

# The Social Shell

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Medical geography begins with sickness and health. The policies addressing disease, and the causes promoting good health are, literally, vital. Here, as in social science as a whole, an historical perspective helps: Things could have been different and may yet be different again. Parallels between past and present propose lessons for today. This approach is well captured in Mitchell Dean's summary of Michel Foucault's project as the writing of critical and effective history.<sup>1</sup> Critical history highlights the contingency of the present, and effective history gives us resources with which to consider alternatives. An important and contested area that is illuminated by such a "political historicism" is the nature of the social.<sup>2</sup> This has both a material and a discursive context and both are essential for medical geographers.<sup>3</sup> Its material setting includes the biological conditions of human existence. These conditions are resolutely social. Historians influenced by Foucault have described the emergence of the social as a distinct field of knowledge, expertise and government.<sup>4</sup> There is now a corpus of important geographical works on the emergence of social policy in the areas of health, sickness, welfare, and urban planning.<sup>5</sup> Public health is one area where this discovery and invention of the social occurs repeatedly. Far from being the individualistic Robinson Crusoe of liberal or bourgeois ideology, human beings require a social shell if they are to thrive.

Medical geography includes the study of the localizing causes of disease. There has always been a tension between concentrating on the characteristics of the individual and focusing upon conditions beyond the control of single individuals, between lifestyle explanations on one hand and socio-environmental explanations on the other.<sup>6</sup> This has even led some medical geographers to call for a geography of health rather than a medical geography, seeing the latter as tied to an individualistic, biomedical model of sickness rather than embracing the social, environmental and preventive dimensions of the former.<sup>7</sup> The first part of the paper examines public health discourses as one of the ways "society" is rediscovered. A comparison of nineteenth-century British public health discourses with current writing about the urbanization of AIDS in the United States shows the repeated and contested discovery of the social. The social shell is revealed by the personal interdependencies that exacerbate vulnerability to sickness. The

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second part of the paper explores cyborg urbanism, or the idea that to survive in cities, people require sets of material appendages. This technology cannot not be provided by and for individuals, but only by and for collectivities. The inorganic is itself part of the social shell. The third part of the paper considers the question of collective action and the way that social movements operate. The social shell, here, consists of solidarities cultivated either in place or across space. I conclude by arguing that the singular importance of the social in public health underlines the necessity for such solidarities. The social shell is vital.

### Discovering Society

The tension between individualistic and social explanations is an old one. The form this tension takes varies with local circumstances and ideologies. In the early nineteenth century, the notion of individual rights as a protection against despotic government was prominent in political discourse. John Stuart Mill, however, went further and emphasized individual rights as defense even against democratic government, the potential “tyranny of the majority.”<sup>8</sup> Bentham had famously dismissed natural rights as “nonsense on stilts.”<sup>9</sup> They were, argued Jeremy Bentham, nothing more than useful conventions, to be discarded where they did not meet the utilitarian test of collective, social usefulness. Mill argued that where the actions of an individual affected others, there might be grounds for government interference but that the test here would be general utility. The utilitarian basis of individual rights, in the case of Bentham, and of liberal government interference, in the case of Mill, appeared to promise that legal philosophy would seek a secure empirical basis.

In fact, policies continued to be overdetermined, both by empirical arguments and by moral philosophy. Sanitary reform was one such area. In ideological terms, there were arguments from contestable first principles. On one side, the more individualistic strand in bourgeois thought emphasized the idea that individuals, properly trained, could look out for their own best interests. This training of the social body is the focus of Mary Poovey’s account of sanitary reform.<sup>10</sup> Against this was a recognition that no person was a sanitary island, entire of themselves. It is in this way that the public health movement came to diverse, and contested, constructions of the social.<sup>11</sup> This was never simply a matter of mere observation. As Chris Hamlin has pointed out, “[i]n this public health some parts of the environment (like sewer design) became part of medicine, while others, like diet and workplace, disappeared.”<sup>12</sup> Hamlin argues that public health reform focused on the physical environment in order to divert attention from poverty. For some state servants, to accept that poverty predisposed people to sickness questioned too much about the Victorian social order, and its Poor Law.

Nevertheless, the idea that sanitary investigations were voyages of

discovery was not pure rhetoric. Although the evidence never determined the details of policy, there was a clear embarrassment behind the so-called “condition of England question.”<sup>13</sup> The contrast between national wealth and working-class living conditions cried out for explanation. The most comfortable explanations would have been both empirically adequate and ideologically acceptable. Such explanations were not easily produced. It appeared that the rich were not immune to diseases traceable to the living conditions of the poor. George Godwin’s famous account of insanitary London was called *Town Swamps and Social Bridges*.<sup>14</sup> The interconnectedness of city spaces forced middle-class people to a new understanding of urban risk.<sup>15</sup> It was argued that overcrowding in poor tenements would be curtailed only when all landlords were required by law to limit the number of people sharing a room. Only inspection would prevent butchers selling foul meat, since poverty constrained the poor to buy whatever was cheapest. Water and sanitation were provided most cheaply when supplied to all. The sanitary reports from government commissions and local government officials collated and repeated the evidence to sustain these claims.<sup>16</sup> The strict individualism of laissez-faire economics could explain these relations only by agreeing that free markets did not operate here.<sup>17</sup> People were embedded in physical and social environments over which they could exercise little control. There was indeed such a thing as society. This remains the basis for preventive public health programs and is the reason why the so-called New Public Health still looks back to these nineteenth-century antecedents.<sup>18</sup>

Those who wish to minimize state intervention retain the assumption that, as Margaret Thatcher asserted, “[t]here is no such thing as society.”<sup>19</sup> Similarly, seeking to justify urban clearance for poor areas of New York in 1966, Roger Starr ridiculed the idea that something as nebulous as “community” might be harmed in the process: “[p]rovided only that a certain homogeneity of social class and income can be maintained, American communities can be disassembled and reconstituted about as readily as freight trains.”<sup>20</sup> Yet public health risk remains largely social in character. In hazards research, geographers and social scientists speak of the social distribution of vulnerability.<sup>21</sup> This is illustrated very elegantly by a recent study of the Chicago heat wave of 1995.<sup>22</sup> In Chicago, the heat wave of July 1995 killed about 700 people in one week. When they tried to understand this event, epidemiologists focused initially on the characteristics of individuals that placed them into risk groups.<sup>23</sup> These included poverty, race, and isolation. However, they had to control for locality effects in order to isolate the individual characteristics that interested them. In later work, when they did consider environment, they found that the local homicide rate was a highly significant independent variable.<sup>24</sup> They offered no explanation for this relationship. Klinenberg does. He argues that in areas with lively street life provided by street traders and pedestrians, elderly people living alone were not afraid to come down and repair to the air-conditioned

safety of convenience stores. In contrast, areas swept by drive-by shootings and drug-related street crime were considered dangerous by single elderly people, who remain in the apparent safety of their apartments. Without air-conditioning they were cooked to death in these flats. Klinenberg argues that public health officials in Chicago refused to face up to these social factors, yet living alone and being afraid of street crime resulted from other city policies concerning welfare, urban renewal, the regulation of street trading, and policing. Individualistic explanations not only fail to explain the observed mortality; they also narrow the search for solutions. The heat wave required what Klinenberg terms a “social autopsy.”

Medical geography is well equipped to broach this sort of social autopsy. This is a framework suited to the evaluation of fundamental geographical change. We may illustrate this briefly by considering the consequences of recent transformations of inner city areas in the United States. Between 1949 and 1973, one million people were dispersed as some 2,500 neighborhoods in 993 cities were levelled as part of urban renewal.<sup>25</sup> Renewal concentrated Black people into housing projects and then used the land thus cleared for commercial and institutional uses. Cities were segmented ever more efficiently into rich and poor districts. Black communities lost their historical bearings. Mindy Fullilove calls this “root shock.” This urban renewal was replaced in the 1970s, 1980s, and 1990s by a policy of withdrawing services from the inner city areas where the poor lived. Deborah Wallace and Rodrick Wallace show how this “benign neglect” produced new depths of segregation and new piecemeal urban clearance.<sup>26</sup> For New York, they document a policy of withdrawing fire services from the neighborhoods of the poor. The fires that ensued left an urban landscape fragmented and bedraggled. The abandoned shells of damaged buildings became the resorts of drug users. All who could, left. All who were left could only watch as the urban pathologies took deeper root.

Fullilove argues that people take care of their home place, they have a deep knowledge about it, and it is vital to their sense of self. These bonds of attachment, familiarity and identity are broken by wholesale or piecemeal uprooting of neighborhoods. The resulting trauma produces nostalgia, disorientation, and alienation.<sup>27</sup> Communities lose their resilience and pathologies of crime and addiction arise. These pathologies are highest in the areas that have seen the worst urban destruction, and in these areas people have a poor self-image, they are demoralized.<sup>28</sup> This stress has direct consequences for health. The burnt-over areas not only have a high incidence of homicide, but they also have a high proportion of underweight babies.<sup>29</sup> The introduction of HIV into this ecology of risk had depressingly predictable results. Not only were the fault lines of poverty and degraded environments etched onto the map of AIDS, but, in the diffusion that followed the early incubation of the epidemic, the suburbs rediscovered their connectedness with the maligned inner city.

Wallace and Wallace show that the level of HIV infection in the suburban areas of different cities may be explained primarily by the level prevailing in the central districts of those same cities. Overall, the connectedness of cities with New York and San Francisco was a fundamental factor in their vulnerability to HIV. Suburban New Yorkers and the citizens of the rest of the urban system of the United States were made vulnerable to AIDS by the planned deterioration of parts of Manhattan and the Bronx. Wallace and Wallace conclude that: “[W]e must rebuild communities so that substances or compulsive promiscuity are no longer needed (or indeed tolerated) to relieve pain. Both economic opportunities and socially functional neighborhoods are the best AIDS-prevention programs.”<sup>30</sup> As in the nineteenth century, the individualistic model fails to address either the causes of sickness or any plausible solutions.

### Cyborg Citizens

Erik Swyngedouw has described cities as assemblages made of natural and social elements and, to direct attention to this hybrid nature of the city, he refers to cyborg urbanization.<sup>31</sup> This adaptation of the ideas of Donna Haraway has stimulated a number of studies of the relationship between ecology and citizenship in the city. Matthew Gandy has looked at sanitary systems as one of the many interfaces between technology and the body.<sup>32</sup> Gandy has further explored the cyborg metaphor as a way of conceptualizing modern urban dilemmas, both physical and imaginative.<sup>33</sup> He has also followed Mamdani in identifying water rights as a key dimension of urban citizenship.<sup>34</sup> Liette Gilbert and Catherine Phillips write of socio-ecological citizenship with regard to rights to home and water.<sup>35</sup> Swyngedouw similarly extends Lefebvre’s reading of the city’s right to incorporate access to the necessary material conditions for urban life, a “right to metabolism.”<sup>36</sup> Conceptualizing rights in the field of health is difficult, but Norman Daniels’ formulation of a right to “normal species functioning” is most serviceable.<sup>37</sup> Like relative definitions of poverty,<sup>38</sup> it makes reference to social norms (“normal”) and, in tying itself to dis-ease, rather than well-being, it is more practical than so-called positive definitions of health such as that of the World Health Organization (“a state of complete physical, mental and social well being and not merely the absence of disease or infirmity”).<sup>39</sup> We might, then, adapt Norman Daniels’ conceptualization to the case of what we might call cyborg citizenship. The cyborg body should incorporate whatever technology is necessary for normal species functioning. This, of course, will vary with wealth and expectations but in most circumstances imaginable for Western cities will include housing, water, and sewerage services; anything less makes normal species functioning, and even civilized life as we expect it, impossible. It is quite clear that no individual could provide these services for themselves without the scale economies embodied in collective provision.

Furthermore, the only way of ensuring that the negative externalities of waste disposal do not infringe upon the rights of neighbors is for there to be collective regulation. However, these extensions of Haraway's ideas by Gandy, Swyngedouw, and others raise serious questions about the original theory from which they borrow. These questions may be addressed by reviewing British public health discourses of the nineteenth century in the light of Donna Haraway's account of the cyborg.

Haraway's treatment of the cyborg raises two related issues.<sup>40</sup> The first concerns the nature of human beings. Haraway identified three polarities that she thought were destabilized by recent changes; some of which, at least, may be described as a shift from an industrial to an information economy. These blurred divisions are those between human and animal, between animal and machine, and between the physical and the non-physical. In broad terms, if an individual human being is somehow distributed and articulated through a series of physical and biological appendages that are not part of its given biology, then the boundary between the human and the non-human is called into question. The second is that if the human being is not bounded in this way, then the question of humanism as a theory of social action is also called into question. This remains a highly contentious issue in economics and the social sciences, but, if we can no longer explain social action exclusively in terms of the motives of individual conscious human beings, then methodological individualism is untenable.<sup>41</sup> A whole series of rather different agents have to be theorized and their rules of engagement and forms of calculation explained.<sup>42</sup> The relations between the first and second propositions appear conditional. That is, it is changes in the technology of life that are presented as reducing the degree to which social action can be explained by individual humans' preferences, intentions, or projects. This understanding of our current dilemma is made questionable by Gandy's and Swyngedouw's reworking of Haraway's ideas.

The public health ideology of Edwin Chadwick illustrates the problem rather well. Chadwick was an innovator of state institutions, involved not only with the New Poor Law of 1834 but also with the Public Health Act of 1848.<sup>43</sup> Together these changed the nature of urban governance in Britain. In terms of public health, Chadwick believed in circulation.<sup>44</sup> He thought that stagnation produced decomposition, which in turn produced mephitic gases that either directly or indirectly caused disease.<sup>45</sup> Thus, waste products had to be removed. This could have been done in a number of ways. The most common way in the early nineteenth century was for the night-soil man to come around from time to time and pump out cesspits. Chadwick believed that this was inevitably inefficient and something more automatic was needed. For this purpose, he proposed using sewers. Previously, sewers were for the drainage of rainwater from streets. Chadwick suggested that if sewers took both waste-water from houses and the excreta from water closets, they might drain both away from the home.

To this end, he wanted people also to get their water not from standpipes in courtyards, but by constant, high-pressure supply piped into houses. This would ensure that enough water was available in the house to flush away the excreta. At the other end of the sewer would be a farm ready to be fertilized rather than a river to be polluted. The night soil in suspension could be spread over the fields and would thus produce food, which the urban residents could enjoy. The more residents, the more night-soil, the more night-soil, the more food. Chadwick was delighted. He had, he said, "realised the Egyptian idea of immortality by putting the serpent's tail in its mouth."

In terms of the separations Haraway speaks of, it is clear that this ecological thinking treated humans as animals within a web of nature. It is significant that it was based upon the Soil Chemistry of Justus von Liebig, for in this way it connected organic and inorganic material. When we recall that cholera was the index disease to which the public health ideology addressed itself, we can see a certain paradox here. Bourgeois sensibilities were obsessive about the control of bodily fluids. Cholera was a disgusting and shaming disease.<sup>46</sup> It violated the borders of the body as waste products were expelled in uncontrollable spasms. Precautions were needed to guard against such animalistic lack of self-control and the associated risk of eventual death. Yet the bourgeois body could only be bounded, could only control its secretions, by being placed in communion with a network that rendered those secretions natural in a good rather than a bestial manner. The crucial terms are circulation and conservation. Fluids are disciplined and then indirectly re-ingested, the Egyptian idea of immortality.

This providential view of nature was ultimately grounded in a cosmology, and Chadwick was explicit about his preference for the natural theology of William Paley. This was the idea that the nature of God was revealed in the forms of his creation.<sup>47</sup> Since God was benevolent so was nature. This was very different to the view of nature as fallen Creation in which it was anything but providential but was rather miserly in its provisions. Chadwick presented his vision of circulatory sanitation as an explicit rebuttal of Malthus. It is also significant that the same vision of conservation and circulation informed Chadwick's political economy and that this political economy was also important to his public health ideology.

Individual consumers were unable to secure for themselves the benefits of the new sanitary system. Indeed, the market did not seem at all providential, for it produced obscene profits for water companies that provided an appalling service. Once again, Chadwick turned to the idea of circulation. The problem was that water, sewerage, and, at times he would also argue, housing were not ordinary commodities. They were commodities where neither capital nor consumers were able to enter or leave the market at will.<sup>48</sup> Once the fixed capital for a water supply had been laid out, the pipes were an inflexible investment. They would only be used to deliver water. It was, therefore, never worthwhile for a provider to cease providing

water at almost any price. This could only be ruinous in the presence of real competition since there was no incentive for a provider to leave the market rather than reduce the price. The result was that in these cases there was collusion between nominal competitors, and prices were fixed way above the level at which normal profits were guaranteed. Sewerage systems were similarly inflexible. In the case of housing, thought Chadwick, and here he anticipated the central findings of the Royal Commission of 1885,<sup>49</sup> it was the consumers who were immobile. The workers had to be close to work and yet they were poor. The result was that they had no alternative but to overcrowd and overpay for the housing available near their jobs.

Circulation was again the solution for at least the housing crisis. Suburbanization of industry and cheap trains should unplug the city centre. Chadwick was a believer in municipal investment for these fixed capital projects where the individual consumer could not benefit from an automatic harmony of the socially useful and the economically efficient. He believed that socially useful and economically efficient were coincident, but he did not feel that all commodities gave rise to markets that could produce this. Vested interests or monopoly powers prevented freely operating markets, and in these cases the municipality must intervene and provide the service itself, and through scale economies and by not taking excessive profits it could shadow what an effective market would have done.

Let me return now to the two themes identified in Haraway's work on cyborgs and see how they might relate to this public health ideology. I am not trying to push back into the nineteenth century the full force of her analysis of the implications of the deepening of an information society, but nevertheless there are some interesting parallels here. First, this is a technological fix for human health. Physical and biological coherence cannot be secured by human animals in cities without a series of mechanical and biological extensions to their bodies. Without elevators, all but the fittest of us would never be able to live or work in high-rise buildings. Without drains, sewers, and water pipes we would be repeatedly challenged by pathogens that might certainly make life uncomfortable and may even make it impossible. The city is a sort of shell. Second, this way of looking at the necessary conditions for urban life does indeed raise questions about the separations between human and non-human. In some ways the human organism is dissolved into a circular ecosystem in which it is a component rather than being part of a hierarchical system of which it stands atop.

But Chadwick resists the anti-humanism that deep ecology commits some to. The reason for this lies in the way that circulation relates to providentialism in his organic metaphor. By basing both economy and ecology on a sort of metaphysics of matter, Chadwick can believe that he lives in a world designed by God for the purpose of allowing humans to "go forth and multiply." Thus the free market economy is understood as being as natural as is the ecosystem. Letting both run freely would allow

them to reveal the beneficence of the divine design within both. However, monopolies and vested interests interrupt this teleology with appalling results for the ecological sustainability of the city. Because the earth has been designed for human beings, there is no need to infer or discern distinct purposes in other agents, animal or institutional.

Yet the world did not come as clean as Chadwick could think it. His belief in the value of town sewage as fertilizer depended upon the nature of local soils, the quality of agricultural drainage, the types of crops it was economic to grow, and, finally, the ways the sewage was treated to render it safe for farm workers to move amidst. In each of these ways, his expectations for the profitable use of town sewage was frustrated. Town and country were not so easily made compatible. Calculations about the value of town sewage were not seriously prosecuted by Chadwick. He had to be right to have faith in his Egyptian idea of eternity. Second, the money to be made from selling water was seriously constrained by what the poor could pay. Precisely the same problem undermined attempts at housing reform. In many cities, it was the industrial demand for water, not least for fire prevention that first brought a constant, high-pressure supply.<sup>50</sup> Calculating on the basis of individuals missed the fortunate point that there were enterprises with calculations and agency of their own. Third, though Chadwick conceptualized society as a group of individuals and the economy as effectively a series of petty commodity producers, he knew that there were other institutions involved. Laws required parliamentary approval, and this required the construction of voting majorities and Chadwick was very attentive to the ways that a majority in favor of public health reform might be constructed.<sup>51</sup> This meant working through parties and finding ways of making the message resonate with whatever ideology was dominant within the House of Commons at the time. On his Select Committees, Chadwick assembled a broad range of ideological opinions. He then managed witnesses and evidences in an attempt to secure the widest possible consensus for his ideas. He then briefed journalists in order to create a climate of opinion in which it was difficult for opponents to get a good hearing. Chadwick wanted to treat parties, newspapers and pressure out of doors as extensions of his arm of government. This is not quite an information society, but it is certainly a very sophisticated construction of a "public opinion" from a diversity of institutions.

Finally, although Chadwick conceptualized opposition to his plans as nothing more than vested interests and implied that these interests were vested in scoundrels and greedy men, in fact the notion of vested interests took him quite close to an awareness of the autonomous agency of institutions. In parliament his tenure at the General Board of Health was ended by what he saw as an unholy alliance of M.P.s holding water company shares. With their dividends threatened, these M.P.s resisted Chadwick's call for the municipalization of water companies. Yet we might as easily conceptualize this as the agency of the companies themselves deploying

dividends to secure the longer-term interests of the enterprise. The center of calculation is the company itself. Indeed, the splitting of people into at once being individuals and yet also acting as executives of the interest of something external to themselves, be it an enterprise or some other association, is one important source of the forms of agency that cannot be captured by humanism's behavioral assumptions. Even Chadwick, himself, in postulating a collective interest in public health, in fact took his standpoint from the Archimedean view of the state itself. Effectively, he conceptualized population as a state asset and then acted as if the state had an insurance property in that population. Indeed, this utilitarianism led him to propose many extremely authoritarian measures that would certainly not be viewed as welcome by all the people they were applied to. In this way, he foreshadowed the eugenic Fabian position in which biopolitics were given very full reign.<sup>52</sup>

To conclude, Chadwick's organic metaphor paradoxically blinded him to the necessity of conceptualizing at all carefully the ecological feedbacks he implied could be so providential. Although he appeared to be folding humanity back into nature, in fact, he projected onto nature human needs and assumed they were sustainable. His failure to acknowledge the radical otherness and indifference of the natural world was a direct consequence of his theology. Furthermore, although he showed a great aptitude for manipulating institutional logics and potentials, he continued to believe that the individual was the irreducible basis of society. Yet the nature of his practice, and of the opposition he faced, showed agents and centers of calculation that were not captured by his humanist sociology. In this regard, at least, we can push anti-humanism back before the information society developments highlighted by Haraway. The implications of this for how we conceptualize anti-humanism, the relations between the individual and the social, are quite significant.

Perhaps all forms of "time-space distancing" undermine the boundedness of the individual.<sup>53</sup> Writing allows action at a distance and even over time. Writing and money allow the development of institutions that can be formulated with interests distinctly their own, interests that individuals serve but do not always own. Politically, this means that reform may require changing the rules of institutions rather than altering the ideas and motivations of individuals. Institutions and other collectivities form an essential part of the context of individual action.<sup>54</sup> Explanations in the social sciences cannot be bound by the humanist assumption that individual actions are all that need to be described and explained. Furthermore, our consideration of what we might call, following Swyngedouw, urban metabolism shows that in the transformation of nature there are technological arrangements that are so central to sustaining human life in cities that it is only as part of such assemblages that people can survive urban life. Forging second nature not only produces new biota but also creates organisms that can only survive within second nature.<sup>55</sup> Alongside

animals manufactured, as Haraway describes,<sup>56</sup> for specific purposes in a laboratory, there are also animals so transformed by selective breeding for agriculture that they, too, could not survive without human management. We might easily go further and recognize that human beings as we know them can also only survive in assemblages of organic and inorganic technologies. The city is perhaps the most important of these.

### Reconstructivist Social Movements

In a recent paper, Arturo Escobar has linked together science studies and the study of new social movements.<sup>57</sup> Following recent arguments in Science and Technology Studies, Escobar argues for a reconstructivist agenda for Critical Development Studies. Scholars should examine the constitution of social action from local knowledges and broader development discourses. The interpellation of individuals is a product of both. Non-modernist logics have to understand the effects that continue to be produced by colonial difference in order to establish a space for autonomous local choice. In articulating the dilemmas of development, Escobar is focusing upon knowledge, its production, status, and use. The AIDS epidemic is one of the most significant events in the history of human populations.<sup>58</sup> Responding to AIDS raises acutely the issue of knowledge and its deployment. A geographical approach to these matters suggests certain ways that Escobar's account might be revised, particularly with regard to how the "local" is conceptualized. In many studies of indigenous knowledges, and not just in Escobar's, there is a danger that identity gets conflated with locality and, furthermore, that localities are conceptualized in radical separation from broader connections. These two problems mean that the nature of solidarities are not explored as broadly as they could be and also that the role of unequal exchanges is occluded. Both of these are important to the politics of AIDS and are raised by the political programs of social movements around the issue.

Constructivist views of science and technology emphasize the role that social context plays in the selection and direction of research and development agendas. In arguing for a reconstructivist approach in Science and Technology Studies, Edward Woodhouse, David Hess, and colleagues argue that this insight has two sets of implications.<sup>59</sup> The constructivist moment is one of research that lays bare the ideological and political content of scientific findings and technological solutions. Both are often presented as neutral and objective. The reconstructivist moment goes beyond this and suggests that academics might consider what priorities and directions research and development agendas ought to take. Given the important ways development discourses present economic and technological choices as precisely neutral and objective, the constructivist moment should clearly remain central to any radical, or critical, development studies discourse. There continues an urgent need to show in detail how, in particular policy

arenas, neutrality masks selectivity. Implicit choices should be made explicit so that they might be challenged. At the very least, this sort of critique aims to put onto the development agenda the needs of groups not seen as having distinct interests when development needs are viewed through the neutral spectacles of technocratic common sense. Escobar has in earlier work shown very clearly how essentialist understandings of development precisely close down this diversity in the name of some master subject that is to be the object of development.<sup>60</sup> Similar conclusions may be reached if we examine other essences such as “the nation” and the way it gets invoked as a singular subject in ways that, again, suspend significant cleavages and conflicts of interest. Inclusive agendas will have instead to be diverse agendas.

The constructivist moment may also be extended to a review of the geography of the production of knowledge. Enrique Dussel argues that whereas for Europeans, modernity is seen as the inception of emancipation from superstition and want, for many other peoples modernity is about the creation of a world economy with a center located elsewhere.<sup>61</sup> Eurocentrism views the second as a consequence of the first. Rather, Dussel invites us to see the first as the consequence of the second. Europeans’ sense of their liberation from want was founded on their appropriation of the resources and labor of others under conditions of the most grotesque military inequality. In making the world their warehouse and their market, Europeans created a global history that they have ever since chosen to see as premised merely upon the diffusion of their enlightened ideas to people who ought to see accepting those ideas as in their own best interest. In privileging the technical and social choices embodied in Western science, we reproduce not only the marginalization of other knowledges but also a view of the world that treats modernity as primarily about the diffusion of ideas and not about the creation of structural inequalities. Yet, it is of course those structural inequalities that allow indigenous knowledges to be so casually marginalized. Postulated as those who should listen to the wisdom of the West, native peoples are not expected to speak for themselves. This is precisely the reason why initiatives such as the Honey Bee Network are so important for, in networking sites of indigenous innovation and expertise, they allow local peoples to profit from the wider adoption of their discoveries.<sup>62</sup> They can also develop protocols that try to ensure that something like internationally recognized property rights attach to this creativity. Furthermore, they can campaign for greater investment in the pursuit of further creativity by local peoples.

Turning to the second half of the suggestions put forward by Woodhouse and his colleagues, we can see that insofar as the Honey Bee Network has been successful in getting seed capital for indigenous science and technology, it is changing the agenda of research and development. It is thereby moving towards the reconstructivist moment. It is one thing to note how priorities are set by corporate capital or by western academics;

it is another to think how priorities should be set. These issues face any radical reconstructivist approach to science and technology studies; and their importance is clear with respect to the challenges posed by HIV and AIDS.

First, it is not a straightforward matter to answer the constructivist critique. Certainly, development agendas have been exclusivist by pretending to a universalism that seeks to silence all but its master subject. However, inclusion sometimes presupposes that we can identify the component social groups that should be engaged in dialogue. The dangers of this are clear. The discourse of new social movements can sustain a concern with civil society that privileges political forms at the expense of content. In a study of the political innovations of neo-liberal Bolivia in the 1990s, Carmen Medeiros draws attention to the significance of the distinction Nancy Fraser has drawn between recognition and redistribution.<sup>63</sup> If inclusion is primarily about recognition, it leaves agendas to be framed elsewhere. In her account of Bolivia's Law of Popular Participation, Medeiros shows that a small-scale and territorial definition of the local disqualified solidarities based on class and also placed beyond consideration issues that went beyond the local. In this way, questions of land reform never made it to the development table, and the question of ecological degradation was likewise incapable of being articulated. Even were it possible to establish something like a parliament of estates that would still presuppose that its constituencies could be identified with some confidence. The matter that needs to be addressed is the cultivation of solidarities. In the context of the funding of research and development, this means that innovative institutional forms need to be created so that new solidarities are explored and formed in the process of setting agendas. Civil society pulses around institutions and these can be designed through being funded.

Second, while the constructivist critique sits well with an account of the marginalization of indigenous knowledges by Western technocracy and corporate capital, this implicit geography begs a rather dangerous primitivism. Fernando Coronil is surely right to call for nonimperial geo-historical categories.<sup>64</sup> In other words, the inevitable border traffic, to refer to a perspective elaborated by Mignolo and Escobar,<sup>65</sup> between core and periphery means that, as Alberto Arce and Norman Long suggest, processes of modernity, even considered in its enlightenment ideological form, are transformed not only in the core but also in the economic periphery.<sup>66</sup> Bruce Willems Braun has commented upon the risks of primitivising indigenous peoples by essentialising their separation from the desires of modernity.<sup>67</sup> I emphasize desire because it underlines the distance between autonomy and isolation. Autonomy implies making choices for yourself; it need not imply that one exercises that choice only by refusing engagement with external knowledges. A recognition of the extent to which science and technology has been transformed in the to-and-fro between core and periphery does not mean, of course, that the benefits have likewise been

shared promiscuously.

Turning to the question of HIV and AIDS as a context in which we might want to develop a reconstructivist approach to science and technology, there are two aspects underplayed in Escobar's analysis: solidarity and core-periphery inter-relations. These may be highlighted by examining separately the two main components of strategies to limit the suffering caused by HIV and AIDS. First, there must be a policy aimed at preventing infections; then there must also be a policy for treating the infected and later the sick. Prevention is quite specifically about solidarities. People need to change their behavior not only for selfish reasons but also out of a sense of responsibility toward others, be it their family, their lovers or their casual sex or drug acquaintances. There is no question but that AIDS prevention policies are frequently hijacked by people who wish to use AIDS in order to serve some other moralizing agenda. On occasion, people base policies on what they wish were true rather than on the basis of direct evidence. This is very clear in relation to sex education for young people. As Fungisai Gwanzura-Ottmöller and Mike Kesby demonstrate, pundits are inclined to believe that young people are more ignorant than they truly are.<sup>68</sup> There is also, as Norman Daniels has argued, a refusal to do other than assume that sex education promotes early sexual activity.<sup>69</sup> An editorial in *The Lancet* described the current Bush administration's insistence on abstinence-only HIV prevention education as "one of the best examples of ideology impeding sound public-health policy."<sup>70</sup> People insist, for example, on the exclusive promotion of abstinence policies in the face of overwhelming evidence that while they may protect some who postpone and reduce sexual activity in the face of such scary rhetoric, they leave the sexually active completely unprotected.<sup>71</sup> In fact, many states simply distance themselves from dealing with drug users or the sexually active and tolerate a shadow state of parallel institutions that are indirectly funded.<sup>72</sup> The balance between the sexually active and the sexually inactive is an empirical question, but the only societies that have succeeded in seriously restricting the size of the second have required unconscionable restrictions on the freedom of women and of the young in order to do so. At least, the restrictions seem unconscionable to me and nobody pushing abstinence policies is bothering to find out if they are unconscionable to the women and young people on whom they are being pressed. We know that political leadership is vital if prevention messages are to be installed at the heart of society.<sup>73</sup> This surely means addressing both the advantages of reducing partners in contexts where safe-sex cannot be easily institutionalized as the norm for sexual activity, as well as promoting condom use in contexts where it can be made normal and expected. Social monitoring and sanctions depend upon people identifying strongly enough with a group to police its norms on behalf of the group as a whole.<sup>74</sup> Successful behavioral adjustment programs have relied upon cultivating solidarity, from the emphasis on being a good mate by discouraging unsafe sex in clubs to the

idea that men protect their family by being exclusively condom-users when playing away from home. Awareness of risks works most effectively when people can find safe ways of still pursuing their desires. Solidarities allow people to talk about the compatibility of pleasure with safety: no solidarity, no conversation, no change in behavior. Institutions like clubs, bars, and clinics can be vital in educating and fostering solidarity. It is clear that “all of us, infected or not, low risk or high, bear a responsibility to change our attitudes and behaviors that may promote HIV infection. Without this balance, calls for personal responsibility become almost indistinguishable from that of blaming the victim and are likely to be counterproductive to prevention efforts.”<sup>75</sup>

Prevention is also a technology that has been shaped by core-periphery interactions. Many rich countries have been quite successful in cultivating solidarities among drug users and also among gay men. Men having sex with men, but not identifying as gay, have been more difficult to address since they are less likely to engage in the conversations that are fostered by the solidarities among men self-identifying as gay.<sup>76</sup> Furthermore, heterosexual men and women have been very difficult to reach. This is, in part, because of puritanical public discourses around sexuality in many rich countries. Great Britain, for example, has higher teenage pregnancy than many European countries with comparable or higher levels of teenage sexual activity. Failures in the use of contraception have been related to poor education resulting from a cultural unease with teenage sexuality tout court.<sup>77</sup> However, it is this very Puritanism that informs the prevention policies the United States now presses upon Africa.<sup>78</sup> In contrast, many African countries have been much more frank in their treatment of sexuality by means of travelling theater,<sup>79</sup> and even by means of public advertising.<sup>80</sup> This has rested in some cases upon the techniques of niche advertising developed by corporate capital to sell trainers or soft drinks.<sup>81</sup> In others, it has been the transformation of forms of entertainment more easily recognized as traditional. Indeed, in some contexts, social marketing has proved to be too “Western” for local Christian opinion.<sup>82</sup>

Patterns of sexual activity among young heterosexual people are not that different between Europe and many African countries. The sexualization of youth culture springs both from libido and from Western-dominated mass media in both contexts. If African countries can learn from the rich countries, it will be in the area of regulating the risks of drug use and gay sex and, in return, rich countries have much to learn from public discourses of sexuality in many African countries. A reconstructivist agenda would be about the differential geography of best practice. We must also learn the lessons from studies of the cultivation of solidarities together with their emphasis on the importance of institutions. Beyond all else, the preventive technologies for HIV are predominantly soft technologies and rest upon a public recognition that HIV is a general risk and that the infected people remain valuable members of society. It is in this respect

that treatment is often such an important mark both of the care taken of the sick but also of the presence of HIV as an ever-present reality, and risk.<sup>83</sup>

Turning now to treatment. Organizations like ACTUP (1987) and later the Treatment Action Group (1990) have been very important in developing solidarities around the question of access to drugs. In March 2001, the Global Treatment Access Campaign organized demonstrations in eight countries to show solidarity with the South African government after the government had been taken to court by forty pharmaceutical companies protesting its attempt to access generic drugs.<sup>84</sup> There can be no doubt but that this international solidarity influenced the so-called Doha Declaration (November 2001) that put a more health-friendly interpretation on international patent law.<sup>85</sup> In the United States, it was in caring for the sick that solidarities such as buddying came to define, for some people, a new way of being gay.<sup>86</sup> However, it went further than this and, in the face of criticisms that it only catered to white, middle-class gay men, ACTUP and other gay institutions accepted a measure for responsibility for fellow sufferers who did not identify as gay.<sup>87</sup> In time, ACTUP became a part of the shadow state and was a voluntary agency receiving government funding to provide services to a clientele that over time became as much non-gay as gay. This cultivation of solidarity by ACTUP was in fact a laboratory in which caring regimes were developed. New forms of hospice care, new practices governing access to trial drugs, and new forms of home care were either developed by ACTUP or provided in response to its activism. Through solidarities that were ever extending, needs were identified and solutions explored. By increasingly making the funding of ACTUP dependent upon its providing broad-based communal services, the government encouraged the development of this institution away from its initial core group toward a more inclusive form of solidarity. This development was, by and large, accepted by gay men because they could see the force of the critique of earlier exclusiveness. However, to the extent that government only responded where HIV threatened *its* own core group of heterosexual, married couples, gay activists and their institutions resisted this incorporation. Broader solidarities rest upon political leaders embracing diversity in public.

The interaction of core and periphery around treatment issues is quite complex. Certainly some of the palliative drugs, such as aspirin for dealing with the symptoms of sickness, are cheap and are even so not widely available in poor countries. Other drugs, particularly those that control the replication of the HIV virus within the body, are very expensive. Some of this expense comes from the intense research effort that went into understanding HIV as a living entity. However, that research agenda was, as many commentators, such as Jon Cohen, have pointed out, also shaped by the commercial possibilities of treatments rather than of vaccines.<sup>88</sup> It is also clear that intellectual property regimes mean that even in the face

of the greatest epidemic threat the human race has probably ever faced, there is no effective sense in which science and technology can become a universal possession. Drug companies have been shamed into providing a limited amount of retrovirals cheaply to some African populations, but something much more radical is needed. The patents should be bought out by a collective agency and the drugs produced as cheaply as possible in vast quantities, even if this means that in rich countries, too, people get cheap supplies. However, there is an alternative. Generic drugs are being produced in Brazil,<sup>89</sup> and they could easily be in India. India is a large enough market that the WTO might find it difficult to bully it into compliance. And if China were to manufacture generics, there is virtually nothing the WTO could do. It is also clear that in the too-slow development of vaccines there will be a further to-and-fro between core and periphery, for vaccines can only be tested efficiently in places where background levels of infection are high enough that some in the trial will be exposed to the disease. This means that the bodies of people in poor countries will be borrowed by the pharmaceutical companies of rich countries in order to develop vaccines.<sup>90</sup> The obvious potential injustices in this situation have been urged by activists in both rich and poor countries with the result that protocols are in place governing the access of people in those poor countries to any vaccines that may be produced. The UNAIDS proposed protocols rest upon the assumption that "making a safe and effective vaccine reasonably available to the population where it was tested is a basic ethical requirement."<sup>91</sup> This is not nearly enough, but it does represent an example of the normally marginalized being heard both through their political leaders and through activist solidarity. In both prevention and treatment, solidarities have developed that shape identity at least as profoundly as does the locality.

### Solidarity and Social Relations

In this paper I have argued that historical studies in medical geography can address some of the central issues in the social sciences. Social relations were examined in three areas. First, I argued that medical geography uncovers a distinctly social environment. It is not at all surprising that public health investigations have been seen as central to the development of sociology in nineteenth-century Britain.<sup>92</sup> Second, in examining the relations between technology and the body in urban sanitary systems, I have suggested that the phenomena associated with Haraway's account of the cyborg precede the development of an information society. Third, in considering how the social construction of knowledge relates to social movements around AIDS, I have suggested that solidarity is an important dimension in the development of identity. In each of these three sections, the status of the individual has been questioned. The interconnectedness of people and of people with places is unavoidable. This is not only a

methodological issue; it is a political one too. Jonathan Mann, who did so much to build a global AIDS campaign, said that solidarity “is based on the knowledge that we need the other; that we are in some basic and clear way incomplete without the other.”<sup>93</sup> There certainly is such a thing as “society.” Without it we perish. We enter into social relations with other people in order to live. These dependencies and interactions create obligations at the same time as this co-operation and co-dependency allows for greater physical and biological security. Understanding these responsibilities, needs and benefits should be part of the intellectual agenda of a critical and effective medical geography.

## Acknowledgments

Thanks to Michael Brown, Millie Glennon, Phil Howell, Paul Laxton, Steve Legg, Chris Philo, and Andy Tucker for improving an earlier draft.

## Notes

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