have come here to experience getting a salary and the opportunity to enter the marketplace. Especially women, who in some countries are treated like property. To be marked like cattle who might stray away gives them the approximate status of livestock. A tracking chip is detrimental to the freedom promised by the American laws [...] The shock treatment of the 1930s is now against the law, and "microchips" in the human body should be declared against medical ethics and law also (Posted by Olive, 17 August 2006).

One example of an 'academic' reaction to microchip implants expressed the human dignity concern as one belonging to bioethics, under a Kantian deontological model of human beings as ends in themselves and

¹⁴ <http://yro.slashdot.org/article.pl?sid=06/06/02/1514252> (last accessed September 2007).

not as a means to the 'accumulation of information'. The paper reiterates the role of technology's versatility in creating anxiety (the 'slippery slope'):

It seems likely, then, that the potential uses for implantable RFIDs will only increase in the future. Indeed [...], it appears that the use of RFIDs, both external and implantable, could shift from a voluntary and consensual model of use, to one that is neither voluntary nor consensual, which is of considerable concern to those concerned not only about privacy, but about ethics more generally (Long 2007).

Additionally, some social researchers have started studying attitudes towards human-implantable RFID chips. Perakslis and Wolk (2005) asked 141 college students if they would be willing to have an implant 'to prevent ID theft, to combat terrorism, for other national security reasons, as a life-saving device, or to ensure the safety of themselves and their families' (Foster and Jaeger 2006: 28). They report that less than a half was not, with the most popular reasons having to do with the safety of their lives and that of their families, and the least popular reason being identity theft. The study also suggests that, while awareness of biometric technology

is still low among customers, privacy and personal rights concerns exist, yet alongside a heightened value placed on 'convenience'.

Of interest is how sceptics of the RFID proposal frame the problem of implantable microchips, alongside how proponents frame the problem to which RFID technology is a solution. Of course what are missing here are accounts from supporters of the technology among the 'public'.¹⁵ It is however important to note that there is not a clear-cut distinction between the 'public' and other actors, such as the manufacturers, for our main focus is on ideas being expressed. In other words, whenever a new technology is being developed, there will be supporters and opponents. The dichotomy itself is not relevant for the purpose of this essay. Rather, of interest are the claims and resources being mobilised to justify apprehensions or imagined futures. Of interest is how responses articulate current views of the body and the power dynamics from which they emerge. While the responses sketched above point towards 'multiple bodies' (e.g., Mol 2002), I would argue that a common thread could be observed,

¹⁵ Throughout this essay, the unfortunately vague term 'public' is used to designate those who are not manufacturers or sponsors of RFID technology.

which would link these heterogeneous views into a common assemblage. This would be better summarised by returning to the concept of biocitizenship, which proposes a body that emerges in relation to 'hybrid practices of consumption and citizenship' (Michael 2006: 53). As Rose (2001) argues, we have come to understand ourselves as 'somatic individuals' where 'corporeality has become one of the most important sites for ethical judgements and techniques' and where 'a universal human right to the protection, at least, of each human person's bare life and the dignity of their living vital body' (ibid.: 21) is now taken for granted, that is, it has become a locus for legitimate claims. Biological citizenship also implies that the responsibility of our bodies is ours and no longer that of a central authority such as the state. From this perspective, the 'human dignity' response reproduces the possibility of identification by highlighting the tension between implanting a 'foreign' object into a body in order to mark its identity. This promise is eroded by the 'real' technical potential for identity theft as indicated by the privacy response, but this erosion does not completely challenge the idea of identification since the obstacle here remains arguably a technical one (i.e.,

to which one could find a technical solution).

Scientific fantasies and statistical dreams

Earlier I had proposed the idea of considering the RFID project for migrants as an 'event' where the seemingly outrageous nature of the proposition is taken as an opportunity to understand the various relations that make the proposal possible, for articulations of the future stem from realities and perceptions of the present. One such resource of the present is the assemblage that is technoscience. The latter is intertwined with the process of 'biomedicalization' emerging out of 'the mutual constitution of political economic, cultural, organisational, and technoscientific trends and processes' (Clarke et al. 2003: 184). While RFID microchips do not belong to the realm of biomedicine *per se*, several aspects justify the link to be made between biomedicine and technoscience in this case. More concretely, the FDA approved human-implantable microchip has been first introduced in the U.S. in the healthcare system as a way of identifying patients and getting access to their medical records. Furthermore, the link between technoscience and

biomedicine is not an arbitrary one since both play an important role in 'governmentality'. I would even add that the 'success' of governmentality depends partly on a slippage between technoscience and biomedicine. That is, the close relationship between medical and technoscientific professions has contributed to the proliferation of self-regulation and self-surveillance corporeal practices, based on contemporary ideals of health and happiness, thus allowing the management of the 'well-being' of the population. With health becoming an end, various obligations are created to attain that goal, taking the form of self-discipline in order to control various risk factors. In short, self-disciplining bodies have been made more efficient by technologies of health and biomedicine, and the blurred line between medical institutions and technoscientific ones is a productive line of flight for the self-disciplining of bodies within a non-medical context.

In order to further understand the relationships that constitute the body which emerges out of the RFID proposal, let us turn to the assemblage of technoscience. It is beyond the scope of this essay to draw the history of the emergence of the military-industrial complex (sometimes also called the military-industrial-academic

complex),¹⁶ but some historians locate the seeds of this phenomenon in the naval build-up period between the American Civil War and the First World War, where business, the military, and political interest groups coalesced, thus securing the roots of institutional arrangements between the military and industry for the purpose of large-scale weapon acquisitions (Baack and Ray 1985). However, the military-industrial complex is said to have emerged during Second World War when the military as patron of science took an unprecedented scale because the 'conviction arose that science and technology would determine the outcome of future wars' (ibid.: 267). It is in the same period that warfare not only influenced the agenda of science but also the method by which science proceeds (ibid.: 269). An idea that is a by-product of these nationalistic dynamics can be found in the very words of Robert Atkinson, President of the Information Technology and Innovation Foundation, when he defended RFID technology in a debate with *Spychips* author Katherine Albrecht. Atkinson made the following argument for RFID technology:

¹⁶ For a comprehensive overview of the history of war, technology and science in the U.S., see Roland (1985, 1995).

[S]lowing down or constraining RFID will not only hurt consumers, but it will mean that other nations will lead in the RFID industry, damaging U.S. high-tech competitiveness. While we are putting the brakes on new technologies, other democratic, freedom-loving nations, like Japan and France, are embracing them, in part so their technology companies can dominate the global market [...] The U.S. is the worldwide leader in information technology in part because Americans have accepted the benefits of innovation without trying to control the risks ahead of time (Atkinson 2006: 7).

With regards to RFID tags, one has to understand that it is considered by many as a key technology that will enable an 'internet of things' within a framework of 'ubiquitous computing' (or Ubicomp). Medosch argues that an influential science developed during Second World War has been that of operational analysis, that is, statistical methods of evaluating the effect of bombing campaigns or artillery barrages, which later became a major part of management theory: 'Managing large top-down bureaucratic organisations through central IT infrastructures such as databases – the principles of Fordism transferred into a machine – is a legacy still at work

today, for example in systems such as MS Office' (2006: 11). Moreover, it was during Second World War that cybernetics developed:

The second world war engaged a quantitatively more intense movement of people, goods and weapons than ever previously in the industrial era. There were lessons to be learned from this by the interdisciplinary teams of scientists, engineers, military planners and commanders in the United States, the most advanced industrial society of the time. The links between people and equipment tied together through an electronic communication infrastructure inspired cybernetic theory which imagined society as systems of command and control (Idem).

During the same period, DARPA (Defense Advanced Research Projects Agency), the central research and development organisation for the Department of Defence (DoD), invented the precursor to the internet (ARPANET). More recently, post 9/11, links continue to proliferate between technoscience and the government within the framework of Homeland Security after the anthrax letters of October 2001 created fears of bioterrorism. In this context, the

government aimed to reduce the risks of bioterrorism by establishing policies to enhance public health measures, as well as a regulatory regime to reduce the risk of research in biotechnology being used by terrorists (Reppy 2003: 40). Thus many points of passage exist between technoscience, the state, and everyday life, and the relationships of the present are situated within a framework of management and of risk reduction.

Another relevant aspect of technoscience in the case of the promise of identification is the role that technoscience plays in the creation of expectations and the political economy of hope and hype about the future. Technoscientific research on xenotransplantation (e.g., Brown 1999, 2003) has brought forward feelings of anxiety around technologies characterised by 'hybridity' (animal/human, human/machine, etc.). It is a truism that all new technologies create both feelings of fear and excitement, which in turn articulate current views of the body and the self. At the heart of this essay is the proposal that an examination of the temporal aspects of the promise of new technologies, that is, the formulation of a future in the present, is productive of articulations and expressions of current conceptions of technology and its relationship to

life. In other words, promises about the future (a future among futures) are artefacts of the present. In the case of hybrids, Brown argues that feelings of disgust or anxiety become normalized over time via various practices of purification (e.g., Latour 1993) between realness and fantasy from diverse spokespersons. As such, the normalization of disgust, the work of purification, can be considered as a kind of risk management in order to gain 'public' trust. For instance, biomedicine performs techniques of legitimation via randomized controlled trials (Clarke et al. 2003: 182). In the case of RFID implants, however, normalization is achieved via claims to the security of one's identity. Moreover, feelings of anxiety in response to imagined futures, where human beings are treated as cattle, become cyborgs, or are differentiated on the basis of their status, express how assumptions and promises attached to RFID implants serve in the 'closing up and opening out of bodies' (Michael 2006: 49) and the imagined corporeal risks posed by these technologies.

Neoliberal fantasies and technological fixes

The promise of identification is further entangled in current forms of neoliberalism, for this project is targeted towards guest workers and immigrants. This section addresses the dynamics involved in the RFID market such as the information economy, privatization and the creation of markets in order to draw links with a reading of racialization under neoliberalism.

The human-implantable VeriChip is promoted as a 'solution' both on the website and as implied in the Fox Friends interview. Proponents of RFID technology also clearly speak of it in these terms. For instance, one of the 'bottom-up' defenders of RFID tags, Bruce Sterling (science-fiction writer and media theorist), considers RFID technology to have the potential to solve the current ecological crisis via the introduction of SPIMES, that is, objects which can be traced in space and time. According to him, the current ecological crisis is a result of a 'design problem', and he exposes his theory in the book *Shaping Things*. For Sterling, the idea that all objects in the world could be interconnected and their histories available via databases,

echoes the idea of the 'internet of things' as a possible (sustainable) future.

The aspect I would like to highlight is the formulation of a problem to be solved, which is again linked to a kind of risk management and to the making of a body by relations of (bio)power. The logic of RFID tags could be seen as the following. Time and time again the promise of identification is fuelled with another promise, that of convenience. RFID tags are promoted as objects that 'understand' how the world works (i.e., in networks) and can save us valuable time by reducing objects to databases. This promise is illusory and can exist only as a product of a work of purification (between 'technology' and the 'world'). As Medosch points out, what is mostly convenient is that the IT industry usually sells solutions to problems it has created itself:

[S]chemes introduce the very same technologies with a promise of more 'convenience'. As internet users know only too well, password management increasingly becomes a burden. Add to this bank cards, an NHS card, PIN numbers, etc, and the authentication quagmire expands. Now, the IT industry is about to gift us with a new product, called 'identity services'. For large corporations authentication

and authorisation concerns increase exponentially regarding security issues both in real space (access to buildings) and computer systems. It becomes praxis to outsource the management of identity and access codes within their institution to a security IT company (Medosch 2006 : 8).

This brings us back to the question of risk. As suggested by the idea of 'risk society' (Beck 1992), the condition of late modernity is constantly productive of risk. It would be 'convenient' to note here as well that risk happens to be an infinite pool and resource for expanding markets and 'solutions', for risk can always be argued to be present. In other words, risk is a technique of control since everything can be risky. As Rose articulates, risk 'denotes a family of ways of thinking and acting, involving calculations about probable futures in the present followed by interventions into the present in order to control that potential future' (2001: 7). Rose also accurately notes that demands for collective measures of biopolitical risk management, far from reducing, are proliferating and globalizing. At this point, risk cannot but proliferate. In other words, risk sells.

Not surprisingly, this is closely linked to another aspect, that of outsourcing. Risk implies the process of its

'distribution' following the logics of management. In the case of the U.S., many examples exist of companies hired by the government in the name of efficiency. Corporations know that – and this is why statements like 'We have talked to many people in Washington...' have significance, and not in a Big Brother sense. As suggested above with regards to the body, too much 'openness' can present certain risks. If one uses the trope that is so popular among medical anthropologists of using the body to speak about, in this case, the state, one can easily consider certain contemporary state practices as belonging to a type of risk management. In conjunction with the creation of 'identity services', not to mention the industry of biometrics, the policing of borders represents great business opportunities. For instance, all U.K. detention centres are private companies contracted by the Home Office; security services, such as deportation, are provided by employees of these private companies. Another instance of risk management and governmentality is the FDA's strong promotion of the use of RFID tags to fight the proliferation of counterfeit drugs, or the use of microchips to help with patient compliance with regards to medication.

How do these dynamics inform our understanding of migration and the making of kinds today? Memories of the marking of the bodies of certain racially defined groups still haunts an analysis of using RFID implants to identify guest workers and immigrants. However, the contemporary assemblage suggests more complex points of entry and interaction. If one follows the RFID microchip, it would seem that there is no essential link between value and the racialization of certain bodies. Rather, value is created when private security providers come to bid for contracts with the government as modulated by the current domestic situation (e.g., U.S. Immigration Reform) and the geopolitics of labour at the borders. Hence, private security companies adapt themselves to the added-value to be accrued from any racial politics a state might adopt.¹⁷ Thus racialization and identification can be seen as by-products of class inequality, akin to a marxist analysis of racialization.¹⁸ That is, race is made through political and economic domination, for it does not exist empirically as a natural object. In this case, what might count as ‘race’ is an assemblage as well.

Conclusion: thank you for identifying yourself

The object of discussion of this essay has been the idea of identification. More specifically, the power at work in the promise – the laying out of the possibility – of identification. It was posited from the beginning that to consider the body as an assemblage (e.g., DeLanda 2006), as it arises in the form of an event (i.e., the proposal of implanting RFID microchips into guest workers and immigrants in the U.S.), can allow an understanding of power relations and biopolitical networks currently at work with regards to bodies, technology, neoliberalism, migration and the state. Power is not only ‘exerted’ but emerges out of interactions (Law 1994: 22). It was suggested that an anthropology of having ideas has relevance given the territorializing force that projects, proposals, plans, threats – species that occupy a liminal place between future and present – carry in revealing coherent yet heterogeneous interlockings of

¹⁷ I thank Melinda Cooper for these insights.

¹⁸ For a more detailed analysis of the relationship between class, race and migration, see selected work by Étienne Balibar and/or Sandro Mezzadra, as well as Paul Gilroy.

various institutions, objects, bodies, ideas and emotions. This kind of sci-fi anthropology constitutes itself around the proposition that 'even if nothing happens', power and processes are at work, which are useful to look into in the present. In problematizing the idea of identification, and thus of essence, a particular approach to ontology is needed in order to capture the fleeting nature of identification, which has been shown to be a technology, a tool for making claims possible within a framework of biological citizenship. Indeed, the problem of identification brings to the fore the tension between permanence and tactical mobility. This idea is expressed by the microchips themselves in the context of late capitalism and information society; 'A proposed European Union "Intellectual Property Enforcement Directive" would actually forbid removal of embedded tags. Permanent tagging is being encouraged by the EU for limiting global movement of products, similar to regioning [*sic*] of DVDs, although this has been criticised by free-marketeers' (Anarchist Federation 2006: 12).

As Das (2004) rightly suggests, the state is always an 'incomplete project'. As the state works, as an assemblage, to confront and control its moving and transversal margins, we too must do the work in examining the material

emergence of power relationships in space and time. In looking at the illegibility of the law, Das shows how the signature of the state, as detachable documentary practices, enables an oscillation between a rational and a magical mode of being. From this examination of state practices, I would suggest that the state can enter the life (of a community) and yet remain elusive/illegible via outsourcing and capitalist assemblages. State practices in their attempt to territorialize the volatility of identity adopt an ecstatic and hence traumatic (mobile) behaviour (Nelson 2004: 137). Documentary practices of the state and processes of individuation have been well described also by Jeganathan (2004) in his examination of the violence and arbitrariness of checkpoints. In that regard, human-implantable RFID chips could be considered to be 'internal' checkpoints. From this political analogy, the idea of microchips suggests the desire to counter the volatility and mobility of identity by coming up with devices that shape bodies, that control the risks they pose (for the native population, for the economy, etc.), and that reduce uncertainty. On the other hand, databases can be 'hacked into' and accumulate useless information ('data-trash'). Thus RFID chips, as a distributed technology, can

be considered to exert 'distributed power'. Where RFID technology is said to have been made for flexible bodies of post-Fordism, I would add that they could be considered as 'distributed bodies' – in the context of the internet of things – where information is kept in a networked state of potential that is still volatile and can be hacked. The internet of things (a network of all networks) would be what Deleuze (1992: 4) called the 'spirit of the corporation', a modulation, not a mould, where the idea of 'openness' means 'one is never finished with anything – the corporation, the educational system, the armed services being metastable states coexisting in one and the same modulation, like a universal system of deformation'. Indeed, the internet of things belongs to the era of the 'societies of control': 'The numerical language of control is made of codes that mark access to information, or reject it. We no longer find ourselves dealing with the mass/individual pair. Individuals have become 'dividuals', and masses, samples, data, markets, or "banks"' (Deleuze 1992: 5-6).

At stake here is how we relate to each other since we are addressing migrant bodies. This essay has attempted to combine approaches to networks of bodies and technoscience which promote the idea of 'multiple bodies'.

However, how multiple is this body really? That is, to what extent does a special attention to micropolitics obliterate the biopolitics of the making of kinds in late capitalism? I have suggested that this making of kind follows the principles of efficiency and of management, which RFID technology is supposed to be solving for Wal-Mart and the state. In other words, the contemporary making of kinds is made under a risk management paradigm. Bluntly put, the other is managed – suggesting flexibility but also violence. As Rose notes:

It is no longer a question of seeking to classify, identify, and eliminate or constrain those individuals bearing a defective constitution, or to promote the reproduction of those whose biological characteristics are most desirable, in the name of the overall fitness of the population, nation or race. Rather, it consists in a variety of strategies that try to identify, treat, manage or administer those individuals, groups or localities where risk is seen to be high (Rose 2001: 7).

Furthermore, the current literature on expectations has shed light on the power relations situated in time, but most works have focused on the professions and the 'public'. This essay has also attempted to widen the scope

of the politics of hopes and dreams in order to make links with certain forms of biopower. There is a slippage between a proposal in the present and its reference in the future; that line is blurred because that very indistinction is productive, magical. What makes the RFID proposal and the promise of identification possible are conditions and views situated and emerging in the present. As Deleuze (1992: 4) recommends: 'There is no need to fear or hope, but only to look for new weapons'.

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