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Innovation and Imperative

It is plain that public health has an interest in forms of technosexuality, either as a source of danger or as a method for extending itself. In this chapter, I want to address some of the tensions for public health governance concerning the assumptions it relies on regarding the individual and their social relations. In particular I want to address altruism, contagion, risk and forensics. Each of these concepts represents an assumption of social action that finds expression in public health. I also want to consider how technological innovations, particularly of the biological kind, have influenced the expression of these assumptions. In the previous chapter in connection with the Health Belief Model (HBM) and treatment optimism research concerning HIV biotechnologies, I noted some of the effects of assumptions that social actors in the technosexual realm are risk averse and rational individuals. I noted how this assumption of risk aversion may not relate very well with the perspectives of people who already know they have HIV infection. Such assumptions also appear to have a forensic quality because they mobilise blame. In relation to the practice of serosorting, I also made reference to a reliance on altruism and self-protection and how these articulated with the knowledge of HIV embodiment provided by the HIV antibody test. In this chapter, I want to consider if this heterogeneity of risk aversion, altruism and self-protection gives rise to an effective melange of governmental strategies or a muddle of incoherent, and sometimes clashing, assumptions.

It is the case that problems of public health governance in general have been the subject of debate and reflection. For example, a review conducted by the Nuffield Council on Bioethics in the United Kingdom addressed public health governance in relation to infectious diseases, among other concerns (2007). The review sought to reflect on contem-

porary public health challenges such as SARS, along with older health concerns such as sexually transmitted infections and HIV. The review aimed to clarify how governments should act in relation to such challenges for the good of public health. Drawing on liberal political philosophy, the authors advocated a stewardship model for the government of public health, as opposed to other approaches, such as a custodial one. In this stewardship model, public health institutions should strike a balance between the minimisation of harm and constraints on the rights of the individual to privacy, self-determination, consent, and freedom from coercion. They argued however that the public good does outweigh the rights of the individual or communities, therefore creating a mandate for institutional action with regard to health concerns. But they also acknowledged that action should always be conducted with reference to the particularities of the health concerns and the social circumstances of those affected. In this regard, the stewardship model seems to provide scope for entertaining a social justice approach to sexual health. However, this stewardship model leaves much room for debate and negotiation with regard to how public health should proceed. It also suggests that public health action will necessarily be heterogeneous, or at least, accord with the circumstances of the health concern in question.

In contrast with this stewardship model, it appears that intrusive and universalising forms of public health policy are being considered for technosexuality. Public health practitioners have argued for compliance interventions in e-dating websites, based on the methods of tobacco control (Levine & Klausner, 2005). As I noted in Chapter 1, there are examples of sexual health websites for young people produced in different languages. E-dating websites for gay men already carry banners and pop-ups encouraging e-daters to test for sexually transmitted infections. Importantly however, for the most part these strategies rely on voluntarism, particularly in relation to people running the commercial websites and their subscribers. However, the compliance based approach would see the regulation of commercial e-dating websites for the pursuit of sexual health, including: taxing them and using the funds to develop interventions; and requiring that the websites carry health hazard warnings, health education advertising, and sexual health advice. Complying websites would be given a sexual health 'seal of approval'. Strikingly, the authors also advocated that websites should include sexual health descriptor fields in online profiles so that e-daters can indicate their health status, including information regarding their history of sexually transmitted infections, HIV serostatus, genital

herpes and warts (Levine & Klausner, 2005: 55). I have noted how such approaches suggest the notion of *cordon sanitaire* that Waldby and colleagues used to characterise the clean/unclean sexual partner choice strategies of young heterosexual men (1993). The 'seal of approval' for e-dating websites and online sexual health descriptor fields resonate rather strongly with *cordon sanitaire*. Strategies such as these also demonstrate how the internet can be used to make public health subjects visible. By formalising and extending the practices of internet-mediated serotyping, they incorporate them into a more general approach to disease control. As I have already noted, such approaches reveal the affinity of forms of public health rationality and the features of internet technologies that are employed in e-dating websites. It is also possible to argue that the concern surrounding technosexuality serves to make it necessary to intervene in such ways, and gives extra impetus for the compliance approach. Public health needs to retain the idea that the internet, Viagra or HIV bio-technologies are dangerous in order to justify the exercise of its authority.

As I have suggested in previous chapters, the compliance approach has problems. Such an approach assumes universal testing for sexually transmitted infections and HIV. It also indicates how public health rationalities are themselves implicated in the shaping of sexual relations. It assumes that sexual interaction is only derived from e-dating websites, when we know from the various cyber-ethnographies that sexual meetings can be facilitated in places such as online game environments, social networking sites and even academic e-lists. So far, the compliance approach has not clearly defined how complying e-dating websites should be regulated and if subscribers will also be required to comply with such regulation. A major problem is also likely to be the stigma of having a sexually transmitted infection or HIV. For example, researchers have shown that people with sexually transmitted infections are perceived as lacking moral judgement (Young et al., 2007). These researchers argued that people avoid the stigma of sexually transmitted infections because they expect social devaluation. Such stigma is likely to discourage people from displaying their test results if they have an infection.

The examples of the stewardship and compliance approaches suggest that public health governance is not necessarily internally consistent or at least that approaches to technosexuality are in the process of being negotiated. In the following therefore, I want to consider theories of self and society that underpin public health governance, that is, altruism, contagion, risk and forensics. While some of these perspectives are

outmoded in their pure form, I will show how traces of their legacy remain in forms of public health addressing aspects of technosexuality. I will also discuss technological innovation in relation to these assumptions. I will create an argument that public health governance applied to technosexuality is mixed and open to the deepening of health subjectivity understood in bio-technological terms.

Gift and contagion

To understand public health imperatives we need to consider their origins. The gift relationship is often used as the basis for understanding how public health works. It is a concept that comes out of functionalist sociology. It assumes that reciprocal giving, and through it, the obligations of the individual to society, is necessary for the functioning of society. Another example of functionalism is Talcott Parsons's notion of the sick role. The HBM I discussed in Chapter 4 in connection with HIV bio-technologies, can be taken to have origins in a functionalist view of public health. Also relying on functionalist ideas, Richard Titmuss famously used the example of blood donation as reciprocal giving to develop a theory of altruistic social care. Such models of social organisation have been displaced by theories of reflexivity and governmentality. But it is possible to argue that traces of functionalism expressed in terms of the gift relationship and therefore the obligations of the individual to society inform the operation of public health. It is also the case that the reciprocal giving implied in public health is deeply compromised in several ways. The questions of contagion implied by sexually transmitted infections give special emphasis to obligations to others. The logic of disease control that pervades public health interventions gives rise to identities that reflect the logic of the control of contagion but that sit awkwardly with sexual cultures. In addition, new bio-technologies are also changing the meaning of 'giving to strangers' in ways that appear to be accentuating forms of social exclusion on the grounds of biological characteristics. This tension between an underlying functionalist gift orientation in public health and its reformulation and disruption goes some way to explain the challenges faced in the area of technosexuality and public health governance.

Marcel Mauss's famous 1920s account of the gift relationship is often taken as a starting point for discussion of reciprocal giving (1990 [1950]). Mauss provided many examples of the gift relationship in his summary of ethnographic research with American Indian, Inuit, Polynesian and Melanesian societies. These societies used the giving of made objects,

food, festivals and even people, to reinforce and create ties of mutual obligation. In these social systems, the gift is more than just a material object. The gift is seen to retain something of the soul or essence of the giver and create an obligation that the receiver should reciprocate by returning a gift carefully judged to reinforce social ties. The gift has to be reciprocated because to not do so gives too much power to the giver. But equally, giving back too much or too little can shame or belittle givers and receivers and therefore damage social relations. According to Mauss, these systems of reciprocal giving spread in ripples of mutual obligation that help societies to function in a relatively harmonious way. Mauss also suggested that modern societies (for him at least) incorporate gift economies. Indeed, Slater, discussed in Chapter 2, regarded reciprocal giving as the foundation of the social organisation of sex pic trading (2002). However, Mauss also recognised a tension between autonomy and the gift relationship in modern societies. Reflecting on his own European society, Mauss observed:

Society is seeking to rediscover a cellular structure for itself. It is indeed wanting to look after the individual. Yet the mental state in which it does so is one in which are curiously intermingled a perception of the rights of the individual and other, purer sentiments: charity, social service, and solidarity. The themes of the gift, of the freedom and the obligation inherent in the gift, of generosity and self interest that are linked in giving, are reappearing ... (1990 [1950]: 68).

Mauss therefore presaged a tension created by the rise of individualism and the social good, but in a way that expressed hope for reconciliation.

Drawing on this Maussian notion of reciprocal giving, Titmuss conducted a study of blood donation in the late 1960s (1970). Titmuss compared blood donation policies that relied on payment of the donor, such as in the United States, with voluntary donation, such as in the United Kingdom. Titmuss showed how blood donation was a mix of altruism and self-interest. Giving blood is good for others because it helps them in medical emergencies. It is also good for the self, because giving implies the same treatment at some time in the future (or so the theory goes). However, blood donation differs from Mauss's notion of gift because it is impersonal and there are no immediate requirements of reciprocation.

Titmuss also raised the issue of the contamination of the blood supply by viruses such as hepatitis. When Titmuss was writing his book, there

was no blood test for hepatitis (Titmuss, 1970: 25). The only way of preventing hepatitis coming into the blood supply was by asking potential donors questions regarding their medical history and behaviour. Titmuss argued that the safety of the blood supply therefore relied on the potential donor telling the truth. In situations where donations receive payment, donors were seen to be more likely to omit details of their history to avoid being excluded and missing out on financial reward. Conversely, where donation is voluntary, so the theory goes, donors have no incentive to hide the truth. Titmuss argued that voluntary donation helped to prevent the contamination of the blood supply, and by extension, was the ideal approach for social relations in general. Such assumptions concerning the individual and their social relations can be seen in modern public health. For example, the focus on anonymity with regard to internet-mediated sexual practices, particularly in relation to self-knowledge of sexually transmitted infections, resembles Titmuss's concerns with truth and the contamination of the blood supply.

Mauss's theory of gift is reciprocal, embodied and face-to-face. Blood donation is impersonal and mediated by bio-technologies. Titmuss therefore argued that in modern societies giving has a different emphasis to do with both self-care and "... care of strangers" (1970: 212):

In not asking for or expecting any payment of money these donors signified their belief in the willingness of other men to act altruistically in the future, and to combine together to make a gift freely available should they have a need for it As individuals they were, it may be said, taking part in the creation of a greater good transcending the good of self-love. To 'love' themselves they recognised the need to love strangers (Titmuss, 1970: 239).

Titmuss's argument therefore points out a contradiction. Gift is crucial to the wellbeing of the individual and society. But such giving is a mixture of self-love and love of others. Such ambiguity has been acknowledged by Beck and Beck-Gernsheim when they wrote about sexual relationships in late modernity: "Out of the struggle with this dilemma between love and freedom a new ethics will emerge about the importance of individuation and obligation to others. No one has the answer as to how this will work" (Beck & Beck-Gernsheim, 2002: 212). This "... altruistic individualism" as they called it (Beck & Beck-Gernsheim, 2002: 212) signifies a tension between altruism and individualisation for the self in late modernity. Beck and Beck-Gernsheim admit that the

idea of 'altruistic individualism' is poorly articulated and that there is scope for "... a lot of dilemmas and paradoxes" (Beck & Beck-Gernsheim, 2002: 212). Public health governance provides some examples of such problems, in particular, the self-protecting and partner-protecting rationalities articulated with knowledge of HIV antibody serostatus.

This notion of a reciprocal but abstract altruism, in part disrupted by internal paradox, is further complicated by rationalities of disease control that spring from the idea of contagion. Contagion implies an illness or danger that spreads from person to person, such as the example of hepatitis in the blood supply. In social responses to the threat of contagion, individuals are expected to act to inhibit the spread of infection. In addition, the metaphorical city threatened by contagion, provides a way of thinking about the individual and their obligation to society. The city facing plague has many references in history, literature and social theory. For example, Foucault was interested in the idea of the city dealing with plague. In *Discipline and Punish*, he introduced Chapter 3 with a description of 17th century practices of quarantine (1982: 195–198). The management of the city and its population was focused on identifying people who had the plague (and who had not) and through controlling them, halting the spread of the epidemic. Foucault made the general point that the practices of disciplinary society incorporate traces of social responses to plague (1982: 198). Cordon sanitaire in HIV prevention could be taken as an example. He also made the point that end-of-plague festivals, like Mardi Gras, are the reverse of quarantine:

A whole literary fiction of the festival grew up around the plague: suspended laws, lifting prohibitions, the frenzy of passing time, bodies mingling together without respect, individuals unmasked, abandoning their statutory identity and the figure under which they had been recognised, allowing a quite different truth to appear (1982: 197).

Therefore, the 'letting go' of the regulations needed for containing the plague provides a significant clue for understanding what public health governance has to achieve to control contagion. It also resonates rather strongly with the imagery of technosexuals running amok.

Plainly, plague is no longer a central problem in public health, due in part to changes in bio-technology. But, it appears that contagion has informed the practice of public health into the modern period. In addition, sexual practice appears to have special status in this arrangement.

Addressing contagion and sexual health, Pamela Cox has conducted research regarding the United Kingdom lock hospitals used in the 19th and 20th centuries to control syphilis (2007). Lock hospitals were, as their name suggests, places where sick people were involuntarily incarcerated. Cox's main argument was that the British approach to the problem of sexual health care was overtly based on voluntarism. In this regard, late 19th century and early 20th century approaches to syphilis reflected the contemporary stewardship approach to public health. However, Cox argued that such approaches incorporated a, sometimes authorised, but most often informal and therefore hidden, strategy of compulsion for some groups of people. Such groups were typically already under direct control, for example soldiers and 'fallen women'. The British approach resisted universally coercive measures for the control of syphilis because it was assumed that people should abstain from sex if they were infected, and should not ordinarily have multiple sexual partners in any case. To act to control syphilis as a matter of public policy would open government to accusations of both acknowledging and enabling vice. But this system only worked to control syphilis if those most likely to have syphilis were informally subject to direct control. Cox put it this way:

... this voluntary system was dependent on the fact that certain categories of people continued to be subject to unquestioned non-voluntary treatments – old style sources of contagion (soldiers and sexually transgressive women) and newly styled victims (babies and children) (Cox, 2007: 115).

In this approach to disease control, the sequestration of those with disease is achieved without compromising the overt voluntarism of public policy. In this way a seemingly archaic method of disease control can be extended into the modern period for as long as necessary.

Public health governance also appears to have a tendency to address social actors according to its own ontology of contagion. Addressing contagion, but with reference to HIV and sexual citizenship, Gayatri Reddy has conducted ethnographic research with the hijra and kothi in Hyderabad (2005). Hijras are biological men who have had their genitals removed. Kothis are in the main homosexually active men. Hijras have a liminal status in the sexual cultures of India. They are abject and disparaged but potently transgressive. However, public health approaches the Hijra according to its own rationality of the control of contagion. In this view, the epidemiological categories of Men who have

Sex with Men (MSM) and also sex worker, become the representational categories for such people. For Reddy, MSM is: "... a complex category that repudiates cultural difference in favour of a 'risk-behaviour' model" (Reddy, 2005: 265). Such categorisation of sexual identity is derived from a public health logic of contagion and is imposed on the hijra in a way that ignores how they see themselves and relate to others in society. Reddy's account gives the impression that public health is occupied with a form of self-address in the sense that it conceives of individuals and groups in terms of its own ontology of contagion.

A further complexity for public health is bio-technological innovation itself. For example, Titmuss explored the impact of the threat of hepatitis, but because of the period in which he conducted his work, he was not able to fully appraise the implications of self-knowledge of hepatitis infection for one's status in the gift economy of the blood supply. As Virginia Berridge has pointed out in relation to the blood supply in the United Kingdom, simple notions of altruism have been radically altered by technological and social changes (1997). Two factors are relevant here. In the 1980s, the United Kingdom struggled to achieve self-sufficiency in the provision of blood products. Technological developments also meant that blood products could be imported from the United States and other countries. Berridge therefore revealed that commercial markets for blood products were created in the United Kingdom, making the Titmuss model of altruism less salient. With reference to lock hospitals, Cox has pointed out how changes in the capacity to treat syphilis altered how public health approached its control (2007). In particular, the invention of antibiotics led to the separation of incarceration and bio-technological interventions and ultimately to a bio-technological control of disease. The invention of antibiotics removed the need for lock hospitals and therefore dissolved the division of free citizens and incarcerated citizens in relation to the control of syphilis. Cox therefore revealed how the relationship between bio-technology, sexually transmitted infections and the autonomy of the individual has a longstanding history. In this way technology itself becomes the way contagion rationality is mediated, which helps explain why there has been so much attention paid to HIV bio-technologies, treatment optimism and other forms of technosexuality.

Waldby and colleagues have addressed bio-technological innovation in connection with blood donation (2004). They examined contemporary perceptions of blood donation in a group of Australians donating and receiving blood and among people infected with hepatitis. Waldby and colleagues were interested to explore the relevance of notions of

blood as gift in light of the theories of Mauss and Tittmuss, for instance: "... altruistic citizenship identity" (2004: 1464). Waldby and colleagues found that some interviewees did see blood as a gift of part of the self, reflecting elements of Mauss's theory. They also recognised that donation could bolster social solidarity, in line with Tittmuss's articulation of altruism. But Waldby and colleagues made the point that, in general, blood is so transformed by bio-technologies that it becomes like any kind of treatment available to the public. The blood products available to those who need it are no longer linked with an individual. Further, individuals who donate blood are interested in the notion that their own blood is pure and without infections. Conversely, those who cannot donate are aware that their blood is something that has to be kept away from others. Ironically, Waldby and colleagues found that individuals who donate blood were also concerned about the purity of the donated blood supply. Although they donated, some reported that it was prudent to avoid using donated blood. In this regard, such donors saw value in 'autologous' blood banking where individuals build up a personal supply of blood for their own use.

Also addressing blood donation in the Australian context, Kylie Valentine concurred with Waldby and colleagues, but made an important connection between the reconfiguration of altruism in blood donation and the public/private dimension of sexual citizenship (2005). In Australia, several categories of person are not permitted to give blood, for example, gay men, people who have injected illicit drugs, and people who may have been exposed to variant Creutzfeldt-Jakob disease (vCJD). According to Valentine: "Blood donation has become a strictly defined and finite public sphere which promises an identity of altruism and belonging to those who participate" (2005: 116). However, through bio-technologies and the knowledge they provide of infections such as HIV and hepatitis, blood donation now brings the sexual and drug using practices of individuals into blood donation and therefore into the public domain. Like public health addressing sexually transmitted infections, blood donation raises questions of model citizenship and the exclusion of errant citizens according to their sexual and drug-taking practices revealed through bio-technologies. According to Valentine, even those who can donate have a lingering anxiety concerning their potential exclusion from giving blood. There is then in modern forms of blood donation a threat of a fall from grace that applies to everyone. But, importantly, this imperilled self is defined according to bio-technologies put to the work of contagion control.

Altruism

The economics of gift that inform public health has bifurcated into a duty to give or withhold depending on one's bio-technological identity. Superficially, altruism mobilises *giving* blood. But altruism informed by contagion and articulated with bio-technological knowledge of the body figures in the *with-holding* of contaminated blood. Importantly this bifurcation is not possible without bio-technologies that can be used to identify the presence of infectious disease. Bio-technologies therefore assure that the logic of contagion is fused into the gift economy. As I have pointed out in the previous chapter, altruism has been associated with HIV prevention. I noted however that altruism has different meanings depending on HIV serostatus, for example: self-protecting is associated with people who are HIV negative and partner-protecting with those who are HIV positive. It seems that in some quarters, it is assumed that one has different responsibilities depending on one's HIV serostatus and that this is a simple system of complementary responsibilities. However, it may be that such complementary social relations are not easily exercised.

Some forms of public health appear to require altruism on the part of people with HIV. For example, several analysts have written that prevention should build on the "altruism" of HIV positive people (King-Spooner, 1999: 141). A researcher noted that: "... it is also necessary to develop prevention strategies for people with HIV infection who experience difficulty protecting their partners" (Kalichman et al., 1997: 447). A review paper recommended strategies to: "... promote norms of responsibility and protection of others in sexual matters" and "... foster the perception that HIV is still a life-threatening disease despite medical advances in treating it" (Marks et al., 1999: 303). There is a kind of symbolic violence in the idea that HIV should be portrayed as life-threatening to counteract any tendency for treatment optimism to erode commitment to safer sex. For the purposes of HIV prevention, people with HIV are expected to negate the hopes that mobilise the value of bio-technology in the management of HIV. The US Centres for Disease Control put altruism at the centre of their HIV prevention approach (Janssen et al., 2001). In this approach, a serostatus hierarchy is used to structure intervention strategy. For example, the programme is explained in this way:

At a time of increasing risk behaviour in some communities with high HIV prevalence and among an increasing number of individuals

with HIV infection, SAFE strategies for HIV-infected individuals represent a logical evolution of prevention in an era of improved treatment. Such an approach couples a traditional infectious disease control focus on the infected person with behavioural interventions that have become standard elements in HIV prevention programmes. In this new era, for individual as well as public health reasons, every person with HIV should be voluntarily diagnosed, evaluated medically, treated according to state-of-the-art guidelines, and provided appropriate prevention services (Janssen et al., 2001: 1023).

This method follows a public health approach of directing action at the source of disease. A United States multi-city campaign was called 'HIV stops with me: prevention for positives marketing campaign' (see: hivstopswithme.org accessed 10 August 2008). The campaign used a mix of peer education, information materials and personal testimonials to increase self-efficacy, reduce stigma and promote safer sex among people with HIV. The underlying strategy of the campaign was the containment of the epidemic by bolstering responsible and altruistic action on the part of individuals with HIV.

This reliance on the idea of altruism on the part of people with HIV is not new. Berridge has pointed out that the United Kingdom blood supply was protected, for a time, by asking gay men to opt themselves out of donation (Berridge, 1997). Small analysed governmental responses to panic about the discovery of HIV positive health-care workers in the United Kingdom health system (Small, 1996). Small described how policy was based on a form of 'required altruism', where HIV positive health-care workers had to absent themselves from medical situations and practices that might have transmitted HIV. A policy of altruism was seen as more humane than coercive (and impractical) detection and banishment. Small showed how altruism also had the virtue of defending medicine. Altruism had the benefit of making the individual health-care worker personally responsible. To fail to act responsibly was not a failure of medical institutions or the practice of medicine in general, but of the individual practitioner. Following Small's analysis, altruism makes each person with HIV singularly responsible for managing the risks of HIV.

However, prevention altruism has some clear drawbacks. For example, Small noted how a policy of compulsory altruism on the part of HIV positive health-care workers may have discouraged openness about serostatus identity (1996). Another complexity for prevention altruism concerns

gender and the labour of safer sex. Research with women with HIV concerning safer sex has explored unequal power in sexual relationships and the 'feminisation' of responsibility for condom use (Crawford et al., 1997; Lawless et al., 1996). The research also referred to the difficulties faced by women in exercising control over their own bodies without having to take on complete responsibility for contraception and safer sex. Feminisation of the work of safer sex also reflects the gendering of sexual meanings, where male sexuality, or more specifically, the male body in sex, is constructed as beyond rational control (Connell & Dowsett, 1999). Altruism therefore sits awkwardly with the construction of gender relations and the male sexual body.

Another problem for altruism is 'sero-inequality' and implications for the practice of safer sex. As I have noted in Chapter 4, different assumptions appear to be applied to sexual action depending on HIV serostatus. The notions of 'self-protection' and 'partner-protection' are the starkest examples. But it is the case that a majority of gay men report that they expect their HIV positive partners to inform them of their serostatus (Reid et al., 2002). HIV positive people have been shown to understand that they have a duty to protect the health of sexual partners, but that there were social risks to themselves in relation to disclosure of HIV status (Green & Sobo, 2000). In qualitative interviews, gay men with HIV have subscribed to the notion that they do have responsibilities to their partners (Davis, 2002). However, failure to carry out safer sex was also regarded as an act of self-destruction, suggesting the moral loading implicit in altruistic and self-protective practice. In some circumstances, people with HIV may need to act in a self-protecting manner, for instance, in relation to the impact of sexually transmitted infections on their immune system (Weatherburn et al., 1999). In this view, self-protection is relevant also for people with HIV, a perspective that exposes the HIV avoidance rationality that underpins some forms of HIV prevention. As I have noted, some gay men appear to use the internet to select sexual partners of the same HIV serostatus. Some public health practitioners are advocating that people make their HIV serostatus explicit in their online communication. Although it can be argued that serosorting and related practices are not new, the formalisation of them as matters of public policy does sit at odds with the history of safer sex. In its original form, safer sex was said to address everyone equally (Flowers, 2001). This rationality created an approach to risk management that was inclusive of HIV positive, HIV negative and untested people. This form of rationality comprised a joint effort connected with the sharing of knowledge of prevention

methods such as condoms. The new bio-technologically informed government of HIV prevention divides people according to their HIV sero-status. In comparison with the old form of safer sex, the new multifarious one is a challenge for affected communities and public health alike.

More abstractly, it may also be that the combination of self-protection with partner-protection presents a logical problem. If altruism is regarded as the minimal universal of safer sex, by logic it is not rational to act in self-protection. To do so would be to recognise the other as an errant citizen. Put another way, in a universe of altruistic sexual action, an act of self-protection calls into question the moral carriage of the sexual partner. A similar dynamic has been observed in relation to condom use with regular partners of HIV positive people, where condom use is seen as a disavowal of trust and intimacy (Cusick & Rhodes, 2000; Rhodes & Cusick, 2000). These effects may mean that altruism and self-protection undermine one another, or at least can lead to confusions concerning identities, intentions and responsibilities. The self-defeating logic of altruism and self-protection in relation with one another points to a major dilemma for public health wedded to such strategies of disease control.

In this light, the relational ethics of technosexual citizenship, that draws on feminism, sexual citizenship studies, and sexual health as social justice, takes on virtue as a basis for HIV prevention. Support for this position can be derived from empirical research that has used citizenship to address the sexual relations of people with HIV (Squire, 1999), heterosexual people (Bryant, 2006) and gay men (Brown, 2006). Such research shows that, reciprocity, although not symmetrical, is required to pursue sexual health and HIV prevention. In addition, relational ethics makes it possible to recognise sexual agents performing citizenship as a matter of joint action, and not identity politics (Squire, 1999). In research with gay men with HIV regarding HIV prevention, I have argued that their sexual practice was informed by a notion of cooperation (Davis, 2008). A form of adapted altruism was important to HIV prevention for gay men with HIV. In particular, interviewees acknowledged that responsibilities might differ according to HIV sero-status, but effective HIV prevention depended on cooperative action that shared moral labour and embraced both acting for the good of the other and the voluntary action of the sexual partner. These ideas concerning responsibilities combined to provide the basis for a care of the 'we' that included the mitigation of blame.

It is also plain that there is much work to be done to assist people to incorporate, or more appropriately adapt, these notions of altruism

and self-protection into their sexual health care. Fortunately, public health practitioners and HIV advocacy organisations have gone some way incorporating prevention altruism into the social justice approach to sexual health. Significantly this work arises from groups advocating for people with HIV. Public health practitioners have argued that sexual health for people with HIV across the globe needs to be defined in terms of pleasurable and safe sexual experiences free from coercion, discrimination and violence (Shapiro & Ray, 2007). The National Association of People with AIDS (NAPWA) in the United States has formulated a set of guidelines for effective prevention among people with HIV (see: *napwa.org* accessed 10 August 2008). In particular, the NAPWA guidance places emphasis on the autonomy of people with HIV and the need for cooperation as the basis for effective HIV prevention. As such, the guidelines reflect how people with HIV organise collective resistance to unwelcome categorisation and the reduction of autonomy (Herdt, 2001; Parker & Aggleton, 2003). Through the sharing of responsibility in sexual partnering, the guidelines also recognise how collective and individual action can be combined in HIV prevention work. In addition, the guidelines define sexual health in terms of the capacity of people with HIV to be able to articulate their needs and act on them. In the United Kingdom and Australia, HIV prevention frameworks have similarly emphasised the autonomy of people with HIV (Triffitt & People Living With HIV/AIDS NSW, 2004; Ward, 2001).

Risk and its forensic turning

Risk is the final conceptual underpinning of public health I want to address. Risk is a concept that has come to dominate health governance, not least in the area of public health (Lupton, 1999b). Alan Petersen has written of risk discourse as "... a subtle form of individualism that involves everyone in the task of tracking down and controlling or eliminating sources of risk from their lives" (1996: 45). Risk sits in contrast with the notions of the gift economy or altruism, which arise out of functionalism. Risk draws on notions of social action that emphasise self-regulation. It could be argued that part of the schizoid quality of modern public health in general can be attributed to the ways in which it attempts to draw on modern and late modern paradigms of self and society. Notions of risk have been referred to in passing at several points in the previous discussion, for example in connection with research concerning young people who use the internet and their increased risk of being infected with sexually transmitted infections,

and Viagra use or HIV bio-technologies in relation to the risk of HIV transmission among gay men. In this section, I want to focus on the contribution of the concept of risk to public health action with reference to sexually transmitted infections and HIV. In particular, I want to consider the forensic, and therefore blaming, dimension of risk culture I introduced in the previous chapter.

Ulrich Beck established the notion of the so-called risk society (see for example, Beck, 1992; Beck & Beck-Gernsheim, 2002). Risk society relies on several interconnected ideas to do with: late modern economic systems; the industrial production of risks; and a particular approach to 'individualisation'. Beck argued that late modernity has moved away from straightforward capitalism and the competition for resources. For some of us, late modernity is a time of plenty or even excess. In addition, industrial activity has created new risks. The science and technology that underpins affluence is a source of threat to the ecosystem and our own health and wellbeing, for example, pollution, industrial accidents, global warming. Because of this combination of wealth and post-industrial risks, the relationship between the individual and society has little to do with the distribution of resources, and much to do with the distribution of risks. In addition, society is now organised around the idea of the entrepreneurial individual, an assumption that informs government, social services and personal experience. Beck and Beck-Gernsheim have suggested that: "Now health, too, is not so much a gift from God as a task and achievement of the responsible citizen, who must protect and look after it or face the consequences" (2002: 139). Risk society produces forms of social exclusion through processes of individualisation:

... exclusion can only be properly understood against the background of individualisation or to be more precise, atomisation. It creates institutional circumstances under which individuals are cut off from traditional securities, while at the same time losing access to the basic rights and resources of modernity (2002: 207).

Beck and Beck-Gernsheim refer to this situation as "... precarious freedoms" to capture the dual effect of the unfettering of the agency of the individual and the intensification of the personalisation of risk (2002: 1). Trust and security are also implicated in risk society. According to Giddens, the late modern social actor is said to rely on, and therefore place trust in, knowledge that is dis-embedded from personal experience. Technosexual practices such as internet-mediated serosorting

reflect a reliance on abstract systems. They rely on the expert knowledge systems of HIV bio-technologies that give rise to forms of HIV embodiment figured around antibody serostatus, but they are also carried out by apparently self-aware individuals.

Not all commentators have been prepared to accept risk society on face value. For Petersen, risk and its expression in public health needs to be much more thoroughly interrogated:

Critical reflection upon the values of entrepreneurialism, consumerism, and scientism should be a part of the process of creating a more democratic society and culture. The enterprise of health promotion, however, can be seen to either take these values for granted, or reinforce them through the emphasis on individual-as-enterprise, the commodification of the body, and the reliance on expert systems (1996: 55).

Deborah Lupton has argued that risk society is a “eurocentric” concept (2002b: 333). In qualitative interviews with Australians, Lupton and Tulloch (2002a) found support for the idea that individuals recognised that they needed to take on risk as a necessary aspect of the entrepreneurial management of the life course. They therefore saw risk-taking as individualised. But the interviewees also recognised that risk was in part produced by institutions, such as commercial organisations and government. In addition, while the interviewees recognised the need to avoid risks, they also talked about it as a method of self-improvement, where, successfully dealing with risk reinforced the sense of the personal agency of the individual. Lisa Adkins has also questioned the risk society thesis in relation to a discussion of HIV antibody testing. For her it is not so much that late modernity has become risk society, but that risk is a method of organising late modernity:

... the techniques and practices of risk self-management, that is the techniques of self-reflexivity (such as those made available by the technology of testing) are constitutive of a social order in terms of categories and hierarchies of risk themselves, that is, to make up risk culture (2002: 121).

Without making reference to Beck or Giddens, Rose has offered yet another critique of risk society. In a discussion of the public health implications of genetic science, Rose regarded risk discourse as a ‘technology’ of government (2001). For Rose, risk thinking is central to what he referred to as bio-politics and the regulation of individuals via their

own reflections on the ethics of their conduct. Risk science, such as that employed by epidemiology, helps describe where individuals fit into society in terms of their potential to develop diseases. Surveys can be used to assess the overall levels of risk in populations. Such information can help identify and manage high-risk groups and/or assist the direct management of risky individuals. Risk provides a method for informing citizens, making them active partners in public health. Rose referred to the Foucauldian concept of pastoral power to show how risk culture is both individualising and collectivising, mixes coercion and consent, and uses shame and guilt as the means of producing self-governance. Influencing how individuals reflect on the ethics of how they act on risk provides the means by which public health governance is achieved:

... the ethos of human existence – the sentiments, moral nature or guiding beliefs of persons, groups, or institutions – have come to provide the ‘medium’ within which the self-government of the autonomous individual can be connected up with the imperatives of good government (Rose, 2001: 18).

In relation to his argument concerning bio-politics and what he refers to as ‘somatic citizenship’, Rose also made the point that health is now understood in terms of rights. According to Rose, the optimally healthy body is the new universal human value. Violation of this normative, healthy body therefore becomes a transgression of human rights. This perspective partly explains the forensic turning related to HIV prevention I noted in the previous chapter. Infection of the body is now classed as one of the transgressions on this foundational right of the somatic citizen. Rose’s conceptualisation of risk suggests that the tension between sexual health as absence of disease and sexual health as social justice is collapsing on a forensic turning in sexual health interventions, that is, organising citizens in terms of their contribution to sexual health problems. Lupton has made a similar point in her analysis of study of AIDS news reporting over the 1990s in Australia (1999a). For instance:

The distinction between the innocent and guilty person with HIV/AIDS was linked not so much to the source of their infection, but to the extent to which an individual with HIV/AIDS was judged to pose a risk of infection to others (1999a: 49).

As noted in the previous chapter, Douglas has discussed the forensic effects of risk culture in general (1992). Douglas argued that while risk

is most often couched in terms of prediction, it also supplies the means for working backwards to determine the source of risk. A crucial concept is therefore being able to distinguish the difference between 'at risk' and 'a risk'.

With reference to HIV antibody testing, Adkins has argued that one of the forensic uses of risk is to reinforce social difference (2002). According to Adkins, HIV testing among low risk heterosexual people is widespread and growing. Such a situation sits at odds with the idea of a rational project of self-management. This is because risk rationality would suggest that low risk individuals would not make themselves available for HIV testing. Adkins argued that HIV testing for a likely HIV negative result is attractive because it reinforces one's identity as low risk and by implication as heterosexual. In this regard, Adkins's research is reminiscent of that of Waldby and colleagues and Valentine already discussed, who argued that blood donors enjoyed the idea that being able to donate blood reinforced their identities as pure sources of blood. Similarly, public health messages concerning HIV have been interpreted to refer to a risk averse "... model citizen" (Davis, 2002: 292).

It also appears to be the case that forms of technosexuality are being applied to forensic purposes. In general, technologies can assist forensic inquiry. DNA technologies can be used to determine the origin of semen, thereby facilitating the attribution of blame in sex crimes, as popularised in crime television such as *CSI* (Crime Scene Investigation) (Moore & Durkin, 2006). The internet can also be exploited in this way, or so some would have us believe. Online dating profiles, weblogs and other internet-based forms of communication are being collected and appraised for evidence of the actions of culpable citizens. In this regard, the online profiles of people who refer to themselves as barebackers have come under scrutiny. Such uses of the internet underline my point that it provides a method for making people visible under public health governance. As I have noted in Chapter 3, epidemiological studies have shown that in general, gay men who use the internet for sexual purposes are no more likely to have sex with their internet partners that might transmit HIV or other sexually transmitted infections (Elford, 2006). Although acknowledging that there is little evidence for a causal link between advertising for risky sex and actually doing it (Tewksbury, 2003), researchers have analysed the online profiles of people who espouse barebacking in an effort to develop "... a profile" of such people (Tewksbury, 2006: 379). Others suggest that the so called "... online barebacking phenomena" arises because some websites, overtly or otherwise, promote the idea that safer sex is a personal choice (Groves, 2006:

995). Some argue that barebacking is produced by internet-mediated partnering (Gauthier & Forsyth, 1999) or that particular websites encourage it (Carballo-Dieguez et al., 2006). Others argue that the dehumanising qualities of new communication technologies contribute to the desire for bareback sex (Holmes et al., 2006). Apparently, the loneliness of the cyber-age compels people to find intimacy in sex without condoms. In addition, the online mediation of barebacking discourse is itself seen as an epidemic, because of the dangerous 'exchange' of such discourses (Groß, 2004). Research such as this points to an understanding of communication technologies as sources of contagion (Lupton, 1995). The interrogation of online profiles has also undergone some refinement through distinguishing between barebackers, 'gift givers', and 'bug chasers' (Moskowitz & Roloff, 2007). Barebackers are found to use harm reduction strategies in relation to anal sex without condoms in an effort to moderate the risk of HIV transmission. Gift givers and bug chasers are recognised to seek out HIV transmission. This distinction represents a gradual focussing on errant citizens. However, not all researchers have interpreted online barebacking texts as evidence of culpable technosexual citizenship. Dowsett and colleagues have asserted that websites for same sex attracted men, including those that advocate bareback sex, exhibit ethical standards, for example: "... the overriding texture of the sites was one of an emphasis on responsibility and reciprocity" (Dowsett et al., 2008: 131). This perspective accords with the cyber-ethnographies of sexual and intimate and online life I discussed in Chapter 2. Michael Graydon has pointed out that the so-called practice of barebacking existed prior to the internet and HIV treatment (2007). In an analysis of online internet newsgroups, Graydon made note of the ways in which online communication regarding barebacking, and specifically gift giving, played with gift economy discourse. Graydon argued that this online communication is a kind of technosexual citizenship that refuses imperative. Graydon also pointed out that analyses of online communication materials are limited in terms of explaining offline sexual interaction.

Despite potential problems with the forensic research approach, it does make an important contribution to my argument. It reveals the investment of forms of public health in certain kinds of citizens and sexual relations. As I have noted in Chapter 2, the history of sexual citizenship has been marked by some key legislative moments that have impinged on the government of sexuality. The Wolfenden Inquiry and the more recent revisions of legislation concerning sexual offences in the United Kingdom have been important to the social and legal

acceptance of homosexuality but also a deepening of negative sanctions on supposedly unacceptable sexual practice outside the domestic sphere (McGhee, 2004). In light of the application of risk forensics to the ordering of healthy technosexuality, it can be argued that some forms of public health are implicated in the (re)making of technosexual citizenship in terms of their own visions of the proper government of risk and risk identities. The notion that e-daters should provide information regarding their sexual health status, referring as it does to clean/unclean subjects in risk discourse (Waldby et al., 1993), is an example of interventions that subscribe to this forensic turning in the management of risk and risk subjects.

Conclusion

As I noted in Chapter 1, public health governance is complex and diverse, encompassing as it does, intervention activities, forms of knowledge, and institutions (Petersen & Lupton, 1996). Public health can be considered a total society form of governance that addresses the control of disease through the practices of individuals. But as we have seen there are various ways of addressing such practices, at least for the case of technosexuality, sexually transmitted infections, and HIV. The imperatives of gift, altruism, risk reflexivity and forensics all feature in public health governance attending to sexual health. Public health governance is also influenced by, and engaged with, bio- and communication technologies that impinge on sexually transmitted infections and HIV. Bio-technology in particular appears to be an increasingly significant aspect of public health imperatives, with subjects now divided according to the social implications of their biological characteristics. In this way, the imperatives of public health articulate with technological innovations, with implications for technosexual citizenship. Because bio-technologies change so rapidly, the implications for public health imperatives also alter rapidly.

Despite (or perhaps because of) being open to change, public health governance is like a Colossus of social theory, with one foot in modern, and one foot in late modern, notions of self and society. Public health also seeks to encompass an immense range of intervention activities, forms of knowledge, and institutions. Some of these assumptions derive from functionalist notions of altruism mixed with the rationality of contagion control. Others embrace late modern notions of self-determining, risk averse subjects. There have been calls for compliance policies and the regulation of e-dating websites. Some have argued that

people should make their sexual health histories visible in their internet communication, not as a matter of voluntary action or in terms of moderating discrimination, but as part of a policy of disease control. Such public health appears to rely on constraining the action of individuals by encouraging the shaping of online social environments so that they work to prevent sexually transmitted infections and HIV. In addition, some social science has bent itself to a kind of forensic inquiry, tracing out the lines of transgression and culpability in the products of internet-based sexuality, and unwittingly or not, entering into the politics of blame. Public health practitioners have also called for altruism on the part of people with HIV and by extension, those who know they have other sexually transmitted infections. In this view, individuals who know they have an infection have a duty to others. This form of public health governance appeals to social obligation through notions of altruism, particularly by asking people who know they have an infection of some kind to be careful not to infect others. But public health also advocates self-protection. This imperative relies on notions of calculating, risk averse individuals, acting to protect themselves. This rationality appears to apply to those who know or believe that they do not have an infection.

As I have shown, there may be some problems with the mixture of these imperatives for technosexual citizenship. For example, the reference to altruistic and self-protective imperatives in public health is outwardly a neat arrangement of citizens according to their biological characteristics. Public health therefore works to supply a logic for sociality that coheres with its own vision of altruism, contagion and bio-technological knowledge. But it is not clear how such subjects should relate to one another. It has long been recognised that pure altruism is, in practice, a fictional ideal. The work of Mauss, Titmuss and others has revealed that the 'love of others' and 'love of the self' are one. But some forms of public health work to prise apart love of others (altruism) and self love (self-protection). These purified imperatives satisfy a bio-technological logic of the presence or absence of sexually transmitted infections and HIV, but they may not enable social actors to negotiate their sexual inter-relations. Mauss, Titmuss and others have argued that society depends on reciprocal relations, or more abstractly, loving one another. This co-extensive love of others/love of self is a guarantee of equivalence in reciprocal relations, despite biological knowledge to the contrary. This way of addressing social obligation also forms a point of connection with the reciprocal ethics that seem to provide the basis for forms of technosexual citizenship more generally. But despite drawing on

functionalist notions of altruism, some forms of public health governance eschew the equivalence implied in the ethics of reciprocity and appear to be interested in calling into being technosexual citizens typed according to those who can only love others, or themselves, but not types of technosexual citizens who can love one another. In view of these conceptual troubles, the adapted altruism advocated by community-groups for people with HIV and the notions of relational ethics for technosexual citizenship take on deep significance. These approaches are pragmatic responses to the challenge of forming social and sexual relations that reconcile obligations and autonomy in relation to the imperatives of preventing sexually transmitted infections and HIV and the knowledges and practices that arise through technological innovation. These approaches also show an awareness of the inconsistencies and clashes in public health governance.

We can recognise then that the public health governance of technosexuality is multiple, fluid, and open to contestation. It is important to note however, that public health governance is not the only way that social difference is asserted in social relations. And, of course, public health may not seem contestable from the point of view of the institutions that produce it. In addition, my examples may not characterise all public health governance. But it is important to consider how such examples can arise. It is my argument that it is the multiple character of public health imperatives articulated with technological innovations that makes these examples possible. We need to consider therefore how public health governance appears to citizens engaged with technosexuality. From their point of view, public health governance may well seem multiple and contradictory.

It is not of course possible to turn away from this situation. Following Greco and Rose noted in Chapter 1 and others who have developed a similar line of argument, we need a more thoroughly reflexive public health governance and a political engagement with its technologies. Technosexuality is a challenging preoccupation for public health precisely because of the old problem of sex, technological change and government. As Gordo-Lopez and Cleminson have argued, technological changes that mobilise desires necessarily inspire forms of social repression, thereby assuring the sexual power of technological innovation (2004). As previous chapters have demonstrated, the general shape of the public health government of technosexuality accords with this notion. Technosexual forms are seen as dangerous for public health but also the means through which public health governance can be achieved. This chapter has served to demonstrate how technologies

and public health articulate in yet another way. Public health imperatives are joined with the innovations of bio-technological knowledge to derive forms of technosexual citizenship figured around the prevention of sexually transmitted infections and HIV. In the next chapter, I want to develop this notion of the articulation of technology and public health governance. As we will see, bio- and communication technologies work, severally and jointly, to help make technosexual citizens visible, supplying an important governmental strategy for public health.