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Health Citizenship

Essays in Social Medicine and Biomedical Politics



Dorothy Porter, PhD

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Health Citizenship

Perspectives in Medical Humanities

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*To all of the inspirational students it has been and
continues to be my privilege and honor to teach*

Health Citizenship

Essays in Social Medicine and Biomedical Politics

Dorothy Porter

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Acknowledgments

THE RESEARCH FOR the essays collected here took place over two decades. There are so many colleagues, students, friends and family members to thank for their support it would exhaust the space of the entire book to mention them all individually. Similarly, the number of archives and archivists, libraries and librarians are far too many to mention each of them. I would like, however, to at least attend to a few amongst the very many that have been critical.

Firstly I want to thank John Alfred Ryle's children and grandchildren for the enthusiastic support of my attempt to re-engage his vision of social medicine and its relationship to health reform. All of his children, John, Tony and Margaret, gave me unique insights into their father's world and his critical comradery as much as dearly romantic relationship with his wife Miriam. Tony Ryle gave me access to their father's personal papers that had been brilliantly archived by their mother. The papers were ready and waiting for an historian to review and analyze them. Margaret Ryle provided me with copies of John Ryle's unpublished manuscripts that were utterly engrossing in the opportunity they offered not only to understand Ryle's reasoning but the academic and political spirit of his epoch.

I was only able to meet John Ryle's family because, after I presented a paper on him at what was then the Wellcome Institute for the History of Medicine, a questioner stood up and said, "I was very interested in your paper. I am John Ryle." This was the distinguished journalist John Ryle, the grandson of John Alfred Ryle. I am eternally grateful for his help in allowing me to meet Ryle's family who gave me such a distinctive understanding of this inimitably significant figure in the history of social medicine.

For an extensive period during which this work was undertaken I was a lecturer and later Professor of History at Birkbeck College in the University of London. No one could find a more stimulating and challenging academic environment than the School of History, Classics and Archeology at BBK. The mission of the college

and the collegiality of the faculty and staff are as exceptional as each other. I could never have become an historian of any stripe without my extraordinary colleagues at Birkbeck. I must mention in particular my dearest friend and brilliant scholar Joanna Bourke and my singularly distinguished colleague and friend Michael Hunter. I can never thank them enough for all they have given to me in friendship and enlightenment.

For part of this period in my career I was married to and continued to collaborate with Roy Porter. It is not possible for me to express the deep influence he had upon my understanding of historical change. His grossly untimely death was a tragedy for the world of historical scholarship and the public understanding of medicine and science.

In the last decade, my career emigrated across continents to the gorgeous West Coast of the United States where I took up a position as Professor in the History of Health Sciences at the University of California San Francisco. The opportunities for historical analysis of the transformations taking place in biomedical science, bioengineering, clinical medicine and global public health practice are flabbergasting at this world center of discovery and innovation. The small Department of Anthropology, History and Social Medicine occupies a tiny corner of this astonishing enterprise but one from which I and my colleagues gain a piercing view of a scientific revolution that has implications for transforming the world of health and medicine on a global scale. My colleagues here are intensely engaging and stimulating and I cannot thank them enough for the intellectual challenges they have provided me with.

The publication of this collection is made possible by the brilliant vision and endeavor of the University of California Medical Humanities Consortium under the Directorship of Brian Dolan who created this book series and is its chief editor. He allowed this manuscript to go forward for peer review for consideration in this series and scrupulously attended to the recommendations from that process. I am eternally grateful to him and the University of California Press for their decision to publish this volume.

This volume is dedicated to all the students I have taught and will teach in my career. I cannot say enough about the honor it has been, and is, to be able to help expand their understanding of historical change and the dialectics of knowledge.

Preface

THIS BOOK IS dedicated to all the talented and inspirational students it has been my great privilege to teach during my hugely rewarding career. It collects together a group of essays that have been scattered in a wide range of publications to provide a learning aid for current and future students eager to understand the history of public health, the rise of the modern state, the role of the social sciences in population health promotion, and the changing social contract of health citizenship in industrial and post-industrial societies.

The rights and responsibilities of health citizenship are increasingly at the forefront of public policy debates concerning disease prevention and health management in dramatically changing demographic, economic, political and ecological environments. Political discourses on the relationship between the health of populations and the wealth of nations have been profoundly influential in the history of the modern state since eighteenth and nineteenth-century philosophies explored the rights and responsibilities of democratic citizenship.

In 1792 French revolutionaries declared health an obligation of the social contract between the democratic state and its citizens and invented the idea of health citizenship.¹ When the Constituent Assembly's Committee on Salubrity and the National Convention added health to the democratic state's obligations to its citizens they believed this could be achieved by establishing a network of rural health officers who, while trained in clinical medicine, would also become responsible for reporting on the health of communities and monitoring epidemics among humans and farm animals. The citizen's charter of health, however, was double-sided. The *idéologue* Constantin-François de Chasseboeuf, comte de Volney, raised the issue of citizens' responsibility to maintain their own health for the benefit of the state. In the new social order the individual was a political and economic unit of a collective whole.² It was a citizen's duty to keep healthy through temperance, both in the consumption of pleasure and the exercise of passions, and through cleanliness.

The dialectical relationship of health citizenship, entitlements, and responsibilities was subsequently expressed in the political and social development of public health systems and practices up to the twenty-first century. The relative roles of the state and its citizenry in achieving population health, however, oscillated and changed focus throughout the period. In the nineteenth century the “sanitary idea” of health reform emphasized the role of the state in providing citizens with protection from epidemic disease in an equivalent way to providing protection from physical assault from violence. By the end of the twentieth century states facing the inexorable rising costs of providing health services for increasingly aging and chronically sick populations transformed personal wellness into an individual contribution to the commonwealth.

The collection of essays presented here explore the changing political configurations and social meaning of health citizenship in the nineteenth and twentieth centuries in three contexts: the role of public health in the formation of bureaucratic states and the consequent changing discourses on the healthy body; the influence of social scientific theory, methods, knowledge and reasoning on public health ideology and the social contract of health; and the role played by biological determinism upon the status of human identity and health rights.

Chapter One begins by discussing how changing definitions of public health have been reflected in the different approaches to its history. Public health history flourished after the Second World War within the historiographical interest in the administrative growth of modern states and the development of social welfare systems.³ In the histories written in the 1950s, the concept of public health was largely equated with nineteenth-century environmental reform and methods of preventive medicine, such as vaccination. The epidemiological reduction of infectious diseases by the turn of the twentieth century through environmental and preventive regulations was represented in this historiographical tradition as the triumphant culmination of a long tradition of rationalism stretching back to antiquity. Chapter Two examines how the establishment of environmental public health within the political arena of Victorian Britain significantly contributed to the creation of centralized bureaucratic policy making and implementation. Section one of the book concludes with an analysis in Chapter Three of how changing cultural conceptualizations of what constitutes a positively healthy body reflected the broader politics of state versus individual responsibility for the

health of populations.

Section Two of the book examines how new sciences of sociomedical inquiry were developed in Europe in the nineteenth and twentieth centuries, which expanded the possibilities for investigating the health of populations. The essays in this section of the book address two questions: how did these intellectual developments influence changing conceptualizations and ideologies of population health; and how did the social sciences influence changes in the social contract of health in the twentieth century.

The social philosophy of health as a political right that was established during the French revolution produced radical models of health reform through social change in the nineteenth century.⁴ In 1848, French and German revolutionaries, Jules Guérin in the *Gazette médicale de Paris* and Rudolf Virchow in his reports on typhus in Upper Silesia, interpreted health citizenship as constituted through democratic freedom, universal education and amelioration of social and economic inequality. The author of cellular pathology and social reformer Rudolf Virchow did not develop his ideas about what he called “socio-logical” medicine in his public health reports *de novo* but built upon traditions of “social physics” which played a significant role in European sanitary reform movements. During the revolutionary years of 1848-9, Virchow and his physician colleague, Salomon Neumann, in Prussia applied an eclectic scientific paradigm of social physics to support a belief that medicine should become a mechanism of social and political reform. In their conceptualization of radical health reform Virchow, along with his 1848 reform comrades, drew upon the ideas of revolutionary doctors in mid nineteenth-century France. Jules Guérin was a radical clinician and socialist writer living in Paris. He embraced a Saint Simonian idea of social reform and rejected Comtean theories of social organization to create the concept he called social medicine which he published in the February edition of the *Gazette médicale* in 1848. Guérin later drew upon Marx’s use of population health data to develop a comprehensive theory of socialist health reform. The chapters in the second section of the book explore the legacy of these developments in the formation of an academic discipline of social medicine in the twentieth century.⁵

The term social medicine has never denoted a singular consensus of meaning. In 1947 George Rosen, asked “what is social medicine”⁶ following a meeting that had been organized by Iago Galdston on the same subject at the New York Academy of Medicine in 1946.⁷ His question astutely reflected the contemporary and historical indeterminate meaning of the phrase.

Chapter Four reviews this indeterminate meaning and challenges some of the assumptions commonly made by mid-twentieth-century historians as well as practitioners of social medicine.

Provoked by Rosen's question my own researches found diversity as much as continuity in the history of the idea of social medicine which led me to reformulate Rosen's query to accommodate its multiple conceptualizations and incarnations. Over a decade of further research has led me to perceive the history of social medicine as less about the transformation of a single discipline than it is about intellectual choices made to follow certain trajectories in problem-framing, in analyses of disease causation, and in possibilities for intervention. These choices have reflected broader matters of political economy and professional organization. Chapters Five and Six inquire into the role played by philosophical positivism and holism in the creation of social medicine and its relationship to socialist theories of population health management in Britain in the interwar years.

"An exploration of the almost virgin territory which lay between the provinces of the medical and social sciences."⁸ This is what the biometrician Francis Crew believed was the central aim of the new academic discipline of social medicine founded in Britain the 1940s. And for Crew, a professor of social medicine at Edinburgh University, this meant co-opting social science into the service of medicine. Crew had first seen the potential role which the social sciences could play in medicine while he was a Chief Medical Officer in the services during World War Two. There, he and his medical colleagues had an "experimental" population to which a new form of social categorization of health status could be matched to their occupational role and thereby make a positive study of health. In 1944 Crew pointed out how doctors working in the armed forces during the war had a unique opportunity to make a study of positive health.

Crew was called to serve in 1940. "In the Army," he argued, "positive health is no empty phrase; for a purely negative health standard is not good enough for a medical service which is called upon to assess training procedures and to promote and prescribe a regimen appropriate to the maintenance of the highest level of attainable efficiency for an exacting life and an increasing variety of specialized activities imposed by mechanization."⁹ In the army the term positive health was given an exact meaning. Through various tests of performance of intelligence, agility, endurance, strength, motivation, etc, the army hoped to match each recruit to the most appropriate occupational role within the force. But this constituted "a measure of inherent

and acquired qualities,”¹⁰ Crew explained, which prevented “a disharmony between the individual and the conditions of his employment. In the army as in civil life much sickness is nothing more or less than disinclination born of dissatisfaction and transformed into disability.”¹¹ Crew believed that the marriage of social science and medicine could achieve a new social biology of health and human ecology. Chapters Seven, Eight and Nine of Section Two and Chapters Ten, Eleven and Twelve of Section Three of this volume explore different trajectories in the subsequent history of this proposition.

Chapter Seven investigates how shifting theoretical paradigms within social science influenced transformations in the analytical focus of epidemiology and social medicine in the early post-World War Two era. Chapters Eight and Nine explore how the resulting decline of interwar models of the discipline facilitated a shift in the social contract of health to individual responsibility in late capitalist societies. Central to this process was the rise of a Parsonian paradigm within post war sociology which identified large scale social systems as normative associations in which the structure of social action was determined by beliefs governing behavior. This was a behavioral model of social interaction with its roots in Durkheimian theories of the determining role of values in social relations and Talcott Parsons’ personal journey through psychoanalysis. Chapter Seven discusses the influence of Parsonian theory in configuring a functionalist model of epidemiological research and refocusing sociomedical etiologial explanations of chronic disease causation from social conditions to social behavior as the determining variable. Chapter Eight discusses how the rise of a behavioral model of social relations and the increasing centrality of epidemiological over biological analysis of chronic illness causality in the first two decades after the war eroded intellectual coherence within social medicine in Britain. These forces gave rise to the redefinition of public health as the practice of community medicine in Britain in the 1970s. Chapter Nine demonstrates, however, that the normative model of behavioral social medicine remained influential in the creation of a new paradigm of disease prevention in the post war period that identified lifestyle reformation as the key to population health. Chapter Nine discusses the impact of lifestyle medicine on establishing population health as the responsibility of individuals to remain well as a form of contributory social citizenship.

The relationship of social biology to conceptualizations and practices of social medicine and population health and its influence on human identity is the subject of Section Two of the book. Pre-Marxian European utopian socialists in the early nineteenth-century asked, what could replace religion

in society? Without religion how should society construct an ethical basis and system of values that achieves social cohesion? Some sought solace for consciousness abandoned by the soul in science. Scientific reasoning could create a religion of rationalism and humanistic secular ethics could replace so-called divinely revealed mystical theistic doctrines. But exactly how could science dictate morality? What would a religion of rationalism actually look like? How could it be determined? In Chapters Five and Six I discuss how in the inter-war years radical British scientific humanists were drawn toward the idea that the dictates of biological evolution could provide a secular ethical basis to society that would replace religion as a source of social cohesion. And in Chapter Three I explore the influence of biological determinism to racial conceptualizations of exquisite health in the same period.

Much historiographical reflection and sociological theory has been devoted to analyzing the cultural influence of eugenics, social biology, biological reductionism and the rise of biopower in twentieth-century capitalist societies and in the historical process identified as globalization. Three essays in the final section of the book address some of these issues. Chapter Ten examines the dialogue between eugenics, Social Darwinism and social environmentalism in public health debates and policy formation in Britain at the turn of the nineteenth and twentieth centuries. In doing so the chapter aims to dig beneath the politics of racial science to the influence of political economic explanations of the relationship of social class to population health and disease. Chapter Eleven compares early twentieth-century eugenic debates on sterilization as a population betterment policy in the context of British and Swedish public health systems. The chapter highlights contrasts and continuities that reflect the malleability of social biological theory in the politics of public health reform. Chapter Twelve offers a broader overview of the historical influence of biological determinism on cultural debates regarding human betterment and social and political reform comparing utopian/dystopian aspirations to realizations. In later publications not included in this volume I have extended these inquiries to examine contemporary debates between sociologists, epidemiologists and ancestry population genetics about the role of biology in determining population health differentials and the political risks of the scientific reification of race.

The essays collected here offer avenues of inquiry into the complex historical and sociological investigation of the changing politics of health citizenship. I hope they provide students with a place to start, and inspire the pursuit of many new research directions that will greatly increase enlighten-

ment on such a globally significant subject for the twenty-first century.

NOTES

¹ Weiner, D., “Le droit de l’homme a la santé: une belle idee devant l’Assemblée constituante: 1790-1791,” *Clio Medica*, 5 (1970), 208-23

² Jordanova, L., “Guarding the Body Politic: Volney’s Catechism of 1793,” in Francis Barker et. al. (eds), *1789: Reading Writing Revolution. Proceedings of the Essex Conference on the Sociology of Literature*, July 1981 (Colchester, University of Essex, 1982), 12-21

³ See Chapter One

⁴ Dorothy Porter, *Health, Civilization and the State. A History of Public Health from Ancient to Modern Times* (London, Routledge, 1999)

⁵ *Ibid.*

⁶ Rosen, G., “What is Social Medicine,” *Bulletin of the History of Medicine*, 21 (1947), 674-733

⁷ Galdston, I., (ed.), *Social medicine : its derivations and objectives. the New York Academy of Medicine Institute on Social Medicine, 1947* (New York, Commonwealth Fund, 1949)

⁸ F.A.E. Crew, “Social Medicine as an Academic Discipline,” in Arthur Massey (ed.), *Modern Trends in Public Health* (London: Butterworth, 1949), 46-79, p.66.

⁹ F.A.E. Crew, “Social Medicine,” *Lancet*, November 11 1944, p. 618

¹⁰ *Ibid.*, 619

¹¹ *Ibid.*

Chapter One

Changing Definitions of the History of Public Health

PUBLIC HEALTH HISTORY flourished after the Second World War within the historiographical interest in the administrative growth of modern states and the development of social welfare systems. In the histories written in the 1950s, the concept of public health was largely equated with the nineteenth-century “sanitary idea” of environmental reform and methods of preventive medicine, such as vaccination. The limitation of infectious diseases by the turn of the twentieth century through environmental and preventive regulations was represented in these accounts as the triumphant culmination of a long tradition stretching back to biblical times.

In 1952, René Sand, professor of social medicine at Brussels University, wrote a comprehensive account of what he called *The Advance to Social Medicine* from ancient to modern times.¹ Similar themes were subsequently explored by George Rosen in 1958 when he wrote what became a definitive textbook on the history of public health.² Both Sand’s and Rosen’s works were imposing, erudite surveys of health regulations from pre-Socratic times to the early years following the Second World War. Both accounts were written at a time when public health appeared to be victorious in achieving massive reductions in mortality rates in the Western world, when scientific medicine seemed to have almost eliminated the menace of pestilence. As a result,

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Sand and Rosen both wrote grand narratives of progress, arising from the technological advance of science and medicine and its capacities to combat endemic and epidemic disease. This heroic vision was reinforced in 1976 by the conclusions of Professor of Social Medicine Thomas McKeown, that clinical medicine had played no part in the rise of modern population, which had, he claimed, largely resulted from improved nutrition and environmental reforms such as the creation of clean water supplies.³

When the parameters of public health history were confined largely to sanitary reforms and the control of infectious diseases it was possible to argue that, although public health was invented in the nineteenth century, it had been preconfigured in technological developments stretching back through time, such as the Mosaic Code and Roman baths and aqueducts.⁴ In the three decades following the 1960s, social historians of health, illness and disease began to challenge such a view. In 1961 the eminent social historian of nineteenth-century Britain, Asa Briggs, suggested that the story of cholera had been overlooked as a major factor in historical change in Victorian society.⁵

Subsequently historians began to explore not only cholera, but also the impact of epidemic and infectious disease on historical transformations in early modern and modern European and North American societies. Historians such as Margaret Pelling, William Coleman, Charles Rosenberg, Carlo Cipolla, Paul Slack, James Riley, Richard Morris and Richard Evans used the economic, social, political and ideological responses to diseases to explore the complex ways in which change both caused and was determined by the impact of epidemics.⁶ This new historiography investigated the differential experience of epidemics by social classes, professionals, scientific and religious communities and political states and oligarchies.⁷ The scope of public health history expanded by the 1980s to include the social relations of ideas and actions taken collectively and individually in response to epidemic disasters. In addition historians such as William McNeill and Alfred Crosby began to indicate how disease could influence not only the relations between classes, ruling orders and political states, but also the way in which disease influenced the processes of imperialism and colonisation.⁸ Studies of the relations of health and imperialism have subsequently proliferated, revealing fascinating new insights into the role played by bio-politics in economic, military and political oppression.

At the same time, the changing epidemiological and demographic structure of past populations began to be probed by quantitative historians who tried to account, like McKeown, for the modern rise of populations. While

numerous studies found McKeown's reasoning about "hunger and history" to be flawed, the debate continued to rage about the causes of population growth.⁹ Quantitative historians added greatly to our knowledge of the social and economic relations of the past, however, by mapping the distributions of health and disease, differential patterns of height and weight between social strata, identifying factors encouraging increased fertility and trying to highlight a wide range of determinants of mortality decline.¹⁰

From the late 1980s, a new world-wide pandemic stimulated yet further directions in public health history. The experience of a contemporary epidemic in times when lethal infections had almost become a lost memory provoked powerful responses amongst historians, semiological analysts and literary theorists.¹¹ AIDS revived the historical study of stigma, encouraged new directions in inquiries into the meanings of representation and forcefully added to new debates about the social construction of everyday life.¹² Often stimulated by concerns to understand the historical meaning of AIDS, art historians and literary theorists added their skilful analyses to what sociologists had been interrogating from the late 1970s, that is the cultural significance of the body in comparative societies.¹³ In the 1990s, the historiography of health, disease and illness existed within a vastly expanded intellectual discourse on the relations between biology and culture, living and dead bodies.

A range of important philosophical and theoretical movements dating from the 1930s significantly influenced intellectual developments in public health history in the 1990s. In the 1960s the French "archaeologist of knowledge," Michel Foucault, and a variety of Hegelian-Marxist thinkers from the 1930s, such as the Frankfurt School of Critical Theory, highlighted contradictions of the Enlightenment tradition in Western thought.¹⁴ Such a view fundamentally undermined any heroisation of public health as a great achievement of Enlightenment rationalism. Historians influenced by these theoretical perspectives cross-examined the ways in which public health regulation contributed to the rise of a "disciplinary culture" which Foucault argued was the defining characteristic of modern society.¹⁵ Equally, the role played by public health reform in facilitating the development of authoritarian bureaucratic government and the rise of professional power has been interrogated by leftist and Marxist critiques of the repressive nature of modern states.¹⁶ These concerns fed into a wide variety of new perspectives brought to bear upon what constitutes the history of public health which now embraces diverse subjects and inquiries from the multicultural politics of the body to examinations of the dramatically changing structure of modern wel-

fare states and social policies.

Over the last four decades or so historians, social scientists and scholars from a range of intellectual disciplines have broadened the study of the economic, social and political relations of health and society extensively. Accounts of the progressive “rise of civilisation” have long since gone out of fashion and “grand narratives” themselves have never been more outcast than in the contemporary intellectual climate of postmodernist relativism.¹⁷ Heroic accounts of the triumphant emancipation of modern society from the primitive bondage of ignorance can no longer be sustained in a world in which many voices contribute to the reconstruction of the past who have different interests to identify within it.¹⁸ History writing is no longer dominated by one ideological vantage point even within Western societies where a new multicultural mix ensures that a huge variety of historical perspectives has been able to gain legitimate authority.¹⁹

The attention drawn to philosophical relativism by post-modernist theory is, however, only the most recent of many new intellectual and philosophical approaches to the writing of history which have developed since Sand and Rosen wrote their great works. The history of health, medicine and disease has profoundly reflected many different historiographical and intellectual directions between the 1960s and 1990s. As a result, what constitutes public health has been redefined beyond the predominantly nineteenth-century concept used by Sand, Rosen and their contemporaries and now concentrates on the history of collective action in relation to the health of populations.

THE HISTORY OF COLLECTIVE ACTION IN RELATION TO THE HEALTH OF POPULATIONS

The broadest history of ideas, beliefs and actions in relation to health and illness would consider traditions of individual health regimens and the experiences of individuals themselves.²⁰ While individuals and their behaviour are not ignored in current public health histories, they are a subsidiary analytical category to collective social action in relation to populations and groups. That is, public health history is concerned largely with social, economic and political relations of health between classes, social structures and organisations, pressure groups, polities and states. The focus on collective social action does not mean that the behaviour and beliefs of individuals are ignored. They only appear, however, to the extent that the actions, ideas and beliefs held by individuals bleed into the sphere of collective social action. This can

mean discussing William Petty's methods of assessing the health of the mercantilist state through "political arithmetic" in the seventeenth century or examining the role that socio-medical reformers such as Louis René Villermé played in public health reform in France in the nineteenth century. Sometimes the crucial actions of political rulers such as Bernabo Visconti in fourteenth-century Milan, or influential civil servants such as the Secretary to the first British Central Board of Health, Edwin Chadwick, have been analysed in detail.²¹

An exploration of the health of populations can avoid being limited by preconceptions which underlay examinations of "public health" as defined in nineteenth-century terms.²² For example, we can explore how the concern of ruling elites in some ancient Mediterranean societies with their own comfort generated political actions derived from abstract theories and practical codes of health behavior. This form of collective action needs to be differentiated, however, from comprehensive public health systems developed in much later periods that aimed to reform the conditions of existence and levels of mortality of all the social strata within a society. Collective actions explored in different chronological periods need to be identified according to their significance for expanding discourses on population health. For example, if we are to accept the conclusions of some historians of late antiquity that the hegemonic expansion of Christianity through institutionalized charity assisted the administrative development of social welfare provided for the sick,²³ then to what extent did this create a grammar for plague regulation in a later period?

Just as an older historiography argued that "public health" was invented in the nineteenth century, it could be equally legitimate to argue that "population" was invented in the seventeenth and eighteenth centuries. Historical demographers and historians of statistics have revealed the social and historical malleability of the concept of population.²⁴ As Karl Marx suggested, however, population needs to be investigated as the social relations between classes, status groups, nations and societies. In this context, the concern with collective social action involves an analysis of the structural operation of power, which makes the political implications of population health in different periods and in different societies a central issue of historical research into the subject. In pre-modern societies this means paying attention to a wide variety of different theaters of power including city states, fiefdoms and dukedoms, monarchical realms and large institutional organizations of power such as the Church. In the modern period the study of the operation of power in relation to population health involves an examination of the rise

of the modern state as an autonomous political sphere, the implications of health citizenship, and the different interpretations that have been made of the “social contract” of health between the state and civil society.

The subject of the history of population health is distinct from the history of the theory and practice of therapeutic medicine. However, the history of public health cannot ignore the influence of biomedical theories and conceptual development of medicine. For example, in ancient Mediterranean societies medical theory reflected the emergence of rational, material beliefs about health and illness which allowed hygiene regimes to influence practical codes of settlement and colonization of what were perceived to be healthy environments. Equally, the history of population health cannot ignore the influence of access to clinical medicine and the organization of health and medical services. In the modern period, for example, the economic and political organization of access to medical care has become crucially significant to health levels amongst populations which have increasing numbers of longer living, yet chronically sick, individuals. Because of changing demographic structures in advanced or post-industrial societies, social policies aimed at providing welfare to relieve social and economic disadvantage have become inherently linked to the costs of medical care. The mechanisms developed for meeting the costs of care need to be compared in a variety of national contexts.

Population health has not only been intimately linked to access to medical care, it has always depended upon collective provision of social welfare and needs to be discussed, therefore, within the broader history of welfare provision from ancient to industrial and post-industrial societies in the twentieth century. The history of social welfare has frequently been undertaken not only by social and political historians but also by social policy theorists examining the origins of their own discipline. As a result, the historiography of welfare has undergone a number of different “paradigm shifts” which the history of collective action in relation to population health needs to take into account.

POPULATION HEALTH, WELFARE PROVISION AND THE CIVILIZING PROCESS

At one time the historiography of welfare states conceptualized them as comprehensive systems of social security, funded and administered by centralized political organizations which first emerged in northern Europe in the

first half of the nineteenth century following the French Revolution.²⁵ More recent studies have begun to explore changing forms of welfare provided by a myriad of agencies, from self-help and mutual aid to various types of collective distribution organized by political, voluntaristic, or commercial institutions, in communities with or without a centralization of power.²⁶ The current challenge to the history of public health is to examine health care provision utilising both of these conceptualisations by examining what determined change within mixed economies of welfare and how health care and social welfare have been influenced by ideologies of what might be called “the civilizing process.”

In 1939 Norbert Elias attempted to investigate the sociological basis of belief by studying the long-term transformations in social structures and personality structures in European societies which defined their “civilizing process.” He argued that “the order of historical changes, their mechanics and their concrete mechanisms” could reveal the structural roots of changing standards of behaviour that determined social actions and formed social institutions.²⁷ He tried to investigate the sociogenesis and psychogenesis of what different societies identified as civilized behavior. Elias’s work stimulated what might now be called the historical sociology of feelings and experience. He focused, for example, on historical transformations in the social construction of shame, delicacy and fear and the psychogenesis of the experience of ageing. He asked: how did the process of “growing up” in Western societies change? But primarily Elias explored how historical transformations in these processes affected structural differentiation and integration within different societies. Contemporary history of public health needs to investigate how health figured within the construction of belief in society and the way in which this determined social integration and differentiation. Comparing narratives of population health is one way to approach this task, examining the influence of health regulation on the process of state formation is another. Elias was especially concerned with the way in which historical transformations in the sociogenesis of civility were linked to the formation of the state, or the centralization of power, in European societies.²⁸ The history of public health needs also to examine how collective actions which aimed to regulate or improve the health of populations were involved in changing the historical relationship between the civilizing process and state formation. In this context, the links between the history of public health and the history of social welfare are vital.

Until recently, far more attention has been paid to the history of state

as opposed to voluntary welfare. One reason for the extensive focus given to state welfare has been the interest taken by social policy theorists in the modern history of their own subject. Analysts of contemporary welfare states consistently contextualize their investigations within the history of social policy in the nineteenth and twentieth centuries,²⁹ and frequently cite the influence of the British model on other systems. Britain has thus been given prominence within the context of comparative accounts.³⁰ Consequently the literature on the history of British welfare has expanded with numerous historians providing sometimes overlapping, if alternative, interpretations of the same events.³¹

The historian Geoffrey Finlayson argued, however, that the historiography of the British welfare state created an intellectual distortion of the subject as a whole. Finlayson suggested that most accounts of British welfare history offered Whiggish linear descriptions of progressive state expansion working its way teleologically toward the establishment of what Anne Digby and others have identified as the Classic Welfare state.³² This has influenced writing on the history of other welfare systems which also give tacit acknowledgment to the existence of a classical model of welfare experiencing a “golden age” in the first two decades following the Second World War. Finlayson claimed that this linear historiography was not challenged until the integrity of the welfare state itself was threatened by the political rhetoric of the New Right in the 1980s which also questioned the parameters of democratic citizenship. The New Right brought attention upon the historical alternatives to statutory welfare provision and began to highlight the role of contributory citizenship in achieving a citizenship of entitlement, the necessity for rights to be earned through the undertaking of social and economic responsibilities. A New Right political consensus emphasised the value of individualistic resolutions to the provision of welfare through voluntarism, self-help and mutual aid.

Whether Finlayson’s interpretation of the political motivations underlying an historiographical shift were correct or not, his observation that from the 1980s, historians began to pay increasing attention to voluntarist welfare certainly had merit. To begin with, new investigations were undertaken on health care and welfare provision “before the welfare state.”³³ Perigrine Horden revealed the intricate networks of social provision amongst early medieval European communities.³⁴ The expansion of this complex web of charity provision has been explored in the late medieval and early modern periods.³⁵ Jonathan Barry and Colin Jones edited a seminal collection of essays that documented the mixed economies of welfare in Europe up to the beginning

of the twentieth century.³⁶

One of the themes of the historiography of voluntary welfare was the public rather than the private nature of charity. Sandra Cavallo demonstrated the intricate nature of the relationship of charity hospitals in early modern Italian city-states with local governments.³⁷ Anne Borsay illustrated the growth of associative charities in England, such as the voluntary hospital movement and charity schools, that were set up on the model of publicly owned joint stock companies, made possible by financial reforms enacted in the early eighteenth-century.³⁸ Alan Mitchell and Paul Weindling have shown how mutual aid organisations set up in Germany and France in the nineteenth century were collectivist “communities” of skilled workers and artisans founded on the principles of self-help.³⁹ The public nature of charity highlighted the role of a wide range of social groups in the organization of health care and charity. Borsay illustrated the way in which associative charity revealed the emergence of a middle class in eighteenth-century English society. Cavallo brought attention to the role of women as both benefactors and recipients in hospital charity in early-modern Italy and England.⁴⁰ Other feminist historians discussed the participation of women in “active citizenship” or in a “citizenship of contribution” through the voluntary organisation of health and social welfare in the nineteenth and early twentieth centuries.⁴¹

Finlayson was right, therefore, to suggest that the dismantling of the older historiography of the welfare state created new opportunities for a new generation of historians living in a new era. He was wrong, however, to dismiss the need for further investigation into the history of what he called political collectivism and the provision of welfare because throughout its history population health, at least, depended on the collectivist operation of power. In the history of public health in the early modern and modern periods this is especially crucial because the social contract of health has been inherently linked to state formation and the development of citizenship. The investigation of health citizenship justifies continued attention to the history of political collectivism for two reasons.

First, the creators of the classic welfare state based upon the principle of universalism believed that the expansion of central government was the route to increased egalitarianism in the social and economic relations of industrial capitalist society.⁴² As a result they assumed that the statutory universal guarantee of minimum living standards without stigma would act as a counter force to structural inequality produced by free market economies and would

create a citizenship of entitlement for all. But in doing so, the architects of the modern welfare state did not lose sight of an equally long tradition within the concept of democratic citizenship in which entitlements were earned through the fulfillment of social obligations.⁴³ In order to explore the complexities of the rights and obligations of health citizenship, it is impossible to ignore the history of political collectivism and the history of central state expansion. The history of the active citizenship of contribution in voluntaristic and charity organisations needs to be examined in relation to the “active” fulfillment of obligations and social responsibilities required before health citizenship as a citizenship of entitlement is granted by the state. Nowhere is this more profoundly reflected than in the history of conflicts between the liberty of the individual and the rights of the community in relation to the health of populations and, in the modern period, specifically the rights and obligations of democratic citizens to the provision of medical care.

Secondly, the history of political collectivism and central state expansion has further value for historians of population health, especially those concerned with the influence of scientific rationalism upon ideological and cultural transformations. Here the task is to explore the cultures of politics and the narratives of government as they were constructed and deconstructed through the languages of natural philosophical rationalism and positivistic scientism. This subject is intimately connected to the relationship between scientific rationalism and the social construction of expertise. In the modern period, for example, this is a subject which needs to explore the relationship between scientific research and the construction and application of public policy.⁴⁴

CONCLUSION: POPULATION HEALTH AND THE OPERATION OF POWER

The history of collective actions in relation to the health of populations is a broad study requiring an interdisciplinary mixture of investigative methods and acknowledges no chronological boundaries. One unifying theme, however, is that the history of population health is inherently linked to the history of the operation of power. This means examining population health as a political phenomenon in all chronological periods and in different national and international contexts. On the one hand, as a political phenomenon the history of collective actions in relation to population health has been intricately bound to the history of the provision of welfare both in the context

of centralised welfare states and within the context of welfare provided by voluntaristic and market agencies. On the other hand, the history of population health has been bound to the politics of knowledge and the practice of expertise. In the latter context it is necessary to examine the relationship between the history of ideas and political actions, for example in the relationship between science and public policy.

NOTES

¹ René Sand, *The Advance to Social Medicine* (London, 1952).

² George Rosen, *The History of Public Health* (New York, 1958).

³ Thomas McKeown, *The Role of Medicine - Dream, Mirage or Nemesis* (London, 1976); Thomas McKeown, *The Rise of Modern Population* (London, 1976).

⁴ George Rosen, *The History of Public Health* (New York, 1958).

⁵ Asa Briggs, "Cholera and Society in the Nineteenth Century," *Past and Present*, 19 (1961), 76-96.

⁶ Margaret Pelling, *Cholera Fever and English Medicine 1825-1865* (Oxford, 1978); William Coleman, *Yellow Fever in the North: The Methods of Early Epidemiology* (Madison, Wisconsin, 1987); William Coleman, *Death is a Social Disease* (Madison, Wisconsin, 1982); Charles Rosenberg, *The Cholera Years 1832, 1849 and 1866* (Chicago, 1962); Carlo M. Cipolla, *Faith, Reason and the Plague: A Tuscan Story of the Seventeenth Century* (Brighton, 1979); Paul Slack, *The Impact of Plague in Tudor and Stuart England* (London, 1985); James C. Riley, *Sickness, Recovery and Death: A History and Forecast of Ill Health* (London, 1989); Robert J. Morris, *Cholera 1832: The Social Response to an Epidemic* (London, 1976); Richard J. Evans, *Death In Hamburg. Society and Politics in the Cholera Years 1830-1910* (Oxford, 1987).

⁷ Kenneth F. Kiple, ed., *The Cambridge World History of Human Disease* (Cambridge, 1993).

⁸ W. McNeill, *Plagues and Peoples* (New York, 1976); Alfred W. Crosby, *Ecological Imperialism: The Biological Expansion of Europe. 900-1900* (London, 1986).

⁹ *Population Studies; Journal of Interdisciplinary History*.

¹⁰ T. Barker and M. Drake, eds., *Population and Society in Britain 1850-1980* (London, 1982); Simon Szreter, "The Importance of Social Intervention in Britain's Mortality Decline c.1850-1914: a Re-interpretation of the Role of Public Health," *Social History of Medicine*, 1 (1988), 1-37; Simon Szreter, *Fertility, Class and Gender in Britain 1860-1940* (Cambridge, 1996); E. Anthony Wrigley and Roger S.

Schofield, *The Population History of England 1541-1871* (London, 1981).

¹¹ S. Gilman, *Sexuality an Illustrated History* (New York, 1989); S. Gilman, *Disease and Representation* (Ithaca, N.Y., 1988); S. Gilman, *Health and Illness. Images of Difference* (London, 1995). Elaine Showalter, *The Female Malady: Women, Madness, and English Culture, 1830-1980* (New York, 1986).

¹² Charles Rosenberg, "What is an Epidemic? AIDS in Historical Perspective," in Charles Rosenberg, ed., *Explaining Epidemics and Other Studies in the History of Medicine* (Cambridge, 1992); Elizabeth Fee and Daniel Fox, *AIDS: The Burdens of History* (Berkeley, CA., 1989); Elizabeth Fee and Daniel Fox, *AIDS: The Making of a Chronic Disease* (Berkeley, 1992); Virginia Berridge, *AIDS in the UK: the Making of a Policy, 1981-1994* (Oxford, 1996) Virginia Berridge and Philip Strong, eds., *AIDS and Contemporary History* (Cambridge, 1993).

¹³ Bryan S. Turner, *The Body and Society: Explorations in Social Theory* (Oxford, 1984); Bryan S. Turner, *Regulating Bodies: Essays in Medical Sociology* (London, 1992); Dorrinda Outram, *The Body and the French Revolution: Sex, Class and Political Culture* (New Haven, 1989); Joanna Bourke, *Dismembering the Male: Men's Bodies, Britain and the Great War* (London, 1996).

¹⁴ Michael Foucault, *The Order of Things: An Archeology of the Human Sciences* (London, 1970); Max Horkheimer and Theodor Adorno *The Dialectics of the Enlightenment*, trans. John Cumming (London, 1972).

¹⁵ David Armstrong, *The Political Anatomy of the Body* (Cambridge, 1983).

¹⁶ Dorothy Porter, ed., *The History of Health and the Modern State* (Amsterdam and Atlanta, 1994); Paul Weindling, *Health, Race and German Politics Between National Unification and Nazism 1870-1945* (Cambridge, 1989).

¹⁷ Joyce Appleby et al., eds., *Knowledge and Postmodernism in Historical Perspective* (London, 1994).

¹⁸ Terry Eagleton, *The Illusions of Postmodernism* (Oxford, 1996); Joyce Appleby et al., eds., *Knowledge and Postmodernism in Historical Perspective* (London, 1996); Jerry Topolski, ed., *Historiography Between Modernism and Postmodernism: Contributions to the Methodology of Historical Research* (Amsterdam, 1994).

¹⁹ George L. Clark, Dean Forbes and Roderick Francis, eds., *Multiculturalism, Difference and Postmodernism* (Melbourne, 1993).

²⁰ Dorothy Porter and Roy Porter, *Patient's Progress: Doctors and Doctoring in Eighteenth-Century England* (Cambridge, 1989); Roy Porter and Dorothy Porter, *In Sickness and In Health: The British Experience 1650-1850* (London, 1988).

²¹ Coleman, *op.cit.* (ref. 6); Richard Palmer, "The Control of Plague in Venice and Northern Italy, 1348-1600" (Ph.D. diss., University of Kent, 1978); Christopher Hamlin, *Public Health and Social Justice in the Age of Chadwick* (Cambridge, 1997).

- ²² William Frazer, *History of English Public Health 1834-1939* (London, 1950); S. Finer, *The Life and Times of Edwin Chadwick* (London, 1952).
- ²³ Peregrine Horden, "The Byzantine Welfare State: Image and Reality," *Society of the Social History of Medicine Bulletin* 37 (1985), 7-10.
- ²⁴ Lorraine Daston, *Classical Probability in the Enlightenment* (Princeton, N.J., 1988); Karin Johannisson, "Why Cure the Sick? Population Policy and Health Programs Within Eighteenth-century Swedish Mercantilism," in Anders Brändström and Lars-Göran Tedebrand, eds., *Society, Health and Population during the Demographic Transition* (Stockholm, 1988).
- ²⁵ Douglas Ashford, *The Emergence of Welfare States* (Oxford, 1986); Peter Flora, ed., *Growth to Limits: the Western European Welfare State Since World War II* (Berlin, 1986).
- ²⁶ Jonathan Barry and Colin Jones, eds. *Medicine, Charity and the Welfare State* (London, 1991).
- ²⁷ Norbert Elias, *The Civilising Process* (London, 1994, 1st edition 1939), xv.
- ²⁸ *Ibid.*, 335-421.
- ²⁹ Vic George and Peter Taylor-Gooby, eds., *Squaring the European Welfare Policy Circle* (London, 1996).
- ³⁰ Gösta Esping-Andersen, *The Three Worlds of Welfare Capitalism* (Cambridge, 1990); Gösta Esping-Andersen, "After the Golden Age? Welfare State Dilemmas in a Global Economy," in Gösta Esping-Andersen, ed., *Welfare States in Transition. National Adaptations in Global Economies* (London, 1997), 1-31.
- ³¹ Rodney Lowe, *The Welfare State in Britain Since 1945* (London, 1993); Nicholas Deakin, *The Politics of Welfare: Continuities and Change* (London, 1994); Howard Glennerster, *British Social Policy Since 1945* (Oxford, 1995); N. Timmins, *The Five Giants. A Biography of the Welfare State* (London, 1995).
- ³² Anne Digby, *British Welfare Policy. Workhouse to Workfare* (London, 1989).
- ³³ Jonathan Barry and Colin Jones, eds., *Medicine, Charity and the Welfare State* (London, 1991).
- ³⁴ Peregrine Horden, "The Byzantine Welfare State: Image and Reality," *Society of the Social History of Medicine Bulletin* 37 (1995), 7-10.
- ³⁵ Richard Palmer, "The Church, Leprosy and Plague in Medieval and Early Modern Europe," in W. J. Shiels, ed., *The Church and Healing: Papers Read at the Twentieth Summer Meeting and the Twenty-first Winter Meeting of the Ecclesiastical History Society* (Oxford, 1982), 79-101.
- ³⁶ Jonathan Barry and Colin Jones, eds. *Medicine, Charity and the Welfare State* (London, 1991).
- ³⁷ Sandra Cavallo, "The Motivations of Benefactors: An Overview of Approaches

to the Study of Charity,” in Jonathan Barry and Colin Jones, eds., *Medicine, Charity and the Welfare State* (London, 1991), 46-62.

³⁸ Anne Borsay, “Patrons and Governors: Aspects of the Social History of the Bath Infirmary, c. 1739-1830” (Ph.D. diss., University of Wales, Lampeter, 1999).

³⁹ Alan Mitchell, *The Divided Path: The German Influence on Social Policy Reform in France After 1870* (Chapel Hill, 1991); Paul Weindling, “The Modernisation of Charity in Nineteenth-Century France and Germany,” in Jonathan Barry and Colin Jones, eds., *Medicine and Charity Before the Welfare State* (London, 1991), 190-206.

⁴⁰ Sandra Cavallo, “The Motivations of Benefactors: An Overview of Approaches to the Study of Charity,” in Jonathan Barry and Colin Jones, eds., *Medicine, Charity and the Welfare State* (London, 1991), 46-62.

⁴¹ Jane Lewis, (1983), *Women’s Welfare, Women’s Rights* (London, 1983); Jane Lewis, *Women and Social Action in Victorian and Edwardian England* (Brighton, 1991); Susan Pedersen, *Family Dependence and the Origins of the Welfare State: Britain and France 1914-1945* (Cambridge, 1993); Anne Digby, “Poverty, Health and the Politics of Gender in Britain, 1870-1948” in Anne Digby and John Stewart, eds., *Gender, Health and Welfare* (London, 1996), 67-90.

⁴² Martin Daunton, “Payment and Participation: Welfare and State Formation in Britain 1900-1951,” *Past and Present* 150 (1996), 169-216; Alan Deacon, “The Dilemmas of Welfare: Titmuss, Murray and Mead,” in S. J. D. Green and R. C. Whiting, eds., *The Boundaries of the State in Modern Britain* (Cambridge, 1996), 191-213; Nicholas Deakin, *The Politics of Welfare: Continuities and Change* (London, 1994).

⁴³ Dorothy Porter, *Health, Civilisation and the State. A History of Public Health from Ancient to Modern Times* (London, 1999).

⁴⁴ See for example, Virginia Berridge, Jenny Stanton, Stuart Anderson, Mark Bufton and Kelly Loughlin, “Science, Policy and the Healthy Life,” Session at the European Association for the History of Medicine and Health and the International Network for the History of Public Health, *The Healthy Life: People, Perceptions and Politics* (Conference, Almunar, Spain, 2-5th September, 1999).

Chapter Two

Public Health and the Rise of the Bureaucratic State in Nineteenth-Century Britain

THE PENALTIES OF INDUSTRIAL URBANISM

FROM THE END of the eighteenth century the question of the people's health was inextricably linked to the changing role of the state in the transition to industrial society. Nowhere was this more evidently expressed than within the context of the public health policy of the Victorian British State. In Britain rapid industrialization transformed the demographic structure and geographical distribution of the population and escalated urbanization. An urban proletariat and lumpenproletariat expanded with the industrial economy and one of the most pressing social costs of growth became the burden of destitution created by the business cycle and epidemic disease. The British State sought to resolve some of these inherent contradictions of the free-market economy through the creation of an interventionist bureaucratic system of health administration.

Industrialization exponentially multiplied environmental threats to health primarily through the massive growth of towns. For example, London had 800,000 people in 1801 and there were only 13 towns with population of over 25,000. By 1841 London's population rose by one million and 42 towns contained over 25,000 people. By 1861 six British cities contained more than a quarter of million inhabitants. In the early 1800s approximately 20 percent of the population of England and Wales lived in towns of over 5,000 by 1851 over half the population did so and by 1901 almost 80 percent. By contrast in rural areas some counties contained less population in 1901 than they did in 1851.

These patterns were repeated in Europe and the United States as industrialization gathered momentum. No urban development could accommodate such a demographic explosion which resulted in mass overcrowding, inadequate housing, dramatic accumulation of human, animal and industrial waste products together with rising levels of industrial and domestic atmospheric pollution, and deadly pollution of insufficient potable water supply. In Britain and on the Continent the grotesquely squalid conditions imposed upon the slum dwelling proletariat were revealed by a host of observers, from social reformers to investigative journalists, and soon produced dramatic rises in infant mortality, rising levels of epidemic diseases, such as “fever” – both typhoid and typhus – and rising levels of dependency created through sickness. The physical expansion of the city could not keep pace with the population influx and growth. Existing building stock became grossly overcrowded with huge densities of people. The amenities designed for vastly smaller numbers were totally inadequate. The need for new housing led to building methods which sacrificed quality for speed. The notorious jerrybuilt new housing degenerated into slums as quickly as it was erected. Back-to-back housing favored by Northern British towns was a classic example.

Sanitary facilities designed for less dense levels of population were the most serious failure. Traditional methods of waste disposal such as cesspits and middens served more sparsely distributed populations adequately but became dangerously overburdened under these new conditions. Cesspools turned into manure swamps and seeped into the local water supplies and wells. Dry middens and their consequent dung heaps turned into mountains infested with flies and vermin. Existing levels of intermittent water supply could not possibly serve the expansion of demand. The traditional life of a market town became fatally hazardous under these new pressures. Transportation was horse drawn. Animals were brought into market for sale and slaughter. Whereas these activities had once produced pollutions that were relatively harmless, their escalation amongst the new density of population made them deadly. Traditional scavenging had coped with the removal of refuse of small communities. These methods were hopelessly inadequate for the new levels of manure, animal and human wastes.

The defining feature of the heavily overstressed towns in the nineteenth century was their stench. Little wonder why atmospheric theories of disease were popular with some. The stink of urban environment must have seemed strong and foul enough to kill, or at least induce vomiting. But the most deadly feature of the new towns was the close proximity of human beings to

each other. For example the report of a health officer for Darlington in the 1850s found six children, aged 2-17, in one dwelling suffering from small-pox who shared one room with their parents, an elder brother and an uncle. They slept together on rags on the floor with no bed. Millions of similar cases could be cited, with conditions getting even worse as disease victims died and their corpse remained rotting amongst families in single-roomed accommodation for days as they scraped together the pennies to bury them.

These conditions convinced health statisticians, such as William Farr, the keeper of abstracts appointed to the newly created Registrar General's Office in 1836, that mortality increased with density. For Farr the spatial distribution of mortality revealed the facts. Later surveys appeared to support his assumption. In London in 1892 where there was 15% of overcrowding per total population, the mortality rate was 17.5% – where overcrowding exceeded 35% mortality rose to 25%. In Glasgow in 1901 families living in four-roomed accommodation had a death rate of 11.2% per 1000 – families living in one room had a death rate of 32.7% per 1000. In 1907 a national survey showed that districts with average densities of 136 persons per square mile had a mean death rate of 11.63% – districts with an average of 55,000 persons per square mile had a mean death rate of 34.82%. The rapid growth of towns produced areas with staggering densities. Some sections of Liverpool had 300 people per acre in 1881. In the same year central Glasgow had 1000 people per acre. With such densities the demand for new housing stock was intense and led to new buildings being built closely together packing as many people into every inch as possible. The slums were labyrinths and mazes of close courts and narrow alleyways. The new accommodation had no sanitary facilities, regular water supply and hardly any ventilation or sunlight. Such intensive building produced parallel rows of dwellings separated by only six feet and the infamous back-to-backs.

Victorian middle class society believed these conditions not only produced disease but also fostered immorality amongst the poor, drunkenness, crime, incest and fornication. It destroyed the sanctity of the home and the families within. It bred political danger disposing the poor to socialism and nihilism and encouraged them in atheism. Urbanization brought the workers to the factories and trade to the town but its consequences were seriously disconcerting to the ruling classes.

THE IDEA OF THE POOR

Industrialization and urbanization changed the character of the poor from dissipated agricultural laborers and country vagabonds into agglomerated masses, crowded into sprawling urban slums. A culture of fear and suspicion surrounded the urban, proletarianized poor. The creation of an urban proletariat by an industrial economy generated more than just increases in production. It bred more sharply defined economic class division potentially threatening underlying social stability. As the British landowning aristocracy struggled to maintain their rule of Parliament through political reform, radical elements of the proletariat challenged the entire political structure and while revolution was never a threat flashpoints of civil unrest heightened unease. In France, political economists like J.B. Say feared that population would continue to expand at the same level of industrial production, threatening prosperity. Frederick Engels described the desperate state of the urban proletariat family under Capitalism and Karl Marx propagated the dialectical materialist inevitability of revolution. In the United States, Evangelical leaders feared providential retribution for the wickedness created by urbanism amongst the dissolute poor.

As the historian Gertrude Himmelfarb has pointed out, many competing views of the poor existed in the early nineteenth century. However, there was a fundamental distinction between the poor and what Jeremy Bentham, the founder of the Utilitarian school of political economy, called the “indigent.” Poverty consisted of laboring for a meager living. Indigence was destitution, either through unemployment or through infirmity. The poor were laboring for low wages, the destitute were unable or unwilling to work. A common middle class Victorian belief was that the laboring poor were deserving of charitable empathy as were the impotent indigent. The able-bodied unemployed, however, were seen as idlers and wasters, frequently believed to become itinerant vagrants and vagabonds – scrounging from the industrious and undeserving of assistance. Poverty created problems on a number of different levels. It was a financial burden on the commonwealth, it demoralized through immiseration, and finally threatened to breed ideological disaffection and political and social instability. It stimulated numerous levels of response. Evangelicism in Britain and the United States and Catholicism in France attacked the question of remoralizing the poor.

In Britain this was expressed especially in the role played by Evangelicals in educational reform and the reform of factory employment. In his study of

the “Establishment of Pauper Schools” the Unitarian physician and educationalist, James Philip Kay-Shuttleworth, concluded that they would prevent dependency by educating the poor to “discharge their social duties” through training in “correct social habits” as much as provide workers with technical skills. The great Evangelical reformer the 7th Earl of Shaftesbury, Lord Ashley, attacked the question on the one hand with a movement to establish charity schools for the ragged children of the laboring and indigent poor and on the other by reducing the statutory limit on the daily hours of factory work. Other evangelicals linked self-improvement with self-assertion of political rights. In an *Address to the Working Classes* in 1847 Thomas Southwood Smith, the Unitarian doctor and one time secretary to Jeremy Bentham who became central to the early public health movement, declared that:

For every one of the lives of these 1,500 persons who have thus perished during the last quarter and who might have been saved by human agency, those are responsible whose proper office it is to interfere and to stay the calamity – who have the power to save will not use it. But their apathy is an additional reason why you should rouse yourselves and show that you will submit to this dreadful state of things no longer. Let a voice come from your streets, alleys, courts, workshops and houses that shall startle the ear of the public, and command the attention of the Legislature. [Southwood Smith, *Address to the Working Classes* 1847]

The question of human improvement was equally central to the concept of the pursuit of happiness in political economy, especially in the context of the British philosophy of Utilitarianism. The eighteenth-century physician Bernard De Mandeville had claimed that all successful economies ran on the principles of unbridled self-love. Adam Smith, along with many of his contemporaries, denounced Mandeville’s vulgar amoral philosophy and replaced it with a systematic analysis of the “wealth of nations” being achieved most successfully in a free market economy in which the realization of self interest created sufficient surplus value, or profit, to provide the best possible subsistence for all. In Smith’s system *self-interest* guided by the hidden hand – i.e. the autonomous mechanisms of the free exchange of goods in the marketplace – was a means to a greater, just and moral end which was the benefit of all.

This moral ethic, however, was superseded by the disciples of Smith and replaced with a new scientific rationality in the rise of philosophical radical-

ism, especially as it was expressed in the felicific calculus of Jeremy Bentham. The Reverend Thomas Malthus had countered Smith's optimistic vision of the productive capacity of the free-market economy with a dismal scenario resulting from the law of population. This law proposed that as society became more affluent the laboring classes would increase in number geometrically and out-populate the capacity of the market to provide subsistence for them. The classical economist David Ricardo modified both Smith's and Malthus's vision with the iron law of wages whereby the increasing profitability of the market would necessarily drive the wages of labor down to subsistence level, eventually impoverishing them below the point of survival. Together the law of population and iron law of wages meant that the success of the market economy depended upon the immiseration of the labor force and the expendability of the poor.

In response to the laws of political economy, Jeremy Bentham placed his faith in the rule of civil law to ensure the conditions whereby economic relations of the market could function with the greatest degree of freedom and benefit the greatest number of people at any one time. The driving force behind the reforming "spirit of the age" was the Utilitarian goal of achieving the greatest happiness of the greatest number by acting, in accordance with the laws of political economy, in the interests of those who could not or would not act for themselves.

It was within this context that remedies for the rising costs of poverty were discussed in Britain. Numerous factions were concerned about the increasing costs of the poor. Farmers and parishioners burdened by ever rising rates had the sympathies of the intellectual radicals such as Bentham, who shared their concern, not merely because of the severe financial burden which they labored under but more importantly, because in political economic terms the old, Elizabethan poor law had become an obstacle to the free movement of labor, economically and geographically. In Britain the agricultural poor and the indigent became an increasing financial problem as the result of changes in the agricultural economy at the end of the eighteenth century. The war with France, new techniques of agricultural production and successive bad harvests depressed the agrarian economy from 1795 with farmers having less and less wages to pay their laborers. The crisis led to the introduction of an allowance system administered through the old poor law. The Elizabethan Poor Law had mostly provided outdoor relief in kind to the hungry poor living below subsistence. This method became extended into what became known as the Speenhamland system wherein agricultural

laborers had their wages subsidized by the Poor rates to bring them up to the level of subsistence according to the price of bread. Poverty had thus become increasingly pauperized and wages depressed through the allowance system. The price of poverty escalated to levels that were perceived as critical, from three to seven million pounds per annum.

By the 1830s it appeared to be the most pressing problem of the British state and it was attacked using the most systematic and modern methods of analysis yet introduced into government. A study of poverty was made by two assistants to the central Poor Law Commission, two disciples of Bentham, the economist and lawyer Nassau Senior and the petit bourgeois, upwardly socially mobile lawyer Edwin Chadwick. Chadwick had been Bentham's secretary. The report of the Poor Law Commission in 1832 concluded that the allowance system was the worst of all threats to the free market economy. It artificially depressed the price of labor and removed the incentive of the fear of hunger to the poor to help themselves. Furthermore the old settlement laws prevented the geographical mobility of labor essential to the emergent industrial economy.

The answer, Chadwick believed, was to deter pauperdom by making it less eligible than the lowest paid labor. He believed the way to achieve this was to deprive the pauper of his liberty, split up his family and incarcerate them in a workhouse. The New Poor Law was instituted under the Poor Law Amendment Act in 1834 and it remained in tact until 1929. It was the most hated and dreaded of all the harsh Victorian impositions upon the poor and the destitute. While successful in reducing the poor rates, however, it proved to be unworkable in the northern industrial areas where periodic destitution resulted from the fluctuations in the business cycle of the manufacturing industry.

The Poor Law investigators had been largely concerned with agricultural pauperism but the problem of destitution amongst the urban proletariat in Britain, France and the United States proved to be inherently related to disease. In different ways, in France, Britain and the United States, the elimination of poverty through the remoralization of the poor became inherently bound to the question of health reform.

POLITICAL CURES FOR DISEASE AND DESTITUTION

The social-physics of disease, poverty and urbanism was taken up throughout Europe in the first half of the nineteenth century. Its influence upon

governments varied. In France little systematic or comprehensive state action was enforced until later decades. In united Germany, after 1871, the state program for health reform was extensive. But public health reform in Europe and America resulted from a mixture of philanthropic relief, political expediency, new faiths in the possibility of “rational” government and, in Britain and France, from principles of political economy and Utilitarianism.

The murderous mortality of the 1832 cholera in Britain especially highlighted the problem of disease and its connection with the increasing costs of poverty upon taxpayers. Chadwick believed that separating the laboring from the dependent poor would prevent them from the contamination of pauperization. He also explored many other avenues, however, beside less-eligibility, to prevent destitution, investigating causes of pauperism like alcoholism, crime, overcrowding, and violence, and concluded that a great proportion resulted from disease. In 1837 he appointed three doctors sympathetic to sanitary reform, Neil Arnott, James Phillip Kay-Shuttleworth and Thomas Southwood Smith, to investigate London districts with the highest typhus mortality. In their reports in 1838 they revealed the full squalor of the London rookeries where medical officers as well as the local inhabitants lost their lives from rampant “fever.” Chadwick followed these studies with an investigation of insanitary areas throughout Britain.

Chadwick loathed poor law medical officers because he thought they exploited the relief system by prescribing useless philanthropy but he used hundreds of their reports to compile a massive survey of the *Sanitary Conditions of the Labouring Classes of Great Britain* in 1842. The conditions described in London in 1838 were matched in Glasgow, Birmingham, Leeds, Manchester and other major urban centers. The 1842 *Report* recommended implementation of what Chadwick called “the sanitary idea,” beginning with the creation of a central public health authority to direct local boards of health to provide drainage, cleansing, paving, potable water and the sanitary regulation of dwellings, nuisances and offensive trades etc. The local authorities were to appoint a medical officer of health to supervise and coordinate all local sanitary work, and an inspector of nuisances. Sanitary regulation would be assisted by strengthened nuisance laws and building laws, and local authorities would be allowed to raise a rate for large engineering projects to provide new sewage-drainage and water supply.

Chadwick was convinced that the construction of massive new drainage and sewage removal systems was of primary importance. He believed that existing square, bricked sewers with large tunnel pipes that did not flush or

empty should be replaced by small egg shaped sewers lined with glazed brick and connected by small earthenware pipes which would be constantly flushed by high-pressurized water. Liquid sewage could be recycled as manure fertilizer to outlying farming districts. Street widening, the removal of cesspools and all other noxious nuisances together with an end to intermittent drinking water were fundamental.

Chadwick built his sanitary idea upon a miasmatic theory of disease aetiology which he interpreted as causation through non-specific contamination of the atmosphere by gaseous material given off by putrefying, decomposing organic matter – thus, for Chadwick disease was smell. Victorian social reformers rallied to the cause of urban sanitation in the “Metropolitan Health of Towns Association,” founded in 1844 by Southwood Smith, and in scholarly forums such as the National Association for the Promotion of Social Science, the Royal Statistical Society and the London Epidemiological Society. These clubs brought reformers together with influential policy makers and cabinet ministers. For example the Health of Towns Association was supported by aristocrats and politicians such as the Marquis of Normandy (1819-1890), who was its first president, Viscount Morpeth (1802-1864), Lord Ashley (later Earl of Shaftsbury) (1801-1885), Benjamin Disraeli (1804-1881), and elite doctors such as Sir James Clark and John Simon (1816-1904). Their supportive propaganda, such as a Health of Towns Association’s report in 1847, became crucial in the fight for new legislation.

Following Chadwick’s 1842 *Report* a Royal Commission on the Health of Towns was set up in 1843-5 which reinforced its recommendations and added new clauses regarding interments. In 1846 Liverpool created the first sanitary authority under a local Act and appointed the first Medical Officer of Health, a local physician William Duncan. The Liverpool administration provided a model for national legislation. The first British Public Health Act was passed in 1848. While comprehensive it remained permissive. The potential for a national sanitary bureaucracy was available but left largely to the discretion of individual local governments. The Act created a central authority, the General Board of Health, consisting of three members, the evangelical, philanthropic, 7th Earl of Shaftesbury (Lord Ashley), its first president, Viscount Morpeth (Earl of Carlisle) who had been responsible for introducing the Act into Parliament, and Chadwick, its only salaried member. Southwood Smith was appointed as its medical advisor under the Nuisance Removal and Disease Prevention (Cholera) Act 1848.

Any one-tenth of the ratepayers within a locality could petition the Gen-

eral Board for the adoption of the act, or the Board upon a local authority could impose it with an annual death rate above 23 per thousand living. The local town council or corporation became the sanitary authority, as a local board of health. The local board of health was responsible for sanitary supervision and inspection, drainage, water and gas supplies, and could increase the local rates or raise mortgages to cover costs. They were to appoint local medical officers of health. Local Boards had the power to regulate offensive trades; remove “nuisances,” as defined under the 1846-8 Nuisance Acts; regulate cellar dwellings and houses unfit for human habitation; and provide burial grounds, public parks and baths. The Act applied to all districts outside the metropolitan boroughs of London. The boroughs had their own Metropolitan Commission of Sewers, set up in 1848, and the City of London obtained its own private Sewers Act 1848, to keep it outside the jurisdiction of the General Board, and appointed its own medical officer of health, a consultant surgeon from St Thomas’s Hospital and a member of London’s elite medical community, John Simon.

Chadwick believed that Metropolitan London was more important to sanitary reform than all other localities. The internal conflicts and incompetence of the Metropolitan Sewers Commission, however, led to Chadwick’s removal from it in 1849. He still attempted to bring London’s interments system and water supply under the control of the General Board. He wanted to “nationalize” burial and set up state cemeteries but was opposed by the Treasury and the Metropolitan vestries. Ultimately an Interments Act of 1852 allowed the Home secretary to close any Metropolitan burial ground and empowered local parishes to purchase new graveyard sites, but the General Board had no power to intervene.

Chadwick aimed to municipalize the private water companies and link water supply to drainage under one public authority. The Metropolitan Sewers Commission and the water companies, who were a powerful Parliamentary lobby, effectively opposed him. A Water Act of 1852 allowed the Metropolitan Water Companies to retain their separate existence but forced them to abandon all sources below Teddington and to provide constant supply and to cover their reservoirs and filter their water. In both the interment and water questions private interests and municipal government resisted public ownership and central control.

Between 1848-1853, 284 districts applied to adopt the Public Health act and it was established in 103 towns. Vigor varied between sanitary authorities. Some failed to make any improvements to mains-drainage or implement

the Board's engineering schemes. In other districts the same insanitary conditions persisted whether they adopted the act or not. Some authorities, however, took up their new responsibilities and powers with a vengeance and instituted model reforms under the direction of the Board's inspectors.

Opposition to the whole measure came not just from "Metropolitan Radicals," but from outraged defenders of local government autonomy and those who opposed "despotic interference" into the lives of individuals and the free relations of the economic market. The Tory press raged against "paternalistic" government. The *Herald* believed that "A little dirt and freedom may after all be more desirable than no dirt at all and slavery," and the *Standard* suggested that the country had "heard enough of the effect of centralization in the New Poor Law." Local ratepayers resented being dictated to by a "clean party." The Institute of Civil Engineers disclaimed the arterial system, and supported the alternative designs of Joseph Bazalgette.

The General Board's immense unpopularity forced its members to resign in 1854. A first chapter in the English experiment in state health regulation closed. However, a new professional health management followed Chadwick's downfall directed not by an engineering but a medical model and run not by philosophical-lawyer reformers but by doctors.

THE PHILOSOPHY OF STATE MEDICINE

The creation of a public health system in Britain was founded upon a political economic philosophy that intended to use statutory regulation to enhance the free operation of market relations. Reducing the cost of destitution and poverty by preventing unnecessary mortality was one feature of a new theory of government that asserted that efficiency and justice could only be obtained through the scientific and rational organization of the affairs of state, that policy making should become a managerial practice.

Edwin Chadwick, a civil servant, was the central figure in bringing this approach to the management of public health with his "sanitary idea." The sanitary idea was based on a simple model of disease caused through general filth which could be remedied by the construction of civil engineering works providing efficient sewage and drainage and the supply of clean water. The sanitary idea did not expand much beyond these boundaries except to address questions of internment and the recycling of human manure for agricultural fertilizer. It was not based on any systematic analysis of the details of policy. It recommended the widening of streets but did not say how wide they

should be. Chadwick's sanitary code was independent of medical analysis. Even before he had left office, however, members of the medical profession were already challenging his conception of health reform. After he left, a philosophy of medical management of the public health succeeded him. A new concept of "state medicine" came to dominate central government health policy and eventually local government practice.

A shift from the sanitary idea to medical management took place as a doctor, John Simon, as Britain's chief health administrator, succeeded Chadwick. Simon's term to describe his form of health administration was "state medicine" but what was it and how did it differ from the "sanitary idea"? What were its aims and goals? What did it achieve in the development of health policy in the latter half of the nineteenth century?

In 1856 a prominent public spokesman of the medical profession, Dr. Henry Rumsey, published *Essays on State Medicine*. Rumsey admits that although the essays were published in 1856 they had been delivered as public lectures several years previously. They predominantly address the failings of health administration under the General Board of Health. Rumsey bemoaned the fact that the nation's health had been made the responsibility of two barristers and a lawyer with no medical guidance. The Board could never successfully manage health, Rumsey claimed, without the contribution of medical expertise.

What were the limitations of a sanitary idea that did not include medicine? Rumsey believed that it lacked a comprehensive vision of health care that integrated preventive and palliative medicine into one unified system. Secondly its system of prevention was based upon simple generalizations and did not investigate the multiple determinants of sickness and disease. Medical prevention was concerned not just with filth in the external urban environment but insanitation and unhygienic practice within dwellings, factories and public buildings, etc. It focused upon the spread of infectious disease by contact as well as atmospheric pollution and involved the isolation of sufferers and their contacts, and systematic disinfection. A medical analysis of the hazards of population density examined the multivariable relations of disease and overcrowding instead of assuming simple equations of ill health.

Rumsey claimed that medical prevention attacked a broad range of causes of disease and had a wide scope of methods for their elimination. He developed an elaborate administrative scheme of disease prevention beginning with a permanent medical official in central government and a civil service of medical health officers throughout the local government districts.

His idea of the local health officer was based upon the German example of a physician who abandoned private practice to serve only the duties of his state appointment. Rumsey's local health officers would also be superintendents of the registration of births, deaths and disease incidence and be responsible for integrating both preventive and palliative medical services.

Rumsey's views were never directly realized in Victorian sanitary administration but he was influential in medical politics until he died in 1876. His *Essays* however, were not entirely original but reflected a medical approach to disease prevention which had already been established in the public health administrations of the Cities of Liverpool and London by their respective Medical Officers of Health. It was one of these officers who translated the theory of state medicine into a pragmatic, practical program of reform throughout the mid-Victorian period.

Chadwick's style of management at the General Board of Health had met with political resistance largely from the advocates of local government autonomy and had reached a critical point during 1854. The Board was dissolved and reconstituted under the presidency of Benjamin Hall who chose to appoint John Simon to the newly created Medical Officership to the Board in 1855. John Simon was a surgeon at St Thomas's Hospital who had taken an interest in public health since he had been a founding member of the Health of Towns Association in 1844. He became a local Medical Officer of Health when, during 1848, the City of London Corporation preempted the Public Health Act with one of its own and subsequently appointed him to the post. Simon had previously worked for the first General Board of Health during 1853 as a commissioner of inquiry into the Cholera outbreak at Newcastle and Gateshead and was later asked by Hall to join the Medical Council to advise upon the epidemic. Simon was Hall's choice for the new medical post and William Cowper, who succeeded him to the presidency in 1855, carried out his decision.

Before leaving the City of London, a Collection of the reports made by Simon to the authority were published commercially with a new preface added by him. Simon took the opportunity "to express ... some thoughts on sanitary affairs in a fuller sense of the term than had yet become usual." He did not wish to limit his analysis to the City itself,

but speaking of the country in general, and pleading especially for the poorer masses of the population, I endeavored to show how genuine and urgent a need there was, that the State should concern itself systematically and com-

prehensively with all chief interests of the public health. I submitted, as the state of the case, that except against willful violence, the law was practically caring very little for the lives of the people.

From the earliest years of his career in public office he discovered that the health of the community was part of a matrix of social, economic and political relations. From 1854 to 1890 he continued to emphasize that public health was inherently bound up with the politics of poverty. Low wages resulting from unlimited competition together with excessive demand for accommodation and food, which pushed their prices higher and higher, forced the laboring population below subsistence. They lived in ever more decrepit and inadequate dwelling space sold at exorbitant rates by unscrupulous landlords and they bought the cheapest, inedible and adulterated foods. Squalor and malnutrition produced disease and disease produced destitution.

If such and such conditions of food or dwelling are absolutely inconsistent with healthy life, what more final test of pauperism can there be, or what clearer right to public succor, than that the subject's pecuniary means fall short of providing him other conditions than those? It may be that competition has screwed down the rate of wages below what will purchase indispensable food and wholesome lodgment. Of this, as fact, I am no judge; but to its meaning, if fact, I can speak. All labor below that mark is masked pauperism. Whatever the employer saves is gained at the public expense. When, under such circumstances, the laborer or his wife or child spends and occasional month or two in the hospital, that some fever infection may work itself out, or that the impending loss of an eye or limb may be averted by animal food; or when he gets various aid from his Board of Guardians, in all sorts of preventable illness, and eventually for the expenses of interment, it is the public that, too late for the man's health or independence, pays the arrears of wages which should have hindered this suffering and sorrow.

The first law of all political economy was that wages should not be interfered with, but the conditions of physical existence could be controlled. There were no laws, Simon pointed out, apart from those protecting the individual from personal violence, which protected his physical welfare. Disease was spread not passively but through deliberate actions. There was, therefore, the need for laws to protect physical welfare and for a legislative, Parliamentary authority, i.e. a special Minister of Health. And, since the question of

physical health was the province of medical expertise then doctors turned statesmen should guide the Health Minister and his department.

Public health could play an important part in solving the question of how to make the “poor less poor.” The political economy of labor was beyond the jurisdiction of medical expertise in government but the welfare of physical health could be guided by it in numerous ways. For example by sanitary controls on housing stock and laws prohibiting the sale of adulterated food and chemicals and poisons; regulations regarding industrial health of workers; preventing the spread of epidemic diseases with vaccination and isolation of the infectious; supervision of noxious trades; procuring environmental cleanliness by minimizing atmospheric pollution and building efficient sewage and drainage infrastructure; ensuring standards of pure water supply; and not least legislating against unqualified medical practice and varying standards of medical training to prevent the grossest inadequacies of some medical treatment.

By the end of his career, this conception of State Medicine was articulated within Simon’s broader political philosophy which approximated an almost Saint-Simonian socialism. Healthy living conditions would enable the laboring classes, together with universal education, to be independent, self-supportive and to strengthen their ability to fight for higher wages through trade unionism and to procure security against sickness, unemployment and old age through a state insurance system. While he believed that existing medical relief should be given to all without question or means testing and he acknowledged the achievements of the “socialistic” Elizabethan Poor Law, he felt it was well time to replace it.

Along with this vision of emancipation of the laboring classes from poverty Simon also shared some of the prejudices of late nineteenth-century socialism against the residual poor. He abhorred indiscriminate, “eleemosynary” philanthropy believing it was an evil substitute for legislation. Apart from charities competing amongst each other to use “relief” as a means to proselytize some ideology or other, it also encouraged dependence and willful idleness. While Simon fully recognized that the despair of the laboring classes who were forced into destitution pushed them also into immorality, he believed there was a residue of “staunch mendicants” and idlers who would always perpetuate pauperism and raise their children to such a way of life. These should be discouraged at all costs and believed that Parliament had a right to prevent the “hereditary continuance of pauperism” by taking into State care all those children whose parents “cannot, or will not, bring

them up otherwise than into pauperism, or presumably crime.” All forms of “sham poverty” and parasitism should be discouraged to the utmost by the institution of a communal politics of self-help. Simon saw this communal politics as the defining characteristic of late nineteenth century civilization.

The constantly increasing care of the community at large for the welfare of its individual parts is an eminently characteristic and influential fact in our present stage of civilisation. ... It is something curiously unlike what Machiavelli taught as politics. It is socialism of the sort which consists with social justice, and tends to social consolidation ... the religion of mutual helpfulness. ... Stronger now than ever in the history of the world, and of wider range than ever in that history, thoughts of loyalty to his kind are gaining sway with him [man]. And surely in the years to come, so far forward as man’s moral outlook can reach, they who shall be in the front will more and more have to count it sin and shame for themselves, if their souls fail of answering to that high appeal, and they strive not with all their strength to fulfill the claims of that allegiance.

Therefore, while he did not share Rumsey’s concern for joint superintendence of prevention and treatment in one department of health he did believe that medical administration of the “conditions of physical existence” could reduce preventable sickness and death and in its wake destitution. This would ultimately replace the need for the poor law as a whole, and put unemployment, old age and sickness into a system of self-support, through higher wages and compulsory insurance. Public health administration could achieve this end by combatting poverty rather than through unification with the poor law medical relief.

STATE MEDICINE IN PRACTICE

As Simon entered central government service at the General Board of Health the first experiment in sanitary administration was coming to an end. The first attempt at sanitary reform through a system of central government interference in local affairs had foundered. The defense of local “democracy” had resisted the capacity of central government to bring about change through coercion. This was a fundamental lesson which Simon internalized in his subsequent strategy for reform. He avoided the mistakes of the past by devising a new basis for the development of public health through the persuasive power

of scientific research and information, keeping the power of coercion as the last resort.

Simon became the first doctor to hold a high-ranking government appointment. In 1858 a new Public Health Act abolished the General Board and its functions divided between a number of different government departments. The central focus of health administration was moved to a new medical department created under the domain of the Privy Council. Simon was appointed as the Chief Medical Officer to the department and was given the power only to inquire and report into health conditions. He was also made responsible for the administration of smallpox vaccination. He was the only appointee of the department but was given the opportunity to hire temporary and part-time staff. Within a decade, however, Simon had used the terms of his appointment to create a department with a continuous staff of about 40 officers and inspectors and had used the power of inquiry to authorize a substantial body of legislation which laid the foundations of subsequent British health policy.

Asa Briggs has described the 1830s-50s as the most exciting moment in the history of public health and, as Michael Flinn notes, there has been a general impression that advances in reform subsequently slowed down. But as Anthony Wohl and Flinn have observed this is not an accurate picture. The legislative base of public health expanded dramatically after 1848 providing what Flinn has described as a “comprehensive system” by the mid-1860s and what Wohl has described as the truly “heroic age” of state medicine.

The massive growth in legislation during this period was however unrelated to its implementation. It was haphazard and piecemeal. It was too chaotic to either be executed by local authorities or too disparate for them even to be aware of all the various new duties and powers which it bestowed upon them. What it may have provided comprehensively in theory, was neutralized by its incoherence in practice. Its chaotic and unmanageable condition required rationalization and codification which led to the need for a Royal Commission in 1868 and the Public Health Act of 1875.

The removal of the central authority from the defunct General Board in 1858 to the Medical Department of the Privy Council did not announce the death of public health reform but simply shifted its ground and changed its direction. Royston Lambert has characterized this transition as one from an “amateur” phase to a scientific one. Chadwick had considered himself anything but an amateur, however. He believed above all in “scientific” policy making. But his conception of scientific statesmanship reflected the indeter-

minate idea of social science as social reform which pervaded the Utilitarian models of government of the early nineteenth century. The model of scientific specialism in the Medical Department at the Privy Council had a much narrower definition emanating from the experimental scientific method of laboratory research and governed most of all by the empirical and theoretical models of clinical medicine. Mid-century public health reform therefore developed along two lines. On the one hand there was the anarchic growth of *legislation*, on the other there was the careful progress of precision in *administration* developed by John Simon at the Privy Council. It was through the eventual domination of the former by the latter in policy implementation that transformed public health reform in England into the practice of state medicine.

From the outset Simon followed a comprehensive approach to disease prevention and set up investigations into a wide range of issues, from the regulation of food contamination and drug adulteration to hygienic standards of environmental planning. He managed to recruit, on a part-time basis, the most senior scientists of the day to complete both field research in local areas and laboratory research on the nature of the disease process. The initial survey covered the multivariate determinants of health and epidemic and endemic diseases in different localities including the social and economic relations of poverty. He wished to identify specifically which aspects of the lives of the poor generated the conditions under which different diseases flourished and use the new documentation to pressure Parliament into new legislation. In this way he redefined the meaning of a “public nuisance” and revised the law to cover everything from pollution from human waste, industrial effluence, river and atmospheric pollution and the illegal transportation of infected persons. He introduced the first legislation for the control of the sale of contaminated food and adulterated drugs and the first housing and municipal planning laws. But the most significant legislation that Simon generated was the Sanitary Act of 1866. This Act contained the first compulsory public health laws which empowered central government to prosecute a local authority for failing to fulfill its duties under the nuisance laws.

Although he never implemented it Simon used the threat of sanction, together with the shameful exposure of neglect through a government inspection, to coerce local authorities into public health reform. He also used the power of his department to vet requests from local authorities for low interest loans for sanitary works to induce them into following his department’s recommendations. State medicine in central government progressed in a prag-

matic fashion during the 1860s but the multiplication of sanitary law became so chaotic that even enthusiastic local authorities found it too bewildering to implement. After pressure from the British Medical Association and the Society for the Promotion of Social Science, Parliament set up a Royal Commission to investigate unifying the law. The 1875 Public Health Act codified all existing sanitary legislation but also made its adoption compulsory. Every local authority was subsequently compelled to create a local board of health and employ a local health officer. The medical department of the Privy Council was amalgamated with the poor law administration into a new structure called the Local Government Board. However, this was not a happy marriage and the new Board was dominated by the Poor Law authorities and starved of funds by the Treasury. Simon found it impossible to continue to run a program comparable to that achieved under the Privy Council and resigned his position as Chief Medical Officer in 1876. With his resignation the influence of state medicine in central government declined. The focus of health policy, however, shifted to its implementation in the local districts. But before discussing the consequences of this shift it is necessary to briefly examine some of the responses to the creation of compulsory health laws.

TYRANNY OR SALVATION: HEALTH ENFORCEMENT AND RESISTANCE

The interventionist state was built largely on adoptive rather than compulsory legislation. The public health profession constantly demanded greater compulsory powers which was first provided for them under the 1866 Sanitary Act. From this point public health legislation acquired an ever greater vocabulary of systematic enforcement. However, the imposition of the law was not straight-forward in mid-Victorian society highly suspicious of paternalistic despotism. Victorians were forced to decide whether legislation designed to protect them against themselves was in fact tyranny or salvation.

While general sanitarianism was aimed at the limitation of the whole genre of infectious diseases based on the principle of raising “health standards” as a whole, the earliest intervention directed specifically at one such disease in particular was the case of smallpox prevention. Free vaccination was made available through the administration of the Poor Law medical services in 1840. In 1853 the State took the unprecedented step of making vaccination compulsory for all children within the first year of life. Failure to comply with the law meant prosecution and fines for parents and these

penalties were made extremely more severe when a new Vaccination Act was passed in 1867. Parents were now liable to repeatable fines and imprisonment for either neglecting to have their children vaccinated or objecting to it on grounds of conscience. Compulsory health laws did not end with the control of smallpox but continued to be introduced in relation to other socially and sexually transmissible diseases throughout the nineteenth century in Britain. Smallpox vaccination was the first step taken in this direction; compulsory inspection and isolation of prostitutes to control venereal (contagious) diseases was the second; and finally at the end of the nineteenth century the notification acts covered almost the complete list of endemic infectious diseases which occasionally erupted into epidemics. The ideological justification for compulsory prevention was articulated by mid-century advocates of "State Medicine," such as Rumsey and Simon. They suggested that the sovereign right of the individual to contract, die of and spread infectious disease should be suspended for the benefit of the health of the community as a whole.

For these reasons Simon was the greatest advocate of vaccination as well as its chief administrator during the mid-century period. He also recognized the need for reform of the system of administration, admitting that poor quality lymph and inadequate training and supervision of local vaccinators caused injury and death which contributed to opposition to vaccination. Expert inspection, training for vaccinators, new "vaccination officers" with the task of coordinating notification and enforcement were created in the local authorities in 1871 and the supply of lymph was reorganized and supervised by Simon's department. In his own words, Simon instituted "medical management" of the system which had previously been undertaken as an extension of some of the secretarial duties of Poor Law authorities.

While improving the quality of vaccination these reforms did not eliminate the risks of vaccination entirely. During an epidemic in 1871 a number of cases of syphilis were transmitted to children via the method of arm to arm vaccination and one of Simon's own inspectors, Jonathan Hutchinson, had the unenviable task of reporting the incidences to a Parliamentary Committee of inquiry. Hutchinson recommended vaccination with calf-lymph to replace the old method that always held the danger of transmitting additional human infections. Overall, however, the vaccination campaign was successful in vastly reducing the incidence of smallpox in Britain, and indeed throughout Europe and America by the end of the nineteenth.

Resistance to compulsory vaccination had occurred from the outset.

John Gibbs, a hydropathic operator who owned an establishment in Barking, published a pamphlet in 1854 called *Our Medical Liberties*, and forwarded extracts from it in protest to the General Board of Health in 1856. His cousin, Richard Gibbs, helped to found the Anti-Compulsory Vaccination League in 1867 after the extension of the law. Provincial associations became the focus of activity during the 1870s. At that time several Boards of Guardians refused to implement the law. The most notable events took place at Keighley, where imprisonment of recalcitrant Guardians resulted, inspired by the “martyrdom” tactics advocated by the Rev. William Hume Rothery and his wife Mary, who founded the National Anti-Compulsory Vaccination League at Cheltenham in 1874. In 1880 William Tebb established the London Society for the Abolition of Compulsory Vaccination, and in 1879 began a journal called the *Vaccination Inquirer*. Its first editor was William White. After his death in 1885, he was succeeded by Alfred Milnes. The London Society was the focus of activity during the 1880s and early 1890s in lobbying Parliamentary support. The local organizations of the movement gravitated towards the metropolitan leadership and in 1896 Tebb amalgamated the provincial and London organizations into one National Anti-Vaccination League.

Against a general background of distrust of the medical profession and of its capacity to dupe Parliament and the public, the anti-vaccination movement targeted the focus of their attack on the principle of compulsion in respect of laws relating to the health of the individual. The first issue of the journal clearly stated that the aims of the organization were to combat medical despotism in its worst forms, the Compulsory Vaccination Acts. Anti-vaccinationism offered various “alternative scientific” arguments about the dangers of vaccination and the benefits of other methods of prevention. But the driving principle of their ideology was a resistance to the growth of government intervention into the civil liberty of the individual.

The anti-vaccination movement launched a propaganda campaign and a war of what Roy McLeod has called “civil disobedience” against the public health authorities from the 1860s using the *Vaccination Inquirer* as their main weapon. Some local groups were more influential than others. In Leicester successful infiltration of local government agencies resulted in widespread unprosecuted failure to comply with the law. Similarly in Gloucester anti-vaccinationists who were influential members of the community, such as the local paper proprietor, waged a successful campaign against the MOH until an epidemic in 1896 eventually resulted in a mass vaccination of the town. Anti-vaccinationism never achieved its goal of abolishing compulsory vac-

ination completely but did achieve a modification of the law in 1907. The Act was then amended to include a conscientious objection clause allowing parents to opt out of the system. By this time, however, the battle against smallpox had largely been won and universal vaccination of infants so nearly complete that the necessity for stringent compulsory laws no longer existed.

Anti-vaccinationism shared an opposition to centralizing interventionist government with the campaign to repeal the Contagious Diseases Acts designed to control the spread of sexually transmitted diseases. But the political organization to repeal the Contagious Diseases Acts had more than one ideological foundation. The organization itself was a mixture of sometimes strange ideological bedfellows pursuing the same aim for contradictory reasons. However, the opposition to the social control of sexually transmitted diseases still reflected the dilemma faced by Victorian society concerning health and citizenship.

In 1864 Parliament passed the first Contagious Diseases Act which provided for the compulsory examination by a naval or military surgeon of a woman believed by a special police superintendent sworn before a magistrate to be a "common prostitute." Initially the Act was in force in eleven garrison towns in the southern counties. If the woman was diagnosed as venereally diseased, she became liable to detention on the order of two magistrates in a lock ward and could be held there up to one year and to regular fortnightly inspection. She had no right of appeal to habeas corpus.

The Act had been drawn up by a committee of the House of Commons consisting of representatives of the army, the admiralty and medical experts. Why was this Act deemed necessary? In 1854-56 Britain had repulsed the attempt to overthrow the Turkish Empire by Russia trying to get access to ports in the Black Sea. During the Crimean campaign an army sanitary commission had for the first time gathered accurate statistics about the level of mortality resulting from disease rather than the battlefield. After the war, in 1861 a Royal Commission was established to investigate the health of the army. The Royal Commission's report highlighted the high incidence of venereal disease amongst enlisted men. It also focused attention on the alienating and distressed conditions in which the troops lived making them more inclined to visit prostitutes as a means of escape and relief. The Report recommended that new measures be taken to change the boredom and filthy living conditions of army life.

However, during the 1860s, as we noted earlier, legislation to regulate health conditions in civilian life had expanded extensively. Thus a precedent

had been set for the use of the state administrative control of the relations of sickness and disease. The Royal Commission recommended that the Army appoint a statistician to continue to monitor conditions. A Dr. Bryson, an army MO was appointed and it was his reports which encouraged opinion within the medical profession for legislation for the control of venereal disease. By 1864 Bryson demonstrated that one in every three cases of sickness in the army was a case of venereal infection representing 290.7 per 1000. The naval statistics were only slightly less sensational amounting to 125 per 1000. The financial loss in manpower – each case meant a sick leave of about two to three weeks – created an urgent need for something to be done.

The 1864 Act was extended by a second in 1866 to cover further garrison districts and then in 1867 new proposals were made by advocates of the act to have them extended to the northern counties and to the civilian population. This campaign was undertaken by the Association for the Promotion of the Extension of the Contagious Diseases Acts which had been formed after the Harvarian Society had produced a report in 1867 showing the high incidence of venereal disease amongst civilian and military populations and the totally inadequate facilities for dealing with it. The Association acquired 400 members, published pamphlets and lobbied Parliament. Tories supported extension because they believed it served the interests of the military. The Anglican clergy were also recruited to the cause since they believed the Acts represented the interests of the established civil order. The police also supported it for similar reasons. The leading civilian doctors who promoted extension were either from the elite medical fraternity who had studied in Paris and been impressed by the system of regulated prostitution there, or they were doctors who worked amongst the poor and were familiar with the appalling insanitary and unhealthy environments in which they were forced to live. But the fundamental rationale behind the extension of the Acts was that in order for them to work efficiently they needed to cover further districts to prevent prostitutes from evading the police by migrating to unregulated areas.

The extension Act was passed in the autumn of 1869 but by December organized opposition had signed a petition listing eight charges of injustice. Opposition had been already been voiced, however, before the Act had been passed. This came from John Simon. In 1868 Simon had produced a Report which condemned the extension of the Contagious Disease Acts to the civilian population on all grounds. Firstly he questioned their effectiveness in reducing venereal diseases, even within garrison towns. Secondly he identified the

impossibility of administering the acts amongst the general population. He believed that not only were resources too limited for such large scale policing and inspection but that, more significantly, the Acts would be unworkable because of the resistance it would meet amongst the poor. Building sewers, drains, cleaning streets, inspecting homes, condemning contaminated meat were one thing but invading the most intimate and clandestine activities of personal lives was another. Simon, the staunch advocate of state intervention, paradoxically objected to its extension into this realm of privacy. He dismissed the moralists' arguments that policing public morals led to their improvement and emphasized instead the immoral impropriety of the execution of the Acts themselves.

So despite the fact that the supporters of the Acts modeled their legislation on that of Simon, Simon himself dismissed their validity and rejected them morally. In this respect, however, he reflected a much broader view held by the public health profession generally. The majority of public health officers dreaded having the responsibility for implementing the Acts imposed upon them. As long as the Acts remained a military affair they could leave it to those authorities. If they were to be applied to the civilian population then they would immediately become additional duties for the MOH, who had no resources to implement them and would have to face the unbridled hostility of local populations. Without doubting Simon's sincerity therefore there was no doubt a consideration of the practical chaos the Acts would cause if they were extended to the local districts.

The initial *ad hoc* opposition became organized by the end of 1869 into the National Association for the Repeal of the Contagious Diseases Acts. It never became a very large pressure group. By the 1880s its membership was less than 800 and its annual budget only £3000 per annum. The body of the Repeal movement consisted of a mixture of social and religious purity advocates, feminists and civil libertarians, but the boundaries distinguishing between these various ideologies were extremely blurred within the National Association. The leaders of the opposition included the political economist Harriet Martineau; aristocratic philanthropic social workers Josephine Butler, Sarah Robinson and Mary Hume Rothery; the crusading lady of the lamp Florence Nightingale; and – their voice in Parliament – the radical Quaker Liberal MP Sir James Stansfeld. Amongst this group the central figure around which the movement revolved was Josephine Butler. She has been described by the historian Judith Walkerwitz as a “mature woman ... a feminist and moral reformer,” and by the historian F.B. Smith as “self-obsessed, histrionic

and willfully uncompromising.” By one of her own contemporaries and fellow Repealers, Mary Priestman, Josephine Butler was described as “A woman Christ to save us from our despair.” The upper-class philanthropic reforming women who led the Repeal campaign have been described by Judith Walkowitz as a hard-working band of women devoted to female emancipation and moral reform. By contrast F. B. Smith has described the same group as indulging in “parasitic sanctified narcissism.”

The paradoxical truth is that both of these historians are correct. The Repealers wanted to end the double standard of morality applied to the sexual license afforded to men and the repression placed upon women. They protested that the Acts were a gross invasion of privacy and believed they legitimated an autocratic rule of medical expertise. Equally however, the Repeal campaigners stressed their opposition to the growth of state responsibility for any forms of social welfare as a mortal sin against the system of individual freedom and self-reliance. The female philanthropic leaders of the opposition called themselves the “Lords Scavengers” sent out to rescue fallen women from their unholy plight. The main aim of the rescue work was morally to reform prostitutes into giving up their trade for an honest life, or death from starvation. They believed that the law would make prostitution safer and encourage self-esteem amongst those who continued to ply their trade. Their philanthropic aim therefore was fundamentally a mission of social purity: the salvation of the poor and unrighteous through their remoralisation. Butler and her associates did espouse the rights of women to equal education and rights to property before the law, but they still insisted that the woman’s separate sphere was the domestic bliss of the house and hearth – even though most of them were hardly ever in it. These upper-class angels of mercy wanted to reclaim the woman of the night, not by curing venereal disease but by recapturing their souls for Christ. For this reason the Contagious Disease Acts horrified them because it encouraged prostitutes’ aspirations to respectability and legitimacy. Sarah Robinson, the evangelical temperance worker, was aghast when she failed to reform what she called a “well to do” prostitute who told her, “you see Miss Robinson, you get your income in one way and I get mine in another. I pay my tradesmen’s bills the same as yourself, and I do not see why I should be excluded” – excluded that was from working for the Temperance Society.

However, these mixed motives and political messages succeeded in marshaling an extremely vocal campaign against the Contagious Diseases Acts. The Repealers charged that the police frequently arrested innocent respectable

women and subjected them to the most degrading inspection and detention. They were horrified by what they called the legalized rape of women who were forced to submit to internal gynecological examinations by male physicians. They claimed that women were infected by unhygienic inspections by the surgeons and were imprisoned without trial to prove whether they were guilty or innocent. The Repealers emphasized that the Act failed to properly define what constituted a “common prostitute” and more often than not this was left to the discretion of the police who were influenced by rumor and corruption. They also claimed that the Acts failed to influence any reduction in the rates of syphilis and gonorrhea. They were supported in their claim that the Acts were an infringement of civil liberties by John Stuart Mill who gave evidence to a Royal Commission of enquiry in 1871. He proposed an alternative system in which both men and women could voluntarily undergo inspection and receive treatment in state supported clinics. He was opposed to the compulsory inspection on the grounds that it reduced the responsibility that each citizen should possess for his or her own health as a duty to the commonwealth. It thereby impaired the individual moral will upon which a society ultimately rested. Though Mill opposed the Acts he deplored the activities and ideology of the members of the Repeal campaign.

The Repeal campaign met with little success, however, until a woman who was not a prostitute drowned herself after having been falsely accused, and subjected to the examination and detention in 1875. Josephine Butler was almost grateful for the death of Mrs. Percy because she thought, “Every good cause requires martyrs ... and this poor woman’s death will ... be the means in the hands of Providence, of shaking the system.” The Campaign’s fortunes began to revive but only to slump again by 1883. In 1886 Gladstone’s Liberal government was fighting for its survival against attacks from within its own ranks. The tireless work of James Stansfeld finally paid off when the Government agreed to Repeal the Acts as a token gesture toward the radical northern Liberal dissenters in exchange for their acceptance of Home Rule for Ireland. The Repeal of the Contagious Diseases Acts, therefore, while representing a triumph of individualist opposition to compulsory health policies, was equally the result of the Machiavellian machinations of “business as usual” Parliamentary politics.

EXPERTISE AND LOCAL ADMINISTRATION: THE GROWTH OF A NATIONAL BUREAUCRACY

Edwin Chadwick institutionalized the utilitarian ethic of expert, scientific management of government in the Victorian British state with his appointment to the Poor Law Board and the General Board of Health. Simon reinforced the role of the expert recruited from the professions as a government administrator. The role of the professions is, therefore, central to understanding the development of community health care in Britain. From the mid-nineteenth century the construction and execution of health policy was increasingly determined by professionals legitimated by the authority of specialized knowledge not only in central but also in local government.

One professional group crucial to Victorian public health administration was medical officers of health. Both Chadwick and Simon believed that district health officers were indispensable to an effective system of disease prevention. By the end of the nineteenth century they formed a national bureaucratic public health service and constituted a distinct professional group with its own goals and values. As the power of medical influence declined in the Local Government Board following Simon's resignation, the power to direct policy development shifted to this group of local government administrators with a collective identity.

The subsequent period in disease control has been characterized as an era of "preventive medicine." This was a much broader movement than state medicine, outside the central corridors of power and beyond the elite provinces of the medical and scientific communities. It was not, however, a "lay" organization but was associated with the growth of prevention as a professional practice distinct from cure. It was centered around doctors whose primary function was the provision of health in the community and who relinquished the treatment of illness in individuals. The struggle for economic and social security by Medical Officers of Health during the 1890s helped them to develop a separate identity from the clinical profession as preventive practitioners. There was also what might be called a "community" of interests surrounding preventive medicine which was communicated through journal literature, high-profile conferences, and embodied in a variety of institutions set up for educational and research purposes. The ideological development of preventive medicine demonstrated how the economic and social values which underlay the environmentalist philosophy of sanitarian-

ism was slowly replaced technical neutrality.

The compulsory appointment of MOHs, first to metropolitan sanitary districts in 1855 and later to provincial districts throughout England and Wales in 1872, created a national service of doctors responsible for the health of the community rather than the treatment of individuals. They were employed by local sanitary authorities to monitor health conditions through inspection and report. They were responsible for the removal of nuisances, and implemented the sanitary regulation of overcrowded lodging houses, building standards, the condition of bakeries, dairies and slaughterhouses, etc. From 1889 they enforced prevention of infectious diseases through notification and isolation procedures. By the turn of the century they increasingly supervised expanding local social services such as health visiting. The annual reports of MOHs are a rich historical source of information on the "people's health" during the nineteenth and twentieth centuries. Karl Marx was one of the first to use this material in his analysis of the living conditions of agricultural workers. Modern social and economic historians have used the same materials to analyze the impact of social policy upon Victorian health and the role of state intervention upon local economies. The function of public health officers was structured by Parliament, but the interpretation of policy was governed by professional ideology.

From the time they were universally appointed throughout British sanitary districts in 1872, Medical Officers of Health were a mixed and stratified occupational group. In the metropolitan and large urban provincial districts highly qualified and professionally ambitious doctors became full-time salaried servants of the state and abandoned private clinical practice altogether. Other MOHs worked part-time with more or less of their professional time devoted to preventive rather than clinical medicine depending on their circumstances in their local districts. Others combined a number of appointments in various sanitary districts to make up full-time employment in state service. Yet for others their appointment as an MOH was merely nominal and their professional identity remained entirely within general medical practice. The stratification of medical officers of health led to intra-professional conflicts and a general failure to consolidate their social and economic position with either their employers, the Local Sanitary Authorities, or their political masters, Parliament, and the Local Government Board. Lacking any political force, however, a professionalizing caucus of the occupational group sought to use standards of expertise to enhance their economic security. This strategy did achieve a limited success. Through the influence of their professional

association, The Society of Medical Officers of Health (SMOH), upon the regulation of the Diploma in Public Health the supply of expertly trained and specially qualified officers was limited which enhanced the market monopoly of the group over its own labor power. The failure, however, of the professional caucus to control the aims, goals and practices of the entire group undermined the overall influence of Medical Officers of Health in the political and economic development of the public health system. Despite these limitations, the professional strata of Medical Officers of Health developed an ideology of prevention which significantly influenced the discourses on health care by the turn of the century. It was founded on the professional hegemony of MOHs and their occupational investment in the expansion of the British public health system.

THE PREVENTIVE IDEAL

In 1881 Chadwick addressed the Social Science Association on the relative merits of prevention and cure. He praised the achievements of preventive science and bemoaned its poor standing in the eyes of the medical profession, government, and public at large. He also constructed a definition of prevention in “sanitary” terms, focused on the deaths which had been avoided by the environmental regulation of water pollution, sewage disposal street widening, and all the other modern civil engineering. A decade later the response to such a view amongst the preventive profession was that it characterized an era of disease control that had produced a type of knowledge which, for future progress, must be unlearned. The first British professor of hygiene appointed to the Army Medical School at Netley, Edmund Parkes, noted in his *Manual of Hygiene* that prevention had, in the past, been working with generalized assumptions about the nature of disease causation and had used generalized methods, moving haphazardly in the dark. He believed that the scientific future of prevention lay in the discovery of the specific causes of individual diseases. Without the principle of specificity the science of hygiene was only “working with shadows.”

The historiography of medicine and science has rightly warned against assuming that what looks, with hindsight, to have been a revolution in knowledge was perceived as such at the time. The developments in bacteriology, however, which took place during the 1880s, were embraced by the preventive medicine profession during the ‘90s and used directly in new claims to legitimate authority for what they viewed as their separate

branch of medicine. The discussion concerning infectious disease dominated the journal literature up to 1900 and was overwhelmed by the bacteriological explanation of disease. Most of the journals allocated separate sections of their publications to new bacteriological research from England and the Continent, having the most recent papers translated. All were concerned to encourage the usefulness of bacteriology to public health work, as a diagnostic technique and method of tracing the mode of transmission.

There is a historiographical discussion of the effects of bacteriology on procedures of disease control which suggests that a shift in emphasis took place from the environment to individual as the vector of transmission. The carrier problem in disease did become a new line for preventive action and this was most clearly demonstrated in the development of systems of notification and isolation. In the English case it is not clear, however, that this transition was a simple one. Individual hygiene, or domestic hygiene, was an ancient philosophy of health. In England during the eighteenth century it expanded greatly with proliferation of “advice books.” But there was no great revival of this tradition as the result of bacteriology. The new shift in public health during the Edwardian period began to categorize individuals into “risk populations.” The “sanitary era” had treated the health of an undifferentiated “public.” It possessed a generalized concept of the population as well as a generalized theory of disease propagation. The new target populations of preventive medicine resulted from a new analysis of the disease process based on what Edmund Parkes had termed the “the great principle of specificity.” During the 1890s preventive medicine divided the population into tuberculosis victims; potential sufferers of post-partum puerperal fever; infants at risk from diarrhea; school children vulnerable to diphtheria. This pattern became increasingly pronounced as new concerns developed about the physical deterioration of the nation during the early years of the twentieth century.

The bacteriological revolution had provided preventive medicine with an understanding of disease from what Arthur Newsholme called the “social standpoint.” A new concept of the environment of disease thus lay at the heart of the late-nineteenth-century preventive ideal. By the last decade of the nineteenth century Medical Officers of Health were deeply entrenched in a structure of public policy-making, legislation and administration, which gave them a massive identification with a professional ideology of preventive medicine. The rhetoric of late-Victorian preventive medicine launched its own energetic critique of the deficiencies of earlier sanitarianism. Crude sanitarianism – with its focus upon drains, sewers and nuisances – had failed

to move beyond a partial, myopic understanding of community health; hence it had achieved only piecemeal gains. In the eyes of late-Victorian preventive medicine, responsibility for the scandalous continuation of chronic ill-health amongst the Edwardian poor must be laid at the door of the failure of Parliament to pass more comprehensive legislation, for neither Parliament nor the sanitarians had grasped the relationship between urbanism, poverty and disease. What did this charge entail?

There is no denying, of course, that public health reformers had long acknowledged the reciprocal relationship between poverty and disease. From early Victorian times, public health had developed as one of a variety of social initiatives directed towards solving the problem of poverty. Edwin Chadwick had sought to prevent what he saw as the diseases of “filth” in order to reduce destitution’s burden upon the rates. After Chadwick, John Simon contended that the role of “state medicine” was to ensure that housing was fit for habitation, food was free of adulteration, dangerous trades were regulated, industrial pollution controlled, environmental cleanliness maintained through proper sewage and drainage, and, not least, the spread of epidemic diseases checked through vaccination and quarantine.

Edwardian Medical Officers of Health recognized that poverty was still the main challenge of preventive medicine. James Niven, MOH for Manchester for over forty years and one-time president of the SMOH, pointed out, however, in 1909, that poverty was a complex and protean entity. In one area at one time, there might be high levels of unemployed labor temporarily thrown out of work by the trade cycle. Elsewhere, the poor might mainly comprise orphans, widows and the aged. Other areas might have a large itinerant population. Sometimes the causes lay beyond the control of the individual: old age and chronic illness. Yet alcoholism and deliberate idleness were also to blame, leading to the vagrant lifestyles of the common lodging-house, public house and the brothel.

For Niven, preventive medicine should aim to reduce poverty caused by ill health. Even so, he accepted that there would always be “incurable loafers, incapables, and degenerates.” His remedy was the popular, punitive Edwardian variation on the workhouse theme. Incurable loafers should be sent to “detention colonies [and] labour colonies” Niven approved detention of the feeble-minded in the model colonies set up by Mary Dendy, a member of the Manchester School Board. Her “farms” for the feeble-minded were designed to take them out of the city and provide them with a rural, working life in permanently “secure” institutions. The Victorian “residuum” was thus still

seen as a special problem for Edwardian public health reformers. But they continued to insist that the relationship between poverty and sickness could best be addressed by measures to prevent disease amongst the laboring industrial classes.

Take for instance the many discussions on poverty and tuberculosis staged by the SMOH. John Barlow, 1906 president of the North Western branch of the Society, was staggered at the levels of pulmonary tuberculosis amongst what he termed the “poorer classes and the very poor.” Rejecting the idea of hereditary diathesis, he reminded his colleagues:

when considering a disease of adult life like phthisis, that the very poor are to a great extent a select class, since only those who have been borne with the strongest constitutions will overcome the deadly perils which menace them in their earliest years. ... They are, therefore, the people who, living under better conditions, would not be likely to contract phthisis.

The predisposing conditions favorable to tuberculosis were, he suggested, those most closely connected with poverty; “damp, dark, dirty, and overcrowded rooms and alcoholism” – conditions which inevitably led to its rapid spread throughout families. These same conditions were equally the source of high infant mortality from diarrhea, pneumonia, and perinatal mortality resulting from maternal malnutrition. Poverty, he claimed, also bred bad moral habits such as poor childcare and intemperance. The relationship between poverty and disease, Barlow stated, inevitably involved the Medical Officer of Health in moral and social questions.

The response of Edwardian preventive medicine to the dilemma posed by poverty and disease was to expand its vision of what Simon had identified as the environmental influences upon the “physical conditions of existence.” For example, Simon had urged that the housing of the working classes should be the primary target of public health reform. In the event, however, Victorian legislation to reduce urban slums and overcrowding had been piecemeal and lacking in coherence. Recognition of this provided new stimulus from the 1890s for the formulation of a more holistic understanding of the urban system. New proposals were floated for decentralizing the city, redistributing industry, and taking industrial workers, metaphorically and even literally “back to the land.”

In a significant new alliance, preventive medicine began, from around 1907, to join forces with the aspirations of town planners for housing

reform. Town planners began to contribute to the preventive medical journals, especially *Public Health*, and participate in the annual congresses of the professional preventive medicine community. Thus in 1908, such leading members of the planning movement as Henry Vivian (a Liberal MP who led the national Tenant Co-Partnership movement), Raymond Unwin and Barry Parker (joint architects of the first Garden City, Letchworth) directed the housing debate at an annual congress of the Royal Institute of Health. They argued that overcrowding exacerbated physical degeneration by being a prime agent in the spread of communicable disease. The housing question was thus no longer simply a matter of the sanitary standards of buildings, but had turned into the much wider issue of redistributing a population of potential disease-carriers. Planned regulation of city growth was presented as a means of controlling individual health, in order to prevent the physical deterioration of the community.

Unwin and Parker accused the sanitarian's perspective on housing regulation of being hopelessly blinkered. True, the advent of a sanitary infrastructure had helped to remove major sources of disease propagation, just as building by-laws had ensured a minimum quantity of adequate housing stock. But such sanitary improvement of dwellings had failed to tackle the haphazard growth of towns; no rational distribution of population has been sought. No account had been taken of the historic evolution of a settlement. Such questions had finally been addressed, they suggested, in the pioneering City Survey methodology advocated by Patrick Geddes. The ultimate result of the holistic urbanism which Geddes advocated, they argued, would be "vigorous and happy citizens."

The spokesmen of Edwardian preventive medicine criticized earlier generations of sanitarians for failing to tackle the structural relationship governing urbanism and health. Older campaigns for housing reform needed to be transformed into forward-looking concepts of town planning. In so doing, environmentalist ideologies co-opted the language of degenerationism into arguments for comprehensive, holistic social planning. This could be Lamarckianism in disguise, or perhaps nothing more than environmental determinism. In either case, the emphasis was on regeneration through nurture rather than nature. The fundamental assumption was that overcrowding spread infections and caused chronic weaknesses in each generation, whether or not these were subsequently transmitted genetically. Health levels could be raised only by a holistic approach to environmental development.

In the same way as the Victorian housing debate became broadened into

the Edwardian ideology of urban planning, so concerns with malnutrition also acquired a new focus, a broader program. Simon had suggested that, apart from housing, public health regulation of food standards must be central to securing the physical welfare of the laboring poor. Victorian legislation thus prohibited the sale of substandard and adulterated food and dangerous drugs. Edwardian public health reformers went further. Legislation was passed establishing free school meals and setting up a medical inspection service for school children. The statutory introduction of antenatal care, and stricter regulation of midwifery, was similarly aimed at preventing underfed mothers from producing constitutional weakness in their offspring.

Around the turn of the century, new concern over the process of human reproduction became what Jane Lewis has described as the “politics of motherhood” and what the Fabian Society called the “endowment of motherhood.” Many amongst the public health profession adopted the pro-natalist attitude so prevalent in *belle époque* France. Edmund Smith, MOH for York, argued that both the upper and the lower orders of society must be impressed with “a much higher sense of the duty and sanctity of child-bearing.” He agreed with John F. Sykes, MOH for St. Pancras and president of Society in 1907, that, “If we intend to remain an imperial race, we must restore to its imperial place the dignity of motherhood.” Smith reminded his colleagues of the argument made by Dr. Cooper Pattin at the 1906 National Conference on Infant Mortality that ignorance had to be replaced with “a civic religion that will make the loss of a child something of a social stigma as well as a racial sin.”

Malnutrition was one target of the public health profession’s “endowment of motherhood,” but it also aimed to interfere to break habits of inefficient and unhygienic mothering. Here we see another instance of a Victorian preoccupation – obsession with the vicious habits of the poor – becoming transformed into a novel program of public health education. The introduction of health visiting extended the old “inspection” principle into a mission to instruct the working classes about domestic mismanagement. Yet the emphasis in this educational program was upon *habit* not *heredity*. The bacteriological revolution had broadened an understanding of what constituted the environment of disease. No longer restricted to the physical milieu, it now included the social behavior of individuals. For bacteriology had demonstrated that the greatest agent of disease dissemination was the *human* carrier. Hence the individual could no longer be seen as an isolated health unit; he was rather the bearer of the social relations of health and illness. Just as town planners vested their faith in creating a new civic conscious-

ness, public health reformers believed they could eradicate habits of hygienic inefficiency and forge citizens who would safeguard health. It was no longer enough for individuals to heed their own health, as had been urged by the Enlightenment ideology of individual hygiene; they must be made conscious of the social impact of individual behavior upon the health of the community. Campaigns were thus launched early in the twentieth century by Medical Officers of Health for compulsory education of school children in hygiene, to indoctrinate them in the creed of personal responsibility for community health.

The individual was, thus, sociologically redefined as the bearer of the relations of health and illness. This new perspective validated the Edwardian philosophy of preventive medicine as the panoptic overseer of communal life. In his 1910 report to the Local Government Board, its Medical Officer, Arthur Newsholme, thus emphasized that infant mortality was not a “weeding out” process of eugenic value, but simply represented the “preventable wastage of child life.” The phrase Newsholme chose echoed the calls of William Farr and other nineteenth-century sanitarians for the reduction of preventable mortality. A new philosophy of prevention, Newsholme pointed out, had to be implemented to achieve it.

Techniques of preventing disease within the community had evolved, he claimed, in two stages. The first had involved “a crude idea that local insanitary conditions, irrespective of specific infections, caused epidemic disease.” This was at best, he said, only “a first approximation of the truth,” comparable to the empirical methods employed in traditional clinical medicine. But just as scientific medicine had superseded empiricism, so a new rational concept of prevention had *emerged* from, but also *emancipated* itself from, earlier sanitarianism, as a result of new knowledge of the specific aetiology of diseases. By identifying the origin of specific diseases, it had revealed the interdependence of those social and biological conditions which furthered their propagation. Prevention could at last mount what Newsholme described as a “causal attack” upon disease, thanks to the redefinition of the environment from a “social standpoint.”

Newsholme contended that this new definition of the environment afforded a vision of how the whole range of the “physical, mental, and moral life of mankind may be brought within the range of preventive medicine.” Social efficiency would depend upon a method “which should govern the supervision and control of communal life.” If it were to function as a tool of corporate management of communal life, it followed that preventive medi-

cine must possess a “vision of the whole.” In the evolution of this approach, he emphasized, “the collective have gradually overshadowed the personal.”

Conceived thus as “social efficiency,” preventive medicine became synthesized into a specific policy agenda. From 1905, the Society of Medical Officers of Health joined forces with Sidney and Beatrice Webb in a campaign for establishing a unified health service, to replace the existing fragmented public health and Poor Law medical services. The SMOH was already campaigning for the establishment of a Ministry of Health and a State Medical Service. The Society demanded a unified health service, administered by a Whitehall department, managed by a full-time, tenured staff of specially qualified district Medical Officers of Health. They wanted a new service paid for out of the Exchequer’s purse and not the local rates.

The Royal Commission on the Poor Law, which sat from 1905 to 1909, produced a Majority and a Minority Report, the latter authored by the Webbs. Alongside many other proposals for revising the social services (including labor camps for the unemployed to replace the workhouse), the Minority Report proposed a National Health Service, uniting both clinical and preventive medicine, and financed from central taxation. This service was to be managed by Medical Officers of Health, through an expansion of their existing bureaucracies. It was to be directed by the principles of preventive medicine, interpreted as a philosophy of rational comprehensive planning for the health needs of a community. In formulating this concept, the Webbs were assisted by Arthur Newsholme, and they received the whole-hearted support of the Society of Medical Officers of Health.

Though there were moments when it appeared close to becoming a reality, the unified health service was not endorsed by Asquith’s Liberal government. In fact, health policy took another direction entirely in the National Insurance Act of 1911. This instituted compulsory health insurance for working men. The Poor Law remained intact to deal with their dependents. In the wider arena of Westminster party politics, the goals of comprehensive planning for the social, economic and physical environment of health were only very partially realized before the First World War.

PUBLIC HEALTH AND THE BIRTH OF THE BUREAUCRATIC BRITISH STATE

By the mid-nineteenth century Britain initiated central state control of population health. Continental-wide concerns about industrialization and epidemic

disease stimulated a state interventionist resolution in the British context which was legitimated by a Utilitarian philosophy of scientific management of government. The Utilitarian doctrine of political economy required the free market economy to be maintained by the elimination of waste. The New Poor Law had been designed to enhance competition in the labor market. But, in Edwin Chadwick's view, if competition was less economically efficient than monopoly then the amalgamation of tiny capitals into one ownership under the control of the State should be adopted. The nationalization of water was more economically efficient than private enterprise by this criteria, so too was state control of gas supply, the telegraph system, or London transport systems, cabs and bread shops. In aggregate, the small entrepreneurial operations to supply these services used an excessive amount of equipment and fixed capital than was necessary, by their consolidation huge sums could be saved.

Chadwick believed that bureaucratic intervention would enhance private enterprise by undertaking the supply of services which commercial companies had found impossible to make profitable. He quoted the failure of commercial attempts at colonization while government assisted immigration had been a success. In this way management by the civil service had been shown to far outdo that of private companies. The elimination of waste could be achieved by the application of another of Bentham's famous maxims "to call all the same things by the same names and to do the same things by the same means choosing the best." The means by which this principle could be served was "scientific legislation" in place of what he believed was the corruption of government by vested interests. Democratic representatives who served only public opinion were corrupted by the worst of all evils, according to Chadwick, the desire for "popularity." In his view public opinion was something to be overcome rather than to be obeyed. Scientific legislation meant government by experts rather than democratic representatives who had neither the knowledge nor the rational objectivity to construct the most efficient policies. Because so much labor was involved in the development of any single measure of government the "executive hand must for safety belong to the devising hand."

The defense of the free market economy through bureaucratic administration was most clearly expressed though Chadwick's actions in the Public Health sphere. Here he extended his attempts to prevent pauperization through the reduction of death and sickness from preventable diseases which resulted in destitution and dependency on poor relief. In this way

free competition in the labor market could be maintained and the waste of ratepayers' money on excessive poor relief for sickness, widowhood and orphanage could be prevented. The most direct path to this goal was "scientifically" constructed public policy over and above service to vested interests represented in the polity.

Despite the apparent contradiction between "individual freedom" and "bureaucratic State intervention," Chadwick retained the wholehearted support and admiration of the most noted defender of "liberty" in nineteenth-century English philosophy, his friend John Stuart Mill. The solution to the burden of poverty and epidemic disease upon capital accumulating societies had led the Utilitarian philosophy of political economy from the justification of the free market to the justification of the bureaucratic state.

The systematic management of British health policy entered a professionalized phase with the appointment of John Simon as its chief central government administrator. The professionalization of public health continued with the development of a national service of health officers who sought to establish their status as trained specialists in preventive medicine. Simon had believed that the new collectivist politics emerging in the late-Victorian era marked the most advanced form of civilization. The Edwardian radical and social theorist, L. T. Hobhouse, echoed such a view in his concept of "orthogenic" (progressive) evolution as collectivism. Hobhouse used this concept to justify a vision of sociology which was historical rather than biological. This specifically countered the biologicistic sociology so forcefully promoted from Herbert Spencer to Patrick Geddes. But the preventive health agenda overwhelmingly reflected the intellectual commitments expressed by Hobhouse rather than Geddes. For explanations of ill health, preventive medicine looked to the historico-sociological determinants of social development, above and beyond the biological basis to human existence. Environmentalist public health reformers secured substantial legislative gains yet they failed to achieve the institution of a unified, rational-comprehensive system of health care. They did manage, however, to achieve some comprehensive features within social policy legislation during this period such as Sanatorium Benefit under the National Health Insurance Act of 1911. The Society of Medical Officers of Health viewed the Act itself as a major setback to the progress toward a unified health service. Nevertheless their role in the organization of local health services greatly increased after the First World War but when a unified health service was eventually established in 1946 they had lost all power to determine its structure or secure a leading role in its administration.

The growth of a state apparatus for regulating population health in Victorian Britain demonstrated liberal democracy's need for bureaucratic government. The contradictions of the free-market economy established the limits of liberal individualist philosophy as an organizing principle of *laissez-faire* society. Collectivist intervention into the social relations of health, however, highlighted the tensions between the ideological goals of civil liberty and community benefit. This tension continues to be a central dilemma in the construction of contemporary health policy in modern bureaucratic states.

APPENDIX

MID-NINETEENTH CENTURY PUBLIC HEALTH LEGISLATION

Nuisances Removal And Diseases Prevention Act, 1848; City of London Sewers Act, 1848; Metropolitan Sewers Act, 1848; City of London Sewers Act, 1848; Metropolitan Sewers Act, 1848; Lodging Houses Act, 1850; Common Lodging Houses Act, 1851; Vaccination Act, 1853; General Board of Health Act, 1854; Diseases Prevention Act, 1855; Metropolis Local Management Act, 1855; Nuisances Removal Act, 1855; Local Government Act, 1858; Public Health Acts, 1858 and 1859; Nuisances Removal Act, 1860; Vaccination Act, 1861; Nuisances Removal Act, 1863; Sewage Utilisation Act, 1865; Nuisances Removal Act, 1866; Sanitary Act, 1866; Sewage Utilisation Act, 1867; Sanitary Act, 1868; Local Government Act, 1871; Public Health Act, 1872.

BIBLIOGRAPHY

- Baldry, Peter. *The Battle Against Bacteria: A Fresh Look* (Cambridge, Cambridge University Press, 1976)
- Barrington, Ruth. *Health, Medicine and Politics in Ireland 1900-1970* (Dublin, Institute of Public Administration, 1987)
- Barry, Jonathan and Colin Jones (eds), *Medicine and Charity Before the Welfare State* (London, Routledge, 1991)
- Bulloch, William. *A History of Bacteriology* (Oxford, Oxford University Press, 1938)
- Brockington, Colin Fraser. *A Short History of Public Health* (London, Churchill, 1956)
- Brundage, Anthony. *England's 'Prussian Minister': Edwin Chadwick and the Politics*

- of Government Growth, 1832-1854* (University Park, PA, Penn State University Press, 1988)
- Bryder, Linda. *Below the Magic Mountain* (Oxford, Oxford University Press, 1988)
- Evans, Eric J. (ed.), *Social Policy 1830-1914: Individualism, Collectivism and the Origins of the Welfare State* (London, Routledge and Kegan Paul, 1978)
- Evans, R. J. "Epidemics and Revolutions: Cholera in Nineteenth-Century Europe," *Past and Present*, 120 (1988), 123-146
- , *Death In Hamburg. Society and Politics in the Cholera Years 1830-1910* (Oxford, Clarendon Press, 1987)
- Finer, S. *The Life and Times of Edwin Chadwick* (London, Methuen, 1952)
- , "The Transmission of Benthamite Ideas 1820-50," in Gillian Sutherland (ed.), *Studies in the Growth of Nineteenth Century Government* (London, Routledge and Kegan Paul, 1972), 11-32
- Flinn, M. "Introduction," in Edwin Chadwick, *Report on the Sanitary Condition of the Labouring Classes of Great Britain, 1842* (Reprinted, Edinburgh, Edinburgh University Press, 1965), edited by M. Flinn
- Fraser, Derek. *The Evolution of the British Welfare State. A History of Social Policy Since the Industrial Revolution* (London, Macmillan, 1973)
- Frazer, William. *History of English Public Health 1834-1939* (London, Ballière, Tindall and Cox, 1950)
- , *Duncan of Liverpool. Being an Account of the Work of Dr W. H. Duncan Medical Officer of Health of Liverpool 1847-63* (London, Hamish Hamilton Medical Books, 1947)
- Freedon, Michael. *The New Liberalism: An Ideology of Social Reform* (Oxford, Clarendon Press, 1978)
- Hamlin, Christopher. *A Science of Impurity. Water Analysis in Nineteenth Century Britain* (Bristol, Adam Hilger, 1990)
- , "Predisposing Causes and Public Health in Early Nineteenth Century Medical Thought," *Social History of Medicine*, 5 (1992), 43-70
- Hardy, Anne. "Urban Famine or Urban Crisis? Typhus in the Victorian City," *Medical History*, 32 (1988), 401-425
- , *The Epidemic Streets. Infectious Disease and the Rise of Preventive Medicine 1856-1900* (Oxford, Clarendon Press, 1993)
- Hay, J. R. *The Origins of the Liberal Welfare Reforms 1906-1914* (London, Macmillan, 1975)
- Honigsbaum, F. *Health, Happiness and Security. The Creation of the National Health Service* (Routledge, 1989)
- Hopkins, Donald R. *Princes and Peasants: Smallpox in History* (Chicago, University

of Chicago Press, 1983)

- Kitson Clark, G. "Statesmen in Disguise: Reflections on the History of the Neutrality of the Civil Service," *Historical Journal*, 2 (1959), 19-39
- Lambert, Royston. *Sir John Simon 1816-1904 and English Sanitary Administration* (London, Macgibbon and Kee, 1963)
- Lewis, Jane. *What Price Community Medicine* (Brighton, Harvester, 1986)
- Lewis, R. A. *Edwin Chadwick and the Public Health Movement* (London, Longmans and Green, 1952)
- Lubenow, William C. *The Politics of Government Growth: Early Victorian Attitude Toward State Intervention 1833-1848* (Newton Abbot, David and Charles, 1971)
- Luckin, Bill. "Evaluating The Sanitary Revolution: Typhus and Typhoid in London," in R. Woods and J. Woodward, *Urban Disease and Mortality in 19th Century England* (London, Batsford Academic, 1984), 111-116.
- MacDonagh, Oliver. "The Nineteenth Century Revolution in Government: A Reappraisal," *Historical Journal* 1 (1958), 52-67
- Mchugh, P. *Prostitution and Victorian Social Reform* (London, Croom Helm, 1982)
- McKeown, T. *The Role of Medicine - Dream, Mirage or Nemesis* (London, Nuffield Provincial Trust, 1976)
- , *The Rise of Modern Population* (London, Edward Arnold, 1976)
- Morris, R. J. *Cholera 1832. The Social Response to an Epidemic* (London, Croom Helm, 1976)
- Pelling, M. *Cholera Fever and English Medicine 1825-1865* (Oxford, Oxford University Press, 1978)
- Porter, Dorothy. "Stratification and its Discontents: Professionalization and Conflict in the British Public Health Service," in Elizabeth Fee and Roy Acheson, *The History of Education in Public Health. Health that Mocks the Doctors* Rules (Oxford, Oxford Medical Publications, 1991), 83-113
- and R. Porter, "The Politics of Prevention: Anti-Vaccinationism and Public Health in Nineteenth-Century England," *Medical History*, 32 (1988), 231-252
- and R. Porter, "The Enforcement of Health," in E. Fee and D. Fox, *AIDS: The Burdens of History* (Berkeley, CA., University of *idem*, "How Soon is Now? Public Health and the BMJ," *British Medical Journal*, 301 (1990), 738-740
- , *A Political History of Public Health* (London, Routledge, forthcoming), ch.6 California Press), 96-120
- , "Biologism, Environmentalism and Public Health in Edwardian England," *Victorian Studies*, 34 (1991), 159-178
- Roberts, David. "Jeremy Bentham and the Victorian Administrative State,"

- Victorian Studies*, 2 (1959), 193-110
- , *Paternalism in Early Victorian England* (New Brunswick, N.J., Rutgers University Press, 1979)
- Smith, F. B. *The People's Health 1830-1910* (London, Croom Helm, 1979)
- , *The Retreat of Tuberculosis, 1850-1950* (London, Croom Helm, 1988)
- Walkowitz, J. *Prostitution and Victorian Society: Women, Class and the State* (Cambridge, Cambridge University Press, 1980)
- Webb, R. K. "Thomas Southwood Smith. The Intellectual Sources for Public Services," in Dorothy Porter and Roy Porter (eds), *Doctors and Politics* (Amsterdam, Rodopi, 1994)
- Webster, Charles. *Problems of Health Care, The National Health Service Before 1957* (London, H.M.S.O., 1988)
- Wohl, A. S. *Endangered Lives. Public Health Reform in Victorian Britain* (London, Methuen, 1984)

Chapter Three

Physical Culture and Health Citizenship

FROM THE HYPOCHONDRIACAL TO THE HEALTH OBSESSED SOCIETY: SOMATIC CITIZENSHIP

FROM THE TIME that the physician and iconoclast, Bernard de Mandeville, satirised the rise of hypochondriacal society in 1711 to the time that Jane Austen portrayed it in *Sanditon* in 1817, the eighteenth century invented a culture of sensibility which invited one to be sick to get ahead. At the century's end the Bristol doctor who invented a pneumatic institute, Thomas Beddoes, despised the way in which life in the fast lane in the *fin de siècle* involved flaunting an array of fashionable diseases of civilisation. Two hundred years later, at the end of the twentieth century, fashionable society is obsessed not with disease but with health. Diseased bodies now belong to the socially dysfunctional and economically inadequate. The beautiful people at the cosmopolitan heart of affluent society strive to have low heartbeat rates and toned muscles, abstain from degenerate poisons like tobacco and fill their bodies with "health foods" organically grown, humanely killed and naturally processed without chemical additives. The macrobiotic-muscle-bound revolution has taken off amongst the healthy, wealthy chattering classes. Bran sales are up, cigarettes are sold cheap to the third world, business in the gymnasium is booming and citizens preparing for the twenty-first century are jogging in Central Park because health has become a duty as much as a right of citizenship.

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Health obsessed society did not happen overnight. Health has become a priority for the cosmopolitan citizen of the affluent society over a period of time. This chapter explores twentieth-century strategies for creating healthy populations in two of the most affluent societies in history, Britain and the United States. I start by investigating the various somatic discourses exploited by the state in its campaigns to build healthy citizens. At the beginning of the century, state concerns with health were driven by the goals of building economic strength and military might. These goals stimulated a new interrogation of the effects of social conditions and social behavior upon physical deterioration. They also resulted in a range of social policies to provide personal health services for the most vulnerable in order to alleviate the effects of structural deprivation.

Public policy designed to improve social welfare had numerous other goals besides the construction of health, however. These are not dealt with in this chapter. Instead I focus on a second strategy employed by the state targeted at the procurement of health: health campaigning to influence social behavior and educate citizens into adopting healthy life-styles. The alliance between medicine, social science and public policy in trying to modify social behavior altered the social contract of health between the modern state and its citizens. Moreover, the emphasis between the obligations of the state and the obligations of the individual in democratic societies changed throughout the course of the twentieth century as a number of the goals which had driven early twentieth-century state-health strategies proved to be chimerical. By the end of the century states in post-industrial, affluent societies had modified their aims turning the promotion of the healthy body into a rearguard action to reduce the exponentially increasing costs of redeeming chronically broken bodies in an ever-aging demographic structure.

State-organized health education did not have a monopoly on teaching the twentieth-century body how to shape up. Other architects competed to design a healthy body for the affluent society. A mass health culture has been promoted by voluntary associations and a range of commercial interests from the late nineteenth century which turned the construction of the healthy body into a moral crusade and a vastly profitable industry. Non-state health promotion has employed a variety of cultural discourses which have also changed their rhetorical focus since the beginning of the twentieth century.

In this chapter I focus especially upon the way in which philosophies of diet and exercise, which were developed within the context of education in the nineteenth century, became ethics-for-sale in the twentieth century. The

task of creating a mass health culture was taken up vigorously by private enterprise. John Harvey Kellogg viewed his breakfast cereals not just as a tasty option but as part of a mission to bring sufficient roughage to the diet of the American nation. Industrial capitalism replaced idealized healthy agricultural laborers and the huntin' and fishin' land owners with a sickly urban proletariat, sedentary office workers and neurotically stressed executive-entrepreneurs. It was time to make up for it. The promise: don't go on being a 98 lb, shivering weakling, getting sand kicked in one's face; commercial help was at hand. Charles Atlas and his contemporary Bernarr Macfadden had muscle-building programmes and exercise philosophies to turn the unremarkable into the superman that was really living inside – at a price. From these early beginnings healthy living, eating and exercise became an industrial complex servicing Western society with a new moral code: be well or go to the wall at one's own hand. Unhealth became inexcusable. Strive or take a dive in your social mobility; shape up or ship out of the affluent society.

As Sander Gilman has pointed out, the social construction of health has been historically bound to normative representations of beauty. The healthy body is represented in a culturally defined form – a bodily shape, size, proportion and, sinisterly, skin tone. In the twentieth century, the competition to be healthy and the competition to be beautiful have escalated. The twentieth-century idealized beautiful and healthy body can trace its heritage back to eugenically inspired pre-Second World War movements promoting nude sun-bathing, social hygiene and the production of a blond-haired blue-eyed race. Ironically, however, as I will illustrate later, the contradictions of late twentieth-century health-obsessed culture are reflected in the representation of bodily distortion. Muscle-bound man does not have the perfectly proportioned muscular system of a Vesalius drawing but is an “Incredible Hulk” of testosterone treated flesh. Equally paradoxical, elite health-culture has come to embrace the self-defeating consumption both of health foods, to prevent physiological degeneration, and designer narcotics – either on prescription or from the illegal market – to relieve the stress of modern life. The downside to health obsession and the fetishization of beauty is that gain often does require pain. Business-executives are giving themselves heart attacks on the squash courts and women are dying from silicone leaking from their breast implants. How did procuring health and beauty become such a dangerous pursuit?

This chapter follows the journey of state-medicine and commercial culture, largely within the Anglo-American context, as they succeeded in fe-

tishizing health and commodifying sexuality in the construction of a reified healthy body in the twentieth century. This journey is also a heuristic device for investigating the cultural significance of somatic obsession, asking how our bodies function as tools of social, economic and political differentiation. Most of all, I want to ask, how do elite bodies – whether fashionably diseased at the end of the eighteenth century or fashionably health-obsessed at the end of the twentieth – help to sustain existing ruling orders?

PROCURING HEALTH

Let us begin our journey by discussing the development of a type of medicine which focused on health - as opposed to disease – in the early twentieth century and the way it was employed by the British state to combat the physical deterioration of national stock. The shocking state of recruits for the British Imperial Army as it prepared to fight South African farmers at the turn of the twentieth-century raised a political furore about health. The Interdepartmental Committee set up in 1903 to investigate Physical Deterioration was an expression of a desperate quest to pursue national efficiency through the reduction of ill-health and the prevention of imperial decline. The Committee's report of 1904 prompted the development of new legislation to introduce health inspection in schools along with free school dinners for poor children. The Committee's revelations of widespread malnutrition and ill-health amongst the poor all looked bad for the British public health service who had been charged with bringing about improvement from the late nineteenth century.

Edwardian eugenists blamed the public health service and preventive medicine for committing "race suicide" by saving the weakly and the robust indiscriminately and thereby contravening the Darwinian law of natural selection. Public health specialists hit back by citing insufficient political support for comprehensive health measures which would facilitate not only the prevention of disease but the procurement of national health. In order to justify their argument, leading members of the British public health service expanded their concept of the environment to include the social behavior of individuals and groups in order to influence that behavior for the benefit of obtaining health. Comprehensive health environmentalism, "medicine from the social standpoint," increased the social and political role of medicine in Britain as the state enacted more and more health legislation, eventually culminating in the creation of the National Health Service in 1948.

Making health a priority of a modern lifestyle was a central goal of Arthur Newsholme, England's Chief Medical Officer of the Local Government Board before the First World War. He suggested that a new type of medicine from "the social standpoint" should take over the corporate management of communal life. Newsholme and his contemporaries believed that one way to achieve this goal was by changing social behavior through the education of the ignorant masses, teaching them how to maximise their health status in order to reduce the chances of contracting disease. It was an idea that became institutionalized by the middle of the twentieth century in Britain, Europe and the United States in a new academic discipline called social medicine. Social medicine aimed to replace the public health officer with a new type of general practitioner, a social physician whose primary goal was the prevention of sickness through the management of the socio-biological relations of health. The social physician who practised medicine as a social science would manage health by becoming an advocate, a teacher, educating individuals and society how to maximize health and minimize infections and chronic illness. Proselytizing preventive medicine and health education became the primary focus of the social science of health in the twentieth century.

Managing health by educating individual behavior extended the concept of health as a right of citizenship which was created by the French and American Revolutionaries in the eighteenth century. Thomas Jefferson announced that despotism produced diseased populations and democracy would generate health amongst its free citizens. In 1791 the Constituent Assembly of the French Revolution declared health, along with work, as one of the rights of man. However, if health citizenship was a right, it was also an obligation. As Ludmilla Jordanova has pointed out, the *idéologue*, Constantine Volney, reminded the citizen of the new republic that his body was an economic unit belonging to the community and he had a social-political duty to lead a healthful, temperate existence in order to ensure his value for the commonwealth. Democratic states in the twentieth century have reasserted this feature of the social contract of health by making it an individual responsibility. From the time that the medical profession and policy makers became aware of it, the epidemiological transition from infectious to chronic diseases in twentieth-century affluent societies has dominated public health policy-making.

From the mid-twentieth century social medicine offered the state a new strategy for reducing chronic disease which used public information to persuade individuals to take up prescribed "healthy" life-styles. A vast array of

expertise was employed in state action to prevent chronic disease through public propaganda, most notably epidemiologists and public relations – advertising – agencies. Such an approach was employed in a variety of fields, including the prevention of cardio-vascular disease, digestive disorders and above all the prevention of lung cancer and related diseases from smoking.

Since the Second World War, although smoking has been considered a habit rather than a dependency in the strict psychological definition of addiction, it has been represented as an individual responsibility. The post-war anti-smoking campaign spread the message that the key to the social management of chronic illnesses, such as lung cancer, was individual prevention by raising health consciousness and promoting self-health care. The model of prevention through the education of individuals gathered momentum in the wake of the anti-smoking campaign. Subsequent post-war campaigns offered “life-style methods” for preventing heart disease, various forms of cancer, liver disease, digestive disorders, venereal disease and obesity. Self-screening has been the main strategy employed to prevent breast cancer, which has been the greatest cause of mortality amongst women since the Second World War. Technical and laboratory screening have been reduced in recent years to cut costs.

The anti-smoking campaign began to take on the character of a nineteenth-century campaign to prevent infectious disease once T. Hirayama, in 1981, published the results of a study which demonstrated that non-smoking wives of heavy smokers had a higher risk of contracting lung cancer than the wives of non-smokers. In Britain and the United States campaigns to prevent “passive smoking” attacked the civil liberties of smokers in an attempt to reduce its effects upon the community. State action penalised and stigmatised cigarette smokers as social pariahs, failures and moral inferiors, reprobates and inadequates.

The prevention of substance abuse in Britain and the United States has been represented as a “War” against degenerate behavior. However, the success of the Anglo-American state in its on-going “battles” is mixed. Smoking has been reduced in both national contexts but alcohol consumption remains high. Even the consumption of narcotics appears to be growing despite the heavy international legal sanctions against their production, sale, distribution and consumption. The state has employed punitive actions to prevent smoking, such as banning cigarette advertising from television, placing compulsory health warnings on cigarette-packets and extracting high levels of indirect taxation on the sale of tobacco. But there has been no legal prohibi-

tion of tobacco consumption. In Britain and America the state has not yet risked completely opposing market demand. The last time the state took on consumers by instituting alcohol prohibition in the United States it was defeated. Thus expert administrators seek to reduce the costs of tobacco-related diseases upon the community but the state does not risk challenging the right to consume cigarettes. It is interesting to note that the force of consumer demand, even in the case of narcotics, may possibly reverse existing state policy in the future. Leading advocates for the legalization of narcotics in the United States are represented in both the Republican and the Democratic Parties. The individualistic emphasis of the new social contract of health between the modern state and its citizens allows the right to consume to remain a priority. The obligation to remain healthy continues to be a subordinate value to the right of every citizen in a free-market democracy to be a consumer. The lack of legal prohibition upon the sale of tobacco serves the state's claim that ill health is an individual liberty. Ill health is an individual responsibility that the state interferes with less and less in order to reduce the costs of state-intervention. As a result, those who choose ill-health face the consequences with less and less state assistance. Private health insurance for cigarette smokers has high premiums, but is increasingly necessary because smokers find it harder to be treated by state-provided services. The first heavy smokers who were refused treatment in the British National Health Service made headline news; now such practices are becoming standard.

The mixed messages involved in the prevention of substance abuse, including tobacco consumption, have been reproduced in the health education campaigns that tried to prevent the spread of a new lethal virus which began to appear in the early 1980s, Human Immune-Deficiency Virus. Victims of the disease caused by the virus, AIDS, have suffered legal and social discrimination within popular culture and by official agencies. Even taking an HIV test can result in the subsequent failure to obtain personal insurance. The public knowledge of its acquisition can mean that the individual sufferer fails to continue to gain employment or shelter. Its association with sexual activity has recreated the representations of degeneracy which were made of syphilitics and other venereal disease victims since the fifteenth century. The implication of bodily and spiritual corruption has persisted as a powerful contemporary trope. HIV's association with the consumption of illegal substances has equally resulted in the characterization of disease victims as self-destructive degenerates. Even victims characterized as "innocent," such as children and haemophiliacs, who contracted the disease through heredity

or blood transfusions, experienced as much hostile discrimination as popular sympathy. The political campaigner for gay rights and author, Simon Watney, has argued that AIDS has promoted a cultural eroticisation of the diseased body. Others have suggested that media health campaigns in a variety of national contexts which represented homosexuality as a legitimate sexual preference assisted in emancipating the social status of this group which historically has been relentlessly discriminated against.

From anti-smoking to the control of AIDS the post-war health campaigns have redrawn the parameters of the social contract of health in liberal democracies. Social medicine promoted a new model of prevention which emphasised the responsibility of individuals for their own health behavior. It is a model that utilized medical and social scientific analysis of health and illness to provide education aimed at maximizing the health chances of the individual by the adoption of prescribed lifestyles: in short, the individual managerialism of health.

PHYSICAL CULTURE AND RACIAL SUPREMACY

The creation of a healthy citizenry in the twentieth century has not been limited to government action. Enterprising entrepreneurs in Europe and the United States took up the commercial potential of the commodification of the healthy body. But the commercialization of health utilized moral narratives that had been established by the state and voluntary health education movements. Both states and voluntary/charitable organizations engaged in intellectual discourses surrounding health at the beginning of the twentieth century. These discourses adopted their own moral plot imbued with cultural anxieties about imperial strength and weakness that were linked to beliefs about the biological determinants of social progress and regression. The moral value of biological progress was also vividly expressed in the commercial promotion of physical culture.

The commercial promotion of physical culture in the early twentieth century adopted the mores of an education service to society, mimicking Victorian movements which attempted to establish muscular Christianity through the institution of games and athletics in British and American public schools. Regulated games were coopted into creation of strong character within Thomas Arnold's educational system at Rugby School in the early nineteenth century. Subsequent Victorian teachers, curates and social reformers looked to organized games and sports such as football, cricket and fencing as means

of indoctrinating English upper-class schoolboys into a culture of muscular Christianity wherein Godliness was equated with manliness. Reformers such as Charles Kingsley believed that on the playing fields of Eton, Westminster, Harrow, Charterhouse, etc., the English upper class would be socialized into an authoritarian, disciplined social order which would prepare them for their role as rulers of an imperial nation. In America the development of physical education in schools was heavily influenced by the British example, but in the United States, continental European gymnastics were also taken up. Before the Civil War the Swedish system of gymnastics founded by Henrik Peter Ling had been popularized as a method of indoor training especially appropriate for women. The German gymnastic system of *Turnen* was imported into the United States along with the expansion of German immigration after the Civil War. Both the German and Swedish gymnastic and athletic systems which were promoted by nineteenth-century physical-education reformers were successfully exploited for commercial gain by enterprising entrepreneurs at the beginning of the twentieth century. The commercialisation of exercise was represented as also servicing health-educational reform which would bring about as much moral as physical improvement amongst increasingly degenerate populations corrupted by civilization.

One of the many spectacular attractions at the World Trade Fair in 1893 was Eugene Sandow's displays of physical strength. Sandow had become an international showman through his world tours of demonstrations of extraordinary physical feats. He represented the new distinctive American Herculean body which demonstrated its physical superiority the following year at the first Olympiad staged in Athens. By the time of the second Olympic Games held at St Louis in 1904, the identification of American physical with economic and industrial strength had been reinforced from the very top of the political structure when President Teddy Roosevelt popularized his "strenuous life" philosophy for invigorating the nation. Roosevelt, a folk hero of the sporting life, created the idea that a somatic map of national progress was to be found in the vigor of the new American male. The Olympian examples of American muscle and brawn began to redefine the image of the well-developed male body. The American sportsmen who triumphed in the first Olympiads were athletes of bulk after the Sandow fashion and contrasted sharply with the sinewy athletic sportsmen of the playing field in the early Victorian era. The image of the svelte Greek athlete which had characterized the somatic ideal from antiquity through the Renaissance up to the early nineteenth century was challenged by this late nineteenth-century

representation of muscular mass and power.

Sandow was a strongman in the tradition of the fun-fair freak, but he created an extravagantly successful health enterprise between 1890-97. After he settled in England in 1897, he began to commercialize his system of physical training through the establishment of an Institute of Physical Culture. He founded *Sandow's Magazine* in 1899 and published numerous volumes which he considered to be textbooks for a new lifestyle. In large tomes such as *Strength and How to Obtain it* (1899) and *Life is Movement* (1919), Sandow represented himself primarily as an educator and saviour-by-example of the deteriorating stock of the industrial nations. He advocated the elimination of disease through muscle-building. He aspired to play a direct political role in the development of physical education in schools in England, lobbying George Newman at the Education Department, and giving evidence to the Interdepartmental Committee on Physical Deterioration so as to have the 1907 Education Act advocate his system of physical training. But he was outflanked; by then the Ling method of gymnastic training had powerful advocates amongst female teachers in women's physical training colleges and high schools, and amongst army drill sergeants who had been sent to study the value of the Swedish system for military training. Sandow nevertheless continued to proselytise the importance of muscular development for the prevention of disease and physical deterioration. As he explained in *Life is Movement*, muscles could make a disease-proof body through the invigoration of what he called the "Alpha of life," the living cell.

Through the cell we can reach, cultivate, train, develop and reconstruct every part and organ of the human body and every cell of the body is dependent on, kept alive and maintained in health and power by the movement of the voluntary muscles. ... *To keep all these cells in perfectly balanced strength is the true secret of health, vitality and resistant power to disease...* This I contend we can only do by the balanced physical movement of the voluntary muscles.

Civilization had created an artificial sedentary human existence which was responsible for the creation of disease. The only way to redeem human health was by counteracting this process with vigorous exercise that would build muscular strength.

Sandow was not alone in his avocation of muscle-building for the prevention of disease and the acquisition of perfect health. An even more adept

entrepreneur emerged from the United States in the self-styled professor of “kinesitherapy,” Bernarr Macfadden. Macfadden, the son of an alcoholic father and tubercular mother in the Midwest became one of the most notorious entrepreneurial crusaders for fitness, clean living and sexual efficiency of the early twentieth century. According to his biographers it was his attendance at the Chicago World Fair in 1893 that convinced him of his mission to develop and spread the gospel of physical culture. He emulated the muscle-building program of Sandow but commercialized his own system with enormous financial success. A brilliant self-publicist he advertised his philosophical brand of physical culture through his own magazine, *Physical Culture*, which he founded in 1899. He began his own “healthatoriums,” founded the first physical culture competitions in the late 1890s, and published many volumes on physical training, eating for fitness and, above all, on how to achieve sexual efficiency. In this Macfadden allied himself with the Progressivist philosophy of health, fitness and the war against prudery as the basis for building a revitalized society. The abolition of the wall of silence on sexuality and the encouragement of sexually fulfilling marriage to produce healthy offspring were the linchpins of Macfadden’s physical culture philosophy. Building physical strength and beauty was the route to achieving what he referred to as the “well-sexed” woman and man who would, through their uninhibited and loving union in marriage, produce the children on which the nation could build its future. Macfadden was a eugenic advocate of national racism, supported immigration restriction, and promoted Nordic superiority.

But his radical, almost reckless, commercial exploitation of his own brand of physical culture reform broke with and offended convention. His advertisements of the ideal feminine physique and sexuality got the offices of his New York publishing company raided by Anthony Comstock and the Society for the Suppression of Vice in 1905. Comstock confiscated posters which advertised the “Mammoth Physical culture Exhibition” to be held at Madison Square Garden that year which depicted the winners of physique competitions dressed in union-suits and leopard-skin loin cloths. Later publications on health, beauty and sexual advice for women which displayed images of bare breasts were also prosecuted for obscenity. The mixture of exercise and dietary pedagogy and visual erotica, however, made Macfadden a fortune. The distribution of *Physical Culture* escalated to over 100,000 within its first year of publication. He combined this with the invention of gadgets and gimmicks for physical training, dieting and weight-gain to achieve a highly profitable commercial enterprise. In the process Macfadden

contributed to revolutionizing the social profile of the female form from the fainting, corseted, distortedly wasp-waisted Victorian beauty to the robust, fully-figured, fit physical culture girl of the twentieth century. The robust Rubenesque was physically enhanced in order to fulfil her primary – and supremely significant – social biological role of healthy motherhood. Virulently opposed to allopathic medicine, Macfadden sold an encyclopaedia of self-help health advice for achieving virile manhood and supreme motherhood which a nation could build its future upon, even if he had to break the obscenity laws to do so.

Before the Second World War the promotion of muscular strength, physical fitness, dietary and sexual reform remained linked in physical culture philosophies. This philosophy of somatic reform was exploited by voluntary associations and groups interested in alternative healing, dress-reform, nudism, sun-bathing, hiking, mountain climbing, etc. Various physical culture reformers all embraced this agenda emphasising their own particular programmes such as Mary Wood-Allen's concern with fiber consumption, Horace Fletcher's obsession with mastication and advocates of what James Whorton has described as "Muscular Vegetarianism." The commercial exploitation of erotica was also legitimated within the language of progressive sexual reform and health commodification was justified as an educative necessity for the prevention of disease, race survival and nationbuilding.

National and personal health was bound within physical culture patriotism in the years before the Second World War. In Britain and America the world of commerce no less than the dictates of the state told the man in the street that it was his duty to make sure that the Anglo-Saxon, English-speaking nations did not become or remain 98 lb weaklings. The self-styled "Founder of the Fastest Health Strength and Physique Building System," Charles Atlas, goaded his potential clientele into taking up his "dynamic-tension" system of muscle-building by shaming them for only being "half-alive," flat-chested and enfeebled, unable to deliver a "knockout defence" when insulted. The rhetoric of his advertising campaigns echoed the concerns of the physical culture movement with race-suicide and fears of imperial decline. Physical culture movements in Britain and the United States had, however, strong competitors for creating Charles Atlas's "lion in the jungle" who made "every other animal sit up and take notice as soon as he lets out a roar." Physical culture movements in continental Europe equally appealed to the identity between the vigorously health body of the individual and the vigorous strength of the nation. The most resounding expression of the equation

between bodily and national-racial strength was voiced in pre-war Germany. In this respect the healthy-body became reified into a metonymical trope for the international culture of racial and national competition before the Second World War.

THE FETISHISM OF COMMODITIES AND THE REIFICATION OF THE FIT BODY

Commercialized physical culture expanded slowly after the Second World War up to the late 1970s and then made an exponential leap. As organized sports and competitive games became an ever-greater mass-spectator form of leisure, so the culture of getting fit took off in the 1980s. Sports clothes manufacturers expanded their markets to provide casual attire that provided both comfort and an athletic fashion. The fashionability of track suits and running shoes reached murderous proportions in the 1990s when American teenagers occasionally killed each other in order to steal a pair of Nike pumps from their peers. A commercialized fitness culture made athleticism fashionable creating entrepreneurial opportunities by popularizing new leisure activities such as jogging and weight-training. But the “fitness culture” built upon the body-building cults of the pre-war era established new images of the ideal bodily shape and appearance.

The representation of racial supremacy through muscular strength and physical fitness declined in post-war cults of the healthy body but the links between fitness-building and lifestyle reform persisted. Like Sandow, Jo Weider, the entrepreneurial giant who created body-building as a professional sport in the post-war period promoted his system of muscle-building as a mission to create a new lifestyle. The Weider international commercial empire now dominates the market in bodybuilding, gym, sportswear and equipment, food supplements and vitamin products, and produces its own library of magazines and training manuals. The empire also controls the international professional competitions which include the “Mr Olympia,” “Ms Olympia” and the new “Ms Fitness” titles. When describing his magazine, *Muscle and Fitness*, Weider suggested that, “I think of *MUSCLE AND FITNESS* as more than a magazine. I think of it as a textbook – a textbook about the Weider Bodybuilding Lifestyle.”

Parts of his mission echo some of the themes of an earlier era, such as Macfadden’s insistence that building muscular strength was the cure for impotence. Macfadden, Kellogg and Atlas had all suggested that what the world

needed was “virile men,” “Real Men” and “he-men,” and suggested how their own particular brand of fitness fetishism would achieve it. In the 1980s Armand Tanny – a one-time Mr USA – wrote in Weider’s magazine about counteracting the effects modern lifestyles (including the gender revolution) on male potency.

Men are particularly apprehensive when it comes to sex ... Inhibited sexual desire may result from marital problems, a deteriorating relationship, depression, stress, major life changes and the sexual revolution ... [because] new female freedom in the sexual revolution has created pressures that have caused some males to retreat from sex.

Tanny, like his predecessor Macfadden, brought the reassuring message to his reader that the situation could be rectified through bodybuilding – especially with your partner. But unlike Macfadden or Sandow, who were restricted to vague references about the effects of movement on cellular metabolism, Tanny was able to incorporate bits of the modern science of endocrinology into his discussion.

Bodybuilding like many forms of vigorous exercise, is an aphrodisiac. Certainly the lean shapely muscular look of the bodybuilder’s body is a psychological turn-on. But there is more to it than that. At the physiological level, scientists have found that vigorous exercise stimulates the production of the hormone responsible for the sex drive in both men and women testosterone. ... When you are bodybuilding at an optimum level of exertion, you are likely to have the most testosterone at your disposal for both exercise and sex.

As a modern competitive bodybuilder, Tanny would have known, because endocrinology became central to the construction of the muscularly extraordinary. Ever since Soviet weightlifters, such as Vasily Stepanov, began using anabolic steroids to build strength in the early 1950s testosterone has been a crucial weapon in the cold war in hard flesh.

The physiological consequences of taking testosterone are not yet fully known. Apart from distorting normal human muscle proportions, the short term effects have a number of pathological results ranging from acne to liver damage. The aim of the contemporary bodybuilding cult is not, however, to produce the perfectly healthy human form or even a human form at all. The criterion for achieving the most highly prized body-building title, Mr Olympia, is body-bulk which is also “cut.” The recurring 1990s title holder,

Dorian Yates, is the perfect example of the body-building ideal weighing in at over 250 lbs with a body-fat ratio of 2%. A qualified doctor, Yates presumably has worked out how to keep the human body functioning on such an abnormally imbalanced proportion of lean to fat tissue. Arnold Schwarzenegger, who won the Mr Olympia title several times in the 1980s, would not even come close to achieving it by more recent standards.

The goals of body-building have changed since Schwarzenegger's day taking on a new post-modernist, "post-human," tonality. As illustrated by one of the most popular bodybuilding magazines, *Ironman*, the desire of the contemporary competitive-bodybuilder is to look "alien" – or in the lingo of the locker-room, to look "freaky." As T.C. Louoma, writing in the first edition of the British publication of *Ironman* in 1992 highlights, the competition between bodybuilders is to look "out of this world." Louoma tells us that:

On a recent episode of "Star Trek, The Next Generation" Warf the Klingon had to have back surgery. When the cameras zoomed in on his weird, reptilian-looking back, however, I was disappointed. Oh, Warf's back had its share of bumps, lumps and bony protuberances, all right, but it looked a lot less alien than, say, Lee Haney's or Vince Taylor's back. ... Of all the hypertrophied bodyparts on a bodybuilder's physique, it is, perhaps, the back that looks the freakiest, the most alien. ... It's tough to acquire that freaky look from the rear because this bodypart is just plain hard to work.

It is perhaps ironic that the contemporary bodybuilding cult which could trace its heritage back to the role of the "freak" strongman in the nineteenth-century fun fair chooses to revive this particular Victorian value. The success of *Ironman* depends, as its British editor and publisher Dave McNerney points out, upon its ability to deliver the freakiest show in town. McNerney recalls the moment he decided to take on the British publication of *Ironman* which had been published in the United States since 1936.

The day after the British Grand Prix, John Balik [one of *Ironman*'s photographers] took a train from Nottingham to Birmingham to meet up with me, prior to his departure back to LA sitting alongside John on the train were a group of bodybuilders, all with their noses stuck in one bodybuilding magazine. That magazine was *Ironman*. When John asked them what they liked about the mag, they echoed the opinions that both John and myself had about the attraction of the magazine. They loved the large, often freaky

images and the hard-core training articles. They had only one complaint: namely that they had difficulty obtaining it at newsstands in the U.K. John informed them, to their delight, that soon all that would be changing; and how right he was!

The alien look of professional bodybuilders cannot be achieved without the illegal use of growth hormones. The use of male sex hormones in building bodies that look like tower blocks expresses the contradictions of contemporary somatic obsession in bodily distortion. This contradiction results from the way in which the fetishisation of health has become a commodification of the erotic body in late-twentieth-century culture. The relationship between health and human reproduction has been a persistent and central theme of the social construction of the healthy body expressed most vividly in a discourse of soft pornographic erotica. Prior to the Second World War the physical culture movement recruited erotica into the race for national-racial supremacy. In the post-war period the eroticisation of health has become an objective in its own right. One of the central goals of the healthy body was, from the beginning of the twentieth century, to become sexually attractive and supremely reproductively efficient. In the late twentieth century the sexually desirable body *defines* elite health status.

The bodybuilding cult begat an offspring in the 1980s which has secured a massively larger market. "Fitness Training" is a muscle-toning and aerobic exercise system which is not just the preoccupation of the alienated who want to look like aliens. Its goal is the construction of a designer body whose defining characteristic is sexual desirability. The world of Fitness Training has its own commercialized regimen and dietetics, literature and specialized knowledge for sale to all who wish to turn their dreams of looking like a "Hollywood Babe" or "Himbo" into a reality. Magazines such as *Fit Body* advertise a commercially driven culture which is bringing the fashionable elite into the expensive health club dressed in their designer kits in order to acquire a designer-desirable body. The designer-desirable body is not constructed through anabolic steroids and does not aim to build bulk. By contrast its goal is the reduction of fat and the construction of "shape" and the way to achieve it is through work – working out in the gym, in the aerobic class, the swimming-pool club, the squash court etc. The designer body aims for toned muscles which have a clear definition. The desirable body of the late twentieth century is a designer commodity, which can be purchased by those with sufficient resources by employing a personal nutritionist, a personal trainer, an aromatherapeutic masseur and the best plastic surgeon in

town. It is also a moral achievement because you have to purchase it with your own labour. You have to work and workout to achieve the sensual ideal.

The defining characteristic of the designer body is sexual attractiveness. This is the official criterion on which the recently established “Ms Fitness” competitions are judged. And while its social construction is commercially driven, the designer body obeys all the laws of health that are promoted by medical and state health education. Acquiring the designer body requires low-fat, organically purified dietary regimes, strictly controlled vigorous exercise plans, extremely temperate designer-drug abuse – of alcohol, cocaine, dope, etc. – safe tanning and safe sex. It is disease-free and socially emancipating. “Feminist” articles in fitness magazines tell their readers that the first step for women wishing to take control over their female destiny begins with learning to become physically powerful and stretching their physical endurance. Thus, the fetishisation of health has become inherently bound to the reification of sexuality in the designer body commodity which is desirable but not desiring. It is an ultimately narcissistic expression.

The designer body also bears the social and economic relations of power. A range of social and economic groups including a high proportion of working class men and women pursues competitive bodybuilding. The gay community is also strongly represented within the bodybuilding world. But distorted structures of the bodybuilt-body represent the contradictions of a subculture of somatic obsession. By contrast, the designer-toned body idealized by the leisure, fitness and entertainment industry is one of the new qualifications for membership to the cosmopolitan social and economic elite and you have to at least strive to achieve it even to apply. Elite social and status in late twentieth-century society requires one’s body, one’s economic activity and one’s lifestyle to be sexually attractive. For example, merchant banking has been one of the worlds most boring occupations for centuries but its elite economic power is now reaffirmed in the capacity it gives to its practitioners for purchasing sexy tropes such as a Porsche, a mews in Chelsea or Manhattan, Chanel suits and membership to the most expensive health club in proximity to the financial trading centre. The latter is essential, because amongst other things crucial business deals are frequently negotiated on the squash court or in the bar afterwards. However, while your life-style and body has to be sexy in order to qualify for cosmopolitan elite social and economic status, then your sex-life may be a complete contradiction of appearances. Therein lies the reification of sexuality from sexual activity; i.e. the fetishisation of sexuality in a commodity – the designer body.

The designer form of the healthy body is a social map of economic power in late twentieth-century society. It serves as a moral instruction to the powerless masses and economically disadvantaged because it carries the same message which is forcefully promoted by the state promotion of health. The message of both the state and the commercial health-promotion industries is that achieving health, beauty and desirability is one's own responsibility *and* a healthy citizen's social duty. The economic elite and their political servants insist that society can or will no longer pay to provide health for all. With ever larger numbers of longer-living unproductive proportions of the population the modern state is redrawing the boundaries of its obligations to provide health as a right of citizenship especially to the most economically vulnerable. "Be well or go to the wall" is relentlessly communicated through the political scaling down of public health care and service provision. It is a message which is reinforced by the moral disgust which is bestowed upon the diseased, broken, abused, self-indulged, or neglected body. A survey quoted in the British *Independent* newspaper showed that 90 percent of a sample of women selected in the United States count a previous rape conviction in a prospective partner as being less unattractive than obesity.

Striving for health and perfect bodily desirability seems destined to be a moral qualification for elite citizenship in the affluent society of the twenty-first century. The commodified healthy body is a somatic trope of economic and political power in post-industrial society. It is a model representation of what Karl Marx identified as the personal and social alienation induced by the fetishism of commodities in a capitalist economic order.

FURTHER READING

- Berryman, Jack, W., and Park, Roberta, J. (eds), *Sport and Exercise Science. Essays in the History of Sports Medicine* (Urbana and Chicago: University of Illinois Press, 1992).
- Chapman, David, L., *Sandow the Magnificent* (Urbana and Chicago: University of Illinois Press, 1994).
- Department of Health and Social Security, *Prevention and Health: Everybody's Business* (London: H.M.S.O., 1976).
- Goodman, J., *Tobacco in History. The Cultures of Dependence* (London: Routledge, 1993).

- Haley, Bruce, *The Healthy Body in Victorian Culture* (Cambridge, Mass.:Harvard University Press, 1978).
- Lock, Stephen and E. M. Tansey (eds), *Ashes to Ashes. A Wellcome Symposium on the History of Tobacco-smoking* (Amsterdam and Atlanta: Rodopi, 1997, forthcoming).
- McIntosh, Peter, C., *Physical Education in England Since 1800* (London: Bell, 1981).
- Mangan, J. A., *Athleticism in the Victorian and Edwardian Public School. The Emergence and consolidation of an Educational Ideology* (Cambridge: Cambridge University Press, 1981).
- Means, Richard, K. *A History of Health Education in the United States* (London: Henry Kimpton, 1962).
- Porter, Dorothy, "Social Medicine and the New Society: Medicine and Scientific Humanism in Mid-Twentieth Century Britain," *Journal of Historical Sociology*, 9 (1996), 168-187.
- Ryle, John A., *Changing Disciplines* (Reprinted New Brunswick: Transaction Publishers, 1994. 1st edition Oxford: Oxford University Press, 1948).
- Smith, David, W., *Stretching Their Bodies. The History of Physical Education* (London and Vancouver: Newton Abbot, 1974).
- Todd, Jan, "Bernarr Macfadden: Reformer of the Feminine Form," *Journal of Sport History*, 14 (1987), 61-75.
- Walvin, James, *Leisure and Society, 1830-1950* (London: Longman, 1978).
- Whorton, James, C., *Crusaders for Fitness. The History of American Health Reformers* (Princeton: Princeton University Press, 1982).

Chapter Four

What Was Social Medicine?

An Historiographic Essay

IN AN ARTICLE on social values and the development of medical thought, George Rosen, doyen of American historians of social medicine, provided some excellent prescriptions:¹

Historical facts do not stand isolated in time or space. A realistic consideration of history shows us time movements in human affairs. Contradictions appear in human society; clashing interests, ideas and institutions struggle for supremacy. Thesis and antithesis meet with resulting reconciliation expressing itself in a synthesis providing further conditions for future development. Causality in society is therefore dialectical.

Nowhere is this view better illustrated than in the history of social medicine. The very term “social medicine” originated with Jules Guérin (1801-1886), the editor of the *Gazette Médicale de Paris*, and it has been used in many different contexts since.² Throughout its history, however, it has always been deployed both normatively and descriptively. In the 1930s, ‘40s and ‘50s, a group of historians produced analyses and contemporary accounts of social medicine, carrying the implicit polemical argument that it could be a panacea for the ills both of society and of medicine. Rosen was a key member of this group; yet, paradoxically, he ignored his own prescriptions for history-writing when he came to deal with social medicine itself, failing to examine the dialectical aspects of institutional struggles and clashing interests. Here we aim to examine certain aspects of the assumptions of the circle

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that included Rosen, and to compare their reconstructions with the actual development of the language of social medicine in Germany and England.³

Numerous terms have been used to express the social relations of health and disease: social medicine, social hygiene, preventive medicine, state medicine, sanitary engineering and public health, to name but a few. The very proliferation of terms indicates that more than one set of ideas and object of inquiry have been involved. A cursory glance at the work of its advocates from the 1930s and '40s highlights the different meanings the term had acquired. René Sand, the Belgian historian, wrote in his *Vers la médecine sociale* that social medicine and medical sociology were interchangeable;⁴ John Alfred Ryle, the first professor of social medicine at Oxford, grounded his definition in a concept of pathology;⁵ for its part the editorial board of the *British Journal of Social Medicine*, founded in 1947, saw it as the application of demographical analysis to the construction of preventive programs targeted against particular disease conditions and populations at high risk;⁶ while Henry Sigerist, professor of the history of medicine at Johns Hopkins from 1932 to 1947, remained outside this mainstream of ideas, and always saw the crucial issue as that of the political struggle for state-funded free medicine.⁷

Sand offered a composite history of a multiplicity of processes leading to “social medicine.” He believed this was a mixture of the medical and social sciences, and their application to the health aspects of populations and social organizations. Social medicine, thought Sand, was the historical outcome of the theories and practices of personal, public and social hygiene, linked to the rise of occupational medicine, social insurance, the development of hospitals and the progressive expansion of the biological and sociological sciences. His history of individual hygiene from antiquity to the present examined the practice of individual regimen, exercise, diet and education. Sand perceived a clear distinction between public hygiene and social hygiene. The former meant the construction of a sanitary urban environment – indeed, was the science of urbanism itself – whereas social hygiene incorporated both individual and public hygiene but extended their horizons.⁸ Social hygiene made use of medical theories of disease and notions of prevention. But these were the traditional bounds of preventive medicine; social medicine went beyond to include analysis of the social roots of morbidity from all diseases.⁹

In England, John Alfred Ryle spelt out in *Changing Disciplines* his own definition, by drawing the contrast between social medicine and public health. The latter was essentially an environmentalist philosophy of the origin and

prevention of communicable disease; social medicine by contrast unified preventive and remedial services to encompass all chronic and occupational diseases and the whole question of hospital practice. It thus superseded what Ryle called “the old public health.” The discipline on which social medicine was founded – social pathology – was the natural successor to epidemiology.¹⁰

For Ryle the methodology of social medicine was derived from clinical practice. “Statistics” provided the “social post mortem” and defined the meaning of “normal” in the measurement of health. This method would provide the basis for both direct and long-term planning to produce a balanced healthy population. Ryle of course wrote *Changing Disciplines* when there was still great concern with the declining birth rate.¹¹ His concept of planning was based on the identification of social disadvantage; measuring this would offer a basis for predictions of undesirable consequences. These could be prevented by a variety of social actions including a national food and housing policy, social security legislation and “last but not least, a national education policy in which education for health – physical, mental and moral – should come to play a far more significant part.”¹² Ryle believed that any further “desirable” change “namely an appreciably higher birth rate of genetically favored children and a lower birth rate of genetically ill-favored” was too ambitious, and that “eugenic education” was unlikely to succeed.¹³ Instead, a well-balanced population could be achieved through the application of “scientific humanism” to the components of health in both the individual and the social organism.¹⁴

Ryle’s contemporaries shared his confidence in demographic analysis and in social medical planning. The *British Journal of Social and Preventive Medicine*, founded in 1947, published studies of what Ryle termed the “human experiment,” including surveys of populations at risk, of the effects of preventive intervention, and of voluntary physiological testing on human subjects. A collection of essays by authors from both sides of the Atlantic, edited by Iago Galdston, published in the same year as *Changing Disciplines*, similarly reflected the clinical methodology underlying investigation of what they called “the social means to social medicine.”¹⁵ Galdston himself had an entirely modernist conception; looking back in 1981, he claimed that “social medicine” was but forty years old.¹⁶ Rejecting Sand’s notion that the subject was rooted in Antiquity, he argued that “demographic data, industrial hygiene, workmen’s compensation, sickness insurance, social work, etc.” were irrelevant – indeed that “this motley of interests and agitations has nothing to do with Social Medicine.”¹⁷

One major contributor to Galdston's collection was Henry Sigerist; his paper on social security legislation from Bismarck to Beveridge contrasted sharply, however, with the presuppositions of the rest of the volume. For Sigerist wrote of "socialised" medicine, which for him meant socialist medicine. In an earlier version of his essay Sigerist had undertaken a detailed analysis of the Bismarckian era;¹⁸ but in the later book, his paper took on a more polemical cast, concluding with the *Preamble to the Constitution of the World Health Organisation*, which formed part of the *Charter of the United Nations*.¹⁹ Sigerist's autobiography reveals that he had rejected Marxism, but nevertheless felt a lasting admiration for Soviet socialized medicine.²⁰

In private diary reflections in 1947, the ideals which inspired his research and mission as a teacher were still strong. In November 1947, the Rektor of Berlin University offered Sigerist, who had then retired to Switzerland, the chair of the history of medicine and science. Sigerist declined, but mused that:

It would be interesting to lead young people to socialism to pave the way for the complete socialization of medicine with all doctors on salaries, to work closely with the Soviet authorities.²¹

Sigerist's conception of socialized medicine, unlike that of the figures discussed above, was overtly political, a vision of free and coordinated medical and public health services, funded by taxation and executed by salaried personnel, both medical and administrative. Salaried service was crucial for emancipating medicine from the cash-nexus of the *laissez-faire* market economy.²²

Where in this wide range of conceptualizations of social medicine does the work of George Rosen fit? Rosen was clearly as much an advocate as an historian of social medicine. Perhaps it was his enthusiasm for it that led him to drop some of his analytical discrimination when approaching the subject. This is most acutely reflected in his essay on medicine and social criticism, in which (as Milton Roemer, Sigerist's associate, pointed out) Rosen failed to scrutinize his own assumptions of a medical model of social amelioration.²³ Roemer was right to think that Rosen never considered that many of the physicians whom he saw as constituting, thanks to their medical advice, a panel of social critics, were in reality doughty champions of the *status quo*.

Rosen, one may suggest, gave implicit credence to Rudolf Virchow's view that the physician is the natural attorney of the poor.²⁴ Guided by such assumptions, Rosen asked the question "what is social medicine?" and came

up with the answer that it was an historical goal to which many had contributed.²⁵ His account hence tended to conflate heterogeneous theories and practices into one universal tendency – a diversity of impulses better understood as historically distinct. The history presented in Rosen’s survey reproduced both material and assumptions to be found in the work of contemporaries such as Galdston. Rosen’s survey ran especially closely parallel to the work of René Sand. A re-examination of this common ground of the histories of social medicine highlights some of the inconsistencies and omissions of the historiography as a whole. For the history of ideas about social medicine brings to light many competing – often contradictory – systems of belief. If Rosen had been faithful to his own historiographical dicta, he should have asked: “what were the various ideas called social medicine, how were they constructed, by whom, and how and why do they conflict?”

Rosen located the prehistory of social medicine in the eighteenth century amidst the practices of German Cameralists and J. P. Frank.²⁶ Like Sand, he also acknowledged the importance of English ancestors such as John Bellers and Daniel Defoe.²⁷ Surprisingly perhaps he did not include the surveys of John Howard on prisons and the lazzarettos of Europe, or the researches of figures such as Stephen Hales into foul air and ventilation.²⁸

As Jordanova has shown, the idea of medicine as the fundamental science of society is to be found among French medical men of the Revolutionary era.²⁹ Of particular relevance, however, is the work of Rudolf Virchow and his contemporaries such as Salomon Neuman, who viewed medicine not merely as a social science but as a social practice. The founder of cellular pathology and a liberal politician, Virchow constructed what he called a “socio-logical” epidemiology in the course of his study of typhus in Upper Silesia in 1848.³⁰ His polemics against Max von Pettenkofer, his involvement with municipal health in Berlin, and the influence of war, particularly the Franco-Prussian War of 1870, upon the development of his thought have been well documented.³¹ What Rosen neglected, however, and what needs to be stressed, was the integration of his theory of social medicine within his wider political philosophy.

Virchow’s socialism, born out of discontent with his lot (he earned less per month than a railroad labourer) never took a Marxist form; indeed, he rejected communism as “madness.”³² Nevertheless he remained committed to the view that “the poor and the oppressed who carry their burden here below because they are to be richly rewarded in Heaven, should meet with happier conditions on earth and not depend solely on future bliss” – whence

he thought that it was the constitutional right of every citizen to a healthy existence. It followed that medicine must become the enterprise facilitating “the protection of the health of the public.”³³ His model of social medicine was constructed around this political and economic aim, governing his etiological theory of disease no less than his scientific predispositions.

Although he was eventually converted to contagionism and the germ explanation of cholera, Virchow never embraced bacteriology, continuing to believe that disease was multi-causal.³⁴ For example, it was the social rather than the biological causes of diseases which were responsible for the fact it was the poor who were hit hardest by epidemic disease, or the fact that “cretinism” was, like goitre, determined by nutritional and constitutional factors of a geographical nature.³⁵ Thus the minimization of morbidity and mortality could be achieved, Virchow believed, only through socio-economic reforms such as the realization of democracy, free education, national autonomy, communal self-government, and the direct intervention of the state to provide the necessary infrastructure of new roads, improvements in agriculture, and industrial cooperatives.³⁶ Crucial to this was the claim that physicians must play a determining role in the realization of welfare: they should be “the natural attorneys of the poor, and the social question falls to a large extent within their jurisdiction.”³⁷

Subsequent developments in the concepts of the social relations of health and disease in Germany further elevated the role of medicine at the expense of political and economic analysis. After Virchow, theorists of social medicine enthusiastically developed a theme traceable back to Comtean positivism: social pathology.³⁸ In Germany the term hygiene eventually replaced medicine in programs for health provision, carrying with it a significant change in emphasis. Within these German developments, Sand and Rosen both cite two authors in particular as forwarding this change in emphasis. One was Edward Reich. He defined the field of hygiene as:

the totality of those principles, the application of which is intended to maintain individual and social health and mortality, to destroy the causes of disease and to ennoble man physically and morally.³⁹

Reich devised a system to deal with “man as a whole.” It had four categories: moral, social, dietetic and police hygiene. The first dealt with moral acts, the passions, and intellectual, religious and educational life. Social hygiene was the study and regulation of the social activities of populations:

marriage, labor, poverty, charity, and cooperative action. Dietetic hygiene monitored patterns of nutrition, exercise, sleep, reproduction and habitation, while police hygiene was the administration of health laws controlling food adulteration, construction of dwellings and control of epidemics.⁴⁰ The aim of hygiene as a total system was to maintain the well-being of the community through critical examination of the manifestations of social life, tracing these currents to their source and undertaking regulatory and ameliorative work.

Two determinants of this project were the total constitution of the individual and the property relationship. Reich identified the elimination of poverty as the key issue, without which community well-being would remain unobtainable, thus acknowledging the primacy of economic change.⁴¹ Nevertheless he introduced new categories of social behavior (namely, moral and intellectual, religious and educational values) into the scope of medical responsibility. Virchow's physician was already more than just an attorney for the poor; he had become an arbitrator as well, overseeing public morals and culture.

Later, with the rise of eugenics, the morally improving aspects of the hygiene system came to the fore, being clearly expressed in the work of Alfred Grotjahn, the second of Sand and Rosen's pair of pioneers. In a paper published in 1904 in the series of essays on hygiene edited by Theodor Weyl, Grotjahn outlined a degenerationist theory of disease in its social and historical relations.⁴² The extensive field of research opened up by degenerationism in human relations led Grotjahn to abandon the term "social medicine" and to substitute "social hygiene."⁴³ His reason was that the former had become associated in Germany with insurance medicine, and was thus too narrow in scope. In his most important work, *Social Pathology* (1911), Grotjahn described his vision of the approach which social hygiene should make to a wide range of chronic and infectious diseases. He saw degeneration as the basis for the evaluation of disease; it should be the central object of studies in social pathology.⁴⁴ Taken descriptively, hygiene was necessarily linked to a normative science aimed to spread hygienic culture; to that, a program of eugenics was fundamental.⁴⁵ Thus in Grotjahn's work, pathology was substituted for socio-economic analysis, and with it went the replacement of economic welfare by biotechnical engineering as the spearhead of social medicine. Both Rosen and Sand examined the work of Grotjahn but did not draw out the prescriptive values contained in his eugenic reasoning, nor the shift of emphasis from Virchow's economic model to the biological determinist model of social medicine.⁴⁶

In England, economic and biological models of social management in medicine took quite distinctive institutional and intellectual forms. The sanitary movement in Britain had been one plank of a wider program of reform.⁴⁷ In particular, the Benthamite campaign against fever, filth and pauperism, led by Edwin Chadwick and Thomas Southwood Smith, used the coming of cholera as a key propaganda focus in pressing for the utilitarian model of social reform.⁴⁸ Admittedly, the 1848 Public Health Act was a triumph for the ideology of sanitary engineering and legalism. Nevertheless it was soon to be superseded by essentially medical interests. The new dominance of medicine in English public health was signaled by the appointment of John Simon to the General Board of Health in 1854, and later his elevation to the medical department at the Privy Council, created in 1858.⁴⁹

The mid-Victorian period witnessed the development of a philosophy of state medicine best characterized by the ideas of Arthur Rumsey. These amounted to a system of state policing and environmental regulation based on vital statistics and the medical analysis of the determinants of disease.⁵⁰ Some historians have argued that the decline and fall of the centralist ideology of state medicine followed from the continued frustration of the medical department at the Local Government Board established in 1872.⁵¹ In its place the term “preventive medicine” became definitive of the practices associated with health and the state in England during the last quarter of the nineteenth century.⁵²

The two leading figures in the field of public health in this latter period both wrote retrospective histories of their discipline which support Sand’s view; Arthur Newsholme, in his *Evolution of Preventive Medicine*, and George Newman in his Heath Clark Lectures, entitled *The Rise of Preventive Medicine*. Amongst the many sources further documenting this shift to preventive medicine are the views of two leading journals of the 1890s and 1900s, *Public Health* (the journal of the Society of Medical Officers of Health, first published in 1889), and the *Journal of State Medicine*, the official publication of the Royal Institute of Health.⁵³

What dominated the contents of the *Journal of State Medicine* up to 1900 was the control of infectious disease. The environmental features of disease formed the subject of many articles dealing with the management of typhus, smallpox, plague, diphtheria, scarlet fever, water-borne diseases, tuberculosis in animals and man, and the fertile soil which unfit buildings and displaced populations offered for micro-organic contagions. These topics were linked to the administrative procedures of local health departments, and their re-

sponsibilities in controlling epidemics.⁵⁴ Increasingly bacteriology featured in its own right. A regular section, originally entitled “Bacteriological and Hygienic Researches” – it dealt with practical matters rather than laboratory research – became in 1900 “Bacteriological” and “Chemical Notes.” The Notes reported primary research undertaken in Britain, such as the work of Ronald Ross on malaria – indeed Ross himself contributed to the journal.⁵⁵ It also translated European research papers. The value of recent bacteriological research to the work of health officers and sanitary inspectors was stressed.⁵⁶

Before 1904, little was included in the *Journal* on preventive medicine in its relations to diet, child health and welfare, insanity or education, despite the passing of the 1902 Education Act. One of the earliest examples of these topics was a small article by Mary Dendy, a member of the Manchester school board, entitled “On the Care of the Feeble-Minded.” In this she outlined her proposals for placing non-improvable mentally defective children in a form of boarding school for life.⁵⁷ Her adult boarding school came to be known as Mary Dendy’s Farm, its main object being to keep what she termed incurable imbeciles in a moral environment and to prevent them from reproducing.⁵⁸

In 1899 Dendy’s article was the exception. After 1904 such articles became the rule. In 1905 the *Journal* changed its name to the *Journal of Preventive Medicine*, on the grounds that “the Council, in deciding to take this course, were of the opinion that the title now suggested was more in harmony with the objects which the Royal Institute have in view and the nature of the publications published in the Journal.”⁵⁹ A brief glance at the 1905 volume confirms that the character of the publications changed dramatically. Physical deterioration was the inspiration for a new focus upon diet, children, dental care, school hygiene, educational hygiene, feeble-mindedness, senility, and new controls to prevent the spread of venereal disease.⁶⁰ Francis Galton made his first contribution to the *Journal* in 1906, writing on anthropometry in schools;⁶¹ by then, discussion of child welfare dominated the publication, on which contributions were frequently made by members of the Eugenics Education Society, such as Theo B. Hyslop.⁶² As in Germany, biogenetic models of medical prevention began to appear in the *Journal*.

Eugenic arguments concerning racial degeneration and physical deterioration were elaborated by James Barr, professor of clinical medicine at Liverpool University, sometime president of the BMA and of the Eugenics Education Society.⁶³ In his address to the Douglas Congress of the Institute,⁶⁴ Barr elaborated his vision of a social, physical and moral environment totally

planned by the state, based on systems of selective breeding to eliminate such deviant qualities from the race as “acquisitiveness.” The latter he particularly associated with the Jews; it was this racial characteristic which prevented them from otherwise “ruling the world.”⁶⁵ Barr favored positive hereditary planning and moral hygiene. The nation could raise up:

a healthy, strong, sound, vigorous, well-developed, temperate, active, athletic, adventurous, brave, bold, brisk, busy, courageous, chivalrous, daring, defiant, energetic, absolutely fearless, quick, strenuous, animated, attractive, sportive, frolicsome, gallant, gay, jovial, lively, manly, merry, obedient, dextrous, enterprising, intellectual, alert, assiduous, confident, diligent, resolute, reliant, skilful, undaunted, valiant, benevolent, courtly, moral, polite, magnanimous, refined, stately, valorous, virtuous, all the other noble qualifications and last by not least, a religious and God-fearing race.⁶⁶

Barr believed that medical officers of health had done very little to forward these positive goals, since their allegiance to an environmentalist philosophy led them to saving inefficient lives (those unlikely to adapt themselves to the environment).⁶⁷ But in Barr’s scheme, the medical practitioner would play a major role and go much further to “try and improve the efficiency of that wonderfully adaptable organism—the human race.” Barr did not specify to which medical practitioners he was referring. But he slighted not just Medical Officers of Health (MOHs) but also surgeons and consultants for profiteering from what he called the “mania for operations.”⁶⁸

Such sentiments, stressing the key role of medicine in engineering population structure, reveal the Edwardian concern with the national physical stock. The defeats of the British Imperial Army during the Boer War had led to a widespread concern about the physical fitness of the nation. An interdepartmental committee set up to investigate physical deterioration reported in 1904. The Physical Deterioration Report led primarily to the institution of a system of medical inspection in schools and a free school meal service, but its ideological impact was to reinforce the search for “national efficiency.” The National Efficiency movement developed throughout the early 1900s and encompassed a broad cross-section of interests from medics, educationalists, social reformers, philanthropists and politicians.⁶⁹ Eugenics became a popular theme within the concern for National Efficiency. Eugenics was a science of heredity, inspired by degenerationist fears of the inevitable biological decline of the race. The Eugenics Education Society believed in the possibility of

reversing the tide of degeneration through biological engineering.⁷⁰ Implicit social and moral values provided a strong undercurrent to the eugenic ideology, but these were largely abandoned when its biological and statistical methods of analysis of heredity were incorporated in and superseded by the biochemical science of genetics.⁷¹

Barr's eugenicist tones do not represent the views of most of those who were fashioning the concept of preventive medicine. At this time MOHs were often at most mildly enthusiastic about eugenics; some indeed formed its leading opponents. George Newman for example, appointed in 1906 as the first medical officer to the Board of Education, was soon to flirt with eugenicist principles to advocate a totally different set of preventive priorities from Barr's. As Newman saw it, the road to improvement of the "imperial race" was through "one eugenic and one education, for home and individual."⁷² Newman remained committed to improvement through domestic and personal hygiene, focused directly on childhood. School was the best place to measure and control physical development.

There was no eugenicist takeover of the *Journal of Preventive Medicine*. In the same year as Newman's article appeared, Arthur Newsholme published an essay on his version of social efficiency. The contrast was considerable. Newsholme's prescription was more socio-economic than medical, and he based his analysis on "the complex compound" of poverty in relation to physical deterioration.

This led him to consider mothers and children in different ways. For Newsholme, the priority should be the elimination of child labour and of the exploitation of female labor. The limitation of existing systems of prevention was blamed by Newsholme on the "extravagant parsimony" of the Poor Law administration. His answer to the problem of national efficiency was a comprehensive system, bringing housing, employment, premature employment of the young and the control of epidemic disease all under state regulation. He envisaged a unified health service with rational systems of notification, isolation and hospital provision.⁷³ National efficiency was tied to administrative efficiency requiring tenured, salaried and properly trained and qualified health officials working in the system.⁷⁴

Newsholme's article unintentionally anticipated the waning of interest in eugenics in the *Journal of Preventive Medicine*. From about 1909 it enlarged its scope with respect to prevention, from a narrow concern with the domestic arena to include a wider interest in town planning; there was also a revival of traditional environmental issues such as water purification, drain-

age, sewage and refuse disposal. Administrative control of infectious diseases also revived as a topic, thanks to debate on the compulsory notification of tuberculosis, the Report of the Commission on the Poor Law (1909) figured significantly in discussion of poverty and sickness, and in articles discussing the establishment of a ministry of health.⁷⁵

The other significant periodical is *Public Health*, published by the professional association of medical officers of health and orientated towards their occupational interests.⁷⁶ Its basic material throughout its first twenty-five years focused upon the issues facing local public health departments. During the 1890s, *Public Health* agreed with the *Journal of State Medicine* that the most important of these were the control of infectious diseases: specific procedures for specific diseases. There were thus extensive reports on all current bacteriological researches, both in Britain and on the Continent. New domestic technologies – for example the introduction of gas lamps into schools – were often discussed. The remainder of the journal recorded the activities of the Society of Medical Officers of Health and its membership.⁷⁷

One fundamental difference between the content of *Public Health* and that of the *Journal of Preventive Medicine* was that the membership of the Society, in editorials and in individual letters, was vocal in demanding central and local legislation in regard to the health service. The politics of the MOHs were inextricably bound up with those of the health service; and these were powerfully expressed in *Public Health*. Within the Society of Medical Officers of Health there was, however, a leading caucus. Its aim was a unified health service, administered by a Whitehall department with direct authority over its executive officers, to be salaried and tenured. They hoped to eliminate local government control over health departments, and shift the economic burden of the health service from ratepayers to the Exchequer.⁷⁸ In the eyes of MOHs the philosophy of preventive medicine was essentially linked to its implementation and to questions of the structure of the health service.⁷⁹

Issues such as socio-economic corporatism and the planned state guided by expertise increasingly filled the pages of *Public Health* from the 1900s through to the First World War. Comprehensive planning was the watchword for numerous articles dealing with the national provision of sanatoria, open air schools, compulsory notification and isolation of infectious diseases (tuberculosis in particular), a ministry of health, and (in the most expanding area of comprehensive corporatism) town planning.⁸⁰ Amongst these topics, race found little place. Up to 1914, only one editorial appeared on racial factors in disease.⁸¹

One might argue that MOHs were relatively uninterested in race and eugenic planning because these undermined their traditional role. In his presidential address to the Society (published in *Public Health* in 1912), Edward William Hope, the long-standing MOH for Liverpool, expressed the quintessential antagonism between his profession and the eugenics movement:

Today we hear a great deal of eugenics and genetics and the impairment of the race, and the mischief which is wrought by the indiscriminate sanitarian who preserves the lives of weakly and the degenerate⁸²

But Hope dismissed as cranks those who advocated Malthusian arguments about the benefits of epidemics in limiting the population of the unfit. Rather “eugenists would be well advised to leave alone the criticisms upon sanitation,” thinking that instead of selective breeding, the removal of the harmful effects which bad housing had upon the mind and the body would do more for the improvement of the national physical stock.⁸³ Hope’s assertions reiterated the fundamental aims of the work of the MOH, rather as Newsholme had demonstrated them in his Local Government Board Report for 1910.⁸⁴ Infant mortality, he stressed, was not a “weeding out” process of real eugenic value, but simply an environmentally preventable wastage of child life.⁸⁵

In the English context, the term prevention dominated discussion on the social relations of health and disease between about 1890 and 1914. In this historically specific context, a mixture of ideologies operated. As in the development of social medicine in Germany, there was an ideological continuum ranging from primarily economic, to primarily biological analyses. Taking Germany and Britain together, the poles of the axis could be characterized at one end by the philosophy of Virchow, who believed that morbidity and mortality were largely preventable through medical economic welfare: this was a philosophy echoed by Medical Officers of Health such as Newsholme and Hope. At the other end, social medicine became a system of socio-biological planning to be achieved through biotechnical engineering and moral prophylaxis, as advocated by Grotjahn or Barr.

There are certain common threads and denominators within social medicine. One is a particular theory of the state. For Virchow as for Barr, social medicine depended on scientifically informed, technocratically determined actions by the state. This technocratic vision differentiates the ideas of social medicine from theories of socialist medicine in which the vision of the state is

political not technical. The latter looks for the causes of health and sickness in the economic relations of production and the social relations of class, and seeks prevention through changing the political relations of power.

One further key question emerges from this analysis. If this tension exists between social medicine and socialist medicine, if the very notion of social medicine is full of contradictions, why did Rosen, Sand and their contemporaries fail to remark upon it? If Newsholme could identify and oppose the socio-biological model of medical social management, why could not Rosen? Why did Sand record the history of eugenics and its relevance to a medically planned society in such neutral terms, when the whole tenor of his book is highly normative?

In the work of the group discussed above, the racism and other various social prejudices inherent in eugenic socio-biological planning was received in silence. It would be interesting to speculate why. The answer may lie in a failure of the generation that advocated social medicine during the 1940s to be critically self-reflective: in their ready acceptance of the doctor, within the framework of social medicine, as a force for progress. Perhaps, in other words, the reason for silence lay in the technocratic idealism which had inspired the very objects of their inquiry.

NOTES

¹ Rosen 1937: 510.

² See Sand 1948: 573-4; Galdston 1981: 74-8.

³ For discussion of medical languages see Porter 1983, 1987.

⁴ Sand 1948:572.

⁵ Ryle 1949: 55-77.

⁶ Crew and Hogben 1947: 1.

⁷ Sigerist 1938; see also Sigerist 1937.

⁸ Sand 1948: 73-525.

⁹ *ibid*: 227-311.

¹⁰ Ryle 1948: 11-24.

¹¹ For discussion of the preoccupation with the birth rate throughout the inter-war years see Soloway 1982.

¹² Ryle 1948: 100.

¹³ *ibid*: 87.

¹⁴ *ibid*: 101-119.

- ¹⁵ Galdston 1981: 111.
- ¹⁶ *ibid*: 79-79.
- ¹⁷ *ibid*: 79.
- ¹⁸ Sigerist 1943: 365-88.
- ¹⁹ Sigerist 1949: 51-52.
- ²⁰ Sigerist 1966: 107.
- ²¹ Sigerist 1966: 214.
- ²² Sigerist 1960: 49-53; 65-75.
- ²³ Rosen 1941; Roemer 1942.
- ²⁴ R. Virchow, quoted in Rosen 1941: 15.
- ²⁵ Rosen 1947: 674-733.
- ²⁶ Rosen 1974; see also his 1958.
- ²⁷ Rosen 1947: 120-1; Sand 1948: 204-221.
- ²⁸ Howard 1789; Hales 1743.
- ²⁹ Jordanova 1981: 12-30.
- ³⁰ Ackerknecht 1953: 123-37.
- ³¹ Goldman 1936; Schlumberger 1942.
- ³² Schlumberger 1942: 147; Ackerknecht 1953: 166.
- ³³ Schlumberger 1942: 153.
- ³⁴ Ackerknecht 1953: 105-18; Pridan 1964: 275.
- ³⁵ Ackerknecht 1953: 128.
- ³⁶ *ibid*: 125.
- ³⁷ Quoted in Rosen 1941.
- ³⁸ Comte 1875-77. See also Martineau 1853.
- ³⁹ Rosen 1947: 702.
- ⁴⁰ Rosen 1947: 703; Sand 1948: 223.
- ⁴¹ Rosen 1947: 704; Sand 1948: 224.
- ⁴² Tutzke 1979: 25-26.
- ⁴³ *ibid*: 30.
- ⁴⁴ Grotjahn 1915.
- ⁴⁵ Tutzke 1979: 30.
- ⁴⁶ Rosen 1947: 713; Sand 1948: 221-311, 501-11, 530, 581-82. There was a vast output of literature on social hygiene in Germany during the following decades. Its relationship to eugenics nevertheless remains under researched. Current work on the social history of medicine however may fill in this gap in our knowledge. See Weindling 1986.
- ⁴⁷ Shryock 1979: 221-28; Wohl1983: 117-37.
- ⁴⁸ Newsholme 1927; Newman 1932.

- ⁴⁹ Lambert 1963: 221-60.
- ⁵⁰ Rumsey 1856.
- ⁵¹ Macleod 1967: 15-40.
- ⁵² Sand 1948: 557.
- ⁵³ The Royal Institute of Public Health was founded in 1892 by William Robert Smith after the incorporation of the College of State Medicine into the Lister Institute. Smith was the director of the state medical laboratories at King's College London, and was editor of the *Journal of State Medicine* and the *Journal of Preventive Medicine* throughout the period under discussion. See Watkins 1984: 289-91.
- ⁵⁴ *Journal of State Medicine*, 1-8 (1892-1900). For a typical example of the ethos of the journal throughout this period see Thome 1899.
- ⁵⁵ The "Notes" were more or less sub-edited by Smith's colleague at King's College, Richard Tanner Hewlett. For the character of his contributions see for example his report on Ronald Ross's work on malaria (Hewlett 1903).
- ⁵⁶ *Journal of State Medicine* 1903: 85-93, 228-33.
- ⁵⁷ Dendy 1899. Dendy's theme was part of a broader discussion on the definition of feeble-mindedness and how the state should deal with it. An Act was eventually passed by Parliament in 1913 which set up new regulations for dealing with mental defectives in prisons and in the community. For further discussion see Jones 1986; Simmons 1977-8.
- ⁵⁸ Dendy 1899: 806.
- ⁵⁹ *Journal of Preventive Medicine* 1905: 303.
- ⁶⁰ *Journal of Preventive Medicine* 1905-8.
- ⁶¹ Galton 1906: 93-9.
- ⁶² Hyslop 1905; for discussion of Hyslop see Trombley 1981: 209-40.
- ⁶³ James Barr was at Liverpool University 1897-1900. He was also a physician at the Northern Hospital and the Stanley Hospital at Liverpool. He was made medical officer of Kirkdale Gaol and held strong views on prison reform. He was an advocate of a radical eugenics which held that housing improvements and street widening were retrograde policies that helped to preserve the unfit. See Brown 1955, 4: 434-435; *Lancet* (1938), 2, 1261-2.
- ⁶⁴ Barr 1907: 513-34.
- ⁶⁵ Barr 1907: 518.
- ⁶⁶ Barr 1907: 524.
- ⁶⁷ Barr 1907: 521.

- ⁶⁸ Barr 1907: 533.
- ⁶⁹ See Searle 1971; Jones 1986.
- ⁷⁰ Chamberlin and Gilman: 1985.
- ⁷¹ Kevles 1986; Searle 1976.
- ⁷² Newman 100; Dorothy and Roy Porter 1909: 602-11.
- ⁷³ Newsholme 1909: 529-50.
- ⁷⁴ *ibid*: 529:50.
- ⁷⁵ *Journal of Preventive Medicine* 1909-12.
- ⁷⁶ Watkins 1984.
- ⁷⁷ *Public Health* 1889-99.
- ⁷⁸ *Public Health* 1903, 499-503.
- ⁷⁹ For further discussion of the aims of the Society of Medical Officers of Health with regard to preventive medicine and the structure of a national health service see Watkins 1984: 184-243.
- ⁸⁰ *Public Health* 1906-1914.
- ⁸¹ *Public Health* 1911-12: 42.
- ⁸² Hope 1912-13: 40.
- ⁸³ *ibid*: 41.
- ⁸⁴ Newsholme 1910-11: 425.
- ⁸⁵ *ibid*: 425.

BIBLIOGRAPHY

- Ackerknecht, Erwin H. 1953. *Rudolf Virchow, Doctor, Statesman, Anthropologist*. Madison. University of Wisconsin Press.
- Barr, James. 1907. "Preventive Medicine the Medicine of the Future," *Journal of Preventive Medicine*, 15, 513-34.
- Brown, G. F. 1955. *The Lives of the Fellows of the Royal College of Physicians of London*. Munk's Roll. London. Routledge & Kegan Paul, 4 vols.
- Chamberlin, J.E. and Gilman. Sander (eds.) 1985. *Degeneration. The Dark Dark Side of Progress*. New York, Columbia University Press.
- Crew, F.A.E. and Hogben, Lancelot. 1948. "Notice to Contributors," *The British Journal of Social Medicine*, I, I.
- Comte, Auguste. 1875-77. *System of Positive Polity*, 4 Vols, trans. J. H. Bridges, Frederick Harrison: et al London, Longmans and Green.
- Dendy, Mary. 1899. "The Care of the Feeble Minded," *Journal of State Medicine*, 8, 806-11.

- Galdston, Iago. 1981. *Social and Historical Foundations of Modern Medicine*. New York, Brunner. Mazel.
- Galton, Francis. 1906. "Anthropometry at Schools," *Journal of Preventive Medicine*, 14, 93-9.
- Goldman, Leon. 1936. "War and Science - Rudolph Virchow," *Annals of Medical History*, 8, 558-561.
- Grotjahn, Alfred. 1915. *Soziale Pathologie*. Versuch einer Lehre vor den Sozialen Beziehungen der Menschlichen Krankheiten als Grundlage der Sozialen Medizin und der Sozialen Hygiene, zweite Neubearbeitete Auflage, Berlin.
- Hales, Stephen. 1743. *A Description of Ventilators*. London.
- Hewlett, Richard Tanner. 1903. "Recent Studies in Malaria". *The Journal of State Medicine*, 11. 226-8.
- Hope, E.W. 1912-13. "The Expanding Scope of Sanitary Administration," *Public Health*, 26, 31-41.
- Howard, John. 1784. *State of Prisons*. London.
- Howard, John. 1789. *Lazzaratos of Europe*. London.
- Hyslop, Thomas B. 1905. "Brain-Fag in Children," *Journal of Preventive Medicine*, 13, 603-612.
- Jones, Greta. 1986. *Social Hygiene in Twentieth Century Britain*. London, Croom Helm.
- Jordanova, L. 1981. "Policing Public Health in France, 1780-1815," in T. Ogawa, ed, *Public Health*, Tokyo, 12-30.
- Journal of State Medicine*, 1-11 (1892-1903).
- Journal of Preventive Medicine*, 13-20 (1905-1912).
- Kevles, Daniel. 1986. *In the Name of Eugenics. Genetics and the Uses of Human Heredity*. Harmondsworth, Penguin.
- Lambert, Royston. 1963. *Sir John Simon 1816-1904 and English Sanitary Administration*. London, MacGibbon and Kee.
- Macleod, R. M. 1967. "The Frustration of State Medicine, 1880-89," *Medical History*, II, 15-40.
- Martineau, Harriet. 1853. *The Positive Philosophy Of Auguste Comte* (ed. and trans.). London, John Chapman.
- Newman, George. 1909. "Child Mortality in Relation to Health of the State," *Journal of Preventive Medicine*, 18, 602-II.
- Newman, George. 1932. *The Rise of Preventive Medicine*. Oxford, Oxford University Press.
- Newsholme, Arthur. 1927. *Evolution of Preventive Medicine*. London: Bailliere, Tindall and Cox.

- Newsholme, Arthur. 1909. "Some Conditions of Social Efficiency in Relation to Local Public Administration," *Journal of Preventive Medicine*, 17, 529-50.
- Pelling, Margaret. 1978. *Cholera, Fever and English Medicine 1825-1865*. London, Oxford University Press.
- Porter, Roy. 1983. "The Doctor and the Word," *Medical Sociology News*, 9, 21-8.
- Porter, Roy. 1987. "The Language of Quackery," in Peter Burke and Roy Porter (eds.), *The Social History of Language*, 73-103. Cambridge, Cambridge University Press.
- Pridan, David. 1964. "Rudolph Virchow and Social Medicine in Historical Perspective," *Medical History*, 8, 274-8.
- Public Health*, 1-27 (1889-1914).
- Roemer, Milton. 1942. "Medicine and Social Criticism. A comment on George Rosen's Article," *Bulletin of the History of Medicine*, II, 228-234.
- Rosen, George. 1937. "Social Aspects of Jacob Henle's Medical Thought," *Bulletin of the History of Medicine*, 5, 509-537.
- Rosen, George. 1941. "Disease and Social Criticism: A Contribution to Theory of Medical History," *Bulletin of the History of Medicine*, 10, 5-15.
- Rosen, George. 1947. "What is Social Medicine? A Genetic Analysis of the Concept," *Bulletin of the History of Medicine*, 21, 674-733.
- Rosen, George. 1974. *From Medical Police to Social Medicine. Essays on the History of Health Care*. New York, Science History Publications.
- Rosen, George. 1958. *The History of Public Health*. New York, M.D. Publications.
- Rumsey, Henry W. 1856. *Essays on State Medicine*. London, Churchill.
- Ryle, J. A. 1949. "Social Pathology," in Iago Galdston (ed.), *Social Medicine its Derivations and Objectives*, 55-75. New York, The Commonwealth Fund; London, Oxford University Press.
- Ryle, J.A. 1948. *Changing Disciplines*. London, Oxford University Press.
- Sand, Rene. *Vers la Medecine*. Paris, Bailliere.
- Schlumberger, H. G. 1942. "Rudolph Virchow and the Franco-Prussian War," *Annals of Medical History*, 3rd Series, 4, 253-67.
- Schlumberger, H. G. 1942. "Rudolph Virchow- Revolutionist," *Annals of Medical History*, 3rd. Series, 4, 147-153.
- Searle, Geoffrey R. 1971. *The Quest for National Efficiency. A Study in British Politics and Political Thought 1899-1941*. Oxford, Basil Blackwell.
- Searle, Geoffrey R. 1976. *Eugenics and Politics in Britain 1900-1914*. Leyden, Noordhoff International Publishing.
- Shryock, Richard. 1979. *The Development of Modern Medicine; an Interpretation of the Social and Scientific Factors Involved*. Madison. University of Wisconsin Press.

- Sigerist, Henry. 1960. "Socialized Medicine," *The Yale Review* (1938), 463-81, reprinted in Milton Roemer (ed.). *On the Sociology of Medicine*, 39-53. New York, M.D. Publications.
- Sigerist, Henry. 1937. *Socialised Medicine in the Soviet Union*. London. Gollancz.
- Sigerist, Henry. 1943. "From Bismarck to Beveridge. Developments and Trends in Social Security Legislation," *Bulletin of the History of Medicine*, 13, 365-88.
- Sigerist, Henry. 1949. "From Bismarck to Beveridge," in I. Galdston (ed.). *Social Medicine: Its Derivations and Objectives*. New York, The Commonwealth Fund; London, Oxford University Press.
- Sigerist, Henry. 1966. *Autobiographical Writings*. Montreal, McGill University Press.
- Simmons, Harvey G. 1977-78. "Explaining Social Policy: The English Mental Deficiency Act of 1913," *The Journal of Social History*, 11, 387-403.
- Soloway, Richard A. 1982. *Birth Control and the Population Question in England 1877-1930*. Chapel Hill, University of North Carolina Press.
- Thome, Richard. 1899. "The Administrative Control of Tuberculosis," *Journal of State Medicine*, 7, 1-23, 61-81.
- Trombley, Stephen. 1981. *All That Summer She Was Mad.* London, Junction Books.
- Tutzke, Dietrich. 1979. *Alfred Grotjahn*. Leipzig, Teubner Verlagsgesellschaft.
- Watkins, D.E. 1984. "The English Revolution in Social Medicine, 1889-1911." University of London Ph.D. Thesis.
- Watson, Steven March. 1987. "The Prison Medical Officer, The Recurrent Offender and the Moral Imbecile." Unpublished Paper delivered at the Conference on the History of Legal Medicine held at Lancaster University.
- Weindling, Paul. 1986. "Medicine and Modernization in Germany: The Social History of German Health and Medicine," *History of Science*, 24, 277-301.
- Wohl, Anthony. 1983. *Endangered Lives, Public Health in Victorian Britain*. London. Methuen.

Chapter Five

Social Medicine and the New Society: Medicine and Scientific Humanism in Mid-Twentieth-Century Britain

A GREAT DEAL has been written about political radicalism amongst intellectuals between the end of the First and Second World Wars.¹ Studies of artists, poets and writers have explored the relationship between cultural movements such as “modernism” and communism and fascism in the interwar years². By comparison there has been much less discussion of the political worlds inhabited by scientists and physicians in this period. In this context, Gary Werskey’s examination of the *Visible College* was a pacesetting study of a group of leading left-wing British scientists.³ Others have analyzed how some leading American scientists and physicians, such as Walter Cannon, L.J. Henderson, and George Draper, attempted to integrate their scientific radicalism into prescriptive social programs.⁴ This essay examines how a new secular ethic emerged in Britain the interwar years amongst prominent scientific intellectuals that linked scientific rationalism to socialist transformation through the merging of scientism and humanism into a social philosophy. In particular the paper examines the utopian and dystopian implications of this philosophy called scientific humanism that attempted to bridge an intellectual cultural divide in order to create a greater egalitarian society.

The purpose of this analysis is to identify how the intellectual influence of scientific humanism stimulated the conceptualization of a new academic medical discipline in Britain in the 1940s. The original conception of social medicine was built upon a collection of beliefs about the nature of scientific rationalism, medicine and the social order. It was developed by elite intellectuals within the academic British medical profession who identified with diverse social values. The synthesis of ideas that created social medicine, however, was integrated into a specifically socialist philosophy of social reform.

“For the period of the war, science has been mainly applied to the processes of destruction and death,”⁵ wrote John Ryle to his wife Miriam in

1917 when he was on active service in Flanders. He continued,⁶

a part of the great revolution that peace must bring will be the prompt turning of all existing sciences into the opposite direction - of maintaining, preserving and encouraging life. And here medical science especially will have an opportunity of a great renaissance, and all its branches, whether as physiology or public health or any other sister study must find a new inspiration, and must become in the fullest sense *applied* sciences to the great science of humanity.

In 1942 Ryle became the first professor of social medicine in Britain.⁷ In this private communication he expressed the anxieties and hopes which were shared by a generation of scientists and medical men who had experienced the terrible destruction of “total war” in which science had facilitated a massive escalation of violence.⁸ Seven years later the physiologist and biochemist J.B.S. Haldane echoed similar anxieties about science providing the means of mass destruction. In his somewhat whimsical little tract, *Daedalus*, published in 1924, Haldane considered the possibility of science becoming a Demogorgon which terrorized or enslaved man.⁹ Could, Haldane asked, Samuel Butler’s fictional vision of the land of Erewhon, where disease became a crime and society was governed by scientific totalitarianism, become a reality?¹⁰ Haldane’s little book argued, however, that scientific man is Daedalus destined to proceed by trial and error attempting to correct his mistakes and trying to get it right. While fearful of its destructive power Haldane still hoped, like Ryle, that science, if directed wisely, would produce if not Utopia certainly a more egalitarian, tolerant and happier world.¹¹

The First World War demonstrated that the value of science to civilization was problematic not automatic. Before the Second World War a generation of scientists and doctors in Britain believed that the social value of science was determined by its ethical basis. The new academic discipline called social medicine that was created in Britain in the 1940s reflected this concern to reconcile the relationship of ethics and science and to establish a new role for medicine in building a new society. For Ryle, its founder, the new medical discipline was an ethical as much as an intellectual program and was part of a political agenda for science. Such an agenda had been defined by the Communist crystallographer J. D. Bernal in 1939 as *The Social Function of Science* and elevated by the biologist Julian Huxley into the creation of a new secular ethic called scientific humanism.¹²

RATIONAL WORLDS AND TECHNOCRATIC UTOPIAS

After the First World War leading British scientists, such as John Desmond Bernal, J.B.S. Haldane, Julian Huxley, Lancelot Hogben and Joseph Needham agonized about the social role of science. This *Visible College* was influenced by radical philosophies such as Marxism and holism and possessed an admiration for what they saw as a new experiment in living in the Soviet Union.¹³

Scientists explored the idea of science's social function in a number of ways but one popular medium was the genre of futuristic writings about technocratic utopias such as Haldane's *Daedalus*, Bertrand Russell's *Icarus* and J.D. Bernal's *The World, the Flesh & the Devil*.¹⁴ Bernal's vision of the social function of science in a technocratic utopia was highly influential in the construction of scientific humanism as a secular ethical and political creed and is worth exploring in some detail in order to understand the spirit of the epoch in which social medicine was founded.

From his boyhood, the founder of the "structural school" of molecular biology, John Desmond Bernal, was aware of the political injustices of English rule in Ireland and it stimulated a social conscience which was as central to his character as his love of science.¹⁵ From the outset science was a set of "skills I learned for a purpose. This was to help the people, and to deliver them from oppression, miseries and ignorance." Thus for Bernal science and social salvation were inextricably bound in an emancipatory mission. Although Bernal was entranced by the breathtaking developments in Cambridge science in the 1930s he did not sympathize with the view of science which dominated the Cavendish Laboratories throughout its direction both by J.J. Thompson and Lord Rutherford that science was pure knowledge for its own sake, occupying an abstract space in a world consisting only of thought. For Bernal the agenda of scientific knowledge was tied to social transformation.¹⁶

He began his love affair with Marxism while he was a student with the assistance of the future editor of the communist paper *The Daily Worker*, Allen Hutt. Desmond read all the classical texts of Marx, Engels and Lenin as well as developing an interest in the work of H.G. Wells and Tawney. He was severely critical of Alfred North Whitehead's *Science in the Modern World*. Henry Douglas, whose father ran the Science Museum in London, introduced Bernal to the working class movement and he joined the Communist

Party of Great Britain in 1923, two years after it was founded. He became involved with other communists at Cambridge: Philip Spratt, A.L. Morton, the biochemist B. Woolf and Ivor Montagu. They often gathered for meetings in the rooms of the economist Moris Dobb.¹⁷

While ardently supportive of the working class movement Bernal also had a special vision of politics of his own and that was first outlined in a futuristic essay in 1929 called *The World, the Flesh & the Devil* published in the Kegan, Paul, Trench and Trubner series called "Today and Tomorrow." This is the series in which Haldane and Russell published *Daedalus* and *Icarus* respectively.¹⁸ I would like to spend some time examining Bernal's science fiction novel because it gives us fascinating insight into the world that Bernal believed could be created by scientific socialism.

In *The World, the Flesh & the Devil* Bernal speculated about the outcome of desire and fate in constructing the future. He believed that while these "two futures" can never be separated science provides the means to give greater power to one over the other. In the past, religion had a prerogative upon defining desire but he suggested, "Now that religion gives place to science the paradisiacal future of the soul fades before the Utopian future of the species."¹⁹ His book, therefore was an enquiry into the means by which Utopia could be created by using science to overcome the "Three enemies of the rational soul" which were the material "world;" the flesh, or organic basis of existence; and the devilishly complex and perverse nature of consciousness and emotion, desire, fear, imagination and stupidity.²⁰

In Bernal's future, physics conquered the obstacles of nature through the creation of artificial worlds with perfectly harmonized environments in the celestial spheres.

Imagine a spherical shell ten miles or so in diameter, made of the lightest materials and mostly hollow ... the great bulk of the structure would be made out of the substance of one or more smaller asteroids, moons, rings of Saturn or other planetary detritus. ... The globe would fulfill all the functions by which our earth manages to support life. ... It would move in orbit around the sun without any expenditure of energy. ... The inhabitants would be divided into the personnel or crew, and the citizens or passengers ... the globes would appear both as hotels and laboratories ... there would probably be no more need for government than in a modern hotel ... some of the more adventurous colonies would set out beyond the bounds of the solar system ... once acclimatized to space living, it is unlikely that man will stop until he

has roamed over and colonized most of the sidereal universe. ... Man will not ultimately be content to be parasitic on the stars but will invade them and organize them for his own purposes.²¹

Bernal further speculated that biological limitations could be overcome through directed evolutionary development. Eugenism had the right goals but its methods were too slow. Instead a type of teleological biochemistry would achieve a form of genetic engineering. Mortality would be dispensed with by keeping the brain alive in a mechanically designed body with self-repairing organs and motor mechanisms. The ultimate stage of this development would be, however, the synthesis of multiple minds, each retaining some individuality but interdependent with the others. In this way the multiple, communal organism would never die but simply change as new ones were absorbed. Its collective memory overcoming the cessation of individual existence.²²

Bernal foresaw the scientific conquest of physical and biological nature as relatively easy but he believed that the molding of human desire presented a far greater challenge. Bernal's Utopia depended upon scientific consciousness erasing human desires for physiological gratification and replacing them with the excitement of intellectual discovery. Advanced man would be more stimulated by equations than sex – which, incidentally, ectogenesis would have eradicated the need for. Emotional gratification would be achieved through communal, cooperative life rather than individual relations and reason would control feelings.²³

Bernal believed that a technocratic Utopia could be achieved through a new scientifically planned future. He was aware, however, that his vision of mechanical civilization was not universally appreciated. He identified what he called the “emotional factors hostile to all mechanism” which might prevent the social adjustments needed to create the new world.²⁴ He saw these as “reversions” or backward evolutionary tendencies which had been expressed by such individuals as Aldous Huxley and Bertrand Russell.²⁵

Aldous Huxley, the grandson of the great naturalist T.H. Huxley and the brother of the biologist Julian Huxley, had written a dystopia dramatically portraying the dangers of technocracy. The Huxleys, like the Haldanes, the Darwins and Bernal himself, were all close friends and occasionally co-authors with H.G. Wells and his various sons. Given that he was surrounded by technocratic enthusiasm, why should Aldous Huxley have written such a powerful critique of the values that his social circle cherished. When reflect-

ing on his reasons for writing *Brave New World* Aldous Huxley said that he had originally intended it to be a joke upon his friend Wells. But as he became absorbed in the novel the totalitarian implications of technocracy took on greater significance for him.²⁶ In numerous essays and short stories, Huxley later explored the implications of technocratic totalitarianism and its various expressions.²⁷ Even before he had written *Brave New World*, however, he had aired doubts especially about the pet subjects of his generation, such as eugenics. He pointed out in *Proper Studies* in 1927 that enthusiastic eugenics might not succeed in improving the human race but destroying it.²⁸

Bernal perceived such doubts as a reversion to primitive emotions. He thought that Huxley's book represented the "turning away from the whole of mechanization on the part of the more humanely-minded."²⁹ The likes of Huxley and Bertrand Russell were "prophets predicting truly the doom of the new Babylon" and were "simply lamenting over a past that is lost for ever."³⁰ Nevertheless Bernal believed that what he perceived as the "conflict between the humanizers and the mechanizers" – what C.P. Snow was later to identify as the gulf between the two cultures – could be accommodated through a future splitting of the human race – the one section developing a fully-balanced humanity, the other groping unsteadily beyond it.³¹

Mechanical civilization would migrate from the earth to the Bernal spheres and develop human life beyond its physical, physiological and psychological boundaries in space. Here scientifically minded, mechanized men would exist in a scientific political state and would evolve into a new species leaving the rest of humanity behind "in a relatively primitive state those too stupid or too stubborn to change." The old mankind would have "undisputed possession of the earth to be regarded by the inhabitants of the celestial spheres with a curious reverence." Indeed Bernal envisaged that: "The world might, in fact, be transformed into a human zoo, a zoo so intelligently managed that its inhabitants are not aware that they are there merely for the purposes of observation and experiment."³²

In Bernal's utopia reason replaced mysticism and rational planning replaced anarchic social evolution. Science not only satisfied the material needs of mankind but also sorted out its social conflicts. Science and culture became one. Politics has given way to scientific social management. Bernal recognized, however, that the road between today and tomorrow was distant and fraught. He believed that it could be transversed if science became self-conscious of and fulfilled its social function. But understanding the social function of science required an historical analysis of the development of science and society.³³

Bernal believed that scientific consciousness went beyond party politics. For Bernal science was inherently socialistic and communal. Scientific knowledge was co-operative and communally interdependent. Science could not proceed without cooperation, not as a matter of altruism but as a matter of expediency. It thus provided for Bernal a model upon which the organization of social relations could be based and it gave him an unwavering faith in science's power to transform competitive capitalist society into a socialist state. Science was cooperative reason which could be translated into a social reality.³⁴

Already we have in the practice of science the prototype for all human common action. The task which the scientists have undertaken ... is merely the conscious expression of the task of human society. The methods by which this task is attempted ... are the methods by which humanity is most likely to secure its own future. In its endeavour, science is communism.

THE MODERN EVOLUTIONARY SYNTHESIS AS A SECULAR ETHIC TO STRUCTURE THE FUTURE OF SOCIETY

Bernal's confidence in the ability of scientific rationalism to automatically create a socialistic technocratic utopia while highly influential was not universally shared amongst British scientific intellectuals in the Interwar years. As noted above, Aldous Huxley's novel, *Brave New World*, threatened that technological utopia such as that promoted by Bernal could be dystopia.³⁵ Optimism about the role of scientific rationalism in determining the future social organization of society was thus dogged by doubt amongst British scientific intellectuals in the Interwar years. Reconciling doubt about the value of science as a social engineering tool stimulated further debates about the relationship of science to religion and ethics.

In 1942 Conrad Waddington, the experimental morphologist associated with J.D. Bernal in the Biotheoretical Gathering of the 1930s,³⁶ instigated a debate on the relations between science and ethics in his *Nature* article "The Scientific Attitude."³⁷ His essay provoked a wide response amongst the scientific and philosophical communities and indeed amongst some leading members of the Church.³⁸ Waddington described the debate collectively as a sort of communal stammering about what Wittgenstein had called the "terrible business, just terrible" of searching for an intellectual basis for ethics.³⁹ Waddington argued that moral philosophy had been undermined by four modern

developments: psycho-analytical theory, anthropology, Marxism and logical positivism. Psycho-analysis showed how all mental constructs, including beliefs, ideas and values were inherently skewed by peculiar individual psychological formation and pathology. Anthropology demonstrated the relativity of ethical values between cultures. Marxism similarly showed the relativity of ethics according to the social position of historical classes and logical positivism had attempted to reconstruct an anti-metaphysical universe of meaning in which ethical statements had no epistemological status because they were not verifiable.⁴⁰

Waddington proposed that ethics could be reconstructed using the dictates of evolutionary necessity. But he was at pains to point out that his concept of evolution was not that image of nature red in tooth and claw which Thomas Huxley had condemned as inherently immoral in his famous Romanes lecture of 1894 on "Evolution and Ethics."⁴¹ Waddington repudiated natural selection based upon the relentless competition between species. He believed instead in co-operative nature marked by mutual aid which, he insisted, informed the modern twentieth century "evolutionary synthesis."⁴² Waddington posited an evolutionary process that demanded that atoms combine to make molecules and species practice altruism to survive. Thus harmonious nature was inherently good. The new intellectual basis of ethics, Waddington claimed, "must accept the direction of evolution as simply good because it *is* good according to any realist definition of the concept."⁴³

The ethical dictates of the *Modern Synthesis* of evolutionary theory also lay at the heart of Julian Huxley's philosophy of scientific humanism. The concepts of both scientific humanism and the modern evolutionary synthesis were central to the development of social medicine. How did Julian Huxley define them?

PROGRESS AND EVOLUTION

Julian Huxley, like Waddington, claimed that the modern evolutionary synthesis could provide the basis of a new secular ethic. In his article on "Darwinism To-Day" in *Discovery* in 1943 he pointed out that biologists began to have serious doubts about the theory of natural selection from the 1890s until by 1910 "it had become so unfashionable that some critics proclaimed the death of Darwinism."⁴⁴ "It turns out," he argued, "that the reports of the Death of Darwinism, like those of Mark Twain, were very much exaggerated." Larmarckianism was dead along with theories of orthogenesis and

Bergsonian concepts of vitalistic life-forces. But the modern synthesis of genetics and Darwinism showed how the process of natural selection actually worked.

While Huxley dismissed the teleological arguments of orthogenesis and the suggestion that hereditary developments could be purposeful he nevertheless believed that evolution could still be both progressive and retrogressive. Dinosaurs were succeeded by small mammals and eventually by man but “sedentary” barnacles had once been free floating shrimps. Most significantly the modern synthesis, which was accepted by Huxley’s contemporaries such as R. A. Fisher, Haldane and the community of biometrical geneticists, had substituted relativism for the absolutism of a previous age – as Huxley emphasized in an imaginary interview with his grandfather Thomas Henry Huxley recorded for the BBC radio in 1942.⁴⁵ Above all, Julian Huxley argued that the most far-reaching conclusion of the modern analysis of evolution was that natural selection did not always have beneficial results but could be harmful. Because not only did species compete between each other but members of the same species competed within it for survival. The intra-specific competition was most obvious in the process of sexual selection wherein males competed for mates. Sexual selection, Huxley asserted, “benefited none but certain types of males as against others, its results for the species as a whole are harmful.” Huxley argued that those who had relied upon an idea of the Darwinian struggle to justify the philosophy of *laissez-faire* were misguided because the evolutionary synthesis demonstrated that this form of competition was either useless or at worst wasteful and actually inimical to progress.⁴⁶

The modern evolutionary synthesis redefined man’s place in nature within a holistic and relativistic perspective. The idea of a golden age of biological harmony in the past was a myth that had to be replaced by a vision of constant and inevitable change with the possibility of progress or its opposite. Progress was one type of evolutionary development but in the case of human advancement could only be achieved if man undertook his responsibility as a “trustee of progress.” This trusteeship required both social and economic as well as biological planning. Huxley illustrated this with the analysis of the evolution of social man from economic man.⁴⁷

THE BIOLOGICAL BASIS FOR MOVING FROM ECONOMIC TO SOCIAL MAN AND THE RISE OF WELFARE CORPORATISM

Human society in the 1940s faced, Huxley believed, the possibility of disintegration or reintegration. The task was to achieve reintegration on a progressive and democratic basis. Huxley had faith in the creation of what he called “a New World Order” that would witness the end of the era which he characterized as that of “economic man” and see the beginning of a “new epoch of civilization ... best described as the age of social man.”⁴⁸ This would be a society which “will be much more of an organic whole, tied together mainly by the living relations of human beings ... instead of mainly by the cold impersonal forces of profit and economic competition.”⁴⁹ Huxley saw individualism in the *laissez-faire* sense as a false abstraction which had now lost any concrete relevance to the changing world order. The old order – that of economic man – was based upon two principles: profit and privilege. This was a divisive system where charity patched up defects in a system dominated by powerful anti-social monopolies. In a system based upon competing interests, planning for the benefit of the community at large was impossible because such a society failed to achieve what Huxley identified as a “corporate expression.”⁵⁰ This problem could be attacked by creating an organic society where all sectional interests would be made to fit in to the social framework.⁵¹

The principle of moving from an economic to a social logic in the corporate planning of society underlay a welfare mentality which characterized politics in Britain in the Second World War.³¹ The idea of welfare corporatism was built upon an idea of what the eminent sociologist T.H. Marshall called “social citizenship.”⁵² Social citizenship was dictated by social rather than economic logic and justified interventionist planning by the state in order to achieve a level of “national efficiency.” But it was grounded in the Keynesian philosophy of a professionally managed economic system. In 1936 Keynes’ mission was to rescue capitalism from its own vices by abandoning *laissez-faire* for an actively managed economy which encouraged investment and aimed for the full employment of capital and labor in optimal production. Keynes believed that only transforming it into a professionally operated system could preserve capitalism.⁵³

The Keynesian revolution took hold during the war and afterwards swept all before it. It became the basis of a political consensus surrounding the whole question of reconstruction. Belief in the professional manipulation

of the economy was a prerequisite of the Beveridgean welfare state⁵⁴ and the same logic propelled Huxley's view of the planning a new order of society that would achieve progressive human evolution.

The corporate management of communal life, or as Wells and Huxley had put it in their book on *The Science of Life* in 1930, "Life Under Human Control" could be achieved by the establishment of scientific humanism as a new secular ethic for society.⁵⁵ Humanism informed by science would, Huxley proposed, release man's infinite powers to control the evolutionary experiment. It would provide a philosophical framework strong enough to support evolutionary progress toward human betterment – both social and biological. In this way scientific humanism could harness the altruistic forces of human nature into "the task ... of slowly moving mankind along the upward evolutionary path." The task of scientific humanism was to develop a system of social organization that would satisfy the need for corporate action and identity as well as individual aspirations.⁵⁶

Scientific humanism was, Huxley argued, a protest against supernaturalism that acknowledged the human spirit in its individual and corporate expression as the source of all values and the highest reality known. Huxley declared that scientific humanism was a social religion based on real understanding and control of the biological and sociological forces and processes operating in human societies. Science in this context would create what Huxley termed the "socialized State" in which science would fulfill the religious impulse of society with reason instead of mysticism.⁵⁷

JOHN RYLE AND SOCIAL MEDICINE

I have been arguing so far that the First World War generated a growing crisis of consciousness among radical scientists in Britain. This crisis led to scrutiny of science and ethics and solutions were sought in the modern evolutionary synthesis and in theories of scientific humanism and the social function of science.⁵⁸ John Ryle who had been so disturbed by the destructive power of science in the First World War experienced his own crisis of faith in the late 1930s. Having become increasingly disenchanted with the technologization of medical practice while a consultant physician at Guy's Hospital in the 1920s, he feared the laboratory was usurping the bedside in clinical medicine and that the classical art of observation was being dismissed by the new methods of experimental logic. Experimental science was undermining the ability of medicine to cope with the diseases of the modern world,

over-technologizing clinical practice and downgrading judgment based upon experience.⁵⁹ Ryle addressed his intellectual crisis by appealing to the new philosophies of scientific humanism and holistic evolutionary biology in the hope of bringing about the renaissance in medicine he had envisaged in 1917. He joined with Bernal's clarion call for the scientific management of society and human evolution. Eventually he incorporated all of these influences plus an interdisciplinary program of medicine and social science into a new concept of his own. That concept was social medicine.

Ryle was a leading London clinician in the 1920s. Trained at Guy's Hospital he moved on to become the Regius Professor of Physic at Cambridge in 1936. His crisis of faith in clinical medicine led him to resign this top academic medical appointment in Britain and become the first professor of social medicine in Britain 1942 when the Nuffield Trust set up a new Institute of Social Medicine at Oxford. Other departments followed at Edinburgh, Sheffield, Birmingham, and the Medical Research Council created a unit for social medicine based at the London Hospital in Whitechapel. The institutionalization of the new discipline in Britain is a fascinating story which has been told elsewhere.⁶⁰ Here, however, I shall concentrate on investigating what led Ryle to develop the idea of social medicine.

In the 1940s Ryle was greatly influenced by Huxley's concept of scientific humanism. He wrote a book on the "new humanism" in 1941 called *Fears May Be Liars*⁶¹ and declared in 1943 that "Social Medicine is scientific humanism."⁶² *Fears May Be Liars* attacked mystical religion for creating unnecessary anguish about pain, dying and death. Ryle, like Huxley, asserted the view that life must be brought under "human control" through the rational direction of human evolution. The science of life must be utilized to bring about a better social organization and "a scientific elaboration of the natural principle of mutual aid."⁶³ "Science must learn," Ryle asserted, "that it has direct social and moral as well as cultural and academic functions. It may thereby make a finer contribution to man's evolution and salvation than all the churches have ever made."⁶⁴

Ryle was convinced by Bernal's ideas about the social function of science and shared the left wing political views of contemporary scientists like Haldane, Needham, and Lancelot Hogben. Bernal wrote a section on health in *The Social Function of Science*. He insisted that the task of modern medicine should be the improvement of health rather than the treatment of disease and for this reason medicine needed to become "in all its branches a public service in which research and practice are developed side by side." Bernal sug-

gested that the best route to follow would be the study of sickness through the observation of health.⁶⁵ Ryle made this the focus of his concept of social medicine and he frequently referred to Bernal's book in his lectures at both Cambridge and Oxford.⁶⁶ Sickness could not be assessed socially, and pathology could not be determined clinically without an understanding of what constituted health.

What precisely provoked Ryle into developing social medicine? Firstly, he rejected mechanistic experimental science in medicine and, secondly, he moved to a holistic understanding of health and disease through the modern evolutionary synthesis. The second was linked to his belief in committing medicine to building a new society by transforming it into an expression of scientific humanism.

LABORATORY SCIENCE VERSUS THE MODERN EVOLUTIONARY SYNTHESIS OF HEALTH AND DISEASE

Ryle was first and foremost a clinician but he believed that modern medicine was being led astray from its true path by the impact of experimental science upon its methodology and practice. In 1930 Ryle rejected the suggestions of Thomas Lewis, Lord Moynihan and Wilfred Trotter that clinical science should incorporate the laboratory.⁶⁷ He believed, alternatively, that clinical science should be based on traditional methods of bedside observation and recording which he called the Hippocratic ideal.⁶⁸ Clinical research could not be modeled on the laboratory sciences because it was a field study of human biology which was, Ryle claimed, like zoology or ecology, a science which observed the experiments of nature. Laboratory experimentation restricted vision of the total biological process of disease in man, or rather it failed fully to observe man in disease. Ryle emphasized that the biology of man in disease was essentially a *field* rather than a bench science.⁶⁹

Ryle grounded his concept of the natural history of disease in a holistic evolutionary perspective derived from the great naturalists, Charles Darwin, T. H. Huxley, Gilbert White and contextualized it within the philosophy of holism of J. C. Smuts.⁷⁰ Jan Smuts, a South African philosopher who had studied at Cambridge before the First World War and returned to become the Prime Minister of South Africa in the late 1920s, wrote a book on *Holism and Evolution* in 1925.⁷¹ In it he argued that Darwinism was the greatest expression of holism. Smuts acknowledged that Darwinism had been "tacitly considered a victory for the mechanical view." But, he suggested, if you

considered that the principle of natural selection was subordinate to that of variation, then Darwinian theory was in reality an expression of ecological holism. Echoing the theories of Kropotkin, Smuts believed that the universe possessed a pre-established harmony based not upon alien destructiveness but upon “mutual adaptation and adjustment.” The mechanisms of adaptation and variation must, he claimed, be studied by biology within the unifying holistic factor.⁷²

Ryle took up Smuts’s holistic conception of Darwinian evolution which gave priority to the principle of adaptive variation based upon a cooperative, altruistic view of nature. This meant studying the biology of man, disease and habitat as an evolutionary ecological process. The physician as naturalist should endeavor to study man in disease “from every possible angle, as an ornithologist might study the morphology, the habits and the environment of a bird.” (Ryle, like Huxley, was a keen ornithologist.) This included taking into account the fundamental law of biological life that was the evolution of incessant variability. The “holistic or naturalistic” view would accommodate the principle of variety and adaptation, and facilitate the study of biological endowment and environment.⁷³

From the 1930s Ryle believed that when studying disease doctors should be taking into account evolutionary variation and focus on diathesis, that nineteenth-century concept of hereditary disposition. As W. F. Bynum has shown, this was also a view that had been held by numerous late Victorian medical luminaries who were entranced by Darwinism.⁷⁴ The natural history of disease in man, Ryle claimed, should explore predisposition to resistance or susceptibility which resulted from family pedigree because this could enhance early diagnosis and prevention. The clinician could advise “a conduct of life” which would compensate for metabolic predispositions and prevent the onset of disease.⁷⁵ But Ryle believed that diathesis could only be understood by measuring the variation of *normal* biological states and deviations from them.

For Ryle, biological normality was the quantifiable range of physiological variability which resulted from adaptation necessary for survival in a given environment. According to Ryle health and disease knew no sharp boundary, there was only the normal range of variability and its extremes determined by environmental conditions.⁷⁶ And, with R.A. Fisher and J.B.S. Haldane’s work on population genetics in mind,⁷⁷ Ryle considered that “Physiological and biological constants are both unthinkable.”⁷⁸ Identifying disease meant measuring normal physiological variability which thus meant studying health.

As Ryle stated in 1948 in his manifesto for social medicine, *Changing Disciplines*, social medicine was based on the science of social pathology. Social pathology was achieved by using sociological tools – such as social surveys – to conduct social postmortems into the underlying causes of disease and its distribution. But social medicine was equally bound to the science of what he called “hygiology” – the study of the causes of health. Ryle, therefore, was concerned to synthesize an evolutionary concept of health created by the interrelations of ancestry and environment. He viewed this as essentially justified by the modern synthesis of Darwinism. For Ryle, the analysis of health could only be achieved through the social-biology of the normal range of variability of man in modern society because, like domestication in animals, civilization interfered with the process of natural selection and affected the range of human variation.⁷⁹

According to Ryle, investigating the social-biological evolution of health was a science of racial betterment linked to Francis Galton’s science of eugenics as “the study of agencies under social control that may improve or impair the racial qualities of future generations either physically or mentally.”⁸⁰ Equally Ryle’s science of health bore remarkable similarities to Julian Huxley’s agenda for eugenics and society in the 1930s.⁸¹ In his collection of essays on *The Uniqueness of Man* (1936), Huxley – who, like Ryle was a fellow of the Eugenics Society – emphasized that eugenics was the social science of biological improvement through environmental equalization and genetic progress.⁸² Ryle concurred. But Ryle also shared Huxley’s view that knowledge was control. The physical sciences had taught man how to control nature. The way to control health – and thereby the range of variability – was, Ryle believed, through the marriage of medicine, eugenics and sociology.⁸³ As early as 1938, Ryle wanted a sort of new “preventive medical research council” to be set up which would orchestrate medical, eugenic and sociological studies into the social reorganization necessary for health. Health, therefore, must be studied but also *taught*. Ryle pointed out that the literal meaning of the word doctor was teacher, so therefore the medical profession must become health instructors to individuals, society, and its leaders about the betterment of the human race.⁸⁴

SOCIAL AND BIOLOGICAL BETTERMENT: SOCIAL MEDICINE AND SCIENTIFIC HUMANISM

How then should the science of health fulfill its function in the rational planning of human biological betterment? And how did Ryle perceive this function to be part of the social role of medicine in the promotion of scientific humanism?

As mentioned earlier, Ryle's experiences in the First World War led him to believe passionately in science serving humanitarian principles. By the 1940s he had become demonstrably political, becoming the president of the Medical Peace Association and standing for Parliament as a socialist candidate. He used his position on the Medical Planning Committees of both the government and the Royal College of Physicians to promote his proposals for the nationalization of medicine – a cause he had always believed in. He despised the commercial principle of private practice and supported the salaried employment of physicians.⁸⁵ In his professional life he never made any secret of his political principles. "My positions are well known," Ryle wrote to his wife when he accepted the Oxford Chair in November 1942, "and I don't intend to alter them." Upon his wife's advice, he had never joined a political party. "It was you who advised me strongly not to join the Party" he reminded her on one occasion, "and you have often made me cut bits from my papers and lectures." When they moved to Oxford he told Miriam, "I want us to have as many contacts as possible with the young and the left." Wilson Jameson, the chief medical officer at the Ministry of Health, had told Ryle that unlike Cambridge, "there are far more socialists who want to get things done." Ryle believed that Oxford would give him and Miriam a chance to "work together with our science and our humanism."⁸⁶

He acknowledged that compulsory institution of health, based upon draconian interventionist legislation that sacrificed civil liberties for the benefit of the community, was incompatible with a democratic system. But Ryle believed that before the Second World War the only successful planning model for health was the Soviet system as described by the Webbs, Henry Sigerist and Arthur Newsholme. (Ryle met Sigerist in 1944 when they were appointed to a Commission to investigate public health in India, funded by the Rockefeller Foundation.) Although imperfect, Ryle believed that the USSR offered the greatest hope for the future. "My own belief," he told his father-in-law in 1941, "is that the new civilization will come from there [USSR] too. The old world has had its day and its disorder must give place to planning and aboli-

tion of the profit motive, the gradual emergence of a classless society, and the elimination of superstitions and religious irrationality in favour of sanity and science. It is possible.”⁸⁷

For Ryle the “social conscience and scientific intent” of social medicine would help to establish scientific humanism as a new secular ethic governing social, economic and political behavior. Ryle was convinced that “science without humanism may work with atoms but it will not work with men,” and he stressed that “the ideas and tasks of social medicine may be justly regarded as essential contributions (perhaps the most essential and practical of any at present within our range) to the developing philosophy of scientific humanism.”⁸⁸ In his 1941 book *Fears May Be Liars*, Ryle agreed with Julian Huxley that history hitherto had been dominated by the physical sciences which had built the technologies of mass warfare but that the biological and social sciences would, between them, build the technologies for peace and social harmony.⁸⁹

Both Ryle and Huxley emphasized that scientific humanism entailed the sacrifice of egotism, selfishness and individualism for benevolence and reciprocity. I cannot judge whether Ryle would have agreed with Huxley that Karl Marx was the “John the Baptist” of social science but Ryle was convinced, like Smuts, that Peter Kropotkin was right in believing that evolutionary progress was based upon the psychological faculty of altruism and the sociological effects of mutual aid in nature. For Ryle as for Huxley scientific humanism was a secular religion which replaced individual salvation with social salvation. It consisted of abandoning fantasies of other-worldly gains for the planning of evolutionary progress.⁹⁰

Ryle contended that as the study of the social-biology of health, part of the agenda of social medicine was “the direction of legislation on behalf of national health and efficiency,” and it placed the physician in a position where, as Ryle quoted Henry Sigerist having pointed out, the physician “must assume leadership in the struggle for the improvement of conditions.” This function, Ryle insisted, did not constitute a form of party politics. It was instead the foundation upon which political decision-making could be based. For Ryle scientific humanism went beyond party politics because its aim was the corporate management of human welfare. Designing an “equality of opportunity for health” was one of its tasks. Assisting the establishment of a religion of rationalism in a new social order was another.⁹¹

HOLISM AND THE POLITICS OF EPISTEMOLOGY

Ryle was pushed toward the concept of social medicine, therefore, via Huxley's theories of the modern evolutionary synthesis and the philosophy of scientific humanism. But Ryle turned to both of these intellectual resources as the result of his crisis of faith in modern science. Thus, Ryle's social medicine emerged through the politics of scientific epistemology. Ryle fought against a mechanistic conception of science and paradoxically used Darwinism to illustrate the truly holistic nature of biological knowledge.

Holistic conceptions of scientific knowledge were popular both in Britain and on the European Continent in the 1920s and '30s. For example, Anne Harrington has demonstrated how the question of holism versus mechanism was central for German neurobiologists and psychologists in the 1920s.⁹² In Britain J.B.S. Haldane grounded his science and his Marxism in the philosophy of holism. Indeed his father, John Scott Haldane had been one of the few remaining British thinkers still admired by the German holists for his philosophical neurobiology.⁹³ J. B. S. expressed his holism in his scientific cosmology and in his Marxist politics. Haldane's holism also embraced Darwinism.⁹⁴ Darwin and Newton, however, were the *bêtes noires* of anti-mechanist scientists on the European Continent. Anne Harrington has shown how, for German neurobiologists, Newtonian physics and Darwinian biology were seen as the ultimate expression of the barren philosophy of Descartes.⁹⁵ Early in his career Haldane attempted a mathematicisation of the Darwinian theory of natural selection. Later his work he incorporated this into his work with R.A. Fisher on population genetics which was central in the formation of the twentieth century "evolutionary synthesis."

Radical politics and philosophical holism, however, were not necessarily natural allies. Some radical scientists rejected holism. Both Haldane and Huxley's holistic synthetic biology contrasted sharply with the highly positivistic socio-biology of their contemporary socialist Lancelot Hogben. Together with Francis Crew, they were founding members of the Society for Experimental Biology in 1932 and shared an interest in the interface between social and biological organization.⁹⁶ Hogben was, like Haldane, a mathematical human geneticist as well as a biochemist. However, contemporary socialist biologist Joseph Needham heavily criticized him for his rigid positivism.⁹⁷ Needham, also an associate of both Huxley and Haldane, accused Hogben of being a reductionist mechanical philosopher especially with regard to his theory of consciousness. Hogben pioneered support for behaviorist psychol-

ogy in Britain and relentlessly preferred the concept of “conditioned behavioral responses” to the concept of “mind.”⁹⁸

Hogben attacked “holism” with equal ferocity. He believed that holism constituted a theistic idealism which had invaded science and he lambasted Arthur Eddington, Alfred North Whitehead and J.B.S. Haldane for adopting it. He decried their infatuation with the ideas of Jan Smuts. Hogben claimed that the holists attacked mechanistic and materialist epistemology because the latter did not provide supernatural sanction for privilege. He persisted with his fight against fashionable philosophical idealism because he believed it could only flourish “among those with leisure enough to study when their privileges are not compromised by unrest.” For Hogben only empirical science offered a universal emancipation from the constrictions of metaphysical religion and inegalitarian social or intellectual privilege.⁹⁹

John Ryle took up both sides of the debate between holism and mechanism that had reverberated throughout the pre-war European scientific community. Like the German holistic neurobiologists he attacked the rigidity of the positivist epistemology of experimental science. Ryle rejected the reductionism of the mechanical philosophy. But, like Huxley and Haldane, he remained wedded to Darwinism and was greatly influenced by the philosophy of Smuts. Like them, Ryle incorporated his theories into the modern evolutionary synthesis. Yet like the mechanist, Lancelot Hogben, Ryle also believed in the necessity for a marriage of the biological and social sciences. Hogben became active in social medicine and founded *British Journal of Social Medicine* in 1947 with Francis Crew.¹⁰⁰ Ryle’s intellectual construction of social medicine, therefore, reflected the contradictions which pervaded these particular features of the politics of epistemology in twentieth century science.

The most important implication of Ryle’s holism for his conception of social medicine, however, was his attempt to reassert the “sick-man,” the “whole-person,” as the central object of the medical gaze. Social medicine in Britain shared this goal with the development of “constitutional medicine” by George Draper in the United States in the 1940s. For Draper “whole-person” medicine necessitated the integration of psyche and soma into clinical practice. Draper was concerned to elaborate an inclusive understanding of the individual linking “panels of personality” into a classificatory system of the human race based upon types of hereditary disease predisposition. Draper concentrated extensively on the model of psychosomatic disease and insisted that psychiatry and medicine could not be separated.¹⁰¹ By compari-

son Ryle, like the Director of the Yale Institute of Human Relations Milton Winternitz, believed whole-person medicine necessitated an understanding of the sociological and economic determinants of disease.¹⁰² Also, like Walter Cannon and L.J. Henderson, Ryle's holism was linked to a belief in reawakening the "Hippocratic Ideal" within clinical medicine.¹⁰³ But whereas Cannon and Henderson used Hippocratism to emphasize the "healing power of nature," Ryle concentrated more on the value of the ancient observational method. It was observing the whole context of man in disease which allowed the physician to fulfill his function as a watcher of nature, a true naturalist, an ecologist of health and illness.

Hippocratism and holism were linked in Ryle's adherence to radical left-wing politics which he believed would produce a planned equitable, egalitarian and morally accountable society. In this he was a bearer of a liberal tradition that had characterized a section of elite scientific and medical intellectuals since the late eighteenth century. As such Ryle's social medicine echoed some of the ideals of late-enlightenment English radical medical philosophers such as Thomas Beddoes and James Parkinson.¹⁰⁴ Equally Ryle's advocacy of medical practice conducted through the observations of the senses continued the traditions of some elite late Victorian practitioners who, as Christopher Lawrence has pointed out, used the value of "incommunicable knowledge" to counter the claims of the rising tide of laboratory based biomedicine.¹⁰⁵

Neither Hippocratism nor holism was necessarily linked to left-wing political radicalism amongst scientists and physicians either in Britain, on the Continent or in the United States. Hippocratism was effectively integrated into a conservative philosophy of social engineering in the work of Henderson for example. But in the foundation of social medicine in Britain these values legitimated ideological support for a systematically planned social order that pervaded British politics in the 1940s.

CONCLUSION: SOCIAL MEDICINE AND THE NEW SOCIETY

I have discussed the way in which social medicine in Britain in the 1940s aimed to become a medicine of society for society. Emerging from the politics of science, ethics and society, its mission was to facilitate progressive human social and biological evolution. As an expression of scientific humanism social medicine was to fulfill the ethical dictates of the modern evolutionary synthesis and be part of the rising tide of corporate welfarism. John Ryle

believed that this could be achieved by changing clinical medicine into a new discipline of holistic socio-biology of health and disease.

Ryle's holistic conception of social medicine did not survive him. After his death the new direction of the discipline was symbolized in the pages of the *British Journal of Social Medicine*. In its opening statement the *Journal* dedicated itself to analyzing the "numerical, structural and functional changes of human populations in their biological and medical aspects." The editors suggested that the methods of social medicine "must necessarily be statistical, involving the use of numerical data obtained either from official sources or from special field investigations, and interpreted in the light of established findings of the laboratory and of the clinic."¹⁰⁶ What's more the new *Journal* was emphatic about separating pure research from politics: "This Journal is not meant to provide a platform for those who wish to present their views concerning the place of social medicine in the organizational set-up of medicine as a whole."¹⁰⁷

The *Journal* identified social medicine as a purely disinterested search for truth. In his classic text on *The Social Function of Science* J.D. Bernal claimed that such models of scientific inquiry provided scientists with an illusionary evasion of social responsibility. Bernal thought that the psychological isolation of the scientific enterprise, pursuing curiosity for its own sake, facilitated a satisfying withdrawal from interest in external things, offering a solace and escape from the outside world. But while understandable, Bernal believed that such isolationism was dangerous, not only to science but to society. It encouraged social conformity amongst scientists so that, "The great bulk of scientists are therefore, as long as their science is not threatened, likely to be the most docile and amenable of citizens."¹⁰⁸ But conformity was antithetical to science which was inherently "a transforming and not a conserving influence."¹⁰⁹ Certainly, Ryle conceived of social medicine as a transforming influence but in the process of professionalization the discipline lost sight of its original goals.

Following Ryle's death the research agenda of social medicine narrowed to a form of social-epidemiology, highly quantitative and by contrast to Ryle's holism, it was methodologically reductive and positivistic. This together with its institutional isolation from the practice of social medicine in the field of public health weakened its bargaining position when major changes in medical education and the organization of the health service were undertaken in the late 1960s and early 1970s.¹¹⁰ By 1972 a new concept of community medicine, grounded in the idea of structural health planning, made social

medicine appear redundant.¹¹¹ Yet numerous features of Ryle's original conception continued to thrive such as the goal of recreating the whole-person in modern medicine. There has been a significant revival of the ideas of social medicine as an interdisciplinary social science in the 1990s both in Britain and in the United States with a number of new departments being created and some existing ones changing their name. The legacy of view of changing the discipline of medicine cannot yet, therefore, be fully adjudicated.

NOTES

¹ See for example, Inderjeet Parmar, "Anglo-American Elites in the Interwar Years: Idealism and Power in the Intellectual Roots of Chatham House and the Council on Foreign Relations," *International Relations* (2002), 16 (1):53-75; Alice Gambrell, *Women Intellectuals, Modernism and Difference. Transatlantic Culture, 1919-1945* (Cambridge, Cambridge University Press, 1997); Michael David-Fox, "The Fellow Travelers Revisited: The "Cultured West" through Soviet Eyes", *Journal of Modern History* (2003), 75(2): 300-335; Paul Johnson, *Intellectuals* (London, Weindenfeld and Nicolson, 1988)

² See, D. Harvey, *The Condition of Postmodernity* (Oxford, Blackwell, 1990), 10-38; John Burt Foster, *Nabakov's Art of Memory and European Modernism* (Princeton, NJ, Princeton University Press, 1993); Steve Edwards and Paul Wood (eds), *The Art of the Avante-Gardes* (New Haven, Conn, Yale University Press, 2004).

³ Gary Werskey, *The Visible College* (London, Allen Lane, 1978).

⁴ Sarah W. Tracy, "George Draper and American Constitutional Medicine, 1916-1946: Reinventing the Sick Man", *Bulletin of the History of Medicine*, 66 (1992), 53-89; Steven J. Cross and W.R. Albury, "Walter B. Cannon, L. J. Henderson, and the Organic Analogy", *Osiris*, 3(New Series) (1987), 165-192.

⁵ J.A. Ryle to Miriam Ryle, 14th October 1917. (*Private Collection of the papers of J.A. Ryle held by his son, Peter Ryle*)

⁶ *Ibid.*

⁷ See Dorothy Porter, "John Ryle: Doctor of Revolution?" in Dorothy Porter and Roy Porter (eds), *Doctors, Politics and Society: Historical Essays* (Amsterdam, Rodopi, 1993), 229-47; *idem*, "Changing Disciplines: John Ryle and the Making of Social Medicine in Twentieth Century Britain," *History of Science*, 30 (1992), 119-147; Michael Shepherd, "Introduction," to J. A. Ryle, *The Natural History of Disease* (reprint London, Keynes Press, 1988), xi-xix. (1st edition, Oxford, Oxford University Press, 1936; 2nd edition, 1946).

⁸ See Aldous Huxley, *Science, Liberty and Peace* (London, Chatto and Windus, 1947). For further discussion see, D.E.H. Edgerton, "Science and War," in R.C. Olby, *et al* (eds), *Companion to the History of Modern Science* (London, Routledge, 1990), 934-945.

⁹ J.B.S. Haldane, *Daedalus or Science and the Future* (London, Kegan Paul, Trench, Trubner, 1924. New York, E.P. Dutton, 1924); see also several essays in *idem*, *The Inequality of Man* (London, Pelican, 1937. 1st edn 1932) and *idem*, *Possible Worlds and Other Essays* (London, Chatto and Windus, 1927).

¹⁰ Samuel Butler, *Erewhon* (Harmondsworth, Penguin, 1985. 1st edn 1872).

¹¹ Haldane, *Daedalus*, *op. cit.* (ref. 9).

¹² John Desmond Bernal, *The Social Function of Science* (London, Routledge, Kegan and Paul, 1939); Julian Huxley, *The Uniqueness of Man* (London, Chatto and Windus, 1941); *idem*, *Essays of a Biologist* (London, Chatto and Windus, 1923).

¹³ Werskey, *op. cit.* (ref. 3).

¹⁴ Bertrand Russell, *Icarus or the Future of Science* (London, Kegan Paul, Trench, Trubner, 192?. New York, E.P. Dutton, 1926); J.D. Bernal, *The World the Flesh and the Devil. An Enquiry into the Future of the Three Enemies of the Rational Soul* (London, Kegan Paul, Trench, Trubner, 1929. New York, E.P. Dutton, 1929). For the "Today and Tomorrow" series see the dust covers of any of these books - the lists are fascinating. For brief discussion see W.H.G. Armytage, *Yesterday's Tomorrows. A Historical Survey of Future Societies* (London, Routledge and Kegan Paul, 1968), 150-151; on "Utopias" see Frank E. Manuel and Fritzie P. Manuel, *Utopian Thought in the Western World* (Cambridge, Mass., Belknap of Harvard University Press, 1979), 759-800

¹⁵ Dorothy Hodgkin, "John Desmond Bernal. 10 May 1901 – 15 September 1971," *Biographical Memoirs of the Fellows of the Royal Society* (London, The Royal Society, 1980), Vol. 26: 17-75. For the most recent biographical accounts of Bernal's life see, Andrew Brown, *J. D. Bernal: The Sage of Science* (Oxford, Oxford University Press, 2007); Brenda Swann and Francis Aprahamian (eds), *J.D. Bernal: A Life of Science and Politics* (London, Verso, 1999).

¹⁶ Hodgkin, pp. 19-27.

¹⁷ See Maurice Goldsmith, *Sage. The Life of J.D. Bernal* (London, Hutchinson, 1980).

¹⁸ See Russell, *op.cit.* (ref 14) and Haldane *op.cit.* (ref 9).

¹⁹ J. D. Bernal, *The World, the Flesh & the Devil. An Enquiry into the Future of the Three Enemies of the Rational Soul* (London, Kegan Paul, Trench and Trubner & Co, 1929), 7.

²⁰ *Ibid.*, 7-15.

- ²¹ *Ibid.*, 24.
- ²² *Ibid.*, 37-57
- ²³ *Ibid.*, 63-72.
- ²⁴ *Ibid.*, 71.
- ²⁵ *Ibid.*, 71-72
- ²⁶ Sybille Bedford, *Aldous Huxley: A Biography* (London, Chatto and Windus, 1973).
- ²⁷ Aldous Huxley, *Science, Liberty and Peace* (London, Chatto and Windus, 1947).
- ²⁸ Aldous Huxley, *Proper Studies* (London, Chatto and Windus, 1927).
- ²⁹ Bernal, *op.cit.* (ref 19), 71.
- ³⁰ *Ibid.*
- ³¹ Bernal *op. cit.* (ref. 19), 83-96.
- ³² *Ibid.*, 94-95
- ³³ J. D. Bernal, *The Social Function of Science* (London, George Routledge & Sons Ltd., 1939).
- ³⁴ *Ibid.*, 415.
- ³⁵ Aldous Huxley, *Brave New World* (London, Chatto and Windus, 1932).
- ³⁶ See Pnina Abir-Am, "The Biotheoretical Gathering, Trans-disciplinary Authority and the Incipient Legitimation of Molecular Biology in the 1930s: New Perspective on the Historical Sociology of Science," *History of Science*, 25 (1987), 1-70. The "Biotheoretical Gathering" was the term given to the group by one of its members, Dorothy Wrinch. Joseph Needham termed it the "Theoretical Biology Club" when he dedicated his book, *Order and Life* (New Haven, Yale University Press, 1936) to the group. For further discussion see Werskey, *op. cit.* (ref. 3); D.J. Haraway, *Crystals, Fabrics and Fields: Metaphors of Organicism in Twentieth Century Developmental Biology* (New Haven, Yale University Press, 1976); R. C. Olby, *The Path to the Double Helix* (London, Routledge, 1974).
- ³⁷ See C.H. Waddington, *Science and Ethics* (London, Allen and Unwin, 1942), "Introduction."
- ³⁸ Participants in the debate included The Right Rev. E.W. Barnes, Bishop of Birmingham, The Very Rev. W.R. Matthews, Dean of St. Pauls, A.D. Ritchie, Julian Huxley, J. Needham, Melanie Klein, J.D.Bernal and Chauncey Leake. See *Ibid.*
- ³⁹ *Ibid.*
- ⁴⁰ *Ibid.*, 8-16.
- ⁴¹ T.H. Huxley, *Science and Ethics* (London, Macmillan, 1894).
- ⁴² See, Julian Huxley, *Evolution. The Modern Synthesis* (London, Allen and Unwin, 1942); for discussion see Peter Bowler, *Evolution. The History of an Idea* (Berkeley, University of California Press, 1984), 289-316; *idem*, *The Fontana History of the En-*

Environmental Sciences (London, Fontana Press, 1992), 445-473; Joan Fisher Box, *The Life of a Scientist* (New York, Wiley, 1978); J.C. Greene, "The Interaction of Science and World View in Sir Julian Huxley's Evolutionary Biology," *History of Biology*, 23 (1990), 39-55.

⁴³ Waddington, *op. cit.* (ref. 37), 18.

⁴⁴ Reproduced in Julian Huxley, *On Living in a Revolution. Fifteen Essays by Julian Huxley* (London, Chatto and Windus, 1944), 69-82, p.69.

⁴⁵ *Ibid.*, 70.

⁴⁶ *Ibid.*, 83-95.

⁴⁷ Huxley, *op.cit.* (ref.42), 562-578.

⁴⁸ Huxley, *op.cit.* (ref. 44), 16.

⁴⁹ *Ibid.*

⁵⁰ *Ibid.*, 18

⁵¹ *Ibid.*, 16-27

⁵² T. H. Marshall, *Citizenship and Social Class* (Cambridge, Cambridge University Press, 1950).

⁵³ Peter Clarke, *The Keynesian Revolution in the Making, 1924-36* (Oxford, Clarendon Press, 1988); Harold Perkin, *The Rise of Professional Society. England Since 1880* (London, Routledge, 1989).

⁵⁴ Jose Harris, *William Beveridge* (Oxford, Clarendon Press, 1977); Trevor Burridge, *Clement Attlee* (London, Cape, 1985); Henry Pelling, *The Labour Governments, 1945-51* (London, Macmillan, 1984); Peter Hennessy, *Never Again* (London, Chatto, 1993).

⁵⁵ H.G. Wells, Julian Huxley and G.P. Wells, *The Science of Life* (London, Cassell, 1931).

⁵⁶ Huxley, *op.cit. Uniqueness of Man* (ref. 12), 260-290.

⁵⁷ *Ibid.*

⁵⁸ For more discussion of ethics amongst contemporary evolutionary scientists see Patrick Bateson FRS, "Evolution and Ethics," in Milo Keynes and G. Ainsworth Harrison (eds), *Evolutionary Studies. A Centenary Celebration of the Life of Julian Huxley* (London, Macmillan in association with the Eugenics Society, 1988), 168-185.

⁵⁹ See Dorothy Porter, *op. cit.* "Changing Disciplines" (ref. 7).

⁶⁰ *Ibid.*; N. T. A. Oswald, "A Social Health Service Without Doctors," *Social History of Medicine*, iv (1991), 295-315.

⁶¹ John Ryle, *Fears May Be Liars* (London, Allen and Unwin, 1941).

⁶² J. A. Ryle, "Social Medicine its Meaning and its Scope," *British Medical Journal*, ii (1943), 633-636, p. 636. See also *idem*, "The Science of Health," *British Medical Journal* ii (1942), 745-748.

⁶³ Ryle, *op.cit.* (ref. 61), 41.

⁶⁴ *Ibid.*

⁶⁵ J. D. Bernal, *The Social Function of Science* (London, Routledge, 1940; second edition), 353-56. For discussion of Bernal see Maurice Godsmith, *Sage. A Life of J. D. Bernal* (London, Hutchinson, 1980). For further discussion of *Social Function of Science*, see Mikulàs Teich, "Reflecting on the Golden Jubilee of Bernal's *Social Function of Science*," *History of Science*, 28 (1990), 411-18. For discussion of Bernal's circle see Werskey, *op. cit.* (ref. 3).

⁶⁶ In some "Notes for Students Talk" which Ryle gave on 16th February - no other date- "at home," he refers to the importance of both Bernal's book and Huxley's *The Uniqueness of Man*: "There has been a rather rude awakening of recent years to the fact that we have allowed our scientists to run away with us and our intellectual interests, at the expense of our human interests. Private ownership in knowledge can, like private ownership of wealth, lead to great injustices. (Refer to Bernal's 'social function of science.')

Now we are beginning to look ahead and see how we might do better. (Refer to Julian Huxley and 'scientific humanism' – *Uniqueness of Man*)."

⁶⁷ For discussion see Sir Christopher C. Booth, *Doctors in Science and Society. Essays of a Clinical Scientist* (London, 1987), 238-62; *idem*, "Clinical research," in Joan Austoker and Linda Bryder (eds), *Historical Perspectives on the Role of the MRC* (Oxford, 1989), 205-41. For Trotter see Wilfred Trotter, "Observation and experiment and their use in the medical sciences," *British Medical Journal*, ii (1930), 129-134.

⁶⁸ J. A. Ryle, "The Hippocratic Ideal," *Lancet*, ii (1934), 1263-68.

⁶⁹ J. A. Ryle, "Opening remarks as a discussion on research in clinical medicine," *Proceedings of the Royal Society of Medicine*, xxiv (1930), 151-7, reproduced in J. A. Ryle, *The Natural History of Disease*, *op. cit.* (ref. 7), 384-91. For discussion of the importance of natural history and field science amongst British intellectuals, David E. Allen, *The Naturalist in Britain. A Social History* (London, Allen Lane, 1976).

⁷⁰ W. K. Hancock, *Smuts the Sanguine Years 1870-1919* (Cambridge, Cambridge University Press, 1962); F. S. Crafford, *Jan Smuts. A Biography* (London, Allen and Unwin, 1946).

⁷¹ J. C. Smuts, *Holism and Evolution* (Westport, Conn., Greenwood Press, 1973, 1st edition, 1926).

⁷² *Ibid.*, 179-221.

⁷³ J.A. Ryle, "The Physician as Naturalist," *Guy's Hospital Reports*, lxxxi (1931), 278-96, p. 290, reproduced in J. A. Ryle, *The Natural History of Disease*, *op. cit.* (ref. 7), 1-19, p. 12.

⁷⁴ W. F. Bynum, "Darwin and the Doctors: Evolution, Diathesis, and Germs in 19th-century Britain," *Gesnerus*, xl (1983), 43-53.

⁷⁵ J.A. Ryle, "Constitution as a Factor in Morbidity", *Clinical Journal*, lx (1931), 73-

81; *idem*, “Diathesis, or Variation and Disease in Man”, reproduced in J. A. Ryle, *The Natural History of Disease*, *op. cit.* (ref. 7), 375-383

⁷⁶ J.A. Ryle, “The Meaning of the Normal,” *Lancet*, i (1947), 1-5.

⁷⁷ See Bowler, *op. cit.* (ref. 42). See also Pauline M. H. Mazumdar, *Eugenics, Human Genetics and Human Failings. The Eugenics Society, Its Sources and Its Critics in Britain* (London, Routledge, 1992).

⁷⁸ Ryle, *op.cit.* (ref. 76), 2.

⁷⁹ J.A. Ryle, *Changing Disciplines* (London, Oxford University Press, 1948), chapter two; *idem*, “Social Pathology,” in Iago Galdston, *Social Medicine its Derivations and Objectives* (New York, The Commonwealth Fund, 1949), 56-75.

⁸⁰ For Galton see D. W. Forrest, *Francis Galton: The Life and Work of a Genius* (London, Paul Elek, 1974); for Galton and eugenics see Daniel Kevles, *In the Name of Eugenics. Genetics and the Uses of Human Heredity* (New York: Knopf, 1985); Geoffrey R. Searle, *Eugenics and Politics in Britain 1900-1914* (Leyden, Noordhoff, 1976).

⁸¹ For discussion of Huxley’s life and work see, Milo Keynes and G. Ainsworth Harrison (eds), *op. cit.* (ref. 58). On Huxley’s eugenics see David Hubback, “Julian Huxley and Eugenics” in *ibid.*, 194-206. See also Huxley’s autobiographical memoirs, J. S. Huxley, *Memories*, 2 vols (London, Allen and Unwin, 1970 and 1973).

⁸² Julian Huxley, *The Uniqueness of Man*, *op. cit.* (ref. 12), 34-83.

⁸³ J. A. Ryle, “Medicine and Eugenics,” *Eugenics Review*, xxx (xi new series) (1938-1939), 9-19.

⁸⁴ *Ibid.*

⁸⁵ See Porter, *op. cit.* (ref. 7), “Doctor of Revolution,” 254-58.

⁸⁶ *Ibid.*

⁸⁷ *Ibid.*

⁸⁸ J. A. Ryle, “Social Medicine its Meaning and its Scope,” *British Medical Journal*, ii (1943), 633-636, p. 636.

⁸⁹ Ryle, *op.cit.*, *Fears May be Liars* (ref. 61), 27-43.

⁹⁰ See J. Huxley, *Essays of A Biologist*, *op. cit.* (ref. 10), 67-101; J. A. Ryle, “The Science of Health,” *British Medical Journal*, ii (1942), 745-748.

⁹¹ Ryle, *op.cit.* (ref.88)

⁹² Anne Harrington, “Other ‘Ways of Knowing’: The Politics of Knowledge in Inter-war German Brain Science,” in *idem*, (ed.), *So Human a Brain. Knowledge and Values in the Neurosciences* (Boston, Birkhäuser, 1991), pp. 229-244. See also Paul Forman, “Weimar Culture, Causality, and Quantum Theory, 1918-1927: Adaptation by German Physicists and Mathematicians to a Hostile Intellectual Environment,” *Historical Studies in the Physical Sciences*, iii (1971), 1-115; John Hendry, “Weimar Culture and Quantum Causality,” *History of Science*, xviii (1980), 155-180.

- ⁹³ See J.S. Haldane, *The Philosophy of a Biologist* (Oxford, Clarendon Press, 1935).
See J. B. S. Haldane, "The Scientific Work of J. S. Haldane (1860-1936)," *Nature*, 187 (1960), 103.
- ⁹⁴ J.B.S. Haldane, *Possible Worlds and Other Essays*, *op.cit.*₂ (ref. 9); *idem*, *The Inequality of Man* *op. cit.* (ref. 9); Ronald Clark, *J.B.S. The Life and Work of J.B.S. Haldane* (London, Hodder and Stoughton, 1968).
- ⁹⁵ See Harrington, *op.cit.* (ref. 92).
- ⁹⁶ Werskey, *op. cit.* (ref. 3), 103
- ⁹⁷ *Ibid.*, 60-67.
- ⁹⁸ See Lancelot Hogben, *Science for the Citizen*, 2 vols (New York, Knopf, 1938).
- ⁹⁹ *Ibid.*
- ¹⁰⁰ See 1st edition, *British Journal of Preventive and Social Medicine* (1947).
- ¹⁰¹ Tracy *op. cit.*₂ (ref. 4).
- ¹⁰² See Dorothy Porter, *op. cit.* "Changing Disciplines" (ref. 9).
- ¹⁰³ Cross and Albury *op. cit.* (ref. 4).
- ¹⁰⁴ See Roy Porter, *Doctor of Society: Thomas Beddoes and the Sick Trade in Late Enlightenment England* (London: Routledge, 1991).
- ¹⁰⁵ Christopher Lawrence, "Incommunicable knowledge: science, technology and the clinical art in Britain," *Journal of Contemporary History*, xx (1985), 503-520; *idem* and Weisz, G., "Still Incommunicable: Clinical Knowledge Between the Wars," in *idem.*, *Greater than the Parts. Holism I Biomedicine 1920-1950* (Oxford, Oxford University Press, 1998), 94-111.
- ¹⁰⁶ *British Journal of Preventive and Social Medicine* *op. cit.* (ref.100).
- ¹⁰⁷ *Ibid.*
- ¹⁰⁸ Bernal *op. cit.* (ref. 65), 389.
- ¹⁰⁹ *Ibid.*, 385-407.
- ¹¹⁰ Dorothy Porter, "Calculating Health and Social Change: An Essay on Jerry Morris and Late-modernist Epidemiology," *International Journal of Epidemiology* Volume 36, no.6, pp. 1180-1184.
- ¹¹¹ See J. Lewis, *What Price Community Medicine?* (Brighton, Wheatsheaf, 1986), 35-56, 100-120.

Chapter Six

John Ryle and the Party of Humanity

In an age of intensive clinical and laboratory enquiry ... it now becomes necessary to ask ourselves whether it is possible for theoretical medicine to exclude this humanistic discipline. It clearly cannot be allowed to do so. ... If therefore, scientific or theoretical medicine ... cannot afford to neglect humanism, and if vocational medicine of necessity combines science with humanism to the fullest possible practical advantage, the distinctions between the two disciplines become only those of emphasis and degree. ...The instructions both of the doctor and the clinical scientist are best regarded not as separate trainings in science and art, in principle and practice, in theory and vocation, but as a single discipline with dichotomies only later determined by capacity, inclination and opportunity. Let us refer to it simply as Clinical Discipline.*

FROM THE TIME he became the first professor of social medicine at Oxford in 1942 John Ryle had intended to put together a two-volume textbook on Clinical Discipline. Unfortunately, what Horace Jacobs, from Middlesex Hospital Medical School, referred to as “the ill-fated textbook on clinical medicine” was never completed by the time Ryle died in 1950. Jacobs, an admirer of Ryle but not a personal friend, had a copy of the manuscript and, in 1951, sent it to Patricia Asher, a socialist G.P. from Birmingham and friend of Ryle’s wife, Miriam. At one time Asher intended to write a biography of

* J.A. Ryle: Textbook of Clinical Medicine (unpublished manuscript, 1949), Chapter 1, “Medicine: Theoretical and Vocational.” The present essay is an analysis of two unpublished and unfinished, fragmentary manuscripts that were written before 1949 by John Alfred Ryle. The first is the “Textbook of Clinical Medicine” and the second is a volume entitled “Essays on Science and Humanism and the Role of the Physician in Modern Society.” All quotations come from these typescripts unless otherwise noted by parenthetical reference.

Ryle. Jacobs suggested that although originally the intention was to produce a collaborative volume Ryle had written enough for the manuscript to be published posthumously. However, the manuscript was so fragmentary I am not sure that Asher could have attracted a publisher for it. The unpublished manuscript is a collection of fragments consisting of an introduction and four brief chapters. There is also a long chapter on the teaching of social medicine that had been published in *Changing Disciplines* in 1948. An appendix is attached to the manuscript of transcripts of lectures and broadcasts delivered in South Africa in 1948 where Ryle had been the guest of the National War Memorial Health Foundation. These manuscripts came into my hands via Margaret Ryle, John Ryle's daughter. Ryle clearly intended to complete the textbook in his retirement. He retired in 1949 due to ill health. The textbook was not, however, his only retirement project. In the last year of his life Ryle also began another book which he called *Essays on Science and Humanism and the Role of the Physician in Modern Society*. Again this remained at the level of a collection of fragments, consisting of numerous "Prefaces" and "Introductions" to the book along with notes and plans and half-written chapters. Collectively, however, some central themes run through these last writings of this eminent medical intellectual. Intellectual was a title that Ryle himself would have denied – a point I shall illustrate later. Both texts addressed "the role of the physician in modern society," his training and the changing nature of the discipline that he had to translate into practice. What these incomplete fragments may lack in polished coherence they supply in imaginative insight and I would like to consider some of their themes in this essay.

I have discussed elsewhere Ryle's work and career so what I wish to do here is examine the unpublished writings of Ryle's last years in the light of some current historiographical debates about the relationship of philosophical holism to medicine in the period leading up to the end of the Second World War. The central theme of Ryle's unpublished manuscripts is the importance of scientific humanism to the development of medicine and the role of the physician in modern society. There has been a debate amongst medical-historians about the meaning of medical-humanism in the inter-war years. I would like to discuss Ryle's manuscripts in the context of the issues raised by that debate.

RYLE AND HIS WORLD

John Alfred Ryle was born in 1889, the eldest son of eleven children. John's father, Reginald, was the rebellious son of the bishop of Liverpool and became a GP practising in Brighton. Reginald was a rationalist and a member of the Aristotelian Society. Ryle inherited his father's rationalist perceptions and sought a life of science through the practice of medicine. He was unable to assume his place at Oxford University because he had to provide financial support for the education of his brothers and sisters. Instead he began training for medicine at Guy's Hospital after leaving school. John's father had a profound influence on the development of his children, a number of whom pursued academic, scientific and medical careers. John's younger brother, for example, Gilbert Ryle, became Waynfleet Professor of Metaphysical philosophy at Oxford University and a number of his sisters pursued the study of science at Cambridge. Ryle was recruited into the RAMC in 1914 and was active in the French and Belgian theatres of war. His wartime experience made him believe that medical science must become committed to constructing a peaceful future. After the war Ryle was employed as a resident physician at Guy's. He continued to develop his clinical practice in London, eventually becoming one of the metropolis's most fashionable physicians with a practice in Wimpole Street. Throughout this time he had hoped to escape private practice for a less remunerative, but more rewarding life in his view, in academic medicine. Such an opportunity presented itself when Cambridge University offered him the Regius Chair of Physic in 1936 following the retirement of Walter Langdon-Brown. Ryle's time at Cambridge, however, was not an entirely happy one. He clashed with the old guard about revising the medical curriculum and he was unable to persuade the resident physicians at Addenbrookes to release beds for research and teaching. He was allowed only four beds there for his clinical practice.

What is more important, while at Cambridge, his political consciousness became increasingly left-wing. Pre-war Cambridge had a large enough left wing to have enfolded him but Ryle was not a clubbable individual. He was uncomfortable with college life and was not content simply to intellectualise about social problems. Furthermore the Cambridge chair had traditionally been occupied by elderly men at the end of their clinical career and all had been Cambridge graduates. Ryle was young, a successful London clinician and an outsider. The local clinical elite thus perceived him as a threat. On the other hand Ryle having had no experience of the laboratory and was rejected

by some of the scientific community. Not all, however. Frederick Gowland Hopkins not only invited Ryle to take up the chair at Cambridge he also sponsored his candidacy for the University Parliamentary seat in 1939. He made other friends at Cambridge too. Charles Trevelyan, Leonard Woolf, J.B. Priestly and F.L. Lewes all supported his political campaign. Despite some of the obstacles, Ryle's achievements were not insignificant at Cambridge as the later careers of his post-graduate students testify.

At the outbreak of the Second World War his department was dispersed. He was appointed consultant physician to the Ministry of Health in the Emergency Medical Service. This was set up to deal not only with wounded soldiers but also the problems of dealing with civilian air-raid casualties. At this time, however, leading medical academics were planning to introduce social medicine into the medical curriculum. From the 1930s Wilson Jameson, the CMO to the Ministry of Health, and Sir Edward Farquhar-Buzzard, the Regius Chair of Medicine at Oxford, had publicly discussed the need to introduce medical students to the social aspects of medicine. The Royal College of Physicians had also set up a special committee to investigate the question. In 1942 Buzzard persuaded Lord Nuffield to support the creation of a new Institute of Social Medicine at Oxford. Ryle was asked to become its first director. Three further chairs of social medicine were subsequently created at Sheffield, Birmingham and Edinburgh. Ryle devoted the rest of his career to the development of research and teaching at the Institute.

From the 1930s Ryle had been concerned about the changing nature of medicine as a discipline, the education of medical students and the role of the physician in society. He believed that the model of laboratory-experimental science was inappropriate for medicine which should be an observational "field" study like natural history. Laboratory based science was responsible for a further trend that he deplored: the replacement of generalism by specialization. This resulted in the loss of a holistic perspective that he believed was essential because medicine should focus on the "whole person" instead of dividing the patient according to his pathological lesions. He appreciated the contribution of the bio-medical sciences to the improvement of accuracy and measurement in medicine. Nevertheless, he thought that medical students learnt too many mechanical techniques and had insufficient instruction in the clinical art. They were not taught how to use their senses and experience to fully interpret the causation of sickness. What is more, these observational methods were especially necessary for understanding the causes of chronic sicknesses. Chronic illness was increasing in prevalence as infectious

diseases retreated in affluent societies in the twentieth century. In the 1930s Ryle argued that medicine needed a renaissance that revived the values of the true Hippocratic method of observation. In the early 1940s he argued that the way to achieve it was for medicine to form a new alliance with the social sciences. As a social science medicine could participate in a broader social agenda. It could play a vital a part in reconstructing society according to the values of a new ideological creed called scientific humanism. Ryle explored these themes in a large volume of publications and his private communications but he added new interpretations to them in the unpublished manuscripts that he prepared just before he died. I should like to spend the rest of this essay discussing his last words on these subjects and explore how they fitted in to the world of elite, “patrician” medicine of his time.

CLINICAL DISCIPLINE AND MEDICAL HUMANISM

Ryle’s unpublished textbook was more than a teaching manual in clinical medicine despite Jacobs’ description of it as such. It was an aggressive critique of the existing intellectual structure of medicine and modern trends in practice. The text also outlined how the social sciences should be integrated into medicine. Throughout each of the sketched chapters Ryle attempted to substitute the existing conceptualization of clinical medicine with a new one of his own which he called “clinical discipline.” From the time of his debate with Thomas Lewis in the 1930s, Ryle had criticised clinicians’ dependence upon the laboratory sciences. Here he continued to deplore the fact that science had become the senior partner in medicine.

Although there had been “Brilliant advances due to the ancillary sciences, to clinical specialisation and to technical developments” modern techniques undermined therapeutic decisions. New forms of evidence obscured diagnostic, prognostic and therapeutic judgement. Haphazard and uncontrolled prescribing flourished when often simple physiological measures or “watchful inaction” would be sufficient and less harmful. In the 1930s Ryle had offered up a neo-Hippocratic ideal as the way to recreate medicine as a holistic system. Now he advocated humanism as an integrating philosophy that would unite principles and practice, theoretical and vocational medicine. What Ryle referred to as the “humanistic sciences” must become, he argued, equal partners with the laboratory sciences. In the past Ryle had been vague about what he meant by the humanistic sciences but now he identified them as a specific range of the social sciences. He described their collective role in

medicine as representing something that he identified as “medical humanism.” Sociology and “human psychology” were the central disciplines that made up “medical humanism” but anthropology and ecology could also offer useful methods and insights. Ryle stated that he intended to introduce students to the new clinical discipline by providing instruction in both clinical and social medicine. It would focus on “the personal and social concepts of disease as complimentary to the pathological concept” and would integrate preventive and “constructive” medicine into a single methodology. In effect the textbook was a critique of the failures of modern technological medicine to understand, prevent and treat the twentieth-century patient and offered an account of why salvation lay in medical humanism.

Ryle returned to a number of the themes which had consistently run through his work on social medicine. Physicians needed to become natural historians of “man in disease” as well as “disease in man.” They needed to study the individual and social causes of health as well as disease. Equally, they needed to attend to the individual and social means of treatment. One of Ryle’s heroes from the past was the founder of cellular pathology, German liberal politician and social medicine campaigner of the nineteenth century, Rudolph Virchow. Virchow had always resisted the unilinear logic of bacteriology and instead championed a multi-causal model of disease in which he included what he referred to as a “socio-logical epidemiology.” Virchow insisted that social conditions determined population health and could either prevent or encourage epidemic disease. Some of Ryle’s perceptions echoed those of his nineteenth century hero quite closely but in the textbook he began to attack these issues from a different standpoint.

Medicine was an art as well as a science. It had principles and practice; it was theoretical and vocational. In the modern era principles had become increasingly divorced from practice. Scientific, theoretical medicine had become rigidly distinguished from vocational medicine. Theoretical subdivisions not only prompted inappropriate, artificial specialization but also led vocational medicine to lose sight of its central function which was the prevention and relief of suffering. At the same time science rarely accepted that practical medicine itself could advance knowledge and provide new insights and analyses. Academic medicine was increasingly practised in ivory-tower research units which promoted bedside pathology, physiology and pharmacology. However, vocational medicine could not ignore human needs, humanistic knowledge and motives. The basic training of both the clinical scientist and the doctor should become fused so that neither lost sight of each

other. “Clinical discipline” was the best term Ryle could come up with to describe such a fusion and it was at once “scientific, practical and humanistic.”

The new “clinical discipline” began with history-taking and interrogation, symptom-analysis and used anatomical and physiological knowledge and laboratory techniques. However, it paid as much attention to psychological assessment. It utilised both experimental and observational methods but was governed by self-conscious analysis of ethical conduct. Clinical discipline would insure that students cultivated both science and humanism allowing doctors to study the local reactions to disease and understand the whole-patient in which it took place and their needs. Ryle was not alone in wishing to re-introduce the whole-person back into medical practice. The model of constitutional medicine developed by George Draper in the United States in the 1940s was equally based on the idea that psyche and soma could not be separated. Draper relied heavily upon the concept of psychosomatic disease in his reconstruction of the whole-patient. In the textbook Ryle shows greater enthusiasm than ever before for the concept of psychosomatic illness and is keen, for the first time on the introduction of psychology into the clinical discipline. Like Draper Ryle used a Hippocratic model of health to justify his notion of the whole-patient but only in the sense that he believed Hippocraticism was an observational science of the natural history of health and disease. He was less concerned than Draper with the Hippocratic model of allowing nature to take its course and allowing the body to heal itself. One of his ex-Cambridge students, Tom Garland, pointed out in a letter to Patricia Asher in 1951 that Ryle tried to avoid discussing treatment in his published works. It was a mistake, however, to take that as an indication of therapeutic nihilism. Unlike Draper, Ryle’s first concern was with the social and economic determinants of disease and health – rather more in the way that Virchow had been. Ryle never indicated that he was aware of Draper’s work or used it in any way to model his own ideas.

Ryle’s clinical discipline would engage the doctor in understanding the physiology, psychology and sociology of the emotions and would “add constantly to the day-today developments of our more elementary bed-side practice and adventures in personal understanding.” Students trained in clinical discipline would acquire the expertise not only of the clinician, the chemist, the radiologist but would also be trained as a statistician and learn the skills of a social worker. Such a broad church of knowledge was necessary because humans were social animals as well as biological organisms whose material and social environments were as subject to rapid change as their internal

economy. Doctors needed to study the total personality and the social environment of patients if they were properly to understand their fears and pains as much as their tissue changes and if, Ryle added, “We are wisely to assist him [man that is] and his communities in these adversities which we call sickness, or direct them in the quest or maintenance of health.”

While he insisted that scientific and humanistic methods must be inseparable tools for the medical student he outlined the clear blue water which divided medical science from medical humanism. Medical science embraced not only the laboratory and the hospital ward but included all systematic record keeping, analysis of symptoms, signs and the comparison of variations between the normal and the pathological. Ryle believed that laboratory analysis and the ordinary course of clinical practice equally contributed to defining the sphere of scientific medicine. Medical Humanism was concerned alternatively with

observations on personality and temperament; on the reactions of the body to mental processes and of the mind to bodily changes. ... It is concerned with human behaviour, much as zoological studies can be concerned with animal behaviour. It is concerned with man-environment relationships and their reflections in the phenomena of what we call disease and health. It considers environment as including economic, social, nutritional, educational and personal components and as supplying both physical and psychological stimuli. Medical humanism, in brief, has as the objective the study in a medical regard of the whole man and his societies, their behaviour and their needs.

As far as Ryle was concerned medical science and medical humanism were dependent upon each other. The best physician was one who “succeeds in combining the two disciplines in the common interests of knowledge and of man.”

Because individuals were social animals, “All medicine is a form of social service. It can never be strictly individualised.” So disease needed to be understood in terms of its causes, incidence and prevention all of which were bound up with habits and social organisation. Epidemiology demonstrated how diseases were distributed between classes and were caused by social circumstances within the community. Sociology illustrated how disease within a community was determined by “the stage of its civilisation, its economic systems, its nutritional advantages or disadvantages and its education.” Thus, in

the attempt to take the social determinants of health and illness into account modern medicine had become a social service. On the other hand, Ryle pointed out, the citizen is a partner in the “public health service” and inasmuch as it deals with individual lives medicine “cannot be completely socialised.” This is why the clinical scientific methods that deal with the individual and social medicine that deals with the social basis to health and sickness could not be separated.

Ryle was concerned that what he was advocating would expand the medical curriculum which was already overburdened by the ever increasing numbers of new technical and scientific specialities. The answer, he suggested, was to completely revise the pedagogic model of medical education by dealing with “wholes” in their proper relationship to “parts.” The new pedagogic model should teach whole-person medicine through case-analysis. He offered examples of how the new approach could work by: investigating the psychological stress which may have led to a case of duodenal ulcer; exploring the family history of a boy with diabetes; finding out the social circumstances which led a pre-school boy to catch tuberculosis – the answer turned out to be a form-master who had contracted tuberculosis while on national service; discovering the way in which a streptococcal infection carried by healthy members of a working-class family living in overcrowded conditions had led to the death of the mother from puerperal fever and the critical condition of the youngest child with rheumatic heart disease.

Teaching through cases would provide medical students with the holistic knowledge and practice that would equip them to face the challenge of treating ever longer-living, chronically ill populations. Equally it would allow doctors to take into account the effects of heredity and stress upon the physiology of patients. He used several case histories to illustrate his point that “diathesis” analysis must become a central diagnostic tool along with an interpretation of the effects of psychological states. Again parallel developments were occurring within the United States. The physiologist and Director of the Fatigue Lab at the Harvard Business School in the 1930s, Lawrence J. Henderson, believed that the empirical observation of case studies was the proper pedagogic model for all higher learning, whether it was in physiology or sociology. The case study fitted in to Henderson’s philosophy of epistemological “concreteness.” He compared this to the Hippocratic method that managed to achieve “the calm, dispassionate, completely empirical study of concrete cases ... until the student is fully at home in the medium as a result of a process that is adaptive rather than analytical and intellectual” (Albury and Cross, 181).

Henderson applied his own models of biological organization to the analysis of social organisms stressing the value of equilibrium theory for interpreting both. He called his application of the organic analogy to social analysis, clinical or “concrete” sociology. Ryle never explicitly used equilibrium theory in his idea of social medicine but was influenced by the homeostatic model of physiological and social processes put forward by Henderson’s colleague at Harvard, Walter B. Cannon. Cannon’s model of self-regulating human physiology fitted in with Ryle’s own view. Like Cannon, Ryle understood the relationship between health and illness in terms of Claude Bernard’s conceptualisations of the normal and the pathological as a physiological continuum. Cannon and Ryle were linked together by the French philosopher of science, Georges Canguilhem, in his famous 1943-essay *On the Normal and the Pathological*. Canguilhem argued that Ryle and Cannon identified homeostatic organic integration with social integration by representing adaptation as a form of specialization for conforming to a specific environment. Canguilhem believed, on the contrary, that successful adaptability was the capacity to be independent of any one environment and the flexibility to overcome the hazards of living in a changing world. Species normality, in this context, was insurance against excessive specialization. Ryle and Cannon, in Canguilhem’s view, were analysing the adaptability of man to *what is* rather than what *ought to be*, thus examining man’s fitness to an environment which was *already constituted* rather than one which was *yet to be* constituted.

Ryle shared a variety of conceptualisations with Cannon, Henderson and, as I mentioned earlier, George Draper in his appeal to organicism, Hippocraticism and holism. He also shared with them a common business-contact in Alan Gregg, Director of the Rockefeller Foundation’s Division of Medical Science. Gregg had become a powerful patron of Henderson’s Fatigue Laboratory in the 1930s and Gregg arranged Ryle’s lecture tour in the States and Canada 1946. Ryle visited the United States too late to have met either Cannon or Henderson and it is possible to speculate that he might have done if he had gone there earlier. Ryle never indicated, however, that Henderson or Draper ever directly influenced him and despite his admiration for Cannon he differed from him in his political inclinations. As much as he might have in common with these individuals he also held very separate philosophies, of knowledge, medicine and society.

Ryle’s contribution to his proposed collaborative textbook on clinical medicine was indeed largely philosophical. Presumably the other authors

were to provide more technical chapters of instruction in the various specialist fields. The briefly sketched chapters by Ryle himself offered a new pathway for medical education based on a new pedagogic model. His primary achievement, however, was to communicate a new vision of medicine as a theoretical discipline, a bedside practice, a community service and a form of ethical instruction to society. And it was this latter issue which really preoccupied his thoughts in the very last year of his life after he had retired from the directorship of the Oxford Institute in 1949. It is to his last intellectual explorations of the question of social ethics to which I now wish to turn.

HUMANISM AND SOCIETY

Why should a physician feel himself qualified to write an essay on social ethics? Because, Ryle argued, the physician had a special role to play in promoting a new ethical basis for society. Social advance was hindered by moral sickness. Within the last hundred years the extraordinary development of science and technology had not helped “Man” to order his societies in a way that avoided war and revolution and “even to feel and know himself.” The physician could become what the nineteenth-century physician-statesman Lyon Playfair had described as “a new priest to society” healing its ills. Ryle undertook an essay on social ethics to develop the values that should guide the physician and his role in society. Like one of his contemporaries, the senior surgeon at St Thomas’s Hospital, Percy Lockhart-Mummery, Ryle wanted to make “Man” the new God at the center of his ethical system. As a result he identified the philosophy he chose to develop as humanism that avoided the soullessness of modern materialism and the cruel injustices of superstitious theism. He did this in a manuscript intended to be a volume of “Essays on Science and Humanism and the Role of a Physician in Modern Society.” But Ryle emphasised that he did not want to write a set of essays which could be labelled as “no more than another exercise in scientific humanism.” Rather his intention was to:

pose some questions and to put forward ideas and practical propositions ... which could come to have an interest for the common man and to attract the sympathy or criticisms of professional workers, of educationists and doctors especially, and of those scientists and philosophers who are not too closely confined by academic seclusion or routine.

Being a physician put him in an especially good position to write about humanism because, as Ryle had driven home in his unpublished textbook, the physician had to become both a materialist and humanistic scientist. What is more he had daily contact with a wide range of humanity. Every day he had contact with the “poor and the well-to-do, the humble and the great or the influential; service in peace and in war; close associations with students; teaching, research and practice.” This made up the “arduous and distracting” life of a doctor. The multifarious influences upon the physician and his practical experience gave the life of a doctor a “wholeness” which was lacking in the library, the laboratory or the college cloister.” Most important of all, the physician could not escape the fact that his central problem was “Man.” The physical and the bio-medical sciences studied only the organic structures and functions of human beings. The mental and the social sciences were restricted to understanding personality, relationships, emotions and their effects upon social cohesion or disruption. Statesmen and economists lacked understanding of the biological determinants of human behaviour. Theologians, teachers, magistrates, the police and the prison-warder did not have any training in moral science comparable to “the training required of any doctor or of the mental or social scientists.” Equally the mistaken assumptions of impractical philosophers, the faulty conclusions of historians, common mistakes of writers and dramatists “could often have been corrected had their authors been steeped in the experience which the science and practice of medicine can offer.”

Ryle recognised that while “It would be folly to claim any unusual omniscience for the physician,” nevertheless a doctor had a unique opportunity to observe the human condition. The physician who followed the holistic path could make up what was lacking in the approaches of other professionals. Parents, police, judge, jury, prison officers were amateurs when it came to the study and service of “Man.” By contrast the physician had prolonged professional contact with the human experience of men, women, children, “considered as whole human beings and in close relation to their genetic, social, economic and environmental opportunities and hazards.”

Neither the materialism of science nor the deplorable superstition of supernatural religion could take society forward into a new age and fulfil the promise which new knowledge offered. Observation of “Human natural history,” stood between materialism and theism but it too had become divided by modern specialisms. The social sciences had made a start but remained still in their “Cinderella stage in university education.” Anthropology, eth-

nology, sociology and psychology all carved out their intellectual territory but remained detached from the community. History and economics only made piecemeal contributions. The brother of one of England's most eminent metaphysical philosophers in the twentieth century suggested that moral philosophers were lost in theoretical speculation. Departmental specialization and the loss of holism led the social and humanistic sciences to provide analysis without the development of values. Action was left to "uninstructed politicians, who range themselves either with the materialists or the theists, or attempt some compromise unacceptable to the extremists of these opposing camps and often signally ineffective."

Modern pre-occupations with materialism and traditional uncritical acceptance of "mediaeval theism" left little room for "what should be our central concern - Man himself" and his needs and "self-existent evolutionary story." The philosophy and aims, the science and practice of humanism would provide instruction about how to bend material forces to human advancement and away from "the deterioration of the civilising forces." Ryle argued that man was neither a physico-chemical machine nor an angel but the result of a complex evolutionary process which had given him the power to mould the terms of his existence. Without the guidance of a philosophy of what it was to be human, Man would remain bewildered by the machines and angels that were of his own devising.

Ryle set out to frame his "ethical science" within Spinoza's desire that "From this everyone will be able to see that I wish to direct all sciences in one direction, or to one end, namely, to attain the greatest possible human perfection." He believed such a motivation had led Julian Huxley to suggest that the aim of scientific humanism was "to have life and have it more abundantly" and to do so by facilitating man to exercise his "infinite powers of control." Ryle believed that Spinoza founded secular ethics and viewed his own "humanism" as an expression of Enlightenment humanitarianism. Ryle wanted to replace theism with self-conscious rational control of human destiny. Nevertheless this was distinct from bald materialism that could not provide moral values to guide human action. Ryle, the son of a devoted rationalist, was convinced that the way between the two was humanistic rationalism. The humanist-rationalist rejected both materialism and supernaturalism and thereby contributed more to human advancement than all the revealed religions and mysticism had achieved over the last 2000 years. Rationalist-humanists welcomed the ethical teachings of religious figures such as Christ and Buddha and philosophers such as Plato, Socrates and Confucius but re-

jected doctrinaire thought.

Ryle's new science of ethics, or rational inquiry into what it meant to be human, reflected a shift in his political views. Before the Second World War he had been a strong supporter of what he called the "experiment in living" being undertaken in the Soviet Union. Now he had changed his position. Great causes and revolutions – Christian and Communist – appealed to the emotions as well as the intellect with the promise of utopian futures. But the urge to power conflicted with the urge to accomplish peace, order and social betterment. Both Christian and Communist revolutions had stimulated "immense stirrings towards the ideal" but had also resulted in "the most terrible cruelties, oppressions and iniquities." They had left "the mass of people alternately elated, bewildered or bitterly disappointed." Both revolutions had been a bitter disappointment to "many good fanatics and many altruistic minds," amongst whom he counted himself. Ryle believed that materialism had letdown idealists like himself. Capitalism owed its power to scientific discovery and mechanical invention. But it was a system built upon unconscious selfishness and greed. The Communist system had begun with altruism but became caught up in a power-struggle with "capitalist imperialism." The ideal possibilities of the communist state had been blighted by mechanistic materialistic philosophy and too much bureaucratic government control. On the other hand the failures of the "capitalist state" were all too obvious. It was a system in which life was regimented through propaganda and the commercial organisation of taste through fashion. Socialism and communism aimed at least to promote "fair shares in a welfare-state" but they shared with capitalism a crude materialist philosophy and a depreciation of freedoms.

Between these two extremes the observer looked for a sane philosophy. The misfortunes of mortal life could be compensated for by altruistic teaching and did not need either mystical doctrine or mechanistic materialism. The "good rationalist" could accept the technological benefits produced by materialist knowledge without accepting it as a philosophical guide to ethical values. Equally the rationalist could do away with the comfort of mystical religion. Ryle's father had rebelled against Ryle's grandfather, the Bishop of Liverpool. Like his father, Ryle found supernatural religion repugnant. Religion was a collection of fantasies of a pre-rational age. It was the product of "primitive" intellects whose hopes and fears were exploited by priesthoods who organised religious worship and practice for their own gain. Theism and materialism distracted attention from the most important feature of being human. Human beings resulted from an evolutionary process of somatic,

psychic, moral, emotional and social development. Biology and culture were equally evolutionary. The task of humanism was to devise a natural history, a science of ethics that could guide innate moral diathesis toward good rather than evil.

Ryle explained that individuals were born with physiological “proclivities” toward certain diseases such as gout, arterial disease, diabetes, duodenal ulcer, epilepsy and tuberculosis. They could also be endowed with hereditary qualities of vigour, fine stature, high intelligence or longevity. Tendencies toward emotional stability and instability were genetic and “so is it with man’s morality.” Ancestry predetermined an infinite variety of high and low standards. The conduct of human behaviour was, to an extent inborn. However, just as physiological endowments could be enhanced or hindered by environmental experiences so too moral diathesis developed within the context of educational, social, cultural and psychological opportunities.

Christianity created extensive obstacles to the development of moral evolution with its internal institutional and ideological conflicts and its struggles to achieve political power. The moral evolution of communities and societies needed rational human control. Within communities some individuals were at the extreme ends of the moral scale but the greatest number clustered around the middle, median or average value. Societies possessed a small number of very good and very evil individuals and majority of members who qualified as neither as saints nor incorrigible sinners. The task of an ethical science was to improve the standard of what constituted the mediocre. This could be achieved if new forms of understanding and social co-operation created “equitable social systems, with a less wasteful exploitation of the world’s resources, with a better illustration or education by altruism on the one hand and rationalism on the other, and with a steady replacement of mystical by ethical elements of religious thought.” Evolution had produced a human species with the power to control its own destiny – its own evolutionary destiny. In morality “it is in our power to very gradually to bring about a slow but considerable change; to effect a larger shift from the intermediate groups....toward the mean; a small shift from the very evil to the less evil intermediate groups, and a small shift from the more good intermediate groups into that of the very good.”

An ethical science could allow Man to determine his moral evolution instead of dreaming of giant conversions, or “trusting in miraculous answers to our prayers.”

To trust implicitly in a blind indoctrinated faith and to neglect the gift of emergent reason which was brought to us in the course of evolution making us the first among animals to possess powers ... to modify the rate and course of our own evolution, is scarcely an advance on the superstitions of the savage.

The moral evolution of communities would follow in the wake of the moral evolution of individuals. Within communities there was a moral diathesis, a predisposition towards good and evil always working in varying combinations. Evil individuals rarely systematically organised an “education for others in the science and philosophy or simpler creeds of ill-doing.” Education in humanism therefore had a clear opportunity to tip the evolutionary balance in the direction of moral-betterment.

MEDICAL HUMANISTS IN THE TWENTIETH CENTURY

How then, does Ryle fit in to historical perceptions of medical humanists in the twentieth century?

The Belgian emigré to Harvard University who founded the history of science as an academic discipline just after the First World War, George Sarton, described his philosophical desire that scientific progress continued to be guided by humanistic ethical values as “scientific humanism.” It was a term popularized by Julian Huxley to describe a rationalist agenda for reforming social organization. Huxley identified himself as a political liberal. Historians have subsequently highlighted Huxley’s deeply conservative social-biological determinism. Historians have also identified other scientists and doctors of the early and mid-twentieth century who embraced a variety of values associated with philosophical Humanism, holism and organicism as conservative. Ryle obviously shared a number of the values of his conservative contemporaries.

I have already pointed out how his views about whole-patients and pedagogy overlapped with George Draper and L. J. Henderson. His views on the relationship between the normal and the pathological were informed by the same enthusiasm for Bernardian physiology that underlay Walter Cannon’s theories of homeostasis. Yet he differed from all three in his application of the organic analogy to prescriptions for social reform.

Draper, Henderson, Cannon and Ryle appealed to Hippocratism. David Cantor has examined neo-Hippocratism amongst an elite cadre of conser-

vative British physicians in Britain between the wars. Cantor has analysed the reactionary implications of neo-Hippocratic humanism especially in the work of the Scottish physician famed for treating Wilfred Owen's shell-shock, Arthur John Brock. Brock translated Galen hoping to reawaken the classical tradition in modern medicine. For Brock the technological trends in modern medicine were just another symptom of the alienating nature of modern urban society. Industrial and bureaucratic organisations crushed the natural expression of individuality and resulted in widespread neurosthenia throughout the population. Medicine and modern society needed to be re-humanised. Brock believed that classical learning could achieve a neo-Hippocratic renaissance in medicine but he looked to Patrick Geddes's social science of "civics" for reconstructing face-to-face social relations amongst communities by taking them back to the land and reviving rural values.

Brock's philosophical appeal to humanism fit into an authoritarian, reactionary social agenda repelling modernity with tradition. He abhorred socialism and bureaucratically planned welfare distribution. A number of his contemporary neo-Hippocratic humanist elite-clinicians felt the same way. Members of the Harley St elite like Thomas, Lord Horder and Sir Walter Langdon-Brown rejected proposals for a National Health Service on the grounds that it was the "rebellion of the clumsy lout against civilisation." Christopher Lawrence has discussed the way in which the political reactions to socialism by Horder, Langdon-Brown and other members of London's patrician clinical-elite were matched by their reactions against the technologisation of modern medicine. Lawrence has suggested that this patrician class adopted a neo-Hippocratic humanism to justify their conservative eulogisation of "incommunicable knowledge." Many senior patrician-clinicians, Steve Sturdy has demonstrated, were shut outside the university system in the 1930s as medical education was increasingly taken over by the new technologies of the bio-medical sciences. Lawrence argues, that in response patrician-clinicians advocated the supreme value of observational skills which could only be gained through years of practice and which could not be replaced by new technological diagnostic or therapeutic methods.

Not all elite clinical humanists could be described as conservative. Paolo Palladino has argued, for example, that the rationalist-humanism of Percy Lockhart-Mumary did not make him a conservative but a radical. He was radically opposed to democracy and believed in the rule of an elite enlightened-few who would impose their will to create a new and better humanity. Lockhart-Mumary thought that medicine and society needed to replace "the

individualistic point of view” with an authoritarian corporatism. Humanity could best progress by scientifically planning its biological future through a radical programme of eugenics which would include the elimination of the unfit for their own sake as well as that of society. Lockhart-Mumary applied an organic metaphor, the development of cancer-cells, to the analysis of social development. Society governed by the pursuit of wealth reproduced the anarchic processes which facilitated pathological growth. Human populations possessed the technologies for controlling their growth, it just required the corporate organisation to implement it. Lockhart-Mummary’s eugenic prescriptions mirrored some of those favoured by the Third Reich including a concept of the unfit which came close to the Nazi belief that there were “lives not worth living.”

Ryle and his dedication to humanism is difficult to fit into this picture of patrician conservatism and radical reaction. He shared with his friend Horder and the others a wish to resist the technological take-over of medicine and the growth of specialisation. Like Brock he linked humanism to social science. Like Lockhart-Mumary he appealed to rationalist-humanism as the ethical basis for social progress. He also shared a belief in the importance of understanding the biological determinants of social behaviour and organisation although his interest in eugenics radically differed from someone like Mumary. His earlier interest in Soviet communism was indicative of the fact that he at one time was also prepared to accept that corporate planning could improve upon liberal democracy.

However, despite his disillusionment with the materialist philosophies of communism he remained publicly committed to socialism and a partially-planned economy. He vigorously supported the introduction of a National Health Service having a public disagreement over it with Lord Horder in the *BMJ* in 1948. He outspokenly denounced private medical practice for fees but was quick to highlight the inadequacies of the National Health Act of 1946. Once the National Health Service was established he continued to champion the original plans for a system controlled by local authorities based around health centres and opposed the power given to hospitals through regional organisation.

So the question remains how to explain Ryle’s enthusiasm for humanism as a secular ethic given that it did not lead him down the same reactionary ideological path followed by his fellow members of the patrician clinical-elite. In order to explain his humanist philosophy fully I believe we need to place Ryle within a much longer tradition within medicine. That tradi-

tion reached back not to the late Victorian period which so many of Chris Lawrence's patricians identified with, but to the period at the end of the eighteenth and very early nineteenth centuries. Roy Porter has discussed how misgivings over the role of science in society articulated by intellectuals such as Sarton in the early twentieth century echoed some of the ideological conflicts which agonised late-Enlightenment medical radicals such as Thomas Beddoes, Thomas Trotter and James Parkinson. These were doctors who also believed that modern society stood on the verge of an ethical precipice. Beddoes, Trotter and Parkinson all thought that Enlightenment rationalism had created its own contradictions. Without the application of rational thought to the development of humanistic secular ethics the future was doomed, destined to degenerate into a soulless, mechanistic competition for obsessional, fetishist commodity production and consumption. They too believed that the physician had a special role to play in revitalising a social order infused with a mechanistic philosophy of the natural order of things. Like Ryle they believed that the physician had special skills and experience to help humans to understand themselves and lead the investigation into what it really meant to be human.

This was at the centre of Ryle's agenda: an ethical science of what it meant to be human, led by the holistic natural historian of humanity, the physician. In this sense Ryle was more a child of Enlightenment humanitarianism than renaissance humanism. He was not so much interested in the revival of classical learning as placing social organisation on a rational basis. He also embraced the social sciences, which reinforces his association with the age that invented them. He differed from some of his scientific and medical humanist contemporaries in his enthusiasm for the contribution that the university-based social sciences could make to the new natural history of mankind. Patrick Geddes' model of "civics" as social analysis was never institutionalised within the British university system and Brock's enthusiasm for it reflected his interest in rural-revivalism rather than his desire to use the social sciences to create a new modern society. At the end of his life Ryle's church of medical humanism, by contrast, was broad enough to include the "Cinderella" disciplines of anthropology, sociology, social psychology and even economics – although he was highly suspicious of the desire of the latter to employ the methods of the natural sciences and to become a "theoretical physics" of the capitalist free-market economy. He naively assumed that the social sciences possessed emancipatory "humanistic" epistemologies and appeared to ignore their conservative theoretical and methodological aspects.

Ryle was never someone who ran with the crowd and he sticks out amongst one now – that is he appears to be an anomaly amongst “the crowd” of scientific and medical humanists being constructed by current historiographical arguments. He deplored hagiography but his ethical high-mindedness caused one of his obituarises to call him a “saint” and another to call him “the Ghandi of modern medicine.” His vision for a medicine of society practised by philosophical physicians-of-humanity, however, was derived from much less ambitious aims. Amongst the manuscripts of the unpublished “Essays on Science and Humanism” there is a brief outline of what I can only believe he intended to become a sort of personal prologue. They are the last reflections of a dying man about his life, the craft which he practised and contribution that both might make to the construction of a humanitarian – if not humanistic – future.

The essays included in this book, and written in retirement, did not flow from the pen of an intellectual, nor were they written for intellectuals. Although he held senior appointments in the universities of London, Cambridge and Oxford, their author has reason to suppose that he was never fully accepted by his contemporaries in the academic world as “one of them.” The reason, perhaps, was that he had been brought by the circumstances of his life and work and interests too much in contact with the lives and problems of ordinary men and women and, in the process, reminded too frequently of the limitations ... of philosophies cultivated in detachment to find learning for its own sake – for all his love of it – a sufficient motive. ... A physician has no time to train himself in the higher disciplines of abstract thought, nor yet in the sterner schools of the fundamental sciences. His life, for the most part, is hurried and often harassed and packed with practical affairs, and it leaves him little leisure. Nevertheless, he is compelled to think often upon the nature of things, and especially upon the nature of man and his particular relationships with the material world.... Whether they be few or many the readers of the thoughts and observations he has tried to set down ... will wish, with Spinoza to make it their purpose [and, Ryle quotes Spinoza] “neither to mock, nor to bewail, nor to denounce men’s actions, but to understand them.” They will want to ponder the possibilities of advancing human development, while accepting the limitations of human potentiality.

I believe Ryle intended that humanism in the twentieth century should take up the task first set out by the Enlightenment party of humanity and ponder the possibility of advancing human development, while painfully accepting the limitations of human potentiality.

BIBLIOGRAPHY OF RELEVANT SECONDARY AND ADDITIONAL PRIMARY LITERATURE

- Booth, Sir, C., *Doctors in Science and Society. Essays of a Clinical Scientist* (London, 1987).
- Booth, Sir, C., "Clinical research," in Joan Austoker and Linda Bryder (eds), *Historical Perspectives on the Role of the MRC* (Oxford, 1989), 205-41.
- Bynum, W., "Darwin and the Doctors: Evolution, Diathesis, and Germs in 19th-century Britain," *Gesnerus*, xl (1983), 43-53.
- Crafford, F. S., *Jan Smuts. A Biography* (London, Allen and Unwin, 1946).
- Cross, S. J. and W.R. Albury, "Walter B. Cannon, L. J. Henderson, and the Organic Analogy," *Osiris*, 3 (New Series) (1987), 165-192.
- Forman, P. "Weimar Culture, Causality, and Quantum Theory, 1918-1927: Adaptation by German Physicists and Mathematicians to a Hostile Intellectual Environment," *Historical Studies in the Physical Sciences*, iii (1971), 1-115
- Galdston, I., *Social Medicine its Derivations and Objectives* (New York, The Commonwealth Fund, 1949), 56-75.
- Haldane, J.S. *The Philosophy of a Biologist* (Oxford, Clarendon Press, 1935).
- Hancock, W, K., *Smuts the Sanguine Years 1870-1919* (Cambridge, Cambridge University Press, 1962).
- Harrington, A., "Other 'Ways of Knowing': The Politics of Knowledge in Interwar German Brain Science," in *idem*, (ed.), *So Human a Brain. Knowledge and Values in the Neurosciences* (Boston Birkhäuser, 1991), 229-244.
- Hendry, J., "Weimar Culture and Quantum Causality," *History of Science*, xviii (1980), 155-180.
- Huxley, J., *Evolution. The Modern Synthesis* (London, Allen and Unwin, 1942).
- Huxley, A., *Science, Liberty and Peace* (London, Chatto and Windus, 1947).
- Huxley, J. *Essays of a Biologist* (London, Chatto and Windus, 1923).
- Huxley, J., *On Living in a Revolution. Fifteen Essays by Julian Huxley* (London, Chatto and Windus, 1944), 69-82, p. 69.
- Huxley, J., *The Uniqueness of Man* (London, Chatto and Windus, 1941).
- Huxley, T.H., *Science and Ethics* (London, Macmillan, 1894).

- Manuel, P., *Utopian Thought in the Western World* (Cambridge, Mass., Belknap of Harvard University Press, 1979), 759-800.
- Marshall, T. H., *Citizenship and Social Class* (Cambridge, Cambridge University Press, 1950)
- Porter, D., "Changing Disciplines: John Ryle and the Making of Social Medicine in Twentieth Century Britain," *History of Science*, 30 (1992), 119-147.
- Porter, D., "John Ryle: Doctor of Revolution?" in Dorothy Porter and Roy Porter (eds), *Doctors, Politics and Society: Historical Essays* (Amsterdam, Rodopi, 1993), 229-47.
- Ryle, J. A. *Changing Disciplines* (London, Oxford University Press, 1948).
- Ryle, J. A., "The Meaning of the Normal," *Lancet*, i (1947), 1-5.
- Ryle, J. A., "The Hippocratic Ideal," *Lancet*, ii (1934), 1263-68.
- Ryle, J. A., "The Science of Health," *British Medical Journal* ii (1942), 745-748.
- Ryle, J. A., "Social Medicine its Meaning and its Scope," *British Medical Journal*, ii (1943), 633-636.
- Ryle, J. A., "The Physician as Naturalist," *Guy's Hospital Reports*, lxxxii (1931), 278-296.
- Ryle, J. A., "Constitution as a Factor in Morbidity," *Clinical Journal*, lx (1931), 73-81.
- Ryle, J. A., "Diathesis, or Variation and Disease in Man," reproduced in J. A. Ryle, *The Natural History of Disease* (Oxford, Oxford University Press, 1936).
- Shepherd, M., "Introduction," to J. A. Ryle, *The Natural History of Disease* (reprint London, Keynes Press, 1988), xi-xix. (1st edition, Oxford, Oxford University Press, 1936; 2nd edition, 1946).
- Smuts, J. C., *Holism and Evolution* (Westport, Conn., Greenwood Press, 1973, 1st edition, 1926).
- Tracy, S.M., "George Draper and American Constitutional Medicine, 1916-1946: Reinventing the Sick Man," *Bulletin of the History of Medicine*, 66 (1992), 53-89.
- Waddington, C.H., *Science and Ethics* (London, Allen and Unwin, 1942).
- Werskey, G., *The Visible College* (London, Allen Lane, 1978).

Chapter Seven

Late Modernism, Social Medicine, Epidemiology and Class Culture in Britain after the Second World War

IN THE INTER-WAR years of the twentieth century a range of European and American medical intellectuals attempted to transform a set of ideals about the prevention of disease and the promotion of health into a new academic discipline called social medicine. The goals and aims of social medicine were constructed within an international debate about the role of the state in the provision of welfare. The early promoters of social medicine were members of a generation of social and political reformers that the historian Correlli Barnett once referred to as “New Jerusalemers.”¹ New Jerusalemers believed that the establishment of welfare states would create greater social cohesion in advanced industrial societies by reducing social and economic inequality. Medical intellectuals involved in the social medicine debate believed that medicine had a specific political role to play in the reconstruction of advanced industrial societies as egalitarian and healthy utopias achieved through scientific management.² Social medicine was a means by which health could be included amongst what the British sociologist T.H. Marshall would identify in 1950 as the social rights on which citizenship in modern liberal democratic states would be based.³

Interwar socio-medical reformers on both sides of the Atlantic believed that creating a socio-political role for medicine could be achieved by turning it into a social science.⁴ However, they were a generation of intellectuals who conceived of society as a system of social structures ultimately determined by the operation of economic power. Thus, a central focus of medicine as a “science of the social relations of health” and as an international political

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practice was the study and elimination of inequality.⁵ I will begin this essay by outlining the international debate on social medicine amongst medical intellectuals in the interwar period. The focus will then shift to the early post-war period in order to examine whether the political mission of social medicine to tackle health inequalities survived once it became institutionalized within the medical academy. I will take social medicine in Britain as an example, a pilot study, and inquire whether the goals of socio-medical reformers in Britain changed in the 1950s. I will then briefly question whether any of these developments had implications for health citizenship in Britain toward the end of the twentieth and beginning of the twenty-first century.

SOCIAL MEDICINE AND HEALTH CITIZENSHIP

The original goals and parameters of social medicine were constructed through an international exchange of ideas and beliefs. The experiments in social hygiene in the Soviet Republic during the immediate years following the Revolution were highly influential in this exchange. A generation of medical and public health intellectuals in Europe and the United States was influenced by Soviet developments when they began to consider establishing social medicine as an academic subject within medical education in their own national environments.⁶

Soviet social hygiene in the 1920s attempted to amalgamate the social and medical sciences by prioritizing the sociological context of health and illness over and above its biological determinants.⁷ The central goal of Soviet social hygiene was to identify the relationship of social inequality to health and recommend the route to correcting it. Thus the sociologisation of health was directly linked to political practice. The new discipline was, in the words of the Commissar of Public Health, N.A. Semashko, “the hygiene of the underprivileged.” Nevertheless, social hygiene researchers did not confine themselves to a class analysis of health alone but examined other socio-historical variables such as the effects of urbanization, occupational patterns, culture, subculture and the family. A sociological approach to the analysis of disease and the practice of preventive and therapeutic medicine was incorporated into the reform of medical education in the new republic. The new discipline linked the medical school with the aims of the Bolshevik Revolution and provided medicine with legitimacy in the new order. It aimed to create a new breed of social physicians within the Soviet system whose priority was preventive rather than therapeutic medicine. The program of social hygiene became threatened by the budgetary

problems that accompanied rapid industrialization at the end of the 1920s. It was an experiment in the politicization of medicine which did not survive into the 1930s.⁸ Nevertheless, the Soviet experiments were witnessed by a number of intellectuals who visited the Soviet Republic in the 1920s, including the English Fabians, Sidney and Beatrice Webb; the last Chief Medical Officer to British Local Government Board, Arthur Newsholme; the later director of the Institute of the History of Medicine at Johns Hopkins University, Henry Sigerist; and the first Professor of Social Medicine in Belgium, René Sand, from the University of Brussels.⁹ These and other individuals who were to hold pivotal roles in international health organizations such as the Milbank and Rockefeller Foundations were stimulated by the Soviet model into revising their ideas about the social role of medicine in industrial societies.¹⁰ The Soviet model became a template of objectives which others sought to emulate.¹¹

The social hygiene movements of the early twentieth century had begun to create a new pathway for medicine “from the social standpoint,” as Arthur Newsholme had put it.¹² After the First World War, beyond the Soviet Republic various attempts to institutionalize social medicine took place in Europe and in the United States. In France the social hygiene movement became absorbed into the development of social services on the one hand and expanded the field of family and preventive medicine on the other. At Yale University in 1931 the Institute of Human Relations, was created under the direction of James Angell, Milton Wintrnitz and Robert Hutchins. It aimed to facilitate interdisciplinary research into the crucial social and economic problems of the times. It was to be the vehicle through which Yale could become a new type of University which interacted with the world outside its walls, address social issues and play a part in helping to resolve them. Turning medicine into a social science was part of this program.¹³

A chairship in social medicine was established in Belgium with the assistance of funding from the Rockefeller Foundation. René Sand took up the post at Brussels University in 1945. Sand had been developing the concept of a new academic discipline of prevention from the 1930s trying to integrate the principles of social medicine into an analysis of what he called “the human economy.” He wrote a number of treatises on the history of social medicine in which he defined the modern discipline as “medical sociology.”¹⁴

Before the Second World War, Sand had also been a critical influence in the international promotion of social medicine, especially in Latin America, through his work for the Rockefeller International Health Board giving support for example to the creation of social medicine institutes and departments

at the University of San Marcos in Lima, Peru and the Oswaldo Cruz Institute of Rio de Janeiro in Brazil.¹⁵ No comparable developments in social medical education took place in Britain until 1939 when Sir Arthur McNaulty, the Chief Medical Officer to the Ministry of Health, proposed that a new chair of social medicine should be established at his old university of Oxford. In 1942 a Committee of the Royal College of Physicians concluded that social medicine should be integrated into all future plans for revising the medical curriculum. Through the influence of Sir Farquar Buzzard, the Regis Professor of Medicine at Oxford, upon his patient, Lord Nuffield, the Nuffield Trust provided £10,000 to set up the first Institute of Social Medicine at Oxford University. The Institute was founded as both a research and a teaching institution.¹⁶ By 1946 John Ryle, the first British professor of social medicine and director of the Institute, argued that social medicine was reforming the pre-clinical curriculum by “placing a stronger emphasis on principles and paying close attention to social factors in aetiology.”¹⁷

As in the Soviet Union and elsewhere social medicine in Britain was affiliated to a set of political objectives. For Ryle the role of the physician in society and the role of science in creating a new social order were holistically bound together. In this context the marriage of the social and medical sciences was part of a broader aim of creating a medicine of society for society. Ryle developed these ideas when the scientific community in Britain became powerfully influenced by a discourse which argued that intellectual and political radicalism were inherently linked. The location where this discourse was articulated was Cambridge University in the late 1930s and its originator was the founder of the structural school of molecular biology, John Desmond Bernal.

Bernal linked his program for unlocking Erwin Schrödinger’s question “what is life” by using the conceptual tools of mathematical physics with a radical political agenda for scientific socialism. In breaking down the disciplinary boundaries that opened the way to the pathway that led eventually to the discovery of the double helix Bernal believed that he demonstrated the inherently communistic nature of scientific creativity. Consequently he argued that the social function of science was a political obligation that should be undertaken by a new party of socialist scientists. Ryle was a completely paid up member of this philosophy. Social medicine was to amalgamate clinical and social science in order to facilitate progressive human social and biological evolution. As an expression of scientific humanism social medicine aimed to fulfill the ethical dictates of the modern evolutionary synthesis and be part

of the rising tide of corporate welfarism.¹⁸

The goals of social medicine as it developed in the interwar years, therefore, were overtly linked to political programs of social reform. The international social medicine movement before the Second World War aimed to create a new social role for medicine in order to grapple with the pathological challenges created by economic and social developments in the twentieth century. The interdisciplinary program between medicine and social science would provide medicine with the intellectual skills needed to analyze the social causes of health and illness in the same way as the alliance between medicine and the laboratory sciences had provided new insights into the chemical and physical bases of disease. But these developments took place within, and were inherently bound to, the international debate concerning the establishment of socialized medicine and the eradication of health inequalities.

The political debates within social hygiene in the post-revolutionary Soviet Republic influenced an international discourse on the social relations of medicine, health, illness and the provision of services. James Gillespie has pointed out, for example, how within international health organizations before the Second World War supporters of social medicine tried to undermine any exclusive focus on clinical medicine and push towards much broader social agendas. From the time of its establishment, the governing Committee of The League of Nations Health Organisation prioritized the development of social medicine. The International Labour Organisation's representatives on the committee persistently argued that issues of social medicine could not be separated from the question of access to services which fundamentally affected the health of workers.¹⁹

Before the Second World War, the International Health Committee of the Rockefeller Foundation also identified social insurance as a central issue of policy promotion. As Paul Weindling has pointed out, the concern to develop multi-factoral analyses of health and disease in the interwar period was stimulated by the economic crises of the 1930s and the effects of social deprivation. Consequently numerous significant individuals in the international organisation of health, such as John A. Kingsbury and Edgar Sydenstricker from the Milbank Memorial Fund, saw social medicine as a question of health citizenship. This was also the case in national contexts. Within Britain the debates surrounding social medicine in the interwar years intersected with the debates surrounding the planning of a national health service and the establishment of access to services free at the point of delivery as a funda-

mental social right of democratic citizenship.²⁰

However, did the practice of social medicine, once it was institutionalized with medical schools and universities, maintain these early goals? Numerous scholars have been investigating the development of social medicine in the post-war period in different national contexts. Here I concentrate on the British case.

MEDICINE AND SOCIAL THEORY IN BRITAIN AFTER THE SECOND WORLD WAR

Did social medicine in Britain maintain the goal of realizing health as a social right through the elimination of inequality?

One place to begin examining this question is in the text of a foundational book and an essay by Jerry Morris who was appointed as the head of the Medical Research Council's new research unit in social medicine when it was created in 1946. Morris's texts redefined the intellectual mission, epistemological and methodological basis of the discipline of epidemiology in the post war period within a social medicine paradigm. Morris created a platform for the discipline that linked epidemiological knowledge and the rational values on which it was based overtly to its function in the social reform of health.²¹ Values and functions were integrated by Morris in the deconstruction of the "burden of disease;" the use of population analysis as an aetiological method; in providing evidence on which to base clinical decision-making; and in the analysis of needs in relation to the structure of public health and medical services provision.²²

Morris's vision anticipated the major developments that would occur within and critically linked to the discipline over the next five decades, such as the establishment of evidence-based clinical medicine.²³ What I examine in this essay is how that vision signalled the emergence of a late-modernist epidemiological paradigm in Britain in the 1950s. The philosopher of science, Ian Hacking, identified the institutionalization of probabilistic thought not only within the modern disciplines of the natural sciences in the nineteenth century, but also in the social and political management of industrial societies as a definitional characteristic of cultural modernism.²⁴ His analysis defined cultural modernism as the establishment of the social authority of statistical reasoning from the early nineteenth century. He also argued that this authority was dependent upon a positivist model of scientific reasoning in industrial societies – a legacy of Enlightenment rationalism. I am in agreement with

Hacking that the institutionalization of the legitimate/political authority of positivist social statistics in health management in industrial societies is one of the defining characteristics of cultural modernism.²⁵ I would also argue that the process that Hacking specifically discusses is the emergence of statistical-cultural modernism in the first stages of industrialization.

In earlier work I have argued that a generation of intellectuals engaged in the creation of social medicine as an academic discipline in Britain after the Second World War were bound to their project through “political positivism,” which was a belief in the reciprocity between positivist science and socialism.²⁶ Here I draw upon that work to argue further that one vital expression of political positivism for this group was a late-modernist model of epidemiology. Late-modernist epidemiology is such, I would argue, because it applies the principal values of statistical modernism outlined by Hacking to the analysis of health in late-industrial capitalism. It is the relationship between epidemiology and health in late industrial capitalism that Morris encapsulates in his articulation of a new paradigmatic program of “uses.”²⁷

The epistemological goals that Morris outlines in his account of “Uses of Epidemiology” are inherently bound to a political vision of a positivist rationalistic management of health and disease in society. The conceptualization of society driving Morris’s model – which he shared with his peers – is late industrial societies which were perceived at that time to be in the process of transition toward technologically automated modes of production. Morris’s paradigm embraces the conceptualization of this transition contained in sociological theory in the 1950s and ‘60s. In the post Second World War period, late industrial capitalism was represented in new theories of large scale social systems as being in the process of transition toward technologically automated societies in which the class structures produced by labor intensive industrialization were being eroded. I will argue below that this conceptualization of the structure of late-industrial capitalist societies was established above all by the dominant figure of sociological theory in this period, Talcott Parsons.

It is my argument that the late-modernist paradigm of epidemiology expressed in Morris’s seminal work in the 1950s embraced the post-war sociological view of social stratification that characterized late industrial capitalism and that this had significant ideological implications for the discipline. The central focus of late-modernist epidemiology was what Morris referred to as “modern epidemics.”²⁸ That is, chronic diseases resulting from an epidemiological transition brought about by the mid-twentieth century

through the public health control of infectious diseases in industrialized societies from the late nineteenth century. I will explore Morris's *BMJ* article in order to argue that Morris's seven Uses interlinked scientific and political goals in a way that reflected a thoroughly late-modernist view of the structures and processes of post Second World War society.²⁹

NEEDS AND STRUCTURES

Much has already been made of the way in which Morris bound the study of aetiology through population analysis to the study of the disparity between needs and the structure of public health care and medical services.³⁰ As Steven Frankel has pointed out this was a needs-driven epidemiology of "indications" that starts with the level of population that could benefit from services rather than the number of people with a particular condition.³¹ Morris's epidemiology of needs chimed with the political focus on poverty that characterized the original analytical framework of Morris's other disciplinary identity, social medicine.³² Analyzing the relationship between socio-economic inequality and differential distribution of health and disease was a foundational agenda of Morris's peers in social medicine, including of course his close collaborator and founder of post-war theories of the welfare state, Richard Titmuss.³³

The other value which this group shared was a belief in the analytical power of quantitative methods and the potential political power of epidemiological research to influence policy making and thereby social change. Thus for this generation of peers, social medicine and a needs-driven epidemiology were more or less interchangeable descriptions of the quantitative, population-based scientific investigation of disease, health, and socio-economic inequality aimed at instituting social change. It is this connection of quantitative empirical analysis to the institutionalization of social change that I have elsewhere referred to as the "political positivism" of Britain's first generation of social medicine academics.³⁴ The epidemiological link between inequality and disease causation supplied social medicine with its scientific authority.

The *British Journal of Social Medicine* was founded and edited by the geneticist Francis Crew and the quantitative biologist Lancelot Hogben in 1947 and was dedicated to analyzing the "numerical, structural and functional changes of human populations in their biological and medical aspects."³⁵ The editors suggested that the methods of social medicine "must necessarily be statistical, involving the use of numerical data obtained either from official sources or from special field investigations, and interpreted in the light of established findings

of the laboratory and of the clinic.”³⁶ This was equally central to the agenda for institutionalizing social medicine of Morris’s contemporary, Thomas McKeown. McKeown succeeded Crew and Hogben as editor of the *British Journal of Social Medicine*, became the longest-standing professor of social medicine in Britain and a dominating figure within the discipline. McKeown shared, with Crew and Hogben, a belief in the emancipatory power of positivist science and socialist politics. Like Crew and Hogben he remained wedded to a faith in the force of quantitative explanations, for example, in his historical-demographic argument which aimed to discredit the triumphalist myths of clinical medicine.³⁷

Morris’s uses for epidemiology reflected the hegemonic impetus of political positivism that characterized the academic worlds of social medicine and needs-driven epidemiology in this post-war period. In his 1955 *BMJ* article he suggested that the analysis of the therapeutic impact of insulin upon diabetes distribution revealed that “social classes I and II did much better than for classes IV and V.” Therefore, he asks, “How are the benefits of anticoagulants being distributed today or of the new cardiac surgery.”³⁸ However, by the time of writing this, Morris was moving beyond a conceptualization of social inequality based on social class and was looking toward a more sociologically discriminating conceptualization of social stratification: “Differences are, I fancy, more likely to be regional and local than related to “social class.” A dynamic science of epidemiology analyzed changing people in a changing society, questioning “What are the *social* changes that underlie the *biological* changes expressed?”³⁹ (Morris’s emphasis) Morris believed that a sociologically astute stratification of need could be the instrument that would revolutionize clinical perceptions of disease causation, health and therapeutic needs and service provision: “In how many other examples of medical, obstetric or dental care would *community* comparisons stimulate fresh *clinical thinking*.”⁴⁰

At the same time as Morris was developing these insights, a major shift was taking place within post-war sociological theories of advanced industrial societies that substituted a Weberian model of social stratification for earlier Marxist-driven class analyses of social structure.⁴¹ This conceptual shift was exemplified above all in the sociological theory of the Harvard sociologist who dominated the discipline for at least three decades after the war, Talcott Parsons.⁴² In embracing a fundamentally Parsonian conceptualization of social stratification Morris encapsulated the emergent late-modernist paradigm of epidemiology. “What of the changing class structure today, of the new prosperity? It is only recently that Simon’s dictum of 1890 has lost its force: how far the poor can be made less poor....”⁴³ For Morris one of the “characteristic modern

changes” was that “The ‘new’ diseases show little of the concentration among the poor that was so common in the ‘old.’”⁴⁴

The full implications of this paradigm went beyond substituting community for class in determining the social structure of health differentials. I argue below that the late-modernist paradigm of epidemiology also embraced post war theoretical assumptions about the embourgeoisement of technologically automated industrial societies dominated by middle class structures and values universalized in mass cultures.⁴⁵ The decreasing epidemiological significance of social class in Morris’s population science allowed the deconstruction of the complexity of the social and biological relations of chronic diseases through the identification of “ways of living” as their primary cause.⁴⁶ In deconstructing ways of living, late-modernist epidemiology was able to offer the opportunity to prevent illness by changing social and individual behavior. “The biggest promise of this method lies in relating diseases to the *ways of living* of different groups, and by doing so to unravel ‘causes’ of disease about which it is possible to do something.”⁴⁷

THE CHANCES OF A HEALTHY LIFE

Morris’s calculus of individual risk from the identification of causes through the observation of populations echoed the methodologies developed by inter-war commercial life-insurance actuarial analysis for determining the chances of a healthy life. This is not surprising given his close collaboration with Richard Titmuss who first learned his craft working for the insurance industry.⁴⁸ But I would argue that more is at stake here than simply mathematical modelling, such as was the case in the influence of R.A. Fisher’s work upon the development of randomization by Austin Bradford Hill.⁴⁹ Rather, it is the changing values about health and individual responsibility which were transmitted through this rational association.

Morris emphasized the necessity of a multiple causal analysis of chronic diseases if causation is to be utilized for prevention. He was highly sceptical of the unilateral logic of bacteriological aetiology – even applied to infectious diseases. For example, identifying *Trepona pallidum* was not a sufficient or useful explanation of the cause of syphilis when prevention depended as much upon the influences of “race, of sex, of age, and such causes as the psychology of promiscuity, the economics of prostitution, the life of the merchant seaman, the horrors of war, the denial of family life in contract migrant labor, causes which in one combination or another may produce a case of

syphilis.”⁵⁰ Biological causes, such as hereditary disposition, and sociological causes needed to be included in multi-variable analyses to crack the puzzle of modern epidemics.⁵¹ But Morris placed “ways of life” at the center of the causal analysis of what were perceived at the time as the dominant chronic diseases of coronary heart disease, lung cancer and obesity.⁵²

Morris drew upon what he called “the famous analysis from the ‘Metropolitan Life’ on the dangers of ‘overweight,’”⁵³ to illustrate “the first turning of the ground to highly advanced observations.”⁵⁴ In the 1920s, statisticians working within the life insurance industry in the United States had begun to examine the relationships between lifestyle, overweight, morbidity and mortality. Louis Israel Dublin produced surveys on overweight and mortality for the Metropolitan Life Insurance Company in 1924 and 1929 and completed surveys on lifestyle and chronic disabling diseases, including asthma and heart disease with Herbert H. Marks in the 1940s.⁵⁵ At the end of the war the US Public Health Service initiated new studies of the impact of the epidemiological transition upon chronic diseases when Joseph Mountain hired Gilcin Meadors in 1946 to found what eventually became the Framingham study of heart disease in 1947.⁵⁶ Meadors set up the initial study with the express purpose of producing “recommendations for the modification of personal habits and environment” that could prevent the development of CHD.⁵⁷

While the Framingham study highlighted the role of diet and cholesterol, by the early 1950s in Britain Morris and his colleagues at the MRC Social Medicine Unit were highlighting another lifestyle determinant of CHD, exercise.⁵⁸ For Morris this study was an example of how “ways of living” as general factors could be studied as specific variables in the causation of specific diseases and thus could contribute to understanding the health chances of the individual.

Building upon “the method of the life table, the basis of the actuary’s work,”⁵⁹ aetiological calculation of “major aspects of behavior ... ways of life, mass habits and social customs”⁶⁰ placed individuals at the heart of late-modernist epidemiological analysis and preventive medicine. In the “epidemiology of personal habits,” such as smoking, physical activity, psychological states, sexual behavior, differences between individuals cut across social classes, occupations, regions. The studies Morris and his peers were undertaking on exercise, smoking and diet illustrated that “individual variability within the group will matter more.”⁶¹ And as Morris pointed out the epidemiological significance of personal habits had profound consequences for public health. That was “the new sanitary idea, that prevention of disease

in the future is likely to be increasingly a matter of individual action and personal responsibility.”⁶² This contrasted dramatically with public health of an earlier era where “the community did things for the individual.”⁶³ What might have appeared as a “new sanitary idea” to Morris and his peers in the 1950s, however, would have been old news to the commercial life-insurance industry.

EPIDEMIOLOGICAL MODERNISM AND THE NEW PUBLIC HEALTH

The many interviews, radio broadcasts and publications given and written by Morris during his long career have allowed historians to document his role in the promotion of a new public health grounded in prevention of chronic diseases through the reform of individual lifestyles.⁶⁴ I have elsewhere documented the complex relationship of Morris’s allied academic discipline, social medicine, to the rise of lifestyle preventive medicine.⁶⁵ (See Chapter Nine of this volume.) But here I have tried to push the historical interrogation of the rise of lifestyle medicine to another level of analysis by probing the political and intellectual ecology of that transformation. I have begun this task by looking at the influence of post-war sociology of class culture upon the rise of the “biopsychosocial”⁶⁶ model of disease.⁶⁷ The biopsychosocial model of disease and disease prevention took on an intense centrality specifically in Anglo-US models of public health in the late twentieth century in contrast to structural models of social medicine, for example, in Latin America.⁶⁸ What Morris’s manifesto for epidemiology in the late 1950s reveals, however, is the hegemonic rationale for some of these developments.

While placing the disease risks of personal habits to the chances for a healthy life at the center of the “new sanitary idea” late-modernist epidemiology and the political positivism on which it was based did not represent a conservative philosophy in its own epoch. Rather it reflected the adjustments of a social democratic political philosophy of health to anticipated post-industrial, technologically automated societies. What I have called the late-modernist model of epidemiology articulated by Morris synthesized the intellectual modernism of the post-war social sciences with congruent insights offered in commercial actuarial accounts of health and disease risk of the pre-war era. Late-modernist epidemiology did so, however, with the goal of furthering the establishment of social, economic and health egalitarianism by using the latest intellectual tools at its disposal. One measure of success in this endeavor would be, Morris argued, to “abolish the clinical picture”

of disease.⁶⁹ He and his peers believed that this was a primary social need of his day and was society's best shot at reducing the burden of the metabolic, malignant and degenerative diseases that characterized late industrial societies.

SOCIAL MEDICAL RESEARCH AND THE RISE OF THE BEHAVIORAL ETIOLOGY OF DISEASE

In the first two decades following the Second World War social medicine structured its institutionalization and professionalization around its identity as a discipline of pure research, the defining characteristic of which was quantitative analysis.⁷⁰ Thomas McKeown who had been made professor of social medicine at Birmingham University in 1946, promoted this identity, above all. McKeown was a disciple of Lancelot Hogben who, together with Francis Crew, was wedded to statistical measurement as the basis of scientific validity within the social and biological sciences. The legitimacy of the quantitative determination of the aetiology of chronic disease dramatically increased when Austin Bradford Hill and Richard Doll revealed the causal relationship between lung cancer and tobacco consumption in 1950.⁷¹ Hill and Doll used the same quantitative methodology to argue the causal factors in other chronic conditions, for example, the relationship between viral diseases such as Rubella in pregnancy and the production of congenital defects.⁷² At the same time Bradford Hill was involved in refining the statistical methods of the clinical trial, first applied to the development of Streptomycin and PAS.⁷³ Hill and Doll's researches inspired a significant expansion of quantitative aetiological research. By the middle of the 1960s social medicine became almost indistinguishable from epidemiology and in 1965 some members of the Society of Social Medicine, which had been founded in 1956, believed that its name and the definition of the discipline should be changed to epidemiology.⁷⁴ Nevertheless, a consistent proportion of studies pursued within the discipline continued to investigate the social rather than the clinical aetiology of disease. The definition of the social changed within the first decades following the Second World War.

FROM SOCIAL STRUCTURE TO SOCIAL BEHAVIOR

In the first decade following the Second World War some social medicine research groups in Britain were focussing upon the social structural determinants of health and disease. One study that exemplifies this approach is the

examination of continuing high levels of pulmonary tuberculosis in Glasgow conducted by Lilli Stein in the late 1940s and early '50s. At the time she conducted the survey Stein was a member of the department of social medicine at Edinburgh established by Francis Crew and later, after she had left, headed by Sir John Brotherton.⁷⁵ Stein's task was to try to explain the persistently high levels of tuberculosis in Glasgow following the end of the war in terms of what she called "the social complex."⁷⁶ Her goal was to move beyond what she called "the vague and general belief that tuberculosis is a social disease" because this was of:

little aid in preventing its further spread or in ameliorating the conditions most closely associated with its incidence. General reference to 'social conditions' do not lead to specific actions. To achieve control, the influence of different social factors upon mortality and incidence must be established and the effects of past circumstances and present policy assessed.⁷⁷

As a result she designed a study that would investigate "the influence of socio-economic conditions in Glasgow on tuberculosis rates from 1930-1947, and to break down the 'social complex' into components the relative importance of which can be evaluated."⁷⁸ She ran regressions on various indicators of poverty, on unemployment rates and variables such as overcrowding in different districts of Glasgow and discovered that neither poverty nor unemployment correlated with increased rates to the same degree as conditions of overcrowding. This led her to conclude that while no one social determinant could be identified as a singular cause of tuberculosis distribution, the strong correlation between each social factor and increased TB rates overall continued to support the view that "tuberculosis is a social disease."⁷⁹

The variables in the social complex do not operate as one single factor, but contribute differently to mortality and notification variances. Ordinary overcrowding and overcrowding play a most important part; together they 'account for' 60-70 percent of variance and have approximately equal weight. Poverty and unemployment contribute about 5-15 percent of variance in most regressions, poverty showing a more marked connection with mortality.

Stein attempted to improve the sociological sophistication of her socio-medical investigation of tuberculosis by producing variance analysis of

individual social factors. She moved from Edinburgh to become a lecturer in medical statistics at the Institute of Psychiatry at the Maudsley Hospital in London. By the end of the decade she began to apply her statistical methods to the study of the “‘Social Class’ Gradient in Schizophrenia” and the investigation of “Morbidity in a London General Practise.”⁸⁰ In these studies she tried to apply quantitative and qualitative sociological research, including survey questionnaires and in-depth interviewing, along with recorded medical and NHS data plus statistical analysis of results to refine her interpretations of the “social complex” of disease.⁸¹

Stein’s interpretation of the relationship between overcrowding and tuberculosis was criticised by G.Z. Brett and B. Benjamin who conducted a mass radiography survey in Islington in 1956 and discovered that “there is no simple direct relationship between housing density and the incidence of active post-primary respiratory tuberculosis.”⁸² They did nevertheless agree with Stein’s broader argument because their study “underlined the importance of what is broadly termed the social complex.”⁸³ “Thus the search for the unknown infector is probably best based on the general social conditions of an area, with a population analysis by socio-economic groups as the most reliable criterion, rather than on data concerned specifically with housing.”⁸⁴

But Stein, Brett and Benjamin’s allegiance to a structural explanation (ie. social inequality) of the distribution of tuberculosis was soon challenged by new studies that tried to match Stein’s methodological sophistication. At the Oxford Institute of Social Medicine Josephine Webb, funded by the MRC, and Alice Stewart, who replaced Ryle after he retired, tried to demonstrate that TB was less a disease of “the social complex” and more a disease of opportunity offered for cross-infection.

In 1951 Stuart and Webb investigated the “Spread of Tuberculosis from House to House” in Northampton after an unreferenced “observation” had been made in 1948 that many tuberculosis patients there lived next door to each other.⁸⁵ After completing a medical survey of TB notifications between 1921-1948 and a sociological survey of the areas where the notifications were made in Northampton during the same period Webb and Stuart concluded that a pattern could be discerned which demonstrates that its spread was: “Due not to social, economic, or occupational factors, nor exceptionally large number of related persons in next-door houses, but to the spread of the disease between neighbours.”⁸⁶

The working class communities which contributed to the vast majority of TB notifications in Northampton experienced increasingly improved living

standards throughout the period along with a steady reduction in overcrowding. What Webb and Stewart observed, however, was a pattern of social behavior amongst these communities in which neighbourliness resulted in frequent open access between households. They concluded, therefore, that TB was spread by patterns of sociability characteristic of working class sub-cultures.⁸⁷

A comparison of the work of Stein, Brett, and Benjamin and the Oxford group illustrates how two different interpretations of the relationship between infectious disease and the “social complex” began to emerge in the early 1950s. Stein, Brett, and Benjamin used regression analyses to demonstrate that while different social variables were more or less determinant at different periods, pulmonary tuberculosis was caused overall by social structural inequality. Stewart, Cairns, and Webb, however, identified the most significant social determinant of the disease to be a form of social behavior characteristic of working class life rather than social or economic inequality. An analytical shift took place, therefore, in the socio-medical study of TB distribution in the early 1950s which identified social behavior rather than social structural inequality as its aetiological determinant.

The shift of focus from social structure to social behavior in the sociological analysis of disease and health can be observed in a range of further studies in the same period influenced by the new sociology of working class life. In Britain in the 1950s post-war working class housing estates became a prominent focus of sociological investigation, the most influential of which was a study done by Michael Young and Peter Willmott.⁸⁸ Young and Willmott wanted to examine the effects upon family and community life of migration from a traditional working class community, the London Borough of Bethnal Green, to a new post-war housing estate built by the London County Council in Essex, fictitiously called Greenleigh to retain the anonymity of the subjects of the study. The study compared patterns of kinship, the sociology of family life and occupation in the original borough community with the changing beliefs, attitudes, culture, and patterns of behavior in social relations and interaction amongst those who moved to the new housing estate.⁸⁹ The changing character of working class identity, behavior and social relations in post-war communities, especially on new housing estates, new towns and extended towns, became the focus of a raft of new sociological investigations in the 1960s that began to redefine class as a cultural rather than primarily an economic category.⁹⁰ The redefinition of class as a cultural rather than an economic category stimulated the development of socio-medical studies of

changing patterns in the utilisation of health services.

The Conservative administration that came to power in 1951 was anxious about the increasing costs of the National Health Service. A major investigation into the service was completed by the Guillibaud Committee in 1956 which demonstrated that the NHS was a bargain,⁹¹ but the government still wanted the utilization of services and consumption and expenditure on drugs investigated.⁹² At the London School of Hygiene and Tropical Medicine, the Department of Health independently conducted a large study of the social relations of health, illness, service provision and utilization, and drug consumption and prescribing on a housing estate built by the London County Council just after the war 15 miles north of London in Hertfordshire. The estate had 17,000 inhabitants the majority of which were young families under the age of 65 and largely belonging to what was then identified by the registrar general's classification of occupations as Social Class III, skilled manual, routine clerical and shop assistants.⁹³ The semi-rural estate in Hertfordshire had been used by the LCC to rehouse families living in overcrowded and insanitary conditions from Paddington, North Kensington and Fulham. The team from the School, led by the then Reader in Public Health, John Brotherston, conducted a social survey of 750 families on the estate through a series of structured interviews combined with the analysis of hospital admissions, GP records, records of schools' medical inspections and teaching records. They used the national "Survey of Sickness" from 1947-1952 as a baseline from which to identify some specific areas for investigation,⁹⁴ and also acknowledged the influence of the Young and Willmott study on their own.⁹⁵

A number of the individual projects conducted by the team reveal a progression toward a cultural conceptualization of class as a set of norms, values and behaviors. The first publications by team members included an analysis of general practitioner consultations⁹⁶ and the social and psychological effects of rehousing.⁹⁷ Following Young and Willmott's lead regarding the alienating isolation experienced by the rehoused working class, the Brotherston team chose to analyze the "incidence of neurosis" in the new housing estate⁹⁸ investigating the possibility that:

the strains consequent on rehousing in a new estate of suburban character, combined with the preponderance of small families unsupported by extended kinship ties, might predispose to an increased incidence of at any rate the minor psycho-neurotic and psycho-somatic disorders.⁹⁹

In examining the “characteristics of the rehoused population” the team could “not provide an adequate explanation for the apparent excess of psychological disorder among people on the estate.”¹⁰⁰ They concluded, therefore, that “the dislocating effects of the rehousing process itself,” i.e. “the effects of social and cultural change” accounted for “an increase in the incidence of minor psychoneurotic and psychosomatic disorders.”¹⁰¹ But they also believed that, as was shown by Young and Willmott, the attenuation of kinship ties on the new estate which created a new culture of each family “keeping itself to itself,” could generate “loneliness and social isolation inconsistent with positive mental health.”¹⁰² One expression of alienation had been high juvenile delinquency rates suggesting that “psychological maladjustment was exceptionally common among children on the estate immediately after rehousing.”¹⁰³

Other features of social change and health culture were investigated by Ann Cartwright and Margot Jefferys who used the opportunity of the Hertfordshire estate survey to investigate the effect of married women’s employment on their own health and the health of their children. A previous study by Douglas and Bloomfield completed on the health of children born in 1946 had found no significant differences in the illness records of those whose mothers did paid work outside the home and those whose mothers were at home full-time.¹⁰⁴ Cartwright and Jefferys’ findings were similar though they did feel that perhaps an excess of eye-strain among children aged 5-9 of full-time workers “may be associated with reading or televiewing habits” because “it is possible that, in 1954-5, there were more television sets in the homes of families where the mother was working than in those where she was not.”¹⁰⁵ Overall Cartwright and Jefferys’ studies found that “there were no overt signs that children of any age whose mothers worked full-time or part-time were adversely affected emotionally.”¹⁰⁶ And no evidence of the “‘neglected,’ ‘latch-key’ child.”¹⁰⁷

The study of the Hertfordshire estate by the Brotherston team had been primarily set up to investigate the relationship between social mobility, domestic relocation and health service use. Within these studies a cultural conceptualisation of class as determined by changing norms, values and behavior associated emerged.

The shift toward the study of class culture began to characterize a wide range of social medical investigations in this period. For example, many studies of infant mortality before 1955 continued to argue for the primacy of economic inequality as the major cause of steep differential gradients accord-

ing to class. However, new sociological investigations began to explore other factors. In the early 1950s, because it was extremely difficult to determine the intra-uterine events that may have led to the death of babies within the first four weeks of life, often the cause of death on certificates was simply listed as “prematurity.” Stewart, Webb, and Hewitt from the Oxford Institute suggested that this term really described a way of dying rather than an actual cause and in 1955 they attempted to correlate 1078 still births and neonatal deaths with a variety of factors including the mother’s physique during the ante-natal period.¹⁰⁸ The result of investigating what would appear to be the biological conditions pertaining to death again resulted, however, in identifying social behavior as a major factor. In their 1955 study Stuart, Webb, and Hewitt discovered that:¹⁰⁹

‘Medium’ and ‘thin’ women did not differ in their ability to produce live infants, but among the 212 women described as ‘obese’ the risk of still birth or neonatal death was 60 percent, above the standard. This risk appeared to be still greater among the women who were described as both ‘obese’ and ‘short.’

The established theory about the relationship between poverty and infant mortality was thus challenged by a new argument that mother’s physique, in particular obesity, was the major determinant of stillbirth and neo-natal death. This argument implied that lifestyles, involving unhealthy behaviors such as excessive food consumption and lack of exercise, created major risks rather than life conditions such as economic inequality.

There is insufficient space in this essay to chart how the identification of the “healthy lifestyle” by epidemiological research and its public promotion later became the central focus of post-war preventive and social medicine in Britain. However, the origin of the focus on lifestyle lay in the new sociological approach to investigating health as a product of class culture in the 1950s. The development of “lifestyle medicine” has been identified by some contemporary critics, such as the Stoke Newington doctor, Michael Fitzpatrick, as producing a Tyranny of Health. Fitzpatrick believes that the relentless promotion of the healthy lifestyle has created culture of hypochondria which has in turn exponentially stimulated the market for alternative healing – or complementary medicine – and turned the British GP at least into a medical policeman of deviant behavior trying to impose medical regulation upon everyday life. The road from the social medicine of social behavior in the

1950s to the creation of a “worried well” society in the twenty-first century is a story for another time. However, if the hypochondriachal society is connected to what the historian Edward Shorter has identified as an excessive psychologisation of illness in the late twentieth century then there is plenty of evidence of increasing preoccupation with it in the 1950s.

The investigation of the psychosomatic nature of disease and the role of stress in the aetiology of the diseases of modern life gained increasing attention in the 1950s from within clinical science as well as in social medical research, reflected in studies such as “The Relation of Stressful Life Situations to the Concentration of Ketone Bodies in the Blood of Diabetic and Non-diabetic Humans” – a study completed by Hinkle, Conger, and Wolf in 1950 published in the *Journal of Clinical Investigation*. New definitions of pathological personalities began to emerge within social medicine as much as they did in clinical psychology, such as of the “personality of the unemployed.” Markowe, Tonge, and Barber all funded by a grant from the Medical Research Council for Research into Occupational Adaptation, concluded from their study of 222 registered disabled persons in 1954 that a type of employment neurosis was prevalent amongst the long term unemployed. Markowe, et.al. argued that even when these individuals regained employment their personality traits soon led them again into unemployment.¹¹⁰

The most successful correlation between a chronic disease and social behavior had been conducted and published in 1950 by Bradford Hill and Richard Doll in their study of the relationship between lung cancer and tobacco smoking.¹¹¹ In identifying social behavior, i.e., tobacco consumption, as the primary aetiological determinant of lung cancer they reflected the “spirit of the age” in social medicine in the early 1950s that had a profound influence on changing the orientation of preventive medicine and public health throughout the subsequent century.¹¹²

CONCLUSION

Did the shift from the analysis of social structure to the analysis of social behavior within social medicine and epidemiology have implications for the social status of health citizenship? The full answer to this question lies beyond the scope of this essay. However, I would argue that after the Second World War, the identification of social behavior as opposed to social structural inequality as the major sociological determinant of disease changed the role of social theory in medicine. This shift was informed by post-war

sociological studies of social stratification which began to redefine class as a cultural phenomenon determined by norms, values and behavior rather than as primarily an economic category.

Social medicine was formed as an academic discipline in the inter-war years in the twentieth century through an international debate amongst a generation of medical intellectuals who closely identified with broader ideological goals for social and economic reform in advanced industrial societies. The inter-war social medicine debate was overtly linked with a “political mission” to create an egalitarian universal distribution of health and access to services in modern societies. Central to the goals of pre-war and wartime social medicine was the identification and elimination of health inequalities. Universal health featured within a broader discourse on the creation of universal welfare in which the realisation of social rights would assist in eliminating inequality and increase social cohesion.

In the early post-war period social medicine ceased to focus on health as a social right and a political entitlement. Post-war social medicine asserted instead that health citizenship implied an obligation to reform social behavior to maximize the chances of health and minimize the threat of disease. The social behavioral studies of the aetiology of disease translated into a new hegemonic mission for preventive medicine that looked to reform personal and social behavior rather than the reform of social structure as the route to a healthy society. The influence of this shift in orientation within social medicine on the promotion of health through the construction of an ideal healthy lifestyle needs to be explored in further research before a direct link can be made between the development of social medicine as an academic discipline and the rise of the worried well society.

NOTES

¹ Barnett, C., *The Audit of War: The Illusion and Reality of Britain as a Great Nation* (London, Macmillan, 1986).

² Porter, D., “Changing Disciplines: John Ryle and the Making of Social Medicine in Twentieth Century Britain,” *History of Science*, 30 (1992), 119-147.

³ Marshall, T.H., *Citizenship and Class and Other Essays* (Cambridge, Cambridge University Press, 1950).

⁴ See René Sand, *The Advance to Social Medicine* (1st English Translation London, Staples Press, 1952); J. A. Ryle, “Social Medicine,” *British Medical Journal*, i (1942), 801;

J. A. Ryle, *Changing Disciplines* (London, Oxford University Press, 1948). See also A. J. Viseltear, "Milton C. Winternitz and the Yale Institute of Human Relations: a brief chapter in the history of social medicine," in Dorothy Porter (ed.), *Social Medicine and Medical Sociology in the Twentieth Century* (Amsterdam and Atlanta, Rodopi, 1997), 32-58 and Dorothy Porter, "Changing Disciplines: John Ryle and the Making of Social Medicine in Twentieth Century Britain," *History of Science*, 30 (1992), 119-147.

⁵ Porter, D., "John Ryle: Doctor of Revolution?" in Dorothy Porter and Roy Porter (eds), *Doctors, Politics and Society: Historical Essays* (Amsterdam and Atlanta, Rodopi, 1993), 229-47; *idem*, "Social Medicine and Scientific Humanism in mid-Twentieth Century Britain," *Journal of Historical Sociology*, 9 (1996), 168-187.

⁶ See Susan Gross Solomon, "Through a Glass Darkley: The Rockefeller Foundation's International Health Board and Soviet Public Health in the 1920s," *The Healthy Life. People Perceptions and Politics* (Alumunecar, Granada, European Association for the History of Medicine and Health and the International Network for the History of Public Health, 1999), 61-63; John F. Hutchinson, "Dances with Commissars: Sigerist and Soviet Medicine," in E. Fee and T.M. Brown (eds), *Making Medical History. The Life and Times of Henry Sigerist* (Baltimore, Johns Hopkins University Press, 1997), 229-258; Porter, *op.cit.* (ref. 5).

⁷ Susan Gross Solomon, "The Expert and the State in Russian Public Health: continuities and Changes Across the Revolutionary Divide," in Dorothy Porter (ed.), *The History of Public Health and the Modern State* (Amsterdam and Atlanta, Rodopi, 1994), 183-224; Susan Gross Solomon and John F. Hutchinson (Eds), *Health and Society in Revolutionary Russia* (Michigan, Indiana University Press, 1993).

⁸ *Ibid.*

⁹ See for example Sidney Webb and Beatrice Webb, *Soviet Communism: Dictatorship or Democracy?* (London, Left Review, 1936); *idem*, *Soviet Communism: a New Civilisation* (London, Longmans & Co., 1944); Henry Sigerist, *Socialised Medicine in the U.S.S.R.*, (London, Victor Gollancz, 1937); Arthur Newsholme, *Red Medicine. Socialised Health in Soviet Russia* (London, Heinemann, 1934).

¹⁰ James A. Gillespie, "Social Medicine, Social Security and International Health, 1920-1960," *The Healthy Life. People Perceptions and Politics* (Alumunecar, Granada, European Association for the History of Medicine and Health and the International Network for the History of Public Health, 1999), 82-83; Paul Weindling, "From Moral Exhortation to Socialised Primary Care: the New Public Health and the Healthy Life," *The Healthy Life. People Perceptions and Politics* (Alumunecar, Granada, European Association for the History of Medicine and Health and the International Network for the History of Public Health, 1999), 2-6.

¹¹ Lion Murard and Patrick Zylberman, "Neither Replication nor Rejection.

Socialised Medicine and France's Self-Image of Public Health," *The Healthy Life. People Perceptions and Politics* (Alumunecar, Granada, European Association for the History of Medicine and Health and the International Network for the History of Public Health, 1999), 63-64.

¹² Arthur Newsholme, "Some Conditions of Social Efficiency in Relation to Local Public Administration," *Public Health*, 22 (1908-9), 403-415. See also D. Porter, *Health, Civilisation and the State. A History of Public Health from Ancient to Modern Times* (London, Routledge, 1999), 283-296.

¹³ A. J. Viseltear, "Milton C. Winternitz and the Yale Institute of Human Relations: a brief chapter in the history of social medicine," in D. Porter (ed.), *Social Medicine and Medical Sociology in the Twentieth Century* (Amsterdam and Atlanta, Rodopi, 1997), 32-58.

¹⁴ René Sand, *The Advance to Social Medicine*. [Translated by Rita Bradshaw.] (London, Staples Press, 1952); *idem*, *Health and Human Progress. An essay in sociological medicine* (London, Kegan Paul & Co., 1935).

¹⁵ See Marcos Cueto, "Negotiated Health, Discourses and Practices on Social Medicine in Peru: 1920-1950," *The Healthy Life. People Perceptions and Politics* (Alumunecar, Granada, European Association for the History of Medicine and Health and the International Network for the History of Public Health, 1999), 60-61; Casa de Oswaldo Cruz, "Scientific Traditions in Brazil: The History of the *Instituto de Higiene* in Sao Paulo," *The Healthy Life. People Perceptions and Politics* (Alumunecar, Granada, European Association for the History of Medicine and Health and the International Network for the History of Public Health, 1999), 83-84.

¹⁶ Nigel Oswald, "Training Doctors for the National Health Service: Social Medicine, Medical Education and the GMC 1936-48," in D. Porter (ed.), *Social Medicine and Medical Sociology in the Twentieth Century* (Amsterdam and Atlanta, Rodopi, 1997), 59-80)

¹⁷ D. Porter, "John Ryle: Doctor of Revolution?" in Dorothy Porter and Roy Porter (eds), *Doctors, Politics and Society: Historical Essays* (Amsterdam, Rodopi, 1993), 229-47.

¹⁸ Porter, *op.cit.* (ref. 5).

¹⁹ Gillespie, *op.cit.* (ref. 10).

²⁰ Weindling, *op.cit.* (ref. 10).

²¹ Smith, G.D., "The Uses of Epidemiology," *Journal of International Epidemiology* 2001; 30: 1146-1145.

²² The seven uses of epidemiology were identified by Morris as: demonstrating historical change; community diagnosis; identifying risks to individuals; analysis health service provision and needs; completing the clinical picture of disease; identification

of syndromes and discovering causes through observation of populations. J.N. Morris, *The Uses of Epidemiology* (London, Livingstone, 1957); J.N. Morris, "The Uses of Epidemiology," *BMJ* 1955; Aug 13th: 395-401

²³ Kristiansen, I. & Mooney, G. *Evidence-Based Medicine: In its Place* (London, Routledge, 2006)

²⁴ Hacking, I., *The Taming of Chance* (Cambridge, Cambridge University Press, 1990)

²⁵ *Ibid.*

²⁶ Porter, D., "The Decline of Social medicine in Britain in the 1960s" in *idem* (ed.), *Social Medicine and Medical Sociology in the Twentieth Century* (Amsterdam and Atlanta, Rodopi, 1997): 97-121.

²⁷ Morris, *op.cit.* (ref. 22).

²⁸ Morris, *op.cit.* (ref. 22), *Uses*, 63.

²⁹ Morris, *op. cit.* (ref. 22)

³⁰ Smith, *op.cit.* (ref. 21)

³¹ Frankel, S., "The Epidemiology of Indications," *Journal of International Epidemiology and Community Health* 1991; 45: 257-259.

³² Porter, D., "John Ryle Doctor of Revolution?" in *idem* and Roy Porter (eds), *Doctors, Politics and Society: Historical Essays* (Amsterdam and Atlanta, Rodopi, 1993), 229-47.

³³ Ann Oakley, "Making Medicine Social: The Case of the Two Dogs with Bent Legs," in D. Porter, *Social Medicine and Medical Sociology in the Twentieth Century* (Amsterdam and Atlanta, Rodopi, 1997), 81-96.

³⁴ Porter, *op.cit.* (ref. 26).

³⁵ "Notice to Contributors," *The British Journal of Social and Preventive Medicine*, 1 (1) (January, 1947), edited by F.A.E. Crew and Lancelot Hogben.

³⁶ *Ibid.*

³⁷ McKeown, T., *The Role of Medicine: Dream, Mirage or Nemesis* (London, Nuffield Provincials Hospital Trust, 1976); *idem*, *The Modern Rise of Population* (London, Edward Arnold, 1976).

³⁸ Morris *op.cit.* (ref. 22) *BMJ*: 398.

³⁹ Morris *op. cit.* (ref. 22), *Uses*, 19.

⁴⁰ *Ibid.*

⁴¹ E.g. Barber, Bernard, *Social Stratification: A Comparative Analysis of Process and Structure/ Under the general editorship of Robert K. Merton.* (New York, Harcourt, Brace, 1957).

⁴² Parsons, Talcott, *The Principle Structures of Community: A Sociological View* (New York, Liberal Arts Press, 1959); *idem.*, *The Social System* (Glenco, Ill, Free

Press, 1951); *idem.*, *Structure and Process in Modern Societies* (Glencoe, Ill, Free Press, 1960).

⁴³ Morris *op. cit.* (ref. 22), *Uses*, 19.

⁴⁴ *Ibid.*

⁴⁵ Kornhauser, William, *The Politics of Mass Society* (Glencoe, Ill, Free Press, 1959); Bell, Daniel, "Modernity and Mass Society: on the Variety of Cultural Experience," in Schlossberg, Edwin (ed.) *Good News* (1969); Brubaker, Dale, L. (ed.), *Studies in Mass Society* (Scranton, International Textbook Inc., 1969).

⁴⁶ Morris, *op.cit.* (ref. 22), *BMJ*, 399

⁴⁷ *Ibid.*

⁴⁸ Oakley, *op.cit.* (ref. 33).

⁴⁹ Doll, R., "Austin Bradford Hill and the Progress of Medical Science," *BMJ* 1992: 305; Dec 19-26:1521-1526.

⁵⁰ Morris, *op.cit.* (ref. 22), *Uses*, 66

⁵¹ *Ibid.*, 61-68

⁵² *Ibid.* 61-63.

⁵³ Morris *op.cit.* (ref. 22), *BMJ*, 399.

⁵⁴ *Ibid.*

⁵⁵ Dublin, L.I., *Mortality of overweight according to spine length : Presented for the committee at the annual meeting of the Association of Life Insurance Medical Directors at Newark, New Jersey October 23 1924* (New York : Committee on Dryer Measurements in relation to Life Insurance Underwriting Practice, Report No. 2, 1924); *idem*, *The relation between overweight and cancer : A preliminary examination of evidence from insurance statistics. Proceedings of the Association of Life Insurance Medical Directors of America*. Vol. 15, 1929 (New York, Association of Life Insurance Medical Directors of America, 1929); *idem* and H. H. Marks, *Mortality Risks with Asthma: Read at the Forty-fourth Annual Meeting of the Association of Life Insurance Medical Directors of America, October 1933* (New York, Press of Recording and Statistical Corporation, 1934); *idem*, (ed.), "The American People : Studies in Population" *Annals of the American Academy of Political and Social Science*, 188 (1936); *idem* and H. H. Marks, *Mortality amongst insured overweights in recent years. Read at the Sixtieth* (New York, The Association of Life Insurance Medical Directors of America, 1952).

⁵⁶ Quoted by G. Oppenheimer, "Becoming the Framingham Study 1947-1950" *American Journal of Public Health* 95 (2005), 602-610.

⁵⁷ *Ibid.*, 603.

⁵⁸ J. N. Morris et al., "Coronary Heart-Disease and Physical Activity of Work" *The Lancet* 257 (1953), 1053-1057.

- ⁵⁹ Morris *op. cit.* (ref. 22), *Uses*, 35.
- ⁶⁰ Morris *op. cit.* (ref. 22.), *BMJ*, 399.
- ⁶¹ Morris *op. cit.* (ref. 22), *Uses*, 38-39.
- ⁶² *Ibid.*, 39.
- ⁶³ *Ibid.*
- ⁶⁴ Berridge, V., "Jerry Morris," *International Journal of Epidemiology* 2001;30:1141-1145; Murphy S. "The early days of the MRC Social Medicine Research Unit." *Social History of Medicine* 1999;12(3):389-406.
- ⁶⁵ Porter, D., "The Social Contract of Health in the Twentieth and Twenty First Centuries," in Susan Gross Solomon, Patrick Zylberman and Lion Murard (Eds), "*On Shifting Ground: Health and Space in the Twentieth Century* (London, Palgrave Macmillan, 2007); Porter, *op. cit.* (ref. 4).
- ⁶⁶ Engel, G., "The Need for a New Medical Model: a Challenge for Biomedicine," *Science* 1977 Apr 8;196(4286):129-36; see also Brown, T., "The Growth of George Engel's Biopsychosocial Model," *Free Associations*, <http://human-nature.com/free-associations/engel1.html>
- ⁶⁷ Porter, D., "From Social Structure to Social Behavior: Social Medicine and Class Culture in Britain after the Second World War," *Contemporary British History*, 16 (2002), 58-80.; *idem.*, "Class Structure and Culture in Social Medicine in Post-war Britain," *Journal of Epidemiology and Community Health* (commissioned by the editor, (03/22/07)
- ⁶⁸ Porter, D., "How Did Social Medicine Evolve, and Where Is It Heading?" *PLoS Medicine*, October 24th, 2007, 1667-1672.
- ⁶⁹ Morris, *op.cit.* (ref. 22), *Uses*, 98.
- ⁷⁰ See Porter, *op.cit.* (ref. 28).
- ⁷¹ Richard Doll and Austin Bradford Hill (1950), 'smoking and Carcinoma of the Lung,' *British Medical Journal*, ii :739-48.
- ⁷² A.Bradford Hill, Richard Doll, T McL. Galloway, and J.P.W. Hughes, "Virus Diseases in Pregnancy and Congenital Defects," *British Journal of Preventive and Social Medicine*, 12 (1958), 1-7.
- ⁷³ James Le Fanu, *The Rise and Fall of Modern Medicine* (London, Little Brown, 1999), 35-46.
- ⁷⁴ *Ibid.*
- ⁷⁵ See Porter, *op.cit.* (ref. 5);
- ⁷⁶ Lilli Stein, "Tuberculosis and the 'Social Complex' in Glasgow," *British Journal of Social Medicine*, 6 (1952), 1-48
- ⁷⁷ *Ibid.*, 2.
- ⁷⁸ *Ibid.* 6.

⁷⁹ *Ibid.*, 26.

⁸⁰ Lilli Stein, "Social Class Gradient in Schizophrenia," *British Journal of Preventive and Social Medicine*, 11 (1957), 181-195; *idem*, "Morbidity in a London General Practice. Social and Demographic Data," *British Journal of Preventive and Social Medicine*, 14 (1960), 9-15.

⁸¹ *Ibid.*

⁸² G.Z. Brett and B. Benjamin, "Housing and Tuberculosis in a Mass Radiography Survey," *British Journal of Preventive and Social Medicine*, 11 (1957), 7-9; 8.

⁸³ *Ibid.* 9.

⁸⁴ *Ibid.*

⁸⁵ *Ibid.*, 13.

⁸⁶ *Ibid.*, 25.

⁸⁷ *Ibid.*, 24-26.

⁸⁸ M.Young and P. Willmott, *Family and Kinship in East London* (London, Routledge and Kegan Paul, 1057).

⁸⁹ *Ibid.*

⁹⁰ John Goldthorpe, D. Lockwood and J. Platt, *The Affluent Worker. Industrial Attitudes and Behavior*(Cambridge, Cambridge University Press, 1968).

⁹¹ See Nicolas Timmins, *The Five Giants. A Biography of the British Welfare State* (London, Harper Collins, 1995); Charles Webster, *The National Health Service. A Political History* (Oxford, Oxford University Press, 1998).

⁹² Ministry of Health, *Final Report of the Committee on Prescribing* (London, H.M.S.O. 1959).

⁹³ Margot Jefferys, J.H.F. Brotherston and Ann Cartwright, "Consumption of Medicine on a Working-Class Housing Estate," *British Journal of Preventive and Social Medicine*, 14 (1960), 64-76.

⁹⁴ Departments of State and Official Bodies Central Office of Information Social Survey, Survey of Sickness, October 1943 to December 1945. By Patrick Slater. A report on a series of surveys on the health of the civilian population ... made for the Ministry of Health (London, H.M.S.O. 1947)

⁹⁵ F.M. Martin, J.H.F. Brotherston and S.P.W. Chave, "Incidence of Neurosis on a New Housing Estate," *British Journal of Preventive and Social Medicine*, 11 (1956), 196-202; 196, 202.

⁹⁶ J.H.F. Brotherston and S. P. W. Chave, "General Practice on a New Housing Estate" *British Journal of Preventive and Social Medicine*, 10 (1956), 200-207.

⁹⁷ H. G. Maule and F. M. Martin, "The Social and Psychological Effects of Re-Housing on a New Housing Estate," *Advance Science*, 12 (1956), 443-448.

⁹⁸ Martin, *et. al.*, *op.cit.* (ref. 95).

⁹⁹ *Ibid.*, 196.

¹⁰⁰ *Ibid.*

¹⁰¹ *Ibid.*, 202.

¹⁰² *Ibid.*

¹⁰³ *Ibid.*

¹⁰⁴ J.W.B. Douglas and J.M. Bloomfield, *Children Under Five* (London, Allen and Unwin, 1958).

¹⁰⁵ Jefferys, Brotherston, Cartwright *op.cit.* (ref. 93), 162.

¹⁰⁶ *Ibid.*, 164.

¹⁰⁷ *Ibid.*

¹⁰⁸ A.M. Stewart, J.W. Webb and D. Hewitt, "Observations on 1,078 Perinatal Deaths," *British Journal of Social Medicine*, 9 (1955), 57-61.

¹⁰⁹ *Ibid.*, 61.

¹¹⁰ M. Markowe, W. L. Tonge and L.E. D. Barber, "Psychiatric Disability and Employment. 1. A Survey of 222 Registered Disabled Persons," *Journal of Social Medicine*, 9 (1955), 39-45.

¹¹¹ Doll and Hill *op.cit.* (ref. 31); See also Virginia Berridge, "Science and Policy: the Case of Post War British Smoking Policy," in Stephen Lock and E. M. Tansey (eds), *Ashes to Ashes* (Amsterdam, Atlanta, Rodopi, 1998).

¹¹² See also Virginia Berridge, "Morality and Medical Science: Concepts of Narcotic Addiction in Britain," *Annals of Science*, 36 (1979), 67-85.

Chapter Eight

The Decline of Social Medicine in Britain in the 1960s

DISCIPLINE FORMATION HAS been widely studied within the history of science.¹ But little attention has so far been given to the disappearance of academic disciplines. Do disciplines die or do they simply become transformed, absorbed or transmute? A recent example of such institutional change is the almost complete disappearance of university departments of geography in the United States.² Academics who have trained in geography departments do research into areas such as historical and contemporary demography and epidemiology or the spatial distribution of resources and teach within history, sociology or other social science departments.³ Geography divided up into so many specialisms that it eventually became absorbed into the social sciences and ceased to exist as an independent academic enterprise within what have been traditionally identified as the humanities and the social sciences. A different trend is currently observable in relation to the academic study of English Literature.

University departments of “English” both in the United States and in Britain contain increasing numbers of scholars engaged in interdisciplinary studies. English, unlike geography, appears to be gradually colonising other intellectual disciplines under a new theoretical paradigm which it vaguely refers to as “critical theory” or “discourse theory” grounded in a cognitive faith in “post-modernist relativism.” Practitioners trained in and now teaching in English Literature departments declare the existing disciplinary boundaries dead-ducks as they engage in more and more interdisciplinary research with philosophy, history and sociology.⁴ The process by which academic disciplines emerge and transmute is historically complex and unique to each but commonly involves the politics of theory formation and its practical application. In this regard the institutional career of the academic discipline of social medicine offers some provocative insights. Social medicine never

died, because departments continue to exist⁵ and there seems to be a current trend toward creating new ones⁶ in universities and medical schools both in Europe and in the United States. However, in Britain academic researchers and teachers in social medicine did lose a significant battle at the end of the 1960s that affected the discipline's influence upon future developments. At that time many departments of social medicine changed their title.⁷

I want to begin by outlining the original conceptualization of social medicine as an academic discipline in Britain and discuss the transformations it underwent during its professionalization and institutional establishment following World War II. I shall then examine the institutional role played by social medicine in pre- and post-graduate medical education in the period leading up to the formation of the Faculty of Community Medicine in 1972. In telling this story I hope to highlight something of the intellectual and institutional relationships between medicine and social science in Britain since the Second World War.⁸

POLITICAL POSITIVISM

At a conference held on the 2nd April 1965 by the Society for Social Medicine, Thomas McKeown,⁹ professor of social medicine at Birmingham University since 1945, emphasised the separate identity of social medicine as an academic discipline from its association with the humanitarian tradition in medicine.¹⁰

Since it came into general use in Britain some twenty-five years ago the term social medicine has been used in two very different ways: as an expression of the humanitarian tradition in medicine; and as a name for an academic discipline. The first usage is general and imprecise, and our concern here will be with the second.

But initially the conceptualization of social medicine as an academic discipline was emphatically linked to humanitarian politics.¹¹

Just after the first British Professor of Social Medicine, John Ryle, retired in 1949 McKeown wrote to him expressing deep regret at this loss to the profession. McKeown acknowledged Ryle as the founder of the discipline and the pioneer of its institutional establishment.¹² But their perceptions of social medicine and its function differed in an important way. For Ryle social medicine was an ideological mission with a political purpose and a social respon-

sibility.¹³ It was also the heir apparent to clinical medicine and would change the role of medicine in society by deconstructing medicine at the bedside. Social physicians would practice whole-person medicine in place of technologically determined specialists steeped in the epistemological orthodoxies of experimental science. Doctors trained in social medicine would fulfil their true Hippocratic destiny by becoming naturalist interpreters of health and disease and teachers of a new creed to society. That creed was what Ryle's contemporary Julian Huxley had identified as "scientific humanism."¹⁴

For Ryle the "social conscience and scientific intent" of social medicine would help to establish scientific humanism as a new secular ethic governing social, economic and political behavior and he stressed that "the ideas and tasks of social medicine may be justly regarded as essential contributions (perhaps the most essential and practical of any at present within our range) to the developing philosophy of scientific humanism."¹⁵ This function, Ryle insisted, did not constitute a form of party politics. It was, instead, the foundation upon which political decision-making could be based. For Ryle scientific humanism went beyond party politics because its aim was the corporate management of human welfare. Designing an "equality of opportunity for health" was one of its tasks. Assisting the establishment of a religion of rationalism in a new social order was another.¹⁶

Social medicine in Britain in the 1940s aimed to become a medicine of society for society. Emerging from the politics of science and ethics its mission was to facilitate progressive human social and biological evolution. As an expression of scientific humanism social medicine was to be part of the rising tide of corporate welfarism. John Ryle believed that this could be achieved by changing clinical medicine into a new discipline of holistic socio-biology of health and disease. The new discipline was grounded in holistic epistemology and a deeply confirmed rejection of mechanistic positivism. Before Ryle died, however, positivism in the form of highly quantitative research into population health already began to dominate the discipline.

The positivist orientation of the new *Journal* was not surprising given its editorship.^{17,18} Hogben was an avowed opponent of "holism" which he viewed as self-indulgent mysticism by privileged intellectuals who did not have to think about the practical ways in which science could engender social change.¹⁹ Hogben believed that mechanistic, positivist science was emancipatory. He linked his epistemology of science to his political philosophy of socialism. Facts, proofs, knowledge could promote social change. Science could build a new society because it offered objective truth. He opposed the

“holistic” Marxism of some of his socialist-scientific associates in the 1930s, such as J.B.S. Haldane. Occasionally this difference of opinion blew up into a full-scale scholarly row, as it had done with his friend, the biologist Joseph Needham.²⁰

Hogben and Crew had been long associated in research into animal genetics, comparative physiology, and human ecology and population genetics. They shared a positivist philosophy of science and a cognitive enthusiasm for the power of statistical methods and explanations. Their association had begun when Crew appointed Hogben Deputy Director of his Animal Breeding Research Department at Edinburgh University in 1921. Hogben characterised the Department as keeping alive the British interest in chromosome research after the First World War. Consequently it attracted those few British biologists interested in genetics and experimentalism. After a summer-long visit to the department by J.B.S. Haldane and Julian Huxley they and Crew and Hogben founded the *British Journal of Experimental Biology* and the Society of Experimental Biology in 1924.²¹ Given Crew’s pioneering role in the support of genetic science in Britain Hogben suggested that the only reason he decided to leave it and enter into the new discipline of Social Medicine following World War II was that the term “Social Medicine” implied “human ecology.” Hogben describes Crew’s decision to leave genetic research as “fateful” coming after a “period of deep mental anguish.”²²

When he undertook onerous responsibilities in connection with the official history of army medicine during World War II, Crew, like most of us, lived from day to day in a miasma of uncertainty about what the future held. When Sidney Smith offered him in 1944 the Edinburgh Chair of Public health and Social Medicine, he must have realised how Herculean was the task to which he had committed himself as part editor, part author of the official history. Had he decided to return to his first love, he would have had to abandon a pedestrian undertaking from which what many of his admirers might well regard as a misguided sense of loyalty prevented his escape.

Such a loss to genetic science could only be justified, Hogben, suggested by the inclusion of human ecology into the old academic discipline of public health. “In the view of those who promoted the change from “public health,” hitherto conceived primarily in terms of epidemiology, to “public health and social medicine,” human ecology was what the addition of the last two words implied. At least, one charitably may believe this to be so.”²³ Indeed, Crew

did perceive the hereditary basis to population health as crucial. He identified the true father of the modern academic study of social medicine as Alfred Grotjahn who founded his theory of social hygiene on the eugenic concept of social pathology.²⁴ But Crew believed that both heredity and environment equally determined health and was emphatic that the new discipline must be based upon a marriage between the social and biological sciences both of which were dependent upon quantitative analysis. But this would change the social role of medicine. Traditionally, “the shape of medicine has in the past ever been a reflection of the shape of the society of which it was a part. It is now being given the opportunity of playing a notable role in changing the shape of that society, of initiating a change and not merely reflecting it.”²⁵

Medicine could realise this new role by embracing the social sciences because Crew believed that their function was to bring about social change and promote social amelioration. “Medicine is not as yet sufficiently prepared to play its full part in ... social amelioration and human betterment. Its development as a social science is not yet sufficiently advanced. The rate of this development must be accelerated.”²⁶

Social medicine must bring about the evolution of medicine as a science of social amelioration through an integrated intellectual programme examining all aspects of “human and social biology and human ecology.”²⁷ In this way medicine could realise its contribution towards social reform providing “information of a scientific kind which can form the basis of action relating to social amelioration.”²⁸ But for Crew the methodological base or the “investigational instruments of social medicine” were “biostatistics and field investigational teams. By means of these, records are collected and the knowledge contained within them is distilled.” Social medicine was forced to rely on such analytical tools because “the human animal cannot be used deliberately as experimental material in a controlled environment” but instead “he is unique in that records of his behavior can be and are maintained.” Statistical analysis could substitute for experimental logic as the scientific basis of “the therapy of social medicine” which was not medical but “social and political action based upon medical recommendation.”²⁹

In the *British Journal of Preventive and Social Medicine* Crew and Hogben separated politically orientated research from the politics of medical organisation as a whole. “This Journal is not meant to provide a platform for those who wish to present their views concerning the place of social medicine in the organisational set-up of medicine as a whole.”³⁰ Social medicine may have been conceived of as a transforming influence by its founders such as

Ryle and Crew but not within the conventional context of medical administration and organisation. The idea that the politics of social reform could be best served through the pursuit of ground breaking research within the context of academic science was to continue to guide the institutional development of the discipline in the following decade.

This was central to the agenda set for the institutionalization of social medicine by Thomas McKeown. McKeown succeeded Crew and Hogben as editor of the *British Journal of Social Medicine*. After the death of Ryle and the retirement of Crew and William Hobson at Sheffield, he also became the longest standing professor of social medicine in Britain and a dominating figure within the discipline. McKeown shared, with Crew and Hogben, a belief in the emancipatory power of positivist science and socialist politics. Hogben, who spent some of the latter years of his career at Birmingham, had a direct influence upon him. Like Crew and Hogben he remained wedded to a faith in the force of quantitative explanations.

McKeown's mission for social medicine included discrediting the triumphalist myths of clinical medicine. He used a historical-quantitative analysis to argue that improvements in health and "the modern rise of population" resulted from increased nutrition, higher standards of living and public health measures. Advances in clinical medicine and therapeutic methods had come too late and affected too small a proportion of the population to have played a role in the extension of average length of life and mortality decline amongst twentieth century affluent societies. His destruction of some of the pretensions of technologically advanced medicine aimed to justify the primacy of the role of social medicine in providing society with what Crew had described as "political therapies" for population health. McKeown shared a common vision with Crew and Hogben of the relationship between science and socialism but the environment in which he pursued it changed after the war when professional and academic politics became crucial.

ACADEMIC RESEARCH AND THE PRACTICE OF SERVICE PROVISION

In 1942 The Royal College of Physicians set up a committee to investigate the role that "Social and Preventive Medicine" should play in medical education. The Committee clearly distinguished social from preventive medicine.³¹

Social Medicine is concerned with the social environment and with heredity in so far as these affect health and well-being. Preventive Medicine is more executive in outlook and comprises the design and direction of measures for the preservation of health and the prevention of disease.

Crew commented in 1949 that the conception of social medicine represented in the Reports of both this and the Interdepartmental Committee on Medical Education (the Goodenough Report) 1944, were pretty narrow and inadequate. Nevertheless the identity of social medicine as an academic discipline of pure research, as a separate intellectual enterprise from training in the practical art of service administration and management, structured its subsequent institutionalisation and professionalization.

The hopes for rapid academic institutionalization of social medicine articulated in the 1940s were not met following the War. After Ryle died in 1950, for example, his chair at the Institute of Social Medicine Oxford was not renewed and his successor as director, Alice Stewart, remained a university Reader. The institutionalization of the discipline did expand until in 1956 there was a sufficient number of researchers and university teachers in the field in Britain to form a learned society, The Society for Social Medicine. Earlier that year the Society of Medical Officers of Health had decided to set up a new division for academic teachers of preventive medicine but membership would be restricted to those who were medically qualified. When the president of the SMOH, Sir Selwyn Selwyn-Clarke wrote about these proposals to Thomas McKeown,³² he responded by suggesting that an independent society was needed which allowed medical and non-medical academics to focus on research in social medicine.³³

I think there is no doubt that the objects of this body will differ substantially from those of the group which the Executive Committee of the SMOH is contemplating. To mention two points of difference, the society will be concerned mainly with research, and original papers will occupy most of the time at its meetings, and membership will not be restricted to those with medical or dental qualifications.

McKeown was clearly doubtful about the plans of the SMOH: "Whether a group of teachers associated with the SMOH would also serve a useful purpose I feel less qualified to judge.... However, I would have thought that the objects of the group should be considered carefully in the light of the creation of the new society."³⁴ The Society was subsequently set up on a basis of re-

stricted and invitation-only membership in order to maintain its academic character.³⁵

The need to separate the research-based academic discipline from the practical concerns of service provision continued to be a common goal amongst the Society's membership. A decade after its foundation the membership was still only 150 but all were engaged in either full-time research or teaching social medicine. As the Society's secretary informed M.R. Draper, the deputy registrar of the GMC in 1964, "Consequently, most of us are either members of university departments of social medicine, public health, epidemiology and medical statistics or of establishments engaged in epidemiological or medical care research."³⁶

Nevertheless the intellectual scope and institutional role of the discipline remained indeterminate. This was highlighted when the Society came to give evidence firstly to the GMC's Committee on Medical Education set up in 1964 and then to the Royal Commission on Medical Education set up under the chairmanship of Lord Todd in 1966. As mentioned above the Society held a conference in April 1965 to plan its Submission. Thomas McKeown gave a talk that attempted to define the parameters and role of the discipline.³⁷

It is now approximately 22 or 23 years since Professor Ryle went to Oxford and it may seem surprising that it is still necessary to discuss at some length what is meant by social medicine, not only in respect of the medical public at large, but even among teachers themselves.

But even confining definitions to what was taught as social medicine was insufficient because "At the present time it is particularly important to consider more than just the question of what the departments teach."³⁸ He was sure, however, that two traditional features endured, "the approach to medical problems by population methods and the interest in the medical needs of society."³⁹ So for McKeown the mission to address the social relations of health was linked to the quantitative analysis of them. This was the important legacy which social medicine inherited from public health. Up to the mid-nineteenth century public health had approached what was insoluble on an individual basis by analyzing the "population point of view."⁴⁰ This directed medicine towards its social responsibilities.⁴¹

I am not suggesting that this was because the people who started all of this were very wise and had seen ahead as to what would be likely to be required

in future. I think these were inescapable features of the early movement that was inevitably focused on the infectious diseases. There wasn't any approach which wasn't population based and there had to be public developments to deal with the threat of infectious diseases.

McKeown argued that despite the epidemiological transition from predominantly infectious to chronic disease in "developed countries" the "population approach" remained linked, indeed, inevitably led medicine to engage with its essential social function, the organisation of societies needs regarding the promotion of health and the reduction of sickness.⁴² Quantitative socio-medical analysis was thus an inherently political activity. In this sense McKeown reflected the earlier "political positivism" of Lancelot Hogben whom he greatly admired.⁴³

McKeown insisted that the social function of social medicine was bound to the prosecution of research. Teaching was a secondary concern. The research produced by the discipline would be the persuasive factor not only for establishing intellectual credibility and political force but also for acquiring institutional security.⁴⁴

For a medical school which hasn't yet got a department the thing doesn't present in the form of whether to teach such and such. It presents in the form of do we have reason to introduce a full-time department, and the reasons for doing that are very largely to do with research as well as teaching.

McKeown believed that a full-time department of social medicine should occupy the same relation to the medical school as a university department of physiology. Knowledge and methods of the subject would be taught to medical students based on the innovative research which defined the discipline. And the correct description of social medical research was the application of "population methods" – by which he meant medical, epidemiological and demographic statistics – to three broad fields: human biology, human disease, and medicine in society. He stressed that this definition did not conflate the meaning of social medicine with epidemiology. "Some people identify academic social medicine with epidemiology, which they conceive to be concerned only with the study of disease. If this restriction is accepted for epidemiology – and we hope it will not be – there are reasons for not accepting it for social medicine."⁴⁵ McKeown echoed Ryle's concerns with the study of the "normal" by insisting that, "Except sometimes in the field of infectious

disease, investigation of the “abnormal” requires the support of observations on the “normal.”⁴⁶ Social medicine in this sense was still a Rylean “hygiene,” or science of health.

While all of these areas, human biology, human disease and medicine in society were legitimate subjects for research through population analysis a social medicine department should largely focus on researching and teaching the latter. Social medicine should contribute to both the pre-clinical and clinical teaching of the two former subjects – possibly through joint classes – the analysis of medicine in society should be the sole responsibility of social medicine either at a pre- or post-graduate level.⁴⁷ McKeown wanted to differentiate social medicine as much as possible from the clinical agenda. The task of social medicine research and teaching must be to ensure that “in future doctors are better acquainted with the nature of the medical task, and understand the complexity of the setting in which it must be tackled.”⁴⁸ This did not, however, require the methods of medical sociology as far as McKeown was concerned who thought that, while there might be room for it in the realm of research, it had no place in the medical curriculum.⁴⁹

At the conference itself McKeown’s paper stimulated considerable debate. Some of his colleagues in the Society believed that social medicine should be restricted to epidemiology alone and agreed that medical sociology should be limited to a pre-medical subject.⁵⁰ Others such as Alwyn Smith, Margot Jefferys and Marvin Susser believed that the sociology of institutions and the social determinants of illness behavior, recovery and aetiology should be essential components of medical education.⁵¹ Others were anxious that social medicine should not isolate itself from clinical medicine but should overcome divisions and intellectual prejudices between medical disciplines.⁵²

Despite these disputes and after extensive effort by the Society to explore all avenues, the final submission of evidence to the Royal Commission bore remarkable resemblance to McKeown’s original rough-drafted conference paper. Some significant changes were made, however. In the Submission the scope of social medicine was now defined by the society as consisting of “(a) epidemiology and (b) the study of the medical needs of society.”⁵³ Epidemiology was considered “in our interpretation” to mean “the application of population methods to problems of human biology as well as of human disease.”⁵⁴ Also the Society now suggested that the investigation of disease determinants required observation of “anatomical, physiological and sociological variables.” The Society collectively stated: “It follows that research in social medicine is concerned with the application of statistical and sociologi-

cal methods to the study of human biology and human disease and of medical and related services.”⁵⁵

The Society also believed that academic departments of social medicine should have research and teaching responsibilities for a number of related subjects such as medical statistics, human genetics – at least population rather than molecular-biological genetics – and various branches of the behavioral sciences such as the social psychology of health and illness and the evaluation of services.⁵⁶

Like McKeown’s original paper the Society’s submission emphasised that the only under-graduate teaching which a department should be solely responsible for was the analysis of medicine in society, which consisted of a few basic themes: the current state of community health and its determinants; the effects upon the community of changes in size, age structure and genetic constitution of the population; epidemiology of major diseases; the evolution of medical services, their current organisation, and possibilities for improvement.⁵⁷

With regard to post-graduate education the Society expressed dissatisfaction with the inadequacies of the Diploma in Public Health as a qualification for various branches of medical administration beyond the appointment of a medical officer of health.⁵⁸ The GMC then asked the Society to submit further evidence to their special committee set up later in 1966 on post-graduate education in Public Health.⁵⁹ The numbers registering for the DPH had dramatically fallen. Various medical administrators had expressed exasperation with the current system of qualification. This time the Society used the opportunity to suggest that the DPH had become redundant, orientated as it was to an administrative post which had more relevance to nineteenth rather than twentieth-century British society. They suggested that it be replaced by a broader based course which would serve the purposes of post-graduate students pursuing numerous different career paths in medical and health service administration.⁶⁰ From the submissions of the Society to both the GMC and the Todd commission it is clear that academic departments in social medicine aspired to be university research faculties with special responsibilities for undergraduate medical education and a monopoly on postgraduate education for service workers.⁶¹

The report of the Royal Commission, The Todd Report, was published the following year.⁶² One of the most significant of its recommendations was that a new professional body should be created which would draw together the wide variety of professionals who worked in preventive medicine or the

administration of medical services. The new professional organization would also be responsible for regulating a new specialist qualification in what the Report identified as “community medicine.”⁶³

In Community Medicine there is a great need for a professional body which can bring together all the interests, academic and service, and which has the support and strength to undertake the assessment needed during and at the end of general professional training.

The term “community medicine” described an intellectual union between academic social medicine and practical service provision and it became increasingly popular. In 1969 the Royal Institute of Public Health and Hygiene renamed its journal *Community Health* in order to address, “What is Public Health and Hygiene in the seventies?”⁶⁴ By 1970 a Government Green Paper which explored the future re-organisation of the National Health Service began using the term “community physician” to replace the medical officer of health.⁶⁵ John Pemberton, professor of social and preventive medicine at Queens Belfast, wrote to Molly Newhouse, the honorary secretary of the Society in April 1969,⁶⁶ that in the light of the Todd Report the GMC was going to set up a speciality board in “public health, social medicine, community medicine or whatever it is going to be called.”

The important thing as far as the Society members were concerned was that “the academic side of our subject ... should be well represented in the preliminary discussions.” Pemberton envisaged a sort of college of community medicine being created but the problem would be how to integrate the academic – consisting of university departments of social medicine – and applied branches – i.e. public health medical officers, hospital medical administrators, etc. – of the profession into one faculty. Pemberton thought that the idea which had been floated of creating a new faculty within the Royal College of Physicians might be one solution but only if it did not disbar those without sufficient qualifications to enter the College itself. He wondered if some MOHs would be eligible for membership. Nevertheless he felt these new developments should become a priority concern of the Society, which must find a means to “bring the academic and applied sides together and to try and create a coherent speciality for the future.”⁶⁷

Informal discussions between various groups had begun in 1968 concerning the possibility of setting up a new faculty. The group included representatives from the Royal Colleges, the School itself, the Society for So-

cial Medicine, the Society of Medical Officers of Health and representatives from various medical and health administrators' associations who eventually formed a formal working party in the autumn of 1969. The group had already outlined a number of basic principles, however, at a meeting London School of Hygiene and Tropical Medicine in May 1969.⁶⁸ They agreed that a new Faculty of Community Medicine be set up under the auspices of the Royal Colleges of Physicians which would embrace "those engaged in Community Medicine and Epidemiology."⁶⁹ The group, at this stage, suggested that membership would include "both those qualified in medicine and also non-medical experts who play an increasingly important part in medicine."⁷⁰ Furthermore, examination would not be the only means of entry to the Faculty but it would "be responsible for setting its own standards, and organising its own examinations and training programmes."⁷¹

The Society elected two representatives, Richard Doll and Jerry Morris, to serve on the Working Party. But from the outset some Society members were sceptical about the value of a new Faculty for academics rather than practitioners of community medicine. McKeown wrote to Richard Doll in April 1969 expressing the doubts of members of his own department at Birmingham:⁷²

There would be considerable resentment of a professional organisation for social medicine which excluded non-medical statisticians, epidemiologists etc. My colleagues would therefore favour either of two approaches: (a) a professional organisation of medical administrators which might include a few academics who had trained as administrators, but would exclude the Dolls, Casses and McKeowns as well as the Headys and Waterhouses; or (b) a professional organisation concerned with social medicine which would include both medical and non-medical people with varied backgrounds. The second possibility is unlikely to be feasible under the RCP.

As negotiations about the proposed Faculty continued, further dissent appeared amongst the membership of the Society for Social Medicine. Some members believed that the title of any new organisation should continue to be Social Medicine and that the term Community Medicine would give priority to service training and under-represent academic research in the subject. Alwyn Smith, by this time professor of preventive and social medicine at Manchester, wrote directly to the Registrar of the Royal College of Physicians in May 1970.⁷³ An informal group of "Heads of Departments of Social

Medicine in the Midlands” circulated a letter to other Departmental Heads throughout Britain and Ireland to gather opinion from which “a clear-cut consensus” emerged.⁷⁴ Smith identified two major objections who all but John Pemberton agreed with. Firstly:⁷⁵

The title “Community Medicine” is misleading. The word “community” frequently has a connotation which excludes hospitals and the expression Community Medicine, in other parts of the English speaking world, is often synonymous with General Practice. We believe that “Social Medicine” would be the best for a Faculty but there would be some support for the alternatives of “Social and Preventive Medicine,” or “Social Medicine and Public Health.”

Smith emphasised the strong concern of his colleagues that their opinion should carry significant weight in terms of the negotiations surrounding the Faculty.⁷⁶

The full-time academic Departments of Social Medicine have a special concern in relation to the formation of any such Faculty since they are concerned with the training of recruits to all branches of its discipline as well as for the recruitment and training of both medical and non-medical academic staff. We therefore feel strongly that the Heads of full-time Departments of Social Medicine should have their views strongly directly to the Colleges of Physicians.

The Society’s representatives on the Working Party were disturbed by this intervention but continued to participate in negotiations.⁷⁷ As these continued, however, the original principles of non-medical eligibility and qualification for faculty membership were lost. The Society members saw less and less advantage for them in the creation of the new faculty under the terms now proposed.⁷⁸

At an Extraordinary General Meeting of the Society in January 1971 members began to question the benefit of the whole enterprise.⁷⁹ Many of the Society’s members would be excluded from the Faculty under the new terms of entry and thus academic social medicine would be vastly under-represented. Furthermore, if the Faculty set up its own specialist registration the academic departments would be significantly controlled by its actions without being able to influence its decision-making. Archie Cochrane ex-

pressed the sense of the meeting when he “queried what the Royal Colleges were actually offering.”⁸⁰ A discussion ensued which concluded that “apart from some contact between different branches of medicine, there was little self-evident benefit.”⁸¹ The Society then voted on whether to continue to participate in the process of setting up a new Faculty or whether to withdraw altogether. On balance the meeting was persuaded by Richard Doll’s point that to exempt themselves from the negotiation process would leave the Society powerless to influence events.⁸²

In the autumn of 1971, however, the AGM of the Society directed its chairman, George Knox, to write directly to Lord Cohen, the president of the GMC, expressing their reservations about the direction of events. The central issue was that “The Society was concerned that the Colleges might apply for an effective monopoly of conditions necessary for specialist registration.”⁸³

The DPH had traditionally been under the control of university departments, within the context of the regulations set down by the GMC. But, “Faculty proposals which pre-empted the design of courses and training schemes through a unilateral declaration of training or examination requirements would be unacceptable to the University departments.”⁸⁴

Furthermore the Society would not accept any new specialist registration procedure that required the payment of annual fees to the Royal Colleges. But more than anything else the Society was concerned that a faculty-controlled qualification would result in imposing an “educational stereotype.”⁸⁵ Knox pointed out to Cohen that “Social Medicine, or Community Medicine as it is called in the Todd Report” was a broad and diverse field with many sub-specialities.⁸⁶ The Todd Commission believed that these diverse groups should be brought together but nevertheless any successful attempt must “recognise this diversity in designing training schemes and career pathways. A single educational pathway would be a danger which, if carried beyond the preliminary stages, could not reach the high standards needed in every part of the field.”⁸⁷

But the concerns of academics in social medicine were overshadowed by the joint goals of the Royal Colleges and the physicians who worked in the public health service. Both wanted to offer the opportunity for consultant status in preventive medicine which became the prime objective of the terms under which the new faculty was eventually established. The new faculty was dominated therefore by what Pemberton had called the “applied side” of the discipline, i.e. community physicians involved in service provision. As a result the creation of the new faculty and later a new office of Community

Physician to replace the old MOH legitimated the rise of a new discipline, Community Medicine, with its focus on the practical concerns of service planning and management.⁸⁸ Academic departments of social medicine ultimately had to adapt to the new world of Community Medicine, even, in some cases, change their name, as did the first Institute of Social Medicine at Oxford which was transformed into a Department of Social and Community Medicine. The disarray in Community Medicine itself by the end of the 1980s stimulated yet new debate. Ironically the Acheson report of 1988 highlighted the need to bring back the public into the concept of public health.⁸⁹

CONCLUSION

Social medicine did not die as an academic discipline but its intellectual parameters and institutional scope dramatically changed during its academic professionalization and eventually it was overtaken by events in the late 1960s. The allegiance of the discipline to a model of pure research eventually left it ill equipped to cope with the politics of service provision that it exempted itself from as it became institutionalized within a university setting.

John Ryle, Francis Crew, and Thomas McKeown had all conceived of the marriage of medicine and the social sciences as a political mission dedicated to the improvement of society through direct influence on policy-making and execution. But unlike Ryle, Crew, and McKeown believed that the political mission of social medicine was bound to a positivistic model of knowledge. Quantitative social scientific research would determine its political role providing the basis for its reform mission. McKeown believed that research could only be supported through institutional establishment and this became a dominant concern during the period of professionalization in the 1950s and '60s. Concern to enhance intellectual rigor by separating research and teaching from the practical concerns of service provision, however, led to increasing isolation of academic departments of social medicine from the policy-making process. The price to pay for this division was a failure to negotiate the health service reorganization of the late 1960s and early '70s which bought off the now redundant service providers with spurious academic status and honours. Community medicine gave former Medical Officers of Health a new intellectual and practical identity in health service management and allowed the 1974 reorganisation to go ahead without the potential obstacle of their opposition.

The isolation of social medicine was enhanced by the fact that its episte-

mological agenda narrowed. The study of “population health and disease” was vastly reduced in scope from the holistic union of theory and practice in the establishment of scientific humanism as a new social ethic. As social medicine developed in Britain after the Second World War the influence of social science became limited to the empirical methods of quantitative social research. The theoretical explosion of the post-war social sciences barely influenced the quantitative model of social-medical analysis. Nevertheless the growth of the discipline kept the opportunity for interaction between medicine and social science open, but yet another new discipline began to enter this field. That was, of course, the social scientific sub-speciality, medical sociology. The relationship of social medicine to medical sociology, however, is another story which is pursued elsewhere.

NOTES

¹ See for Example the history of molecular biology presented in Robert C. Olby, *The Path to the Double Helix* (London, Macmillan, 1974).

² See, *The World of Learning* (London, Europa, 1995).

³ See for example the contributions on historical demography by geographers to *The Journal of Interdisciplinary History* and *Social History of Medicine* over the last ten years.

⁴ See for example, *Speculum, Representations* and *Paragraph: The Journal of the Modern Critical Theory Group*.

⁵ For example, the Department of Social Medicine at Birmingham.

⁶ For example the Department of Epidemiology at Bristol University changed its name to the Department of Social Medicine in 1995.

⁷ For example the Department of Social Medicine at Oxford became the Department of Social and Community Medicine in the 1970s.

⁸ See also Margot Jefferys, “The Transition from Public Health to Community Medicine: the Evolution and Execution of a Policy for Occupational Transformation,” *Bulletin of the Society for the Social History of Medicine*, 39 (1986), 47-63; *idem*, “Social Science Teaching in Medical Education: an Overview of the Situation in Great Britain”, in Magdalen Sokolowska, *et.al.* (eds), *Health, Medicine, Society* (Boston, D. Reidel, 197?); *idem*, “Serendipity: An Autobiographical Account of the Career of a Medical Sociologist in Britain,” in R.H. Elling and M. Sokolowska (eds), *Medical Sociologists at Work* (New Brunswick, N.J., Transactions Press, 1978), 135-161; *idem*, “Does Medicine Need Sociology?” in D. Tuckett and J.M.

Kaufert (eds), *Basic Readings in Medical Sociology* (1978); *idem*, "Social Science and Medical Education in Britain: A Sociological Analysis of their Relationship", *International Journal of Health Services*, 4 (1974), 549-563; Leo William Simmons, *Social Science in Medicine* (1954); Margaret Reid, "The Development of Medical Sociology in Britain," (Discussion Papers in Social Research, University of Glasgow, 1975-6).

⁹ Thomas McKeown (1913-1988), *Lancet*, ii (1988), 58; *British Medical Journal*, 297 (1988), 129.

¹⁰ Thomas McKeown, "Social Medicine as an Academic Discipline," first draft paper for the Society for the Social History of Medicine. Special one day conference on "Social Medicine in the Medical Curriculum" [held at LSHTM 2nd April 1965], private collection of papers, from now on referred to as McKeown, "First Draft." The records of the conference itself with the papers and discussions of the speakers: T. McKeown, J.N. Morris, E.M. Backett, C.R. Lowe, J. Knowelden, are in the *Archives of the Society for Social Medicine* held at the *Contemporary Medical Archives Centre*, Wellcome Institute for the History of Medicine [from now referred to as SA/SSM], SA/SSM, A, 19.

¹¹ *Ibid.*

¹² McKeown to Ryle, 1st February 1950. [J.A. Ryle, *Private Papers*. Held by his son, Anthony Ryle].

¹³ Dorothy Porter, "John Ryle: Doctor of Revolution?" in Dorothy Porter and Roy Porter (eds), *Doctors, Politics and Society: Historical Essays* (Amsterdam, Rodopi, 1993), 229-47.

¹⁴ Dorothy Porter, "Social Medicine and the New Society: Medicine and Scientific Humanism in mid-Twentieth Century Britain," *Journal of Historical Sociology*, 9 (1996), 168-187.

¹⁵ John A. Ryle "Social Medicine its Meaning and Its Scope," *British Medical Journal*, ii (1943)633-36, p. 636.

¹⁶ John A. Ryle, *Fears May Be Liars* (London, Allen and Unwin, 1941).

¹⁷ "Notice to Contributors," *The British Journal of Social and Preventive Medicine*, 1 (1) (January, 1947), edited by F.A.E. Crew and Lancelot Hogben.

¹⁸ *Ibid.*

¹⁹ Gary Werskey, *The Visible College* (London, Allen Lane, 1978).

²⁰ *Ibid.*

²¹ See Pnina Abir-Am, "The Biotheoretical Gathering, Trans-disciplinary Authority and the Incipient Legitimation of Molecular Biology in the 1930s: New Perspective on the Historical Sociology of Science," *History of Science*, 25 (1987), 1-70.

²² Lancelot Hogben, "Francis Albert Eley Crew, 1886-1973," *Biographical Memoirs of the Fellows of the Royal Society*, 20 (1974), 135-153, p.144.

²³ *Ibid.*, 144.

²⁴ Paul Weindling, *Health, Race and German Politics Between National Unification and Nazism 1870-1945* (Cambridge, Cambridge University Press, 1989; F.A.E. Crew, "Social Medicine as an Academic Discipline," in Arthur Massey, *Modern Trends in Public Health* (London, Butterworth, 1949), 62-65.

²⁵ *Ibid.*, Crew, 47.

²⁶ *Ibid.*, 77

²⁷ *Ibid.*, 78.

²⁸ *Ibid.*

²⁹ *Ibid.*, 77.

³⁰ *Ibid.*

³¹ Quoted by Crew, *Ibid.*, 69.

³² Sir Selwyn-Clarke to Thomas McKeown, 30th September, 1956, SA/SSM, A1.

³³ Thomas McKeown to Sir Selwyn-Clarke, 1st October, 1956, SA/SSM, A1.

³⁴ *Ibid.*

³⁵ See "Draft Proposal for Setting Up a Society," following a conference organised by the British members of the International Corresponding Club (Preventive and Social Medicine) held at the CIBA Foundation June 30th-1st July 1956.

"J.M. Mackintosh to John Pemberton [Professor of Social Medicine at Queens University, Belfast]. 4th July 1956, SA/SSM, A1;

Dear Pemberton.

Here is a draft informal note of the decision of the Committee on Saturday afternoon.

"It was agreed in principle that a British Society of Preventive and Social Medicine should be formed with the following essential features: it should be a wholly independent society; its main object should be the advancement of academic social medicine, primarily in the research field; that the Society should normally hold its meetings at the various academic and research institutes with which its members are professionally associated. The place of meeting should be selected for its scientific interest rather than for accessibility. The Society should approach the governing body of the Journal of Social and Preventive Medicine with a view to forming a close association. The membership of the Society should be limited by certain criteria which will be gradually established as it develops. In the initial stages however membership would be offered to all who hold academic and research positions in this field." SA/SSM, A1.

³⁶ Margot Jefferys to M.R. Draper, Deputy Registrar, GMC, 23rd December 1964. SA/SSM, C2.

³⁷ Thomas McKeown, "Social Medicine as an Academic Discipline," final draft of conference paper given on 2nd April, 1964 for the Society of Social Medicine" SA/

SSM, A 19, p.1, from now on referred to as McKeown, "Final Draft."

³⁸ *Ibid.*, 2.

³⁹ McKeown, "First Draft," *op.cit.* (ref. 10).

⁴⁰ McKeown, "Final Draft," *op.cit.* (ref. 38), 3.

⁴¹ *Ibid.*

⁴² McKeown, "First Draft," *op.cit.* (ref. 10), 1.

⁴³ McKeown to Jessop 1st October 1956,

"I think it is of special importance not to leave out senior people who, although not actually in the subject, are closely concerned with it, and whose opinions we should certainly hear. I am thinking of people like Bradford Hill, Lancelot Hogben and Aubrey Lewis.

Yours sincerely, McKeown." SA/SSM, A1.

⁴⁴ *Ibid.*

⁴⁵ McKeown, "First Draft," *op.cit.* (ref. 10), p.2.

⁴⁶ *Ibid.*

⁴⁷ *Ibid.*, 3-4.

⁴⁸ *Ibid.*, 5.

⁴⁹ "Conference Report", SA/SSM, A19, p.2.

⁵⁰ *Ibid.*, p. 5. E.g. Macdonald, Reid, Acheson.

⁵¹ *Ibid.*

⁵² *Ibid.*, 6. E.g. Acheson, Case, Reid, Jessop.

⁵³ Society for Social Medicine, "Evidence to be Submitted to the Royal Commission on Medical Education" [Final Draft], unpublished manuscript, SA/SSM, C4, p.1.

⁵⁴ *Ibid.*

⁵⁵ *Ibid.*, p.2.

⁵⁶ *Ibid.*, pp.7-12.

⁵⁷ *Ibid.*, pp.4-5.

⁵⁸ *Ibid.*, p.5.

⁵⁹ M.R. Draper to Secretary of the Society for Social Medicine, 1st April 1966, SA/SSM, C 3.

⁶⁰ Society for Social Medicine, "Evidence to the General Medical Council's Special Committee on Public Health, 24th October, 1966", *Private Collection of Papers*; see also "Evidence to be Submitted to Commission on Medical Education" Final Draft, *op.cit.* (ref. 54), pp.5-6;

⁶¹ See also the Society's drafts and final submission of "Evidence Submitted to the Working Party on Medical Administrators", set up by Sir George E. Godber, Chief Medical Officer of the Department of Health and Social Security, in 1972. "Draft," SA/SSM, C5; published as Society for Social Medicine, "Evidence Submitted to the

Working Party on Medical Administrators,” *British Journal of Preventive and Social Medicine*, 26 (1972), 62-66. See also M.R. Alderson (Honorary Secretary, Society for Social Medicine) to Sir George E. Godber, 31 July, 1972, SA/SSM, C5.

⁶² Great Britain, House of Commons, *Royal Commission on Medical Education, 1965-68. Report of the Chairman A.R. Todd* (London, HMSO, 1969), CMND 3569.

⁶³ *Ibid.*, paragraph, 138.

⁶⁴ “Editorial,” *Community Health*, 1 (6) (1969-70), 295-7.

⁶⁵ *Ibid.*

⁶⁶ John Pemberton to Molly Newhouse, 19th April, 1969, *Private Collection of Papers*.

⁶⁷ *Ibid.*

⁶⁸ “Summary of a Discussion Held to Consider the Setting up of a Faculty of Community Medicine on 1st May 1969 at 2.00p.m.” SA/SSM, C4.

⁶⁹ *Ibid.*, p.2.

⁷⁰ *Ibid.*

⁷¹ *Ibid.*

⁷² McKeown to Richard Doll, 16th April 1969, SA/SSM, C14.

⁷³ Alwyn Smith to “The Registrar” at the Royal College of Physicians, 6th May 1970, *Private Collection of Papers*.

⁷⁴ *Ibid.*

⁷⁵ *Ibid.*

⁷⁶ *Ibid.*

⁷⁷ See Molly Newhouse to Hubert Cambell, 21st May 1970, SA/SSM, C14.

⁷⁸ See “Minutes Extraordinary General Meeting of the Society for Social Medicine held at the Royal Society of Medicine, 1 Wimpole Street on 4th June, 1970,” *Private Collection of Papers*.

⁷⁹ “Minutes of the Extraordinary General Meeting of the Society for Social Medicine held at the London School of Hygiene on Saturday, 30th January, 1971 at 2.30pm”. *Private Collection of Papers*.

⁸⁰ *Ibid.*, p.2.

⁸¹ *Ibid.*

⁸² *Ibid.*, pp. 2-3.

⁸³ E.G. Knox to Lord Cohen, “Copy of Letter Sent to President of the General Medical Council Following the Annual General Meeting, 1971,” *Private Collection of Papers*, p.1.

⁸⁴ *Ibid.*, p.2.

⁸⁵ *Ibid.*

⁸⁶ *Ibid.*

⁸⁷ *Ibid.*

⁸⁸ See Jane Lewis, *What Price Community Medicine? The Philosophy, Practice and Politics of Public Health Since 1919* (Brighton, Harvester, 1986).

⁸⁹ Donald Acheson, *AIDS* (London, RSM, 1988); R.J. Donaldson and L.J. Donaldson, *Essential Public Health Medicine* (Dordrecht, Kluwer, 1993); B.M. Davies and Tom Davies, *Community Health, Preventive Medicine and Social Services* (London, Baillier Tindall, 1993).

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Chapter Nine

The Changing Social Contract of Health in the Twentieth and Twenty-First Centuries

WHEN PUBLIC HEALTH history flourished after the Second World War as an expression of the historiographical interest in social welfare systems, it focused largely on the development of political measures and administrative mechanisms for controlling infectious diseases. The early great historians of public health, such as Sand, Finer, Lewis, Frazer, Cipolla, and Rosen¹ offered an explanation of environmental and social transformation as being driven by the gradual replacement of mysticism and superstition by secular rationalism in the conquest of pestilence, achieving massive reductions in mortality rates in the modern industrialized world. This model of public health development was especially compelling in explaining the epidemiological and demographic transition that had ultimately resulted by the mid-twentieth century in these societies. It was an analysis reinforced in the 1970s by the conclusions of a British Professor of Social Medicine, Thomas McKeown, that clinical medicine had played no part in the rise of modern population which, he claimed, had largely resulted from improved nutrition and environmental reforms such as the creation of clean water supplies.²

The political histories of public health had, at their core, an account of the establishment of a social contract of health between the modern state and its citizens. Rosen and Sand explained how the early modern state linked the investigation of population health to political strength through mercantilist and cameralist philosophies.³ These Enlightenment philosophies ensured a place for health amongst the rights of man demanded by the democratic rev-

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olutionaries who established the first modern states in America and France. In 1892 French revolutionaries declared health an obligation of the social contract between the democratic state and its citizens and by the middle of the nineteenth century the British state translated health citizenship into a universal equal right under the law to protection from epidemic disease.⁴ At the same time in 1848, French and German revolutionaries, Jules Guérin in the *Gazette médicale de Paris* and Rudolf Virchow in his reports on typhus in Upper Silesia, interpreted health citizenship as constituted through democratic freedom, universal education and amelioration of social and economic inequality.⁵

The arguments used by historians to explain the history of infectious disease control and its relationship to the creation of a social contract of health, however, could not fully address developments in public health in the twentieth century as the focus shifted toward the prevention of chronic illness amongst ever longer living populations. This essay examines the significance of the reconfiguration of public health around the prevention of chronic disease and explores the impact of this transition upon the social contract of health in modern or post-modern democratic societies.

CHRONIC ILLNESS, LIFESTYLE MEDICINE AND SOCIAL BEHAVIOR

A limitless labor supply was the fuel necessary to drive the economic engines of eighteenth- and nineteenth-century industrializing societies and, thus, preventing premature mortality from infectious diseases was a major political priority.⁶ Reducing the costs of caring for ever larger numbers of chronically sick aging populations replaced this political priority in the largely infectious disease-free, technologically advanced and wealthiest societies from the middle of the twentieth century.⁷

The impact of epidemiological transition and demographic transformation became compelling to medical and public health intellectuals from the interwar years as new statistical models of population structures stimulated panic over falling birth rates, declining mortality and possible disastrous imbalances between productive and non-productive populations.⁸ From the 1920s statisticians working within the life insurance industry had begun to examine the relationships between lifestyle, overweight, morbidity and mortality. Louis Israel Dublin produced surveys on overweight and mortality for the Metropolitan Life Insurance Company in 1924 and 1929 and completed surveys on lifestyle and chronic disabling diseases, including asthma and

heart disease with Herbert H. Marks in the 1940s.⁹

At the end of the war the US Public Health Service initiated new studies of the impact of the epidemiological transition to chronic diseases when Joseph Mountain hired Gilcin Meadors in 1946 to found what eventually became the Framingham study of heart disease in 1947.¹⁰ Meadors set up the initial study with the expressed purpose of producing “recommendations for the modification of personal habits and environment” that could prevent the development of CHD¹¹ While the Framingham study highlighted the role of diet and cholesterol, by the early 1950s in Britain Jerry Morris and his colleagues at the Medical Research Council Social Medicine Unit were highlighting another lifestyle determinant of CHD, exercise.¹² In the meantime, in 1948 Iwao Milton Moryama and Theodore Woolsey produced a large analysis of cardiovascular disease in relations to age changes in the population using the Population Survey Data which also included discussions of life style issues such as obesity.¹³ In October 1952, the National Vitamin Foundation funded a symposium at Harvard University on “Overeating, overweight, and obesity” which included papers on lipogenesis, the psychology of overeating, physiology of overweight and a paper by P.C. Fry on “Obesity: Red Light of Health.”¹⁴ The public and individual health implications of overweight and obesity attracted increasing attention throughout the 1950s. Numerous public health authors took up the issue of *Your weight and your life*,¹⁵ offering advice on *The low-fat way to health and longer life; the complete guide to better health through automatic weight control, modern nutritional supplements, and low-fat diet*.¹⁶ Psychology research students, such as Barbara Levy at Berkeley, undertook studies such as the “Dimensions of personality as related to obesity in women.”¹⁷

Lifestyle began to replace traditional structural explanations of core public health concerns such as infant mortality. Since the nineteenth century studies of infant mortality had prioritized economic inequality as the major cause of steep differential gradients according to class. However, new sociological investigations began to explore other factors in the early 1950s. Because at that time it was extremely difficult to determine the intra-uterine events that may have led to the death of babies within the first four weeks of life, often the cause of death on certificates was simply listed as “prematurity.” Stewart, Webb and Hewitt from the Oxford Institute of Social Medicine suggested that this term really described a way of dying rather than an actual cause and in 1955 they attempted to correlate 1078 still births and neonatal deaths with a variety of factors including the mother’s physique during the ante-natal period.¹⁸

One of the most dramatic demonstrations the relationship between lifestyle habits and chronic illness was established by the Doll-Hill correlation of cigarette consumption with rising levels of lung cancer published in the *BMJ* in 1950. Later they confirmed their original tentative conclusions with an analysis of the causes of death of doctors between 1951-1956 in relation to non-smoking, present smoking and ex-smoking groups at that date.¹⁹

Although smoking was considered a habit rather than a dependency in the strict psychological definition of addiction it was represented as an individual responsibility.²⁰ The anti-smoking campaign in Britain and the United States which followed the Doll and Hill results exemplified the new message of a clinical model of chronic disease prevention. The key to the social management of chronic illnesses – such as lung cancer – was individual prevention, raising health consciousness and promoting self-health care.

Following the anti-smoking campaign, preventing chronic disease through education of the individual gathered momentum. Subsequent post-war campaigns offered lifestyle methods for preventing heart disease, various forms of cancer, liver disease, digestive disorders, venereal disease and obesity. This model of prevention was grounded in a new legitimate authority acquired by epidemiology as the dominant science of etiology of chronic disease. The analysis of the relationship between smoking and lung cancer gave epidemiology a new credence for being able to unpack a bio-psycho-socio medical model chronic disease. It became a critical heuristic device and legitimated a new approach to disease prevention through the control of individual lifestyles.

THE HEALTHY LIFESTYLE AND HEALTH CITIZENSHIP IN THE TWENTY-FIRST CENTURY

The shift within public health to controlling individual behavior as the route to the prevention and management of chronic illness through the institution of the healthy lifestyle reproduced many of the precepts of the commercialization of individual health that had taken place before the Second World War. But the politics of the healthy lifestyle also became fraught with conflict in which the interests of political states, professional groups and corporate markets competed.

In the last quarter of the twentieth century an international dialogue produced congruous messages in health propaganda campaigns promoted by political states with high levels of chronic illnesses amongst aging popula-

tions that focused on preventing cardio-vascular diseases, digestive disorders, cancer and most recently sexually transmitted diseases and AIDS. Increasingly, the healthy lifestyle became promoted as the best chance affluent nations have to reduce the morbidity consequences and exponentially increasing health costs of having 25% population over 80 years old. The *Combined Health Information Database* which is produced by a range of US Federal health agencies currently lists 2000 items that have been published in the last quarter of 2004 alone on healthy lifestyle promotion.²¹

The political implications of the prevention of chronic illness through the promotion of the healthy lifestyles for health citizenship are vividly demonstrated in the current wars over obesity. Since the late 1970s post-modern fat lands have been feeling the weight of their fast-food economies and sedentary, high-tech non-labor intensive modes of production. According to the US National Center for Disease Prevention and Health Promotion, "In the United States, obesity has risen at an epidemic rate during the past 20 years. One of the national health objectives for the year 2010 is to reduce the prevalence of obesity among adults to less than 15%. Research indicates that the situation is worsening rather than improving." According to *The Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity* (2001) in the United States in 1999, 61% of adults, 13% of children 6-11 years and 14% of adolescents 12-19 were overweight or obese and the prevalence of obesity has tripled for adolescents over the past two decades. The increases in overweight and obesity has occurred in "all ages, racial and ethnic groups, and both genders" producing "300,000 deaths each year" in diseases associated with obesity such as "heart disease, certain types of cancer, type 2 diabetes, stroke, arthritis, breathing problems, and psychological disorders, such as depression." Surgeon General Richard Carmona told Congress that, "The economic cost of obesity in the United States was about \$117 billion in 2000."²² Health disparities figure prominently in the structure of the epidemic with women in poverty having a 50% higher risk of obesity than either men or women in higher socio-economic status. While the Surgeon General's office acknowledges that genetics may play a role in the cause of obesity it identifies behavioral and environmental causes as primary and offers behavioral and cultural change as the route to achieving a fat-free future for individuals and the nation.

First, the SG emphasizes the need to communicate the significance of obesity and its causes in insufficient activity and over or unhealthy food consumption to individuals, social groups and health-care providers. Health-

care providers need to become health advisors “across the life-span” and strong health promotion campaigns need to be established in schools. The SG highlights communication about breastfeeding and the health education of prospective parents about child obesity as another priority. Breast feeding is assumed to reduce the likelihood of infant obesity and help mothers to “return to pre-pregnancy weight more quickly.”²³

Next the SG demands that “The Nation must take action to assist Americans in balancing healthful eating with regular physical activity” and that individuals and groups “across all settings must work in concert” to ensure that:²⁴

- high quality physical education in schools establishes attitudes and skills for a physically healthy life and nutritional instruction is given to promote healthy eating choices and patterns
- healthy activity levels are promoted amongst adults – a minimum of 30 minutes of moderate physical activity on most days of the week – by creating more opportunities for physical activities at worksites and encouraging employers to make facilities available
- reduction in television watching is promoted along with the replacement of sedentary with active leisure activities
- a broad cultural promotion of healthy food choices is undertaken including five servings of fruits and vegetables per day along with “reasonable portion sizes at home, in schools, at worksites, and in communities”

Beyond using health promotion and persuasion to bring about cultural and behavioral change the SG highlights potentially more coercive interventions such as the restriction of the availability of high calorie, high fat foods and beverages on school campuses by:²⁵

- Enforcing existing U.S. Department of Agriculture regulations that prohibit serving foods of minimal nutritional value during mealtimes in school food service areas, including in vending machines
- Adopting policies specifying that all foods and beverages available at school contribute toward eating patterns that are consistent with the Dietary Guidelines for Americans
- Providing more food options that are low in fat, calories, and added

sugars such as fruits, vegetables, whole grains, and low fat or nonfat dairy foods

- Reducing access to foods high in fat, calories, and added sugars and to excessive portion sizes

The SG addresses the vexed question of payment for care by arguing that mechanisms be created “for appropriate reimbursement for the prevention and treatment of overweight and obesity.”²⁶ And finally the SG demands that the nation make a major investment into further research and intervention planning. The latter has been established through the CDC’s state-based programs which have produced a wide variety of strategic plans by individual state health departments focusing on different types of intervention from targeting social groups through different agencies for health promotion to evaluating the impact of breast-feeding on infant and maternal obesity.²⁷

The strategies being pursued by the Federal and state health and disease agencies prioritize education and persuasion to encourage behavioral change. Coercive intervention is only recommended within the context of the prevention of childhood and adolescent obesity.²⁸ But the politics of the healthy lifestyle have become highly charged with self-styled nutrition activists accusing government health agencies of being “gutless” in failing to tackle the ultimate cause of obesity which they claim is a toxic environment created by corporate capitalist greed.²⁹

According to food warriors from the Center for Science in the Public Interest, its director Michael Jackson, and Kelly D. Brownell, Yale professor of health psychology and director of the Yale Center for Eating Disorders, US Health Secretary Tommy Thompson is “brandishing popguns” when his department needs to be getting out “howitzers and announcing a war to overhaul the nation’s diet.”³⁰ Jackson ridicules Thompson’s 3:00am public service announcements telling people to use the stairs rather than elevators and to work around the house along with Thompson’s proposal to make food labels contain calorie numbers in slightly larger print. Instead Jackson, Brownell the CPSI have been arguing for over ten years that the US Health Department needs to require restaurants to publish calories on menus, to take steps to force junk food out of schools and to make large food corporations pay for pushing obesity by taxing high-fat high-calorie foods.³¹ Jackson argues that the FDA and the Department of Agriculture also need to take decisive action to reduce the sale of unsafe, unhealthy food substances such as Quorn and olestra and prevent the sale of phony products falsely labeled

as “wholegrain,” “all fruit” and “natural.” The food supplement market is a con artist’s paradise according to Jackson and the FDA does nothing to police it effectively.³² CPSI advocates that the war against Big Food and corporate capitalism should be fought through political activism to pressure government for change at the national and local state level.

Like CPSI, other radical organizations such as “Adbusters” (founded by Kalle Lasn, author of *CultureJam*³³) identify corporate capitalism and its powerful ideological tool, advertising, as creating a cultural, social and material toxic environment. Lasn believes the route to “beating Big Food” along with the rest of corporate capitalism is a campaign of non-cooperation such as a “Buy Nothing Day.”³⁴ Multi-national corporatism is, according to *Adbusters Magazine*, creating societies in which everyone is a terrorist consumer.³⁵ The role of Big Food in the consumer terrorist societies has provoked anti-capitalist campaigners to launch a campaign of vandalism against corporate food chains, as was demonstrated in the attacks on McDonald’s which took place during the anti-capitalist riots at the G7, World Trade Summits.

The eco anti corporate-capitalism’s warriors of course have provoked an equally radical backlash. The Center for Consumer Freedom accuses CPSI of trying to create a “nanny state”³⁶ and Kalle Lasn and Adbusters as anti-corporate hypocrites.³⁷ Policing food consumption has been described as food Fascism by conservatives and Republicans such as Peter Ferrara, director of the Institute for Innovative Policy and the International Center for Law and Economics³⁸ and Bruce Bartlett, Fellow of the National Center for Policy Analysis,³⁹ as well as by campaigners for individualism such as Wendy McElroy.⁴⁰ A war of attrition continues between food reform advocates, the food industry and conservative organizations such as the CCF but the conflict intensified after 1994 when, in Op-Ed piece in *The New York Times*, Kelly Brownell presented a four-part plan aimed at fighting diet-related illness in the US that included levying a tax on high-fat, high-calorie foods, such as fast-food burgers and sugary snacks such as twinkies – the infamous “twinkie-tax.”⁴¹

Despite, or perhaps because of being a psychology professor, Brownell argues that focusing on individual behavior won’t solve the obesity epidemic. Government intervention must address what he calls “an American Crisis” and control the toxic environment by subsidizing healthy foods, taxing unhealthy foods and regulating advertising. Like Kalle Lasn he believes corporate power and advertising are poisonous forces. “What’s the difference

between the effect of Joe Camel and Ronald McDonald? ... It's McDonald's stated corporate goal to have no American more than four minutes from one of their restaurants. If a tobacco company put up a 'Billions and Billions Sold' sign, we'd be outraged."⁴² (Lasn's Adbusters's posters represent Joe Camel as Joe Chemo, sitting sad, sick, and bald in a hospital bed.) Brownell and CPSI suggest that the tax collected on junk food could be used to support education campaigns to change what Jackson believes is the essential inclination of human nature toward "sloth and gluttony."⁴³ Yet both Jackson, Brownell believe that this approach stops blaming individuals and starts attacking the environment they live in.⁴⁴

The predictable response from conservatives raging against the "sin tax" and what they depict as Nazi-like authoritarianism has not been the only concern voiced about differentially taxing food.⁴⁵ Even medical journals such as the *BMJ* have highlighted the implication for civil liberties if the state begins to interfere in what individuals choose to eat.⁴⁶ The response of Jackson, Brownell *et al.* is to compare their proposals to the anti-smoking campaign which equally undermined individual liberty and attacked the corporate environment for the benefit of community health. They cite the successes of the anti-smoking campaign and the benefits gained in reduced morbidity and mortality from smoking related diseases as a model to be reproduced.⁴⁷

Despite concerns over civil liberties, in 2003 the WHO supported the introduction of taxes upon high-fat, calorie-dense, low nutrition foods and the use of tax revenue for subsidizing healthy foods in affluent nations to reduce morbidity from obesity and its related diseases.⁴⁸ The WHO also recommended that governments work with private industry and voluntary organizations to promote healthy lifestyles including using market incentives to encourage entrepreneurial enterprise and co-operation in bringing about social change in population diets, physical activity and consumption patterns. Without directly attacking large-scale corporate capitalism the WHO report reproduced a number of the recommendations that had been forwarded by groups like CPSI for over a decade, including the regulation of marketing, advertising and food labeling especially to protect the most vulnerable within a population, children. The report received the full support of CPSI's director of legal affairs, Bruce Silverglade.⁴⁹ CCF responded by repeating its criticism of taxing food. CCF's Mike Burita argued, "You're going down a pretty dangerous path on a number of fronts," because "who is going to be the food czar who decides what gets taxed?" He added that most people believe that obesity is a matter of personal responsibility and that taxation would be

unfair, “especially to the people who do enjoy those foods in moderation and practice a healthy lifestyle.”⁵⁰

By firmly linking tax to subsidy the WHO recommendations explicitly addressed an issue that has not been highlighted by either the CPSI or CCF but was raised by Tom Marshall, from the University of Birmingham in the UK, that “Low-income groups, who tend to eat higher-fat diets, would disproportionately bear the greatest tax burden.”⁵¹ The only other party to highlight this issue has been the food industry itself because they know the structure of its markets and the socio-economic stratification of their consumers. Jim McCarthy of the Snack Food Association responded to the WHO report by pointing out that any food tax would create the most financial hardship for the poor.⁵² And the food industry is acutely aware of the cultural environment in which they are operating. John Peters, head of Procter & Gamble’s Nutrition Science Institute suggests that, “Here’s the problem as I see it: Our American view of value right now is stuck in the ‘more for less’ domain” and that “servings are big because that’s what people want.”⁵³

Where one industry nervously contemplates market restriction and instability another spies an opportunity. The new “fast-casuals” like Panera Bread, Au Bon Pain and Briazz and the rapidly expanding City Blends Cafés and Juice Bars have identified huge profits to be made out of making “*the Country Healthier One City At a Time!*”⁵⁴ (Although Bonnie Liebman and Jayne Hurley from CPSI remain skeptical about the extent to which the new health retailers, like the healthy supplement producers, live up to their name.⁵⁵) The sportswear, equipment and fitness center industry continues to grow exponentially and the commercial diet industry serves insatiable consumers. Inventors of diet systems have become international figures – Atkins death was announced on news channels throughout the world.⁵⁶

While national governments continue to navigate a treacherous path through the political food wars while trying to seek the most effective means of addressing the obesity epidemic, perhaps the most significant signs of change are occurring within corporate capitalism itself. As Liebman and Hurley pointed out, in December 2002 McDonald’s announced its first quarterly loss since 1965.⁵⁷ Jackson puts that down to angry parents and outraged consumers finally turning off from 540 calorie supersize soda drinks and heart attacks inside sesame buns.⁵⁸ Fear of profit loss and new competitors in a changing food-cultural environment is stimulating the traditional fast-food industry to get on board the healthy eating profitshare before the train leaves the station. Ronald McDonald has disappeared from McDonald’s advertis-

ing which now gives its highest profile marketing to “loving” their new salad menus. Wendy’s have followed precisely the same example.

The low-carb craze stimulated by Dr. Atkins and his imitators has demonstrably created the fastest food-marketing transformation ever witnessed. The corporate food world is now offering everything as a low-carb alternative from Round Table low-carb pizzas as alternatives to burgers without buns to Taco Bell and Chilis’ low-carb wraps. Beer brewers and soda companies from Bud Light to Coca Cola and Pepsi are all celebrating a carb-reduced love fest only to be outdone by “delicious sweet-taste with zero compromise” from Splendor’s Diet Rite. Low-carb corporate catch-on might just prove Jackson’s assertion that the politics of food will ultimately be won by consumers turned into activists by political agitators. If activist consumers do prove to be the force for change they will have done so, as CCF would be the first to crow about, with their dollar-votes because contrary to what CPSI or Adbusters would wish to believe dollar-votes – or in Adbuster’s terminology, consumer terrorism – are perhaps exponentially more powerful as political votes.

CONCLUSION

From the end of the nineteenth century public health shifted its focus toward changing social behavior to prevent increasingly dominant chronic illnesses in advanced industrial societies with aging populations. The alliance between medicine, social science and public policy in trying to modify social behavior altered the social contract of health between the modern state and its citizens. The emphasis between the obligations of the state and the obligations of the individual in democratic societies changed throughout the course of the late twentieth century as post-industrial, affluent societies modified their aims. The promotion of the healthy lifestyle became a rearguard action to reduce the exponentially increasing costs of redeeming chronically broken bodies in an ever-ageing demographic structure.

Making lifestyle transformation the basic strategy for achieving population health extended the concept of health as a right of citizenship that had been created by the French and American Revolutionaries in the eighteenth century. From the time that French Revolutionaries in 1791 declared health to be a right of man it also became a responsibility. As Ludmilla Jordanova has pointed out, the *idéologue*, Constantin Volney, reminded the citizen of the new republic that his body was an economic unit belonging to the commu-

nity and he had a social-political duty to lead a healthful, temperate existence in order to ensure his value for the commonwealth.⁵⁹ Democratic states in the late twentieth century reasserted this feature of the social contract of health by making it an individual responsibility. Using the anti-smoking campaign as a model, modern governments have operated a lifestyle model of prevention to try and reduce epidemic levels of chronic disease. The most recent developments in lifestyle disease prevention in the face of rising obesity rates have, however, further reconfigured the relationship not only between states and citizens but also between citizens, states and economic organization in the social contract of health.

Despite focusing prevention on the reform of individual behavior, the obesity epidemic has engaged the responsibility of government for intervening in the broader political, economic and social environment, as well as in individual liberties, on behalf of the health of the community. The obesity epidemic has illustrated that while lifestyle disease prevention ostensibly shifts responsibility for community health toward individual citizens, government responsibility for controlling environments remain undiminished in the social contract of health in late or post-industrial democratic societies. While national governments have undertaken activities and degrees of intervention to promote cultural and behavioral change, the step toward intervention in large-scale economic organization is a political quagmire that few have been prepared to confront. In the United States where the largest multinational food corporations originate citizens themselves appear to be addressing the economic environment not through political activism but by changing patterns of consumption. The extent to which governments like the United States will be co-opted by citizens into making political interventions such as taxation or legal prohibition into the environments in which obesity epidemics develop will probably be determined by economic votes rather than either anti-capitalist or pro-corporate political activism.

There are yet further implications of the rise of lifestyle disease prevention for health citizenship and population health which have been identified by some contemporary critics as the creation of a worried well society and the transformation of health care providers into a behavioral police force. The Stoke Newington doctor Michael Fitzpatrick believes that government promotion of the healthy lifestyle and the media promotion of health scare panics has created a culture of hypochondria which has in turn exponentially stimulated the market for alternative healing – or complementary medicine. The tyranny of health has also, according to Fitzpatrick, turned physicians,

especially family and general practitioners, into medical policemen of deviant behavior trying to impose medical regulation upon everyday life.⁶⁰ The conservative medical journalist, James Le Fanu, indicts the pre-occupation with the social relations of health for producing unnecessary anxiety over health and illness.⁶¹ And the historian Edward Shorter has identified the rise of a hypochondriacal society at the end of the twentieth and beginning of the twenty-first century as the result of an excessive psychologization of illness.⁶² The question of the rise of a hypochondriacal society as the outcome of these developments or of what, in 1975, Ivan Illich identified as the medicalization of everyday life⁶³ or what Michel Foucault identified as the rise of a surveillance society would, however, require another paper to consider.⁶⁴

NOTES

¹ René Sand, *The Advance to Social Medicine* (London, Staples Press, 1952); S. Finer, *The Life and Times of Edwin Chadwick* (London, Methuen, 1952); R.A. Lewis, *Edwin Chadwick and the Public Health Movement* (London, Longmans and Green, 1952); William Frazer, *History of English Public Health 1834-1939* (London, Ballière, Tindall and Cox, 1950); C.M Cippola, *Faith, Reason and the Plague. A Tuscan Story of the Seventeenth Century* (Brighton, Harvester, 1979); George Rosen, *The History of Public Health* (New York, MD Publications, 1958).

² T. McKeown, *The Role of Medicine - Dream, Mirage or Nemesis* (London, Nuffield Provincial Trust, 1976); *idem*, *The Rise of Modern Population* (London, Edward Arnold, 1976).

³ Sand, *ibid.*; G. Rosen, *From Medical Police to Social Medicine. Essays on the History of Health Care* (New York, Science History Publications, 1974).

⁴ Dora Weiner, "Le droit de l'homme a la santé: une belle idee devant l'Assemblée constituante: 1790-1791," *Clio Medica*, 5 (1970), 208-23; *idem*, "Public Health Under Napoleon: the Conseil de salubrite de Paris, 1802-1815," *Clio Medica*, 9 (1974), 271-84.

⁵ See Dorothy Porter, *Health, Civilization and the State* (London, Routledge, 1999), Chapters 3 and 4.

⁶ John Duffy, *The Sanitarians. A History of American Public Health* (Chicago, University of Illinois Press, 1990); Anne Hardy, *The Epidemic Streets. Infectious Disease and the Rise of Preventive Medicine 1856-1900* (Oxford, Clarendon Press, 1994); Anthony Wohl, *Endangered Lives Public Health in Victorian Britain* (London, Dent, 1983).

⁷ Porter, *op.cit.* (ref. 7).

⁸ *Idem*, “Eugenics and the Sterilization Debate in Sweden and Britain Before World War II,” *Scandinavian History*, 24 (2000), 145-162.

⁹ Louis Israel Dublin, *Mortality of overweights according to spine length. Presented for the committee at the annual meeting of the Association of Life Insurance Medical Directors at Newark, New Jersey. October 23, 1924* (New York, Committee on Dryer Measurements in relation to Life Insurance Underwriting Practice. Report No. 2, 1924); Louis Israel Dublin, *The relation between overweight and cancer. A preliminary examination of evidence from insurance statistics. Proceedings of the Association of Life Insurance Medical Directors of America. Vol. 15, 1929* (New York, 1929); Louis Israel Dublin and Herbert H. Marks, *Mortality Risks with Asthma, read at the Forty-fourth Annual Meeting of the Association of Life Insurance Medical Directors of America, October 12-1, 1933* (New York, Press of Recording and Statistical Corporation, 1934); Louis I. Dublin (ed.), “The American people; studies in population” *Annals of the American Academy of Political and Social Science* (1936), 188; Louis Israel Dublin and Herbert H. Marks, *Mortality amongst insured overweights in recent years* (New York, The Association of Life Insurance Medical Directors of America, c1952) (Read at the Sixtieth Annual Meeting of the Association of Life Insurance Medical Directors of America, October 11-12, 1951)

¹⁰ Gerald Oppenheimer, “Becoming the Framingham Study, 1947-1950,” *American Journal of Public Health* (2005), Vol 95, 4: 602-610.

¹¹ *Ibid.*, 603. Meadors quoted by Oppenheimer.

¹² J. N. Morris *et al.* “Coronary Heart Disease and Physical Activity at Work,” *Lancet* (1951), 1: 1-73.

¹³ Iwao M. Moriyama *et al.*, *Statistical Studies of Heart Disease 1-9* (Washington, Public Health Reports, 1948).

¹⁴ National Vitimin Foundation, *Overeating, overweight, and obesity: Proceedings of the nutrition symposium held at the Harvard School of Public Health, Boston, MA, October 29, 1952* (New York, Nutrition Symposium Series, no 6, 1953).

¹⁵ George Alfred Lewis, *Your weight and your life; a scientific guide to weight reduction and control* (New York, Norton, 1951)

¹⁶ Lester M. Morrison, *The low-fat way to health and longer life; the complete guide to better health through automatic weight control, modern nutritional supplements, and low-fat diet* (Englewood Cliffs, N. J., Prentice-Hall, 1958).

¹⁷ Barbara Kupbens Levy, “Dimensions of personality as related to obesity in women” (Berkeley, CA, PhD Dissertation in Psychology, University of California Berkeley, 1955)

¹⁸ A.M. Stewart, J.W. Webb and D. Hewitt, “Observations on 1,078 Perinatal

Deaths,” *British Journal of Social Medicine*, 9 (1955), 57-61.

¹⁹ Richard Doll and Austin Bradford Hill, “Smoking and Carcinoma of the Lung,” *British Medical Journal*, (1950), ii: 739-48; *Idem* and Austin Bradford Hill (1956), “Lung Cancer and Other Causes of Death in Relation to Smoking,” *British Medical Journal*, ii: 1071-81.

²⁰ Virginia Berridge, “Science and Policy: the Case of Post War British Smoking Policy,” in. Stephen Lock and E. M. Tansey (eds), *Ashes to Ashes* (Amsterdam, Atlanta, Rodopi, 1998); Virginia Berridge, “Morality and Medical Science; Concepts of Narcotic Addiction in Britain,” *Annals of Science*, 36 (1979), 67-85

²¹ National Center for Chronic Disease Prevention and Health Promotion, “Nutritional and Physician Activity. Topical Index” (2004).

²² Richard H. Carmona, M.D., M.P.H., F.A.C.S. Surgeon General U.S. Public Health Service, Acting Assistant Secretary for Health, “Testimony Before the Subcommittee on Education Reform Committee on Education and the Workforce United States House of Representatives,” (July 16, 2003)

²³ *The United States Department of Health and Human Services*, “*The Surgeon General’s Call to Action to Prevent and Decrease Overweight and Obesity*” (2001). 1.

²⁴ *Ibid.*

²⁵ *Ibid.*, 2-3.

²⁶ *Ibid.*, 2.

²⁷ National Center for Chronic Disease Prevention and Health Promotion, “Nutritional and Physical Activity. State-Based Programs” (2003).

²⁸ “Surgeon General’s Call to Action,” *op.cit.* (ref. 44), 6-10.

²⁹ Michael Jackson, “FDA: Gutless Tiger,” *Nutrition Action Healthletter* (July/August 2003), 2.

³⁰ Michael Jackson, “Big Problem, Small Solution,” *Nutrition Action Healthletter* (May 2004), 2.

³¹ *Ibid.*

³² Jackson, *op.cit.* (ref. 51).

³³ Kalle Lasn, *Culture Jam. The Uncooling of America* (New York, William Morrow and Company, 1999).

³⁴ Donella H. Meadows, “The Global Citizen: Kalle Lasn is as Mad as Heck,” *Alternet*, May 15, 2000.

³⁵ Editorial, “I Terrorist,” *Adbusters Magazine*, No. 54 (July/August, 2004).

³⁶ Consumer Freedom Staff, “Fat Tax Attack. Nannies Renew Push for Twinkie Tax,” (Center For Consumer Freedom, 1st August 2000).

³⁷ Consumer Freedom Staff, “Anti-Corporate-Hypocrites: Walk A Mile In Our Shoes” (Posted On February 27, 2004).

- ³⁸ Peter Farrera, "The Rise of Food Fascism," *Washington Times* (June 1st 2003).
- ³⁹ Bruce Bartlett, "Targeting Big Food," *National Center for Policy Analysis Open Editorial* (Wednesday, April 3rd).
- ⁴⁰ Wendy McElroy, "The Food Fascists" (July 13, 2000).
- ⁴¹ Molly Ball, "Brownell calls for food tax to fight epidemic," *Yale Herald*, Feb 13th 1998.
- ⁴² Quoted in Ball *ibid*.
- ⁴³ Michael Jackson, "Obesity in America: Inevitable?" *Nutrition Action Healthletter* (March 2000), 2; Nancie Hellmich, "Obesity is the target," *USA TODAY* (5th July 2003).
- ⁴⁴ *Ibid*.
- ⁴⁵ D. Dowd Muska, "Sin Tax Error" *Nevada Journal* (June 2003); Chris Hoyt, "The Fate of Fat," (www.Reveries.com, 2003).
- ⁴⁶ Tom Marshall, "Exploring a fiscal food policy: the case of diet and ischemic heart disease," *BMJ* 2000 (29 January); 320:301-305.
- ⁴⁷ Ball, *op.cit.* (ref. 63).
- ⁴⁸ WHO, Integrated Prevention of Noncommunicable Disease. Draft Global Strategy on Diet, Physical Activity and Health, (27th November, 2003).
- ⁴⁹ Anita Srikameswaran, "WHO wants 'Twinkie tax' to discourage junk foods," *Pittsburgh Post-Gazette*, December 06, 2003.
- ⁵⁰ Quoted by Srikameswaran, *ibid*.
- ⁵¹ Marshall, *op.cit.* (ref. 68).
- ⁵² Hellmich, *op.cit.* (ref. 65).
- ⁵³ Peters quoted by Hellmich, *ibid*.
- ⁵⁴ 2003 City Blends Cafe, Inc.
- ⁵⁵ Bonnie Liebman and Jayne Hurley, "Beyond Fast Food. 'Fast Casuals' Come of Age," *Nutrition Action*, April 2003, 10-16
- ⁵⁶ Steven Shapin, "Eat and Run," *The New Yorker* (2006) January 16th.
- ⁵⁷ Liebman, and Hurley *op.cit.* (ref. 71).
- ⁵⁸ Jackson, *op.cit.* (ref. 52).
- ⁵⁹ Ludmilla Jordanova, "Guarding the Body Politic: Volney's Catechism of 1793," in Francis Barker *et. al.* (eds), *1789: Reading Writing Revolution. Proceedings of the Essex Conference on the Sociology of Literature, July 1981* (Colchester, University of Essex, 1982), 12-21.
- ⁶⁰ Michael Fitzpatrick, *The Tyranny of Health. Doctors and the Regulation of Lifestyle* (London, Routledge an imprint of Taylor Francis, 2000).
- ⁶¹ James Le Fanu, *The Rise and Fall of Modern Medicine* (London, Little Brown, 1999).

⁶² Edward Shorter, *From Paralysis to Fatigue. A History of Psychosomatic Illness in the Modern Era* (New York, The Free Press, 1993).

⁶³ Ivan Illich, *The Limits to Medicine: Medical Nemesis- the Appropriation of Health* (London, M. Boyers, 1975).

⁶⁴ Michel Foucault, *The Order of Things* (London, Tavistock, 1972).

Chapter Ten

Eugenics, Public Health and Environmentalism in Fin de Siècle Britain

THE RACE APART

THE VICTORIAN POOR were noticeably smaller than their middle-class counterparts. They were stunted, scrawny, potbellied, rickety, scarred by sores, scrofulous lumps, and other stigmata of sickness. The “great unwashed” were indifferent to the filth and stenches in which they lived; above all, they were a tribe of “mouth breathers.”¹ These, at least, were the ghastly impressions recorded by a host of mid-Victorian commentators, from Mayhew to Hollingshead, from Dickens to Doré, subsequently tabulated by investigators such as Booth and Rowntree – and now partly confirmed by the massive research project conducted by Professor Roderick Floud on the heights and weights of the Victorian working-classes.²

Contemporary middle-class philanthropists and anthropologists of “darkest England” were horror-struck at what they encountered as barely “tolerable human types.”³ Doctors working down in the slums frequently had to remind themselves that the poor belonged to the human species at all. As Gertrude Himmelfarb has so well documented, from early in the nineteenth century there developed a view of the poor as a race apart. In *London Labour and the London Poor*, Mayhew identified a social “residuum” as “undiscovered country” in the very heart of the metropolis: the feckless, reckless, ragged pupils in Shaftesbury’s schools, the dangerous, destitute, vagrant, criminal classes.⁴

Himmelfarb has argued that it was this residuum – this reckless race, whose destitution was judged dangerous because it spawned and spread disease – which was the true target, even the *raison d’être*, of the public health movement in Victorian England. The function of state medicine, she claims,

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was to separate the diseased-destitute from the labouring poor, so as to prevent the spread of physical infections, in the same way as the New Poor Law aimed to isolate the dependent pauper, thereby preventing him from spreading the contagion of idleness.⁵

There are flaws in Himmelfarb's explanation of the dynamics of public health, or state medicine, during this period. Official preventive medicine aimed to protect the physical well-being of the *laboring* poor rather than ensure the isolation of the residue.⁶ Nevertheless, Himmelfarb is right to emphasise that public health reformers recognized the presence, in the midst of society, of a residual population demanding special forms of regulation.

She is further correct to note that, amidst the welter of rival theories of the poor developing from pre-Victorian times, some authors contended that they could be understood *biologically*: they constituted a distinct type, a race, metaphorically even a species. By the close of the century, this supposed "race apart" had been given formal and prominent status within the new discourses of degenerationism and eugenics. It is important to regard Social Darwinism not as creating utterly original views of the poor but as clothing old prejudices in new terminology.⁷ Even so, the Spencerian and Social Darwinist vision of the survival of the fittest fanned fears, in the *fin-de-siècle* years, that the so-called "race apart" might be but the tip of the iceberg of degenerates, a vast horde of the unfit dragging the nation down into inevitable biological decline and final extinction. It was this prospect that won theorists of degenerationism their audience and stimulated new crusades such as eugenics.

A recent historiographical trend has been contending that eugenics, degenerationism, and similar theories fuelled by Social Darwinism amounted to a prevailing ideology in the Edwardian age influencing public policy-making no less than it pervaded literature and art.⁸ Not least, what has been called "social biology" found explicit expression, it has been suggested, in a new program for reorienting public health.⁹

I do not intend to re-examine the relationship between degenerationism and political and literary discourse in Edwardian intellectual life. Nor do I wish to challenge the fact that eugenics had a powerful appeal as popular propaganda. The issue I wish to address is the role of social biology in determining health *policy* and *administration* in the Edwardian age. Was it a major influence? Or, contrary to what recent scholarship would indicate, did it have but a minor impact upon those existing institutions and ideologies whose job was to regulate the public health?

EUGENICS AND SOCIAL POLICY

Eugenism certainly gained voice and strength in Edwardian England, being organized in various voluntary societies devoted to the promotion of eugenic health policies. The Eugenics Education Society was founded in 1907 with the aim of winning converts to Francis Galton's "new science" dedicated to "the possible improvement of the human breed."¹⁰ The Central Association for Mental Welfare, founded in 1913, pursued eugenic policies specifically in relation to the detention of the "feebleminded." From 1917, the People's Health League, and, from 1926, the New Health Society included eugenics in their campaigns for health improvement.¹¹

Eugenics won converts as fears of Britain's imperial decline were fuelled by the humiliations of the Boer War.¹² Revelations that high proportions of volunteers had failed to meet army standards of physique and fitness swelled anxiety about the alarming levels of deficiencies amongst the national stock. An Interdepartmental Committee was set up to investigate the whole question of "physical deterioration" but could not find any proof that deterioration had taken place. Basically its 1904 Report suggested that poor physique amongst recruits was due to bad environment and unsuitable nutrition.¹³

Despite the lack of hard evidence eugenicists used the deterioration scare to indict prevailing social policies which had positively encouraged the unfit to survive and breed. In particular they condemned the "environmentalist" Victorian Public Health movement.¹⁴ A writer in the first issue (1909) of the *Eugenics Review*, the journal of the Eugenics Education Society, emphasised that social legislation was "penalizing the fit for the sake of the unfit" and that "practically all social legislation has been based on the assumption that better environment meant race progress."¹⁵ J. B. Haycraft, author of *Darwinism and Race*, put the eugenic view pithily:

I do not see how we can shirk the fact that preventive medicine and civilization between them have already deteriorated in marked degree the healthy vigour of our race. ... Preventive medicine is trying a unique experiment, and the effect is already discernible – race-decay.¹⁶

Modern economies produced an urbanism fraught with dangers for health. It had been the error of preventive medicine, as eugenicists saw it, to intervene to ameliorate living conditions and so provide a safety-net for the poor. For the outcome had been dysgenic. Thanks to public health initiatives, masses of

mental and moral defectives, the chronic sick, residual idlers, and recidivist criminals had survived, thrived, and bred like rabbits. The unfit had been saved indiscriminately with the robust; now they were threatening the future of the fit.¹⁷

The problem was further compounded. As the numbers of the unfit and unemployable allegedly grew (as eugenists claimed), the backs of the productive had to bear ever greater tax and rate burdens so as to support them. Higher fiscal exactions persuaded the prudent middle classes to go in for practices of family limitation. The birth rate was thus plummeting alarmingly amongst those social strata whom the eugenists most wanted to breed. To their consternation, eugenists believed that late Victorian Britain showed declining fertility amongst the professional and middle classes, rising birth rates amongst the working classes, and massive reproductive surges amongst the lumpenproletariat. Unless these trends were corrected, the nation was running headlong into race suicide.¹⁸

The self-appointed mission of eugenics was to protect “the unborn” through a programme of selective breeding. Its leaders proposed alternative health policies: “responsible” attitudes toward marriage and family formation, voluntary sterilisation, and ultimately the sequestration of the unfit. Many eugenists aimed to regulate working class fertility by legislation that would make the right to marry contingent upon a test of financial solvency, which was to include proofs of provision through private insurance for unemployment, sickness, and old age.¹⁹

In Britain the heart of the eugenic enterprise to ensure the future health of a strong imperial race lay, however, in plans for sterilization and detention.²⁰ Their policies sought to ensure the ultimate elimination of the hereditarily unfit – whether mental, moral, or physical. Before 1914, eugenic schemes centered upon legislation for the compulsory and lifelong detention of the “feeble-minded,” in an attempt to prevent “degenerates” – such as mental defectives, alcoholics, and mothers who repeatedly bore illegitimate children from passing on their defects to future generations. Their campaign met with partial success in the 1913 Mental Deficiency Act, which legalized compulsory sequestration on the certificates of two doctors. A proposed clause prohibiting marriage and criminalizing procreation amongst the feeble-minded was, however, excluded from the Act thanks to the vigorous opposition of an Anti-Eugenic Parliamentary lobby led by the MP, Josiah Wedgwood.²¹

Greta Jones in particular has argued for the public impact of eugenism. In her recent book she has characterised the various hereditarian health policies

promoted by a range of eugenic bodies and their sympathisers as a program of “social hygiene.” “Social hygiene,” she claims, was a “marriage” between traditional public health and eugenics.²² Such labelling, however, is more confusing than clarifying. Dr. Jones has conscripted a term which accurately describes the late nineteenth-century German public health movement. In the Third Reich, hereditary explanations of ill health were incorporated into an ideology of social pathology promoted by the extremely influential health reformer, Alfred Grotjahn. Grotjahn’s practical application of social pathology to public health policy was explicitly proclaimed as “social hygiene.”²³ But it would be misleading to apply such a term to the British experience. For what Dr. Jones has termed the “marriage” of ideas between environmentalist public health and eugenic health ideologies was never consummated. Indeed, there was often open antagonism between them.

The language of social improvement during the Edwardian period often incorporated environmentalist and eugenic themes.²⁴ There were some individuals who attempted to synthesize environmentalist and eugenic themes in their views on health.²⁵ Certain institutions Dr. Jones discusses for this period, such as the Public Health League, tried to develop a reformist eugenics, which mixed theories of environmental improvement with theories of selective breeding to produce a better future for human society.²⁶ Nevertheless, the overall direction of British public health policy was, I would argue, little affected by the plans of eugenics, before or after 1914. Dr. Jones provides an excellent account of the attempts of eugenic health reformers to influence policy-making. She omits to note, however, the opposition they met from the existing public health movement, and the alternative health programs that were promoted. This omission misrepresents the character of health policy in Britain before the First World War.

Recent research on degenerationist and eugenic movements in other Western societies – Scandinavia, Germany, and the United States – has demonstrated their impact upon policy-making. Mark Haller, Daniel Kevles, Stephen Trombley, and others have documented the emergence of compulsory sterilisation laws, first instituted in the United States. Robert Proctor, Paul Weindling, and Benno Mueller-Hill have documented the gruesome, if complex, path from social hygiene to the Final Solution in the Third Reich.²⁷ These stories are, however, more complicated than they may first appear. Eugenics was by no means a unified theory in any of these cultures, and sterilization policy was the result of more than one ideological motivation.²⁸

Did eugenics appeal to influential people in Britain? The historical soci-

ologist Donald MacKenzie has suggested that eugenics endorsed the creed of “meritocracy” and thereby appealed to middle-class professionals.²⁹ Jones dismisses MacKenzie’s view as too restrictive, arguing that the membership of the Eugenics Society was much more broadly based and included significant numbers from the commercial and entrepreneurial middle classes, especially in the provinces.³⁰

These identifications of eugenics with middle-class consciousness have, however, been challenged by Geoffrey Searle.³¹ The occupational basis of the movement was in fact extremely narrow, appealing essentially to certain scientists and intellectuals for whom it offered direct academic and career advantages. It commanded, he suggests, a “narrow constituency” of “isolated intellectuals” with little direct access to such traditional channels of social influence as the media, politics, administration, or industrial relations.³² Eugenics met fierce opposition from the professional and middle classes, for example, from the public health profession, doctors, and philanthropists.³³ Thus, Searle concludes, though eugenics appeared, initially, to hold out to the intelligentsia the promise of policy making power, its actual achievements were limited to the patronage of new academic disciplines such as demography.

Though full-blooded eugenics never transcended its narrow basis of support, Searle admits that a weakened rhetoric of selectionism and degenerationism pervaded Edwardian politics. He suggests that the political appeal of eugenics in Britain before the First World War lay in the opportunities it afforded to the “radical right” to mount an ideological challenge to traditional liberalism and welfare socialism.³⁴ Even so, eugenics had extremely limited success in the broader political arena: “The direct influence of eugenics on politics and government has been slight, and this surely reflects its failure to articulate the class interests of any major group in British society.”³⁵

I believe the evidence overwhelmingly supports Searle’s view; there is thus a striking contrast between the impact of eugenics in Britain and its impact in other Western, Protestant societies. How is this contrast to be explained? The answer lies in the history of British health policy and the professionalisation of a public health service.

ENVIRONMENTALISM, BIOLOGISM, AND PUBLIC HEALTH

The persistence of widespread ill health amongst the Edwardian working classes, frequently revealed in the annual reports of medical officers of health,

was a depressing verdict upon the achievements of nineteenth-century state medicine. Eugenists felt vindicated: this sorry state of affairs was, they were sure, the result of past policies being directed by humanitarian rather than scientific considerations.³⁶ This view was historically quite fallacious, for public health had been one policy field in which expertise and scientific specialism had been incorporated into the administrative state during the Victorian era.³⁷

By 1900 the social policies that eugenists so despised had born fruit in a swelling public health administration. From 1856 in London, and from 1872 throughout England and Wales, every sanitary district was compelled to employ a Medical Officer of Health. His duties were the inspection and recording of the health conditions of his district and the enforcement of sanitary regulations.³⁸ The establishment of this office opened up new career opportunities in salaried, state service for medical practitioners. Operating in small districts, the majority was part-time and remained in private medical practice. There was a growing core of officers in the larger urban and metropolitan districts, however, who were full time, possessed specialist qualifications in preventive medicine, and whose sense of Beruf lay in the public health.³⁹

By 1889 this occupational group consisted of 1500 officers. They had a professional organisation, the Society of Medical Officers of Health (SMOH), which published its own journal, *Public Health*. The Society spearheaded a campaign for enhanced professional status and the progressive expansion of the administrative and executive powers of Medical Officers of Health. As a pressure group, they energetically lobbied the Local Government Board, which oversaw public health both in Whitehall and Parliament itself.⁴⁰

The members of this public health service naturally felt no intellectual rapport with, or professional investment in, a social Darwinist rhetoric which contended that their activities were fatal to biological progress and racial purity. Edward Hope, Medical Officer of Health (MOH) for Liverpool and one-time president of the SMOH, expressed the general mood of the public health profession in 1912: "Today we hear a great deal of eugenics and genetics and the impairment of the race, and the mischief which is wrought by the indiscriminate sanitarian who preserves the lives of the weakly and the degenerate."⁴¹ Yet, he suggested, those itching to dismantle the existing edifice of public health administration and the social policies on which it was built were just Malthusian cranks. "The Eugenists would be well advised to leave alone the criticisms upon sanitation," he judged; they should concentrate not upon selective breeding but rather upon eliminating

the slum housing that endangered health.⁴²

By the turn of the century, in other words, Medical Officers of Health were already deeply entrenched in a structure of public policy-making, legislation, and administration which gave them a massive identification with a professional ideology of preventive medicine. Preventive medicine has been described by the health historian René Sand as an ideology of medicine and the state particular to late Victorian England.⁴³ Many professional and educational institutions were established dedicated to its promotion, most notably the Royal Institute of Health and the Royal Sanitary Institute. Not least, the pages of *Public Health* promoted preventive medicine amongst its membership as a professional ideology.⁴⁴

Late-Victorian preventive medicine launched its own energetic critique of the deficiencies of earlier sanitarianism. With its focus upon drains, sewers, and nuisances, crude sanitarianism had failed to move beyond a partial, myopic understanding of community health; hence it had achieved nothing but piecemeal gains. In the eyes of late-Victorian preventive medicine, responsibility for the scandalous continuation of chronic ill health amongst the Edwardian poor was to be laid at the door of Parliament for failing to pass more comprehensive legislation. Neither Parliament nor the sanitarians had grasped the relationship between urbanism, poverty, and disease.⁴⁵

What did this charge entail? There is no denying, of course, that the reciprocal relationship between poverty and disease had long been acknowledged by public health reformers. From early Victorian times, public health had developed as one of a variety of social initiatives directed toward solving the problem of poverty. Edwin Chadwick had sought to prevent what he saw as the diseases of “filth” in order to reduce the burden of destitution upon the rates.⁴⁶ After Chadwick, John Simon, first MOH to the Medical Department at the Privy Council and Local Government Board, noted that, as a result of the operation of the iron law of wages in the free market, labourers’ incomes often fell below adequate subsistence levels. Classical *laissez-faire* political economy debarred the state from intervening to raise wages. But, Simon contended, it was legitimate for the state to regulate the physical conditions of existence, so as to alleviate the plight of the laboring poor. Herein lay the role of what he called “state medicine.” Its mission was to ensure that housing was fit for habitation, food was free of adulteration, dangerous trades were regulated, industrial pollution controlled, environmental cleanliness maintained through proper sewage and drainage, and, not least, the spread of epidemic diseases checked through vaccination and quarantine.⁴⁷

These policies were targeted at improving the physical welfare of industrial workers, the central focus of public health reform from Chadwick to Simon. Both men acknowledged, however, the existence of a social “residuum,” willfully idle and habitually criminal. Chadwick had identified them as the itinerant inhabitants of “common lodging houses,” scavenging and scrounging, moving from one town to another. He developed specific legislation for the regulation of common lodging houses to prevent this vagrant population spreading filth and disease (see Flinn for discussion of the 1850 Lodging House Act and the 1851 Common Lodging House Act). Simon likewise believed that health reform was limited, in the last resort, by the residuum produced by “the aboriginal struggle of existence.” The strictest measures were needed to break the cycle – to break, in other words, what sociologists would later call “the culture of poverty.” For instance, Simon believed the state should “treat as parentless” and take into care children whose “natural parents or guardians cannot, or will not, bring them up otherwise than into pauperism, or presumably into crime.”⁴⁸

Edwardian Medical Officers of Health recognised that poverty was still the main challenge of preventive medicine. In 1909 James Niven, MOH for Manchester for over forty years and one-time president of the SMOH, pointed out, however, that poverty was a complex and protean entity. In one area at one time, there might be high levels of unemployed labor temporarily thrown out of work by the trade cycle. Elsewhere, the poor might mainly comprise orphans, widows, and the aged. Other areas might have a large itinerant population. Sometimes the causes lay beyond the control of the individual: old age and chronic sickness, for example. Yet alcoholism and deliberate idleness were also to blame, leading to the vagrant lifestyles of the common lodging house, public house, and the brothel.

For Niven, the hope was that preventive medicine should reduce poverty caused by ill health. Even so, he accepted that there would always be “incurable loafers, incapables, and degenerates.”⁴⁹ His remedy was the popular, punitive, Edwardian variation on the workhouse theme. Niven approved detention of the feeble-minded in the model colonies set up by Mary Dendy, a member of the Manchester school board.⁵⁰ The Victorian “residuum” was thus still seen as a special problem for Edwardian public health reformers. But they continued to insist that the relationship between poverty and sickness could best be addressed by measures to prevent disease amongst the labouring industrial classes. Take, for instance, the many discussions on poverty and tuberculosis staged by the SMOH. In 1906, John Barlow, then presi-

dent of the North Western branch of the Society, was staggered at the levels of pulmonary tuberculosis among what he termed the “poorer classes and the very poor.” Rejecting the idea of a hereditary diathesis of tuberculosis, he urged his colleagues to remember, when considering a disease of adult life like phthisis, that “the very poor are to a great extent a select class, since only those who have been born with the strongest constitutions will overcome the deadly perils which menace them in their earliest years.... They are, therefore, the people who, living under better conditions, would not be likely to contract phthisis.”⁵¹

The predisposing conditions favorable to tuberculosis were, he suggested, those most closely connected with poverty, conditions that inevitably led to its rapid spread throughout families.⁵² These same conditions were equally the source of high infant mortality from diarrhea, pneumonia, and perinatal mortality resulting from maternal malnutrition. Poverty, he claimed, also bred bad moral habits such as poor childcare and intemperance. The relationship between poverty and disease, Barlow stated, inevitably involved the MOH in moral and social questions.⁵³

The response of Edwardian preventive medicine to the dilemma posed by poverty and disease was to expand its vision of what John Simon had identified as the environmental influences upon the “physical conditions of existence.” For example, Simon had urged that the housing of the working classes should be the primary target of public health reform. In the event, however, Victorian legislation to reduce urban slums and overcrowding had been piecemeal and lacking in coherence. Recognition of this provided new stimulus from the 1890s for the formulation of a more holistic understanding of the urban system. New proposals were floated for decentralizing the city, redistributing industry, and taking industrial workers, metaphorically and even literally “back to the land.”⁵⁴

In a significant new alliance, preventive medicine began around 1907 to join forces with the aspirations of town planners for housing reform. Town planners began to contribute to the preventive medicine journals, especially *Public Health*, and to participate in the annual congresses of the professional preventive medicine community. Thus in 1908 such leading members of the planning movement as Henry Vivian (a Liberal MP who led the national Tenant Co-Partnership movement), Raymond Unwin, and Barry Parker (joint architects of the first Garden City, Letchworth) directed the housing debate at an annual congress of the Royal Institute of Health in 1908.⁵⁵

Parker and Unwin argued that overcrowding exacerbated physical de-

generation as a prime agent in the spread of communicable disease. They accused the sanitarian's perspective on housing regulation of being hopelessly blinkered. True, the advent of a sanitary infrastructure had helped to remove major sources of disease propagation, just as building bylaws had ensured a minimum quantity of adequate housing stock. But such sanitary improvement of dwellings had failed to tackle the haphazard growth of towns; no rational distribution of population had been sought. No account had been taken of the historical evolution of a settlement. Such questions had finally been addressed, they suggested, in the City Survey methodology advocated by Patrick Geddes. The ultimate result of the holistic urbanism which Geddes advocated, they argued, would be "vigorous and happy citizens."⁵⁶

Pursuing this theme, Henry Vivian suggested that new settlements could be planned that would regenerate health and create among the inhabitants a spirit of social and economic investment in the environment.⁵⁷ From the viewpoint of this new civic consciousness, the "people responsible for the abominations in estate development which deface the suburbs of our big cities and ruin the health of our people," Vivian declared, "will be looked upon as enemies of the race."⁵⁸

I have been arguing that the spokesmen of Edwardian preventive medicine criticised earlier generations of sanitarians for failing to tackle the structural relationship governing urbanism and health. Older campaigns for housing reform needed to be transformed into forward-looking concepts of town planning.⁵⁹ In so doing, environmentalist ideologies co-opted the language of degenerationism into arguments for comprehensive, holistic social planning. This appropriation could be Lamarckianism in disguise. On the other hand, it could be an example of the mixture of eugenic rhetoric and environmental reformism, the latter of which was exemplified by Patrick Geddes's work. Whatever the precise terms of the discourse, however, the emphasis was on regeneration through nurture rather than nature. The fundamental assumption was that overcrowding spread infections and caused chronic weaknesses in each generation, whether or not these were subsequently transmitted genetically. Health levels could be raised only by a holistic approach to environmental development.

Just as the Victorian housing debate was broadened into the Edwardian ideology of urban planning, so concerns with malnutrition also acquired a new focus, a broader program. Simon had suggested that apart from housing, public health regulation of food standards must be central to securing the physical welfare of the laboring poor. Victorian legislation thus pro-

hibited the sale of substandard and adulterated food and dangerous drugs. Edwardian public health reformers went further. Legislation was passed establishing free school meals and setting up a medical inspection service for school children.⁶⁰ The statutory introduction of antenatal care and stricter regulation of midwifery were similarly aimed at preventing underfed mothers from producing constitutional weakness in their offspring.

Around the turn of the century, new concern over the process of human reproduction became what Jane Lewis has described as the “politics of motherhood” and what the Fabians had referred to as the “endowment of motherhood.”⁶¹ A complex set of values identified the relationship between motherhood and imperialism in Edwardian society. Certainly eugenicists contributed to the debate. Sidney and Beatrice Webb articulated an overtly eugenic argument for making motherhood a priority for the social services. However, members of the Infant’s Health Society, the National League for Health, Maternity and Child Welfare, and the Women’s League of Service for Motherhood equally emphasised the need for education in promoting efficient motherhood and improvement in child rearing.⁶²

Many among the public health profession adopted the pronatalist attitude so prevalent in *belle époque* France. Edmund Smith, MOH for York, argued that both the upper and the lower orders of society must be impressed with “a much higher sense of the duty and sanctity of child-bearing.”⁶³ He agreed with John F. Sykes, MOH for St. Pancras and president of the Society in 1907, that “if we intend to remain an imperial race, we must restore to its imperial place the dignity of motherhood.”⁶⁴ Smith reminded his colleagues of the argument made by Dr. Cooper Pattin at the 1906 National Conference on Infant Mortality that ignorance had to be replaced with “a civic religion that will make the loss of a child something of a social stigma as well as a racial sin.”⁶⁵

Malnutrition was one target of the public health profession’s “endowment of motherhood;” but it also aimed at interfering in order to break habits of inefficient and unhygienic mothering.⁶⁶ Here we see another instance of a Victorian preoccupation – obsession with the vicious habits of the poor – becoming transformed into a novel programme of public health education. The introduction of health visiting extended the old “inspection” principle into a mission to instruct the working classes about domestic mismanagement.⁶⁷ Yet the emphasis in this educational programme was upon habit, not heredity.

Public health professionals developed a strong belief in the need for edu-

cation due to the influence of bacteriology. The bacteriological revolution identified the greatest agent of disease dissemination as the infected human. Traditional accounts of the impact of bacteriology upon public health practice have emphasised how the discovery of human infection led to measures for systematic isolation of individuals.⁶⁸ Indeed, new policies for isolation were enacted in late-nineteenth-century Britain with the establishment of the Infectious Diseases Acts from 1889 to 1899.

On the other hand, bacteriology identified not only the biology but also the behaviour of the individual as the source of disease. I would contend that public health officers embracing the bacteriological revolution no longer viewed the individual simply as an isolated health unit; he or she was seen rather as the bearer of the social relations of health and illness. It was no longer enough for individuals to heed their own health, as had been urged by the Enlightenment ideology of individual hygiene; they must be made conscious of the social impact of individual behaviour upon the health of the community.⁶⁹

Just as town planners vested their faith in creating a new civic consciousness, public health reformers believed they could eradicate habits of hygienic inefficiency and forge citizens who would safeguard health. Between 1900 and 1910 *Public Health* and the *Journal of State Medicine* (*Journal of Preventive Medicine* after 1905) recorded campaigns that were launched early in the twentieth century by medical officers of health for compulsory education of school children in hygiene, to indoctrinate them in the creed of personal responsibility for community health.

The individual was thus sociologically redefined as the bearer of the relations of health and illness within a refashioned concept of the environment that included not only the physical milieu but also the world of social behavior.⁷⁰ This new perspective validated the Edwardian philosophy of preventive medicine as the panoptic overseer of communal life. In his 1910 report to the Local Government Board, its MOH, Arthur Newsholme thus emphasised that infant mortality was not a “weeding out” process of eugenic value, but simply represented the “preventable wastage of child life.”⁷¹ The phrase Newsholme chose echoed the calls of William Farr and other nineteenth-century sanitarians for the reduction of preventable mortality. A new philosophy of prevention, Newsholme pointed out, had to be implemented to achieve it.

Techniques of preventing disease within the community had evolved, he claimed, in two stages. The first had involved “a crude idea that local in sanitary conditions, irrespective of specific infections, caused epidemic disease.”

This was at best, he said, only “a first approximation of the truth,”⁷² comparable to the empirical methods employed in traditional clinical medicine. But just as scientific medicine had superseded empiricism, so a new rational concept of prevention had emerged, but also emancipated itself, from earlier sanitarianism, as a result of new knowledge of the specific aetiology of diseases. By identifying the origin of specific diseases, it had revealed the interdependence of those social and biological conditions which furthered their propagation. Prevention could at last mount what Newsholme described as a “causal attack” upon disease, thanks to the redefinition of the environment from a “social standpoint.”⁷³

Newsholme contended that this new definition of the environment afforded a vision of how the whole range of the “physical, mental, and moral life of mankind may be brought within the range of preventive medicine.” Social efficiency would depend upon a method “which should govern the supervision and control of communal life.” If it were to function as a tool of corporate management of communal life, it followed that preventive medicine must possess a “vision of the whole.” In the evolution of this approach, he emphasised, “the collective have gradually overshadowed the personal.”⁷⁴

Conceived thus as “social efficiency,” preventive medicine became synthesised into a specific policy agenda. From 1905, the SMOH joined forces with Sidney and Beatrice Webb in a campaign for establishing a unified health service to replace the existing fragmented public health and Poor Law medical services.⁷⁵ The SMOH was already campaigning for the establishment of a Ministry of Health and a State Medical Service. The Society demanded a unified health service, administered by a Whitehall department, managed by a full-time, tenured staff of specially qualified district medical officers of health. They wanted a new service paid for out of the Exchequer’s purse and not the local rates.⁷⁶

The Royal Commission on the Poor Law, which sat from 1905 to 1909, produced a Majority and a Minority Report, the latter authored by the Webbs. Alongside many other proposals for revising the social services (including labour camps for the unemployed to replace the workhouse), the Minority Report proposed a National Health Service, uniting both clinical and preventive medicine, and financed from central taxation. This service was to be managed by Medical Officers of Health, through an expansion of their existing bureaucracies. It was to be directed by the principles of preventive medicine, interpreted as a philosophy of rational, comprehensive planning for the health needs of a community. In formulating this concept, the Webbs

were assisted by Arthur Newsholme, and they received the wholehearted support of the SMOH.⁷⁷

Though there were moments when it appeared close to becoming a reality, the unified health service was not endorsed by Asquith's Liberal government. In fact, health policy took another direction entirely in the National Insurance Act of 1911. This instituted compulsory health insurance for working men. The Poor Law remained intact to deal with their dependents.⁷⁸ In the wider arena of Westminster party politics, the goals of comprehensive planning for the social, economic, and physical environment of health were only very partially realised before the First World War.

THE POLITICS OF SOCIO-ECONOMIC AND BIOLOGICAL PLANNING FOR HEALTH

What, then, was the significance of the role of eugenics and socio economic planning in the politics of health care before the First World War? Social Darwinists blamed misguided environmental health policies for the continuing abysmal levels of chronic sickness in Edwardian society. The public health profession responded by mounting its own critique of the failure of earlier sanitarianism to tackle community health needs holistically. The critique adumbrated a new philosophy of preventive medicine, proposing to replace sanitarianism with rational-comprehensive health planning. Comprehensive planning encompassed an expanded environmentalist program dedicated to regulating the social, economic, and physical conditions of existence. This new public health ideology co-opted Social Darwinian rhetoric into a political program that represented collectivist cooperation as the highest form of human evolution.

Simon had believed that the new collectivist politics emerging in the late-Victorian era marked the most advanced form of civilization.⁷⁹ The Edwardian radical and social theorist, L. T. Hobhouse, echoed such a view in his concept of "orthogenic" (progressive) evolution as collectivism.⁸⁰ Hobhouse used this concept to justify a vision of sociology that was historical rather than biological.⁸¹ This specifically countered the biologicistic sociology so forcefully promoted from Herbert Spencer to Patrick Geddes. Perhaps more than any other Edwardian figure, Geddes attempted to fuse environmentalism with eugenics.⁸² But the preventive health agenda overwhelmingly reflected the intellectual commitments expressed by Hobhouse rather than Geddes. For explanations of ill health, preventive medicine looked to the

historico-sociological determinants of social development above and beyond the biological basis to human existence.

Most historians agree that the finest hour of eugenic health policy lay in putting the Mental Deficiency Act on the statute book in 1913.⁸³ Environmentalist public health reformers secured a far greater bag of legislative gains. Yet they failed to achieve the institution of a unified, rational-comprehensive system of health care. They did manage, however, to achieve some comprehensive features within social policy legislation during this period, such as Sanatorium Benefit under the 1911 National Health Insurance Act.⁸⁴

Why did eugenics enjoy such limited influence in British policy-making? I have shown that the answer lies, in part, in the power of an entrenched public health structure, run by a large, organized occupational group for whom a biologicistic Social Darwinism had no appeal. This professional group continued its ideological commitment to environmentalism, and combated biologicistic determinism.

But it must also be emphasised that the comparative failure of eugenics also resulted from the continued sway of *laissez-faire* in practical politics.⁸⁵ The philosophies and policies of Campbell-Bannerman's and Asquith's Liberal administrations resisted what others hailed as the inevitable march toward bureaucratization and greater government interference in the economic and social life of the nation. Of course, the Liberals made concessions to the new electoral appeal of collectivist politics, as in the establishment of National Insurance and Old Age Pensions. Nevertheless, Asquith held out against the corporatist implications of both comprehensive planning and eugenic health policies.

Unlike elsewhere, hereditarianism subsequently exercised scant influence over British health policy. By contrast, as Charles Webster has pointed out in *The Health Services*, the architects of the National Health Service recognised the roots of their system in the plans and politics of late Victorian and Edwardian public health professionals, even though some of the policy makers of the 1940s and '50s thought that the new Service they had created fell short of the comprehensive planning ideals of the pre-1911 public health reformers.

NOTES

- ¹ *Report 41*; Vivian; Paterson; see also Reynolds.
- ² Floud et al., *Height*; for earlier work on quantitative historical analysis see his *Essays*.
- ³ Wohl 43-79.
- ⁴ see also Himmelfarb 371-400, 312-59; Quinell; Gareth S. Jones.
- ⁵ Himmelfarb 358-60, 396-400.
- ⁶ See D. Porter.
- ⁷ Collini 202.
- ⁸ For examples see Gilman and Chamberlin; Kevles; MacKenzie; Greta Jones, *Social Darwinism*; Clark; Trombley; Farrell; Proctor; Weiss; Mazumdar 204-15; Stepan.
- ⁹ Greta Jones, *Social Hygiene*. A very different interpretation of the relationship of eugenics to public policy has, however, recently been argued by Macnicol.
- ¹⁰ Searle, *Eugenics and Politics* 3, 4-19.
- ¹¹ Searle, *Eugenics and Politics* 24-25; Greta Jones, *Social Hygiene* 26-30.
- ¹² Searle, *Quest* 36-53, 60-72.
- ¹³ Searle, *Eugenics and Politics* 23-24.
- ¹⁴ Webster, *Biology* 1-13.
- ¹⁵ Qtd. in Wohl 334.
- ¹⁶ Qtd. in Wohl 334.
- ¹⁷ Searle, *Eugenics and Politics* 29-34, 45-66.
- ¹⁸ Searle, *Eugenics and Politics* 25-28; Soloway 25-48.
- ¹⁹ Searle, *Eugenics and Politics* 96-100.
- ²⁰ Greta Jones, *Social Hygiene* 26-41; Searle, *Eugenics and Politics* 92-111. Eugenic health policies in other Western societies had different central goals. In the United States, the most successful eugenic campaigns achieved stringent immigration restriction policies. In the Third Reich policies concentrated on sterilisation and euthanasia. See Kevles 96-112; Proctor 176-221.
- ²¹ Searle, *Eugenics and Politics* 92-111; Greta Jones, *Social Hygiene* 26-41.
- ²² *Social Hygiene* 160.
- ²³ Rosen, "What is Social Medicine?"; Porter and Porter 95-96.
- ²⁴ Sutcliffe, *Towards* 56.
- ²⁵ See Meller; Greta Jones, *Social Hygiene* 43-63.
- ²⁶ *Social Hygiene* 25-42.
- ²⁷ Weindling, "Theories" and *Health*.
- ²⁸ See Haller; Weindling; Grob 167-69. Daniel Kevles, for example, has admira-

bly demonstrated how eugenics was one of the movements that helped to establish sterilisation laws in various American states. But the extent to which they were enforced, however, awaits further research.

²⁹ MacKenzie 501-41.

³⁰ *Social Hygiene* 18-21.

³¹ "Eugenics and Class."

³² Searle 235-38.

³³ Searle 220-34.

³⁴ *Eugenics and Politics* 112-15.

³⁵ "Eugenics and Class" 239.

³⁶ Searle, *Eugenics and Politics* 67-73.

³⁷ Watkins; Macleod.

³⁸ Whol 166-204; W. Fraser 121-25.

³⁹ D. Porter.

⁴⁰ See Watkins.

⁴¹ "Expanding" 40.

⁴² *Ibid.*, 41.

⁴³ Sand 557.

⁴⁴ Watkins 276-333.

⁴⁵ Watkins 360-438; See also Ewart, "Inaugural Address"; Blyth; Paget; Sykes; Murphey and Stevenson; Whitelegge; and contributions of English medical officers of health in Shelley.

⁴⁶ Finer; R. Lewis.

⁴⁷ "Ministry."

⁴⁸ English 455-56.

⁴⁹ Niven 41.

⁵⁰ Dendy.

⁵¹ Dendy 218.

⁵² Dendy 219-23; see also Crookshank.

⁵³ Dendy 223-26.

⁵⁴ Sutcliffe, *Towards* 56-70, British; Donnison and Soto.

⁵⁵ See *Journal of Preventive Medicine* 17 [1909]: 10-33.

⁵⁶ Parker and Unwin 32.

⁵⁷ Parker and Unwin 14. During his address Vivian cited the results of an anthropometric survey of Edinburgh children, undertaken by the Edinburgh Charity Organisation Society, correlating heights and weights with accommodation space. This survey revealed the consequences for families of mere single room accommodation, of an excessive density of dwellings per acre, and of the absence of open spaces and

playing grounds. The poor physical stature of children from overcrowded accommodation, argued Vivian, revealed the degeneration occurring when the “struggle for existence is truly awful” (14).

⁵⁸ Parker and Unwin 21.

⁵⁹ For discussion of preventive medicine and town planning by medical officers of health see Thomas (Finsbury) 459; Dundas (Ramsgate); Hope (Liverpool) “Presidential Address,” “Expanding” 35; Chalmers (Glasgow); Miller (Hereford) 17-19; Freemantle (County of Herefordshire).

⁶⁰ On the development of child welfare services see Armstrong 54-64; Gilbert.

⁶¹ See, for example, C. Porter.

⁶² Webb and Webb, *Prevention*, Decline; see also Dwork; Davin.

⁶³ Smith 224.

⁶⁴ Smith 227.

⁶⁵ Smith 230.

⁶⁶ See Smith; Barlow; Crookshank; J. Lewis.

⁶⁷ Harrison; on the history of health visiting see Davies; Watkins 239-48.

⁶⁸ See, for example, Rosen, *History*.

⁶⁹ See Watkins 375-444 for the relationship of bacteriology to changing perceptions of hygiene.

⁷⁰ On the rise of sociology and the expansion of the clinical, medical “gaze,” see Armstrong.

⁷¹ *Report* 425.

⁷² “Some Conditions” 405.

⁷³ “Some Conditions” 410.

⁷⁴ “Some Conditions” 410-15.

⁷⁵ The Webbs have been cited by MacKenzie and Jones as being sympathetic to eugenics. In deed they did flirt superficially with it for a brief time and are an example of the way the rhetoric of eugenics was incorporated into the language of social reformers in this period. However, the Webbs had clearly become disenchanted with the movement by the time of the publication of *The Prevention of Destitution* in 1911 when they describe it as the most *laissez-faire* political creed. See discussion of the Webbs in Searle, *Eugenics and Politics*.

⁷⁶ See “Editorial;” Watkins 225-39; Society of Medical Officers; Highet; “Local Misgovernment;” Munro; Hunter; Seaton; McVail; “The Health Provisions of the National Insurance Bill;” Richards; Priestly; “The Preventive Provisions of the Insurance Bill.”

⁷⁷ See B. Webb, “Relation,” “Minority Report;” Webb and Webb, *Doctor*.

⁷⁸ See Braithwaite; Gilbert, *David Lloyd George, Evolution of National Insurance*;

D. Fraser; Thane, *Foundations and Origins*.

⁷⁹ English 484.

⁸⁰ Collini 13-78.

⁸¹ Collini 178-86.

⁸² See Meller; Boardman; Stailey.

⁸³ Though there were more than just eugenic motives behind the campaign for the Mental Deficiency Act; see Wormald 79-120.

⁸⁴ I am grateful to Geoffrey Searle for pointing this out to me.

⁸⁵ See Freedon; Clarke; Emy; Bernstein; Read.

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BIBLIOGRAPHY

- Armstrong, David. *Political Anatomy of the Body*. Cambridge: Cambridge UP, 1983.
- Barlow, John. "Some Thoughts with Respect to the Duties of Medical Officers of Health in Relation to Social Questions." *Public Health* 18 (1905-06): 216-26.
- Bernstein, George L. *Liberalism and Liberal Politics in Edwardian England*. Boston: Allen, 1986.
- Blyth, Alexander Wynter. "The Prevention of Infectious Disease." *Transactions of the Sanitary Institute* 12 (1890-91): 39-44.
- Boardman, Philip. *Patrick Geddes, Maker of the Future*. Chapel Hill: U of North Carolina Press, 1944.
- Braithwaite, William. *Lloyd George's Ambulance Wagon: Being the Memoirs of William J. Braithwaite 1911-1912*. Ed. Henry N. Sunbury and Richard Titmuss. London: Methuen, 1957.
- Chadwick, Edwin. *Sanitary Report 1842*. Ed. Michael W. Flinn. Edinburgh: Edinburgh UP, 1965.
- Chalmers, A. K. *Public Health* 21 (1907-08): 218-27.
- Clark, Linda. *Social Darwinism in France*. University: U of Alabama Press, 1984.
- Clarke, Peter. *Liberals and Social Democrats*. Cambridge: Cambridge UP, 1978.
- Collini, Stefan. *Liberalism and Sociology: L. T. Hobhouse and Political Argument in*

- England 1880-1914*. Cambridge: Cambridge UP, 1979.
- Crookshank, F. G. "The Relations Between the Curative and Preventive Departments of Medicine and Between these and the Public-An Independent Outlook." *Public Health* 20 (1907-08): 183-93.
- Davies, Celia. "The Health Visitor as Mother's Friend: A Woman's Place in Public Health, 1900-14." *Social History of Medicine* 1 (1988): 39-59.
- Davin, Anna. "Imperialism and Motherhood." *History Workshop Journal* 5 (1978): 9-65.
- Dendy, Mary. "The Care of the Feeble Minded." *Journal of State Medicine* 8 (1899): 806-11.
- Donnison, David V., and Paul Soto. *The Good City: A Study of Urban Development and Social Policy in Britain*. London: Heinemann, 1980.
- Dundas, James. *Journal of Preventive Medicine* 22 (1914): 31-41.
- Dwork, Deborah. *War is Good for Babies and Other Young Children: A History of the Infant and Child Welfare Movement in England 1898-1918*. London: Tavistock, 1987.
- "Editorial." *Public Health* 17 (1903-04): 499-503.
- Emy, Hugh Vincent. *Liberals, Radicals and Social Politics*. Cambridge: Cambridge UP, 1973.
- Ewart, Joseph. "Inaugural Address." *Transactions of the Epidemiological Society of London* ns 10 (1890-91): 1-21.
- Farrall, Lyndsay Andrew. *The Origins and Growth of the English Eugenics Movement, 1865-1925*. New York: Garland, 1985.
- Finer, Samuel Edward. *The Life and Times of Edwin Chadwick*. London: Methuen, 1952.
- Flinn, Michael Walter. Introduction. *The Medical and Legal Aspects of Sanitary Reform*. By Alexander Stewart and Edward Jenkins. Leicester: Leicester UP, 1969. 1-23.
- Floud, Roderick. *Essays on Quantitative Economic History*. Oxford: Clarendon, 1974.
- , Kenneth Wachler, and Annabel Gregory. *Height, Health and Human History*. Cambridge: Cambridge UP, 1990.
- Fraser, Derek. *The Evolution of the British Welfare State: A History of Social Policy Since the Industrial Revolution*. London: Macmillan, 1973.
- Fraser, William M. *A History of English Public Health 1834-1939*. London: Bailliere, 1950.
- Freeden, Michael. *The New Liberalism: An Ideology of Social Reform*. Oxford: Oxford UP, 1978.

- Freemantle, F. E. *Public Health* 22 (1908-09): 2-13.
- Geddes, Patrick. "Civics as Applied Sociology." *The Ideal City*. Ed. Helen Meller. Leicester: Leicester UP, 1979. 74-183.
- Gilbert, Bentley. *David Lloyd George: A Political Life: The Architect of Change 1863-1912*. Columbus: Ohio State UP, 1987.
- *The Evolution of National Insurance in Great Britain: The Origins of the Welfare State*. London: Joseon, 1966.
- "Sir John Eldon Gorst and the Children of the Nation." *Bulletin of the History of Medicine* 28 (1954): 243-55.
- Gilman, Sander, and J. Edward Chamberlin, eds. *Degeneration: The Dark Dark Side of Progress*. New York: Columbia UP, 1985.
- Grob, Gerald. *Mental Illness and American Society 1875-1940*. Princeton: Princeton UP, 1983.
- Haller, Mark. *Eugenics: Hereditarian Attitudes in American Thought*. New Brunswick, NJ: Rutgers UP, 1984.
- Harrison, Brian. "For Church, Queen and Family: The Girls' Friendly Society, 1874-1920." *Past and Present* 61 (1973): 107-38.
- "The Health Provisions of the National Insurance Bill." *Public Health* 24 (1910-11): 335-56.
- Hight, Joseph. "The Need for a State Department of Public Health." *Public Health* 12 (1899-1900): 851-58.
- Himmelfarb, Gertrude. *The Idea of Poverty: England in the Early Industrial Age*. New York: Random House, 1985.
- Hollingshead, John. *Ragged London in 1861*. New York: Garland, 1985.
- Hope, Edward. "The Expanding Scope of Sanitary Administration." *Public Health* 26 (1912-13): 31-41.
- "Presidential Address." *Public Health* 21 (1907-08): 62-67.
- Hunter, W. L. "A Few Public Health Possibilities." *Public Health* 11 (1898-99): 415-519.
- Jones, Gareth Stedman. *Outcast London: A Study in the Relationship Between Classes in Victorian Society*. Oxford: Clarendon, 1971.
- Jones, Greta. *Social Darwinism and English Thought: The Interaction between Biological and Social Theory*. Brighton: Harvester, 1980.
- *Social Hygiene in Twentieth Century Britain*. London: Croom Helm, 1986.
- Kevles, Daniel. *In the Name of Eugenics: Genetics and the Uses of Human Heredity*. New York: Knopf, 1985.
- Lewis, Jane. *Politics of Motherhood: Child and Maternal Welfare in England, 1900-1914*. London: Croom Helm, 1980.

- Lewis, R. A. *Edwin Chadwick and the Public Health Movement 1832-1854*. London: Longmans, 1952.
- “Local Misgovernment.” *Public Health* 12 (1899-1900): 61-63.
- MacKenzie, Donald. *Statistics in Britain, 1865-1930*. Edinburgh: Edinburgh UP, 1981.
- Macleod, Roy. “Specialist Policy in Government Growth.” Diss. U of Cambridge, 1967.
- Macnicol, John. “Eugenics and the Campaign for Voluntary Sterilization in Britain Between the Wars.” *Social History of Medicine* 2 (1989): 147-69.
- Mayhew, Henry. “Preface.” *London Labour and the London Poor*. Vol. I. London: Griffin, Bohn and Co., 1861-62. 4 vols. N. pag.
- Mazumdar, Pauline M. H. “Eugenicists and the Residuum: The Problem of the Urban Poor.” *Bulletin of the History of Medicine* 54 (1980): 204-15.
- MeVail, John C. “Report on the Methods and Results of the Present System of Administering Indoor and Outdoor Poor Law Medical Relief in Certain Unions in England and Wales.” Appendix: *Report of the Royal Commission on the Poor Laws and Relief of Distress*. London: H.M.S.O., 1909. 335-675.
- Meller, Helen. *Patrick Geddes: Social Evolutionist and City Planner*. London: Routledge, 1990.
- Miller, J. W. *Public Health* 24 (1910-11): 17-19.
- Mueller-Hill, Benno. *Murderous Science: The Elimination By Scientific Selection of Jews, Gypsies and Others, Germany 1933-1945*. Oxford: Oxford UP, 1988.
- Munro, Alexander Campbell. “Presidential Address to the Congress.” *Public Health* 11 (1898-99): 5-24.
- Murphey, Shirley Foster, and Thomas Stevenson, eds. *A Treatise on Hygiene and Public Health*. 3 vols. London: Churchill, 1982.
- Newsholme, Arthur. *Report of the Medical Officer to Local Government Board 1910-11*. London: H.M.S.O., 1912.
- “Some Conditions of Social Efficiency in Relation to Local Public Administration.” *Public Health* 22 (1908-09): 403-15.
- Niven, James. “Poverty and Disease.” *Presidential Address to the Epidemiological Section of the Royal Society of Medicine*. 22 Oct. 1900. 1-45.
- Paget, Charles E. “Some Imperfections of Public Administration.” *Transactions of the Sanitary Institute* 15 (1894-95): 386-403.
- Parker, Barry, and Raymond Unwin. “Town Planning and Housing.” *Journal of Preventive Medicine* 17 (1909): 24-33.
- Paterson, Sir Alexander. *Across the Bridges, or Life By the South London Riverside. 1914*. New York: Garland, 1980.

- Porter, Charles. *The Future Citizen and His Mother*. London: Constable, 1918.
- Porter, Dorothy. "Stratification and its Discontents: Professionalisation and Conflict in the English Public Health Service, 1848-1914." *To Mock Doctors Rules: A History of Education in Public Health*. Ed. Elizabeth Fee and Roy Acheson. Cambridge: Cambridge UP, 1990. 84-114.
- and Roy Porter. "What Was Social Medicine? An Historiographical Essay." *Journal of Historical Sociology* 1 (1988): 90-106.
- "The Preventive Provisions of the Insurance Bill." *Public Health* 25 (1911-12): 41-42.
- Priestly, Joseph. "Letters from the Society to the Chancellor of the Exchequer, May 27, 1911 and June 14, 1911." *Public Health* 24 (1910-11): 399-401.
- Proctor, Robert. *Racial Hygiene: Medicine Under the Nazis*. Cambridge: Harvard UP, 1989.
- Quinnell, Peter, ed. *Mayhew's London*. London: Pilot, 1941.
- Read, Donald. *Edwardian England 1901-15: Society and Politics*. London: Harrap, 1972.
- Report on the Physical Condition of Fourteen Hundred School Children in the City, together with some account of their Homes and Surroundings*. City of Edinburgh Charity Organisation Society. London: P. S. King, 1906.
- Reynolds, Stephen. *A Poor Man's House*. London: Macmillan, 1911.
- Richards, Meredith. "The National Insurance Bill." *Public Health* 24 (1910-11): 374-87.
- Rosen, George. *A History of Public Health*. New York: M.D. Publications, 1956.
- "What is Social Medicine? A Genetic Analysis of the Concept." *Bulletin of the History of Medicine* 21 (1947): 674-733.
- Sand, René. *Vers la Médecine Sociale*. Paris: Bailliere, 1948.
- Searle, Geoffrey. "Eugenics and Class." In Webster *Biology* 217-42.
- *Eugenics and Politics in Britain 1900-1914*. Leyden: Noordhoff, 1976.
- *The Quest for National Efficiency: A Study in British Politics and Political Thought, 1899-1914*. Berkeley: U of California P, 1971.
- Seaton, Edward. "Medical Societies and the Public Health Service." *Public Health* 10 (1897-98): 36-39.
- Shelley, Charles E., ed. *Transactions of the Se11enth International Congress of Hygiene and Demography*. 13 vols. London: Eyre and Spottiswood, 1892.
- Simon, John. *English Sanitary Institutions*. London: Churchill, 1890.
- "A Ministry of Health." 1854. *The Annual Reports of the Medical Officer of Health to the City of London*. London Authority, 1849-54. Rpt. in *Public Health Reports*. 2 vols. Ed. Edward Seaton. London: Churchill, 1887. 1: 143-

63.

- Smith, Edmund. "Programme of Future Public Health Reform." *Public Health* 19 (1906-07): 223-39.
- Society of Medical Officers of Health. "Minutes of Council." *Records of the Society, of Medical Officers of Health*. 1899-1910. Wellcome Unit for the History of Medicine, Oxford.
- Soloway, Richard A. *Birth Control and the Population Question in England, 1877-1930*. Chapel Hill: U of North Carolina Press, 1982.
- Stailey, Marshall, ed. *Patrick Geddes, Spokesman for Man and Environment*. Brunswick, NJ: Rutgers UP, 1972.
- Stepan, Nancy. *The Idea of Race in Science*. Hamden, Ct: Archon, 1982.
- Sutcliffe, Anthony. *Towards the Planned City: Germany, Britain, The United States and France, 1780-1914*. New York: St. Martin's, 1981.
- ed. *British Town Planning: The Formative Years*. Leicester: Leicester UP, 1981.
- Sykes, John F. *Public Health Problems*. London: Scott, 1982.
- Thane, Patricia. *The Foundations of the Welfare State*. London: Longman, 1982.
- ed. *The Origins of British Welfare Social Policy*. London: Croom Helm, 1978.
- Thomas, A. E. *Public Health* 24 (1910-11): 459-61.
- Trombley, Steven. *The Right to Reproduce: A History of Coercive Sterilisation*. London: Weidenfeld, 1988.
- Vivian, Henry. "Co-Partnership in Housing in its Health Relationship." *Journal of Preventive Medicine* 1 7 (1909): 10-21.
- Watkins, Dorothy E. "The English Revolution in Social Medicine." Diss. U of London, 1984.
- Webb, Beatrice. "The Minority Report in its Relation to Public Health and the Medical Profession." *Public Health* 23 (1909-10): 153-64.
- "The Relation of the Poor-Law Medical Relief to the Public Health Authorities." *Public Health* 20 (1906-07): 129-45.
- Webb, Sidney, and Beatrice Webb. *Decline in The Birth Rate*. Fabian Tract no. 131. London, 1907.
- *Doctor and the State*. London: Longmans, 1910.
- *The Prevention of Destitution*. London: Longmans, 1911.
- Webster, Charles, ed. *Biology, Medicine and Society, 1840-1940*. Cambridge: Cambridge UP, 1981.
- *Problems of Health: The National Health Service Before 1957*. Vol. 1 of *The Health Services Since The War*. 1 vol. to date. London: H.M.S.O., 1988-present.
- Weindling, Paul. *Health, Race, and German Politics between National Unification*

- and Nationalism, 1870-1945*. Cambridge: Cambridge UP, 1989.
- “Theories of the Cell State in Imperial Germany.” In Webster, *Biology* 99-155.
- Weiss, Sheila F. Race, *Hygiene and the Rational Management of National Efficiency: Wilhelm Schallmayer and the Origins of German Eugenics, 1890-1920*. Ann Arbor: University Microfilms, 1983.
- Whitelegge, Arthur B. *Hygiene and Public Health*. London: Cassell, 1890.
- Wohl, Anthony. *Endangered Lives. Public Health in Victorian Britain*. London: Methuen, 1984.
- Wormald, John. *Guide to the Mental Deficiency Act, 1913*. London: King, n.d. (c. 1914).

Chapter Eleven

Eugenics and the Sterilization Debate in Sweden and Britain before the Second World War

RECENT WORK ON the history of sterilization in Scandinavia has reinvigorated public debate on the history of eugenics in the twentieth century. To what extent was the Scandinavian, and the Swedish experience in particular, paralleled in other national contexts? This chapter will explore comparisons between Britain and Sweden trying to draw out the way in which national cultures and political systems determined the influence of eugenic ideologies upon debates concerning race, class, fertility and sterilization in both contexts.

In Sweden before the First World War anthropology, genetic science and eugenics stimulated new intellectual interests in issues of race and heredity. The question of voluntary and compulsory sterilization was also first raised in this period, not only by eugenicists and genetic scientists but by policy makers and administrators and social reformers interested in the social management of various groups such as criminals and the mentally retarded. Before the First World War, The British Eugenics Society was founded to explore ways to restrict the procreation of the “unfit,” whom they believed proliferated largely amongst the lower social and economic orders, and to find ways of encouraging the fit to breed.¹ Following the war, in Sweden the population question came to occupy a central place in debates about the modern management of an industrial society and began to transform the direction of eugenic ideology.² In Britain the population question was also taken up by eugenicists in the interwar years causing the Eugenic Society to shift its focus toward the links between demography, degeneration and social engineering.³ While British

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eugenists continued to support a campaign for the legalization of voluntary sterilization in this period, that issue became overshadowed by debates about the declining birth rate, an ageing population and the eugenic construction of a meritocratic society.

Throughout its history class rather than race remained crucial to the British eugenic mission. The eugenic conceptualization of class within Britain, however, “racialized” social and economic relations within British society. While “race hygiene” was never institutionalized within Britain, as it was in Sweden and Germany, eugenic discourses on class identified various social groups as “a race apart.” This essay aims to highlight both substantive and apparent continuities and contrasts between Sweden and Britain in this context.

THE POSSIBLE IMPROVEMENT OF THE HUMAN BREED

One goal of the international ideology of eugenics in the first half of the twentieth century was the construction of a secular ethic that addressed the relationship between biology and culture in social development. From the time that Darwin published *The Origin of Species* in 1859, various scientific and social philosophers cited the dictates of evolution as the route to social progress and harmony. Even before Darwin had identified natural selection as the basis of biological evolution, Herbert Spencer had used Malthusian logic to identify what he believed were the basic mechanisms of social evolution.⁴ Unlike Darwin, Spencer infused his concept of evolution with a progressive pejorative. Subsequently Social Darwinian thought followed Spencer’s lead believing that social progress could be achieved if human society could just be brave enough to ensure that nature took its true course by recognizing that biological laws determined social and individual behavior.⁵ By following nature’s laws intelligently, evolutionary progress of human society could be effectively planned through the scientific control of the relationship between biology and society.

In Britain, one of the consequences of this philosophy was to give race a new significance in Victorian culture. Before Darwin, race had been largely identified as a linguistic category, especially in the philological investigations of the ethnologist James Cowles Pritchard who believed that all humans had, as the Bible stated, a monogenic origin. Following Darwin, both monogenic ethnology and polygenic anthropology attempted to appropriate natural selection to their separate interpretations of the significance of race.⁶ Despite Darwin’s monogenic stance, *The Descent of Man* gave racial differentiation

such antiquity in human development that physical anthropologists legitimated the search for the morphology of what they considered primitive and advanced species with Darwinian arguments.⁷ Darwinian theory of evolution through natural selection imbued race with an unremitting biological basis. Gunnar Broberg and Mattias Tydén have pointed out how Swedish anthropology contributed to the investigation Nordic head shapes, height and weight but by the end of the nineteenth century was already being succeeded by the study of biological inheritance in humans, animals and plants.⁸ In Britain Darwinian theory made race and biology inseparable with regard to human populations occupying separate geographical regions and also stimulated anthropometric surveys of both Britain's domestic and imperial populations. Subsequently, the academic institutionalization of anthropology in Britain advanced faster than any of the other social sciences because of its connection to imperialist imperatives.⁹ But beyond anthropology, Darwinian theory also helped to reconfigure the concept of social class in Britain as a racial category through its impact upon the new sciences of heredity.

Darwin's cousin, Francis Galton, developed a biometric model of heredity that he believed could be harnessed to a social program for improving the human breed through selective mating. When Francis Galton first attempted to translate the study of heredity into a social science of eugenics his aim was the "possible improvement of the human breed," through the production of a race of supermen by fertilization between partners of exceptional ability.¹⁰ In forming his conceptualization of what became identified as "positive" eugenics Galton, like Darwin, was inspired by the practice of selective animal breeding. The selective breeding of both agricultural livestock and racing animals had been developed in Britain from early-modern times. But in the late eighteenth and early nineteenth century plant breeding took on new significance for imperial expansion. In the eighteenth century, Joseph Banks, the founder of the tropical gardens at Kew, persuaded the British state to support global exploration of the commercial potential of exotic plant ecologies.¹¹ The Royal Navy continued to provide resources for such exploration in the nineteenth century. Naturalists such as Darwin and Thomas Huxley made famous voyages upon Naval vessels engaged in the exploration of exploitable natural resources around the globe.¹² No institute of plant genetics was set up in Britain comparable to the one established at Svalöf in Sweden in 1886 but commercial interests such as the East India Company fought imperialist economic wars, with the Dutch in particular, over the opportunity to exploit the plant resources of non-European continents.

The optimistic equipoise that accompanied imperial expansion in mid-

Victorian Britain had significantly waned by the time Galton formulated his concept of eugenic human breeding. Fears of imperial competition from the rapidly expanding industrial economies of Germany and the United States created a late nineteenth-century cultural pessimism about the potential for social and biological degeneration.¹³ Galton's new science provided, in the mind of eugenicists, the statistical means by which degeneration could be prevented and regeneration could be planned. Thus when Galton addressed the British Sociological Association in 1904 he was talking to many who were already converted to eugenics as a kind of new religion in which selective reproduction could achieve racial improvement.¹⁴

Race biology dominated genetic science and eugenic rhetoric in Sweden before the First World War and became established as a subject of institutionalized scientific research funded by the state and located within the Swedish University system. Professional scientists and academics developed Swedish race biology.¹⁵ In Britain before the First World War there was little institutionalization of "the science of heredity," other than the establishment of the Galton chair at University College, occupied by Karl Pearson. Even then the chair was established through a private endowment made by Galton himself and was not supported by state funding.¹⁶ In contrast to Sweden therefore, there was no institutionalization or professionalization of racial or genetic science in Britain before the First World War.

The anthropology of race, like the science of evolution, had been developed by Victorian gentlemen amateurs. Similarly, eugenics was less a scientific pursuit than a lay, voluntary movement of social reform in the Edwardian period. The Eugenics Education Society's task was the promotion of propaganda. The Society before the war thus mimicked a Victorian voluntaristic social reform movement rather than a professional organization of scientists and intellectuals.¹⁷ As such it acted within the tradition of voluntaristic lay social reform and concentrated on trying to influence the political process. Rather than try to establish a science of race that would have built upon the British anthropological tradition extending back to the eighteenth century, the Eugenics Education Society attempted to translate Galtonian ideals into legislative measures for controlling the reproduction of the "unfit." The unfit were defined within the conventional terms of Victorian British reform movements, that is, in terms of social status and behavior. Unfitness included many different categories of deviant behavior such as alcoholism, promiscuity and criminality that had been the classic objects of Victorian social reformers. Within Edwardian eugenic rhetoric, however, what the Victorians had perceived as vicious moral habits that were responsible

for the squalid lives of the poor and the destitute were now understood to be hereditary traits and were linked together with other traits believed to be “inborn errors of metabolism” such as mental retardation.¹⁸

Anxieties concerning migration, immigration and miscegenation underpinned the development of racial biology in Sweden in the first decades of the twentieth century. In Britain the self-appointed mission of British eugenisists was to “protect the unborn” through a program of selective breeding enforced upon the class structure of British society.¹⁹ Mainline eugenism in Britain, unlike in Sweden, concentrated on class differentials rather than racial differentiation. The President of the Eugenics Society, Darwin’s grandson, Leonard Darwin, articulated the guiding principles of British eugenism before the First World War at an address to the Cambridge Eugenics Society in 1912.²⁰

The poorest classes, though containing many persons of the highest excellence in every respect, do nevertheless contain a larger proportion of the naturally unfit than do the richer classes. ... [It is] consistent with known facts to hold that to the presence of the naturally unfit, with their want of self-control the great fertility of the poorest classes ought in large measure to be attributed.

However, the categorization of the “unfit” predominating amongst the lower classes was as biologically determined in Britain as concepts of racial differentiation were in Sweden.

Despite their focus on class differentiation, Edwardian eugenisists, unlike Victorian social reformers, were less concerned to control the social behavior or remoralize the soul of the deviant than to prevent their reproduction. Edwardian eugenisists embraced the biologically determinist, Social Darwinian, model of historical transformation. As a result, British mainline eugenisists referred to the social improvement that they hoped to bring about as “race betterment.” British mainline eugenic reformers advocated social biological policies including marriage regulation, sequestration of the mentally deficient, and sterilization – voluntary or compulsory – of the unfit. Some flirted with the idea of the “lethal chamber” for ridding society of its unwanted.²¹ Therefore, although racial biology rather than class eugenics dominated Swedish discourse before the First World War, shared biological deterministic rhetoric produced continuities as well as contrasts with Britain.

Before the war British eugenisists concentrated their greatest efforts in a

campaign to influence social policy regarding the care of the mentally deficient but their success was minimal, failing even to have the prohibition of marriage between or with the retarded included in the 1913 Mental Deficiency Act.²² Despite the limited legislative success of pre-war eugenism, the influence of eugenic rhetoric on the classification and management of the feeble-minded was more significant. Yet as the historian Matthew Thompson has pointed out the question of the mentally deficient as a eugenic threat was overtaken in Britain by dilemmas over the issue of rights and responsibilities regarding citizenship. Thompson argues that the 1913 Act was passed by a political majority who agreed that the mentally deficient needed some sort of specialized care and that because the mentally deficient lay outside the parameters of responsible citizenship, their welfare and control had to be undertaken by the state. Thompson suggests that the terms under which the rights of citizenship were suspended for the mentally deficient continued to dominate interwar debates surrounding the most appropriate form of welfare and that British policy toward sterilization has to be examined within this context.²³

Continuities and contrasts can be found between the Swedish and the British experience in relation classification and methods of management of the mentally deficient prior to the First World War. As in Sweden, standard categorizations of feeble-mindedness, such as the guidelines issued by the Royal College of Physicians, prominently featured eugenic assumptions.²⁴ Occasionally eugenic terminology translated oddly between the two cultures, however. In the nineteenth century in Sweden itinerant travellers living on the margins of agrarian society were increasingly identified as a racial category of *Tattare*s.²⁵ In the early twentieth century the Royal College of Physicians' classification of "intellectual" – as opposed to "moral" – feeble-mindedness used the term "Tartar" to refer to what they otherwise called the "mongolian" or "kalmuck" type to which the question of itinerancy was not relevant. Other parallels and discontinuities with pre-war Swedish discourse on the feeble-minded are to be found in recommendations for their management. Before the First World War in Sweden, eugenic sterilization of the mentally retarded had been undertaken as a measure to reduce the need for institutional segregation. Similar arguments were forwarded in Britain by eugenic campaigners attempting to influence the structure of the Mental Deficiency Act. But asylum managers such as E. B. Sherlock considered that the benefits of surgical asexualisation were limited to controlling the sexually promiscuous and irrational rather than preventing the reproduction of retarded. This

view continued to dominate after the war.

In 1911 Sherlock, who was the superintendent of the Belmont Asylum and Lecturer on biology at the Westminster Hospital Medical School, disagreed with those who believed that “asexualization” was the most appropriate measure for preventing the reproduction of the intellectually retarded. However, he did believe that under some circumstances it could be considered as a plausible way of managing certain categories of moral feeble-mindedness. Castration of sex offenders had been undertaken in the United States in various custodial institutions before Harry Sharp performed the first vasectomy for reducing the masturbation habits of some of the inmates of Jeffersonville State Penitentiary in Indiana in 1907. In Britain ovariectomies had been commonly practised privately on middle class patients as a remedy for hysteria from the 1820s, with some surgeons, such as Robert Baker Brown from St. Mary’s Hospital in Paddington, extending the treatment to clitoridectomy.²⁶ Sherlock agreed that surgical asexualization could be usefully:²⁷

practised under suitable control in those cases where an ungoverned sexual instinct leads to crimes against the person. Here it would probably prove advantageous, not only to society at large but also to the offender as removing him from the sway of impulses and obsessions which, besides being dangerous to those about him, are sources of misery to himself.

But he considered that recommendations of the sterilization of the intellectually feeble-minded on eugenic grounds were only forwarded by those who wanted to shirk the economic responsibility of “housing and feeding of a few short-lived idiots.”²⁸ He dismissed what he suggested were “common enough ... glib suggestions of the erection of lethal chambers”²⁹ to eliminate the most extensively retarded for the same reason. He claimed that the “painful caricatures of humanity that members of the general public, seeing for the first time, usually suggest the establishment of a lethal chamber, as affording the only feasible method of dealing with them”³⁰ were rarely in a condition to be able to reproduce.

If similarities as well as contrasts can be drawn between the Swedish and British experience of eugenics before the First World War then further striking comparisons can be made for the interwar period. In both Sweden and Britain the debate concerning demography and national survival broadened following the First World War, and could be said to have “modernized” in so much as in both contexts biological determinism embraced a modernist agenda. The

declining birth rate and the extension of life expectancy in industrial societies became a central issue. Both Swedish and British eugenism realigned their foci within the context of the changing shape of the demographic debate in the interwar years.

DEMOGRAPHY AND NATIONAL DESTINY

From the late nineteenth century, the Swedish state struggled with the rapid transformation of their society to an industrial economy. Modernization became a central theme of Swedish politics from before the First World War. In the interwar years, social engineering took on a new significance for the management of modernization. As Broberg and Tydén point out social democracy established a new level of social stability and political consensus by generating a “third way” for the resolution of conflict between capitol and labor in industrial society.³¹ The welfare state established in the 1930s served the interests of both the middle classes as well as the proletariat in creating a new co-operative consensus resulting in social stability and economic growth. Swedish social democratic politics embraced the idea of government as a form of social scientific management incorporating the influence of expertise. Social scientists, such as Gunnar and Alva Myrdal became highly influential in the policy formation process.³²

What Daniel Kevles has identified as “reform eugenics” chimed easily with the Swedish social democratic experiment in rationalistic government. Reform eugenics was a philosophy of social efficiency that fitted easily into a welfare ideology. Its usurpation of institutionalized mainline eugenics in Sweden was symbolized by the appointment of a left wing social democrat, Gunnar Dahlberg, as the new director of the Institute of Racial Biology at Uppsala University. Gunnar Dahlberg’s appointment was aided by the influence of his friends and colleagues the Myrdals.³³ Dahlberg’s left wing politics and disease genetics made him an ally of British socialist scientists such as Lancelot Hogben, from the LSE and later the Animal Breeding Institute at Edinburgh.³⁴ His approach to eugenics completely contrasted with his predecessor, the mainline eugenicist Herman Lunberg, who had promoted a school of eugenic research similar to that of Charles Davenport in the United States.

The population question became central to the capacity of the population to adapt to modern industrial society. In their famous treatise on the *Population Crisis* the Myrdals pointed out that the dwindling quantity of the population was a major obstacle to economic growth and success.³⁵ They

were equally concerned, however, with elements of the population that were simply incapable of meeting the challenges presented by industrial society. This substratum existed within all social classes but since they were unable to participate in “the great sociological process of adjustment” to modern society then the question of their welfare and reproduction became a pressing issue for the state.³⁶ The Myrdals were keen to use the incapable as further legitimization of the necessity of creating a comprehensive welfare state but they also believed that sterilization could contribute to efficient social management. The Myrdal’s views of the population question resonated with the interwar social democratic philosophy of placing the needs of society above those of individual groups for the benefit of social progress. Thus when the first sterilization law was passed in 1935 it was promoted as a measure of welfare efficiency within the social management of the modern state.³⁷

The question of legalizing voluntary sterilization on eugenic and medical grounds had been debated within Sweden from the before the First World War. The Swedish state did not commit itself to legal sterilization, however, until it fitted with social democratic ideals of modernization through social engineering. Initially sterilization without the consent of the patient was restricted to cases of mental illness, feeble-mindedness and other mental defects. But the discourse on social adjustment broadened the debate to include social criteria. When a bill was introduced into the Swedish Parliament in 1941, therefore, it now included the possibility of imposing compulsory sterilization upon anti-social individuals. The broad democratic consensus left those opposing the measure because it undermined civil liberties at the political margins. Once it was passed the new law recommended voluntary sterilization for all categories but permitted compulsion in cases where a mental state prevented legal competence. All applications for the incompetent had to receive the signature of two physicians and be forwarded to the National Board of Health for approval. Because sterilization in Sweden was voluntary for all except the legally incompetent, the Swedish state claimed that its sterilization law differed from the compulsory sterilization laws passed in Germany under the Third Reich that imposed compulsory sterilization upon competent individuals. Under the system created in 1935 over 60,000 sterilizations were performed in Sweden up to the repeal of the law in 1975 the vast majority of which, over 90%, were women.³⁸ Some feminist historians have interpreted the history of Swedish sterilization as resulting from misogynist totalitarianism contained within Swedish social democratic politics.³⁹ On the one hand, this interpretation does not take into account the extensive increase in vol-

untary sterilizations on medical grounds occurring from the 1940s when the measure was probably being used for contraceptive purposes by women who had limited access to other forms of contraception. On the other hand, this interpretation does not evaluate Swedish practices of eugenic welfare efficiency within a comparative international context.

In Britain, as in Sweden, eugenics in the interwar easily adapted to new ideologies of welfare planning, but its position within the overall political system differed. Eugenics in Britain continued to remain outside the institutional academic system following the First World War but it was increasingly embraced by professional academics on a much more influential scale. Genetic science had extremely limited institutional support in Britain in the 1920s. According to Lancelot Hogben the subject was kept alive largely by Francis Crew who directed the Institute of Animal Breeding at Edinburgh University.⁴⁰ Hogben was appointed to the institute after leaving the London School of Economics.⁴¹ The interdisciplinary research in Britain that was responsible for developing the methodology which led to the discovery of the structure of DNA was conducted within the context of the physical sciences such as crystallography and mathematics. The question of human reproduction was not pertinent to the task of measuring the topological structure of large molecules being undertaken by the mathematicians and physicists involved in creating the methods on which the discipline of molecular biology was founded.⁴²

In 1920 only two university courses had been established in eugenics, one by Karl Pearson in University College, London, and another by the professor of sociology at Liverpool, Alexander Carr-Saunders, who eventually became the Principal of the London School of Economics. By the mid-1930s Francis Crew was suggesting to the Eugenics Society that eugenic education remained limited largely to voluntary efforts, such as in talks to what he called “mothers meetings.” He suggested that the only way for the Eugenics Society to truly promote eugenic education was by endowing university lecturerships, but no action in this direction was taken.⁴³ As a student the prominent bio-statistician R.A. Fisher founded the Cambridge Eugenics Society but this dissipated once he went down from the university in 1913.⁴⁴ Eugenics research was supported by the London School of Economics by both Carr-Saunders once he moved there and its president William Beveridge but as will be seen below it was also opposed from within the institution.

Despite the low level institutional support for genetic science in Britain, university academics and influential professionals in the health and wel-

fare fields began to dominate the eugenics movement in the interwar period, which enhanced the institutional influence and legitimate authority of eugenic ideology. As the historian Richard Soloway has pointed out, the eugenics movement in Britain began to change shape during the interwar years. Lay members of the Eugenics Society who concentrated on the elimination of the hereditarily unfit whom they believed predominated amongst the working class began to lose control of the organization. They were replaced by new scientific and social scientific professionals who were more concerned with finding the best eugenic methods for achieving a meritocratic society governed by the most talented from all classes. Professional eugenicists allied themselves with the contemporary philosophies of social planning and social engineering and thus tried to appeal across conventional political divides. "Reform" eugenicists perceived earlier "mainliners" as unsophisticated propagandists perpetuating the class bigotry of an earlier era. The secretary of the Eugenics Society elected in 1931, C. P. Blacker, a psychiatrist from the Maudsley Hospital, made it his mission to distance the creed of reform from mainline eugenics throughout his long period of service up to 1952.⁴⁵

Unlike professional eugenicists in Sweden, however, scientists and social scientists supporting eugenics in Britain had less direct access to power. Politics in the interwar period in Britain continued to reflect class conflict. The lack of economic or social stability in Britain in this period offered no opportunity for a social democratic experiment in co-operative management of modernization. The apparent consensus that surrounded the planning and institution of the welfare state throughout the war and post war years has been revealed by historians to have been a thin veneer covering a process that was rife with the conflict of competing interests.⁴⁶ Professional scientists and social scientists who were able to dominate the Eugenics Society had far less opportunity to directly influence a political process in Britain that was still driven by the politics of interests rather than the politics of expertise. Furthermore, as Matthew Thompson has pointed out, professionals were aware that their own interests lay in largely collaborating with existing political values and avoiding politically volatile territories rather than challenging potentially explosive areas of political principle such as the rights of democratic citizenship.⁴⁷

The sterilization debate within Britain has to be examined within the context of the new focus of eugenism in the interwar period. Both Thompson and Macnicol have pointed out that the original impetus for the voluntary sterilization campaign was a desire by some of the academics beginning to

dominate the Eugenics Society, such as C.P. Blacker and the biologist Julian Huxley, to make a procedure available to the poor that was already available to middle class private patients. A private member's bill, supported by the Eugenics Society, was introduced into Parliament in 1922 by a sympathetic labour MP, C.P. Church. After it failed, renewed interest in the question of sterilization was stimulated by the claim of the 1929 *Report of the Mental Deficiency Committee*, the Wood Report, that not only had the numbers of mentally deficient exponentially increased but that the great majority of deficiency was to be found amongst the 'social problem group' at the lowest level on the socio-economic scale.⁴⁸ The concept of the social problem group had replaced the Victorian notion of the "residuum" or the "submerged tenth" of highly fecund intellectual and moral inadequates. It originated in the work of an East End relieving officer, E.J. Lidbetter, who produced vast pedigree studies of the destitute under his jurisdiction. He began his research before the war and it was supported by funding from the LSE and published by the Eugenics Society in 1933 as *Heredity and the Social Problem Group*.⁴⁹

As in Sweden in the interwar years, the question of the social problem group extended the debate about sterilization beyond the institutionalized mentally deficient. However, the Wood Report, echoed the 1928 *Annual Report of the Board of Control*⁵⁰ in advocating sterilization only for mentally defectives not because they posed a eugenic threat, but because they would be incapable of raising children adequately.⁵¹ A Department of Health Committee, chaired by Sir Lawrence Brock, investigated the issue further but its report published in 1934 continued to advocate a mixture of institutional and community care for the mentally deficient and restricted the question of sterilization to the prevention of incompetent parenthood. The Brock Report acknowledged that mental defect could have a hereditary cause and consequently gained the support of organizations such as the Central Association for Mental Welfare – who had previously opposed sterilization – because it opened up new options to psychiatrists for offering care for defectives in the community.⁵²

The Eugenics Society was pleased that the Brock Report acknowledged the hereditary nature of mental defect but was still no closer to the legalization of sterilization. A Joint Committee on Voluntary Sterilization (Consisting of representatives of the Eugenics Society, the Central Association for mental Welfare, the Mental Hospitals Association and the National Council for Mental Hygiene) was set up under the chairmanship of Lord Horder, who became the president of the Eugenics Society. It presented a deputation

to the Minister of Health, Sir Hilton Young, in 1935 but received a negative response. The Minister told the deputation that the Government was not prepared to consider the issue while continued opposition from the Labour movement and the Roman Catholic Church threatened to undermine it. With a general election looming later in 1935 the Conservative Party was unwilling to take on unnecessary controversial issues. The campaign for voluntary sterilization limped on throughout the 1930s but never again came close to Parliamentary success.⁵³

As Thompson has pointed out, however, the campaign for voluntary sterilization did not fail simply because of lack of political support or the strength of political opposition. Segregation either in institutions or “colonies” for the defective set up under the Mental Deficiency Act remained the favored policy of the majority of the occupational professionals involved in the administration of welfare for the mentally deficient. Policies of custodial care perpetuated professional interests above policies for sterilization not least because, as Thompson has argued, it was less controversial in regard to the question of the rights of citizenship.⁵⁴ Restraining the right to reproduce had much larger implications for the civil liberties of democratic citizens than providing welfare for those who could not choose to provide it for themselves.

In Britain, while the campaign had concentrated on voluntary sterilization of the mentally deficient, the eugenics movement was concerned to offer it as a facility to a much broader constituency. Legalization would serve the dual purpose of offering a birth control service to the lower classes that would help reduce their economic burdens, and have the eugenic effect of limiting the reproduction of the “social problem” group found largely amongst their number.⁵⁵ But while the issue of sterilization of the unfit had been central to pre-war “mainline” eugenists it had become less central to the new generation of “professional” eugenists in the interwar period.⁵⁶

Soloway has shown that in the interwar period the declining birth rate stimulated new debates within the Eugenic Society. The *differential* birth rate remained central for reform eugenists such as C.P. Blacker, but he and social scientists such as A.M. Carr-Saunders, professor of sociology who eventually replaced William Beveridge as the director of the London School of Economics, were also keen for the society to support demographic research on the changing shape of the population as a whole. Demographers such as Enid Charles and David Glass broadened the demographic debate with their analysis of the changing age structure of the population. Charles and Glass

argued that the transformation of the demographic structure from a pyramid to a shape which resembled the lower half of an hour-glass resulted in a less and less productive population supporting more and more aging, unproductive dependants. Glass advocated the introduction of family allowances and tax relief to encourage large families amongst both the working and the middle classes in order to check these population trends. He also believed that the changing social role of women meant that large families could not be encouraged without the state provision of full crèche facilities and additional systems of childcare support.⁵⁷

The broadening of the demographic debate in Britain was accompanied by modernization of eugenic discussions concerning fertility and birth control. The Eugenic society dropped its pre-war moralistic antagonism to the birth control movement. Blacker and Huxley believed that birth control plus other measures such as tax relief for large middle class families – working class families were below pre-Second World War tax thresholds – offered the best route to reversing adverse differential fertility. Huxley also argued that sterilization of the unfit would free them from segregated institutions. Institutions for the defective could become flowing rivers where a patient's stay was temporary rather than stagnant pools where they spent their entire lives.⁵⁸ The changing terms of the demographic debate encouraged reform eugenicists such as Huxley to argue for the eugenic value of setting up a welfare state that would provide an equal environmental playing field from which the talented throughout all sections of society could flourish.⁵⁹

Despite the dominance of the Eugenics Society by professional academics, eugenism in Britain in this period became a loose synthesis of widely divergent ideologies. The *Eugenics Review* reflected the broad cross-section of eugenic interpretations of demography and degeneration. Initial responses amongst British eugenicists to the first sterilization laws set up in Germany in 1933 were enthusiastic as well as critical of what was often referred to as Herr Hitler's distortion of eugenic values.⁶⁰ But British eugenicists in 1933 admired the Nazi policy of family allowance and tax relief which assisted "Aryan" early marriage and large families and approved of the courage of the new regime in introducing compulsory sterilization of the mentally defective. The *Eugenics Review* suggested that: "Though some of the details might not meet with general approval in this country, the broad outlines, as so far sketched, of the German Bill will certainly command the assent of all experienced eugenicists."⁶¹

Blacker was concerned to point out the major differences between the German Bill and the Society's own proposals for sterilization legislation. The Eugenics Society was not pursuing compulsory sterilization either on medical or penal grounds, which was included in the German legislation, but wanted a law based on consent with legal protection for the "liberty of the individual."⁶² He did not explain how consent for sterilization was to be obtained by individuals whose cognitive powers compromised their autonomy. Blacker perceived the need early on to separate the identity of British from German eugenics although he was privately aware of the members of the Society who wholeheartedly approved of the German measures.⁶³

Eugenic concern about racial purity and breeding powerful stock led to radical discussions amongst British intellectuals, challenging existing social mores and social policies. There was a growing belief amongst some British eugenicists that monogamy might become redundant as a social institution and increasing support for experimenting with new patterns of polygamy and polyandry. British feminist eugenicists enthusiastically encouraged women to choose their partners eugenically. Others, such as Anthony Ludovici, author of *The Future of Woman* (1936), and his reviewer R. Austin Freeman heavily criticized the dysgenic effects of contemporary ideas about female emancipation which allowed women to reject their "natural" and necessary responsibilities of breeding and raising offspring. In 1933, Ludovici instituted an even more radical discussion within the Eugenics Society about the eugenic value of consanguineous marriages and the desirability of removing the social and legal barriers against incest. In a paper read before the Society in July, he argued that inbreeding in animals to produce superior stocks was a model for positive eugenics in the human population. Consanguineous marriage in earlier societies had produced superior racial strains such as the Ptolemaic dynasties. The biological arguments against consanguinity were based on the harmful effects of inbreeding in tainted streams. Much more clearly harmful, however, Ludovici claimed, were the mental and moral problems that arose from miscegenation. Random breeding destroyed mental harmony by combining in one individual conflicting emotional reflexes. Outbreeding led to biological and psychological disharmony. The laws against incest were superstitious custom and their removal would allow the biological and sociological benefits of consanguinity to flourish in future super-breeds.⁶³

Although Ludovici may have commanded only a small constituency of support, the challenges presented by demographic change stimulated a much broader discussion about values regarding marriage and family structure

within the British eugenics movement. For example, Francis Crew argued that planning population health had to begin with the demographic structure of a society. In Western Europe, falling birth rates and increased life expectancy presented new obstacles to maintaining biologically healthy and economically viable social systems. Ideological reform was needed to eliminate the stigma associated with illegitimate births and the state needed to provide sufficient welfare for unmarried mothers. Crew believed that both unmarried and married mothers should have equal access to state childcare facilities to enable them to pursue their own economic efficiency and vocational skills. Ideas about the structure of the family needed to change as social values regarding sexual and economic relations changed, reflected, for example, in increased levels of divorce. Above all, the state needed to provide economic and social support that encouraged the production of large numbers of offspring and ensure their economic security.⁶⁴

For Francis Crew and his contemporary, John Ryle, the study of the hereditary basis to health and the identification of the social actions necessary to enhance it were a critical focus of a new philosophy of social medicine. Ryle became the first professor of social medicine at Oxford in 1942 and Crew became professor of social medicine at Edinburgh in 1946. Both Ryle and Crew believed that the new discipline of social medicine should be based upon a marriage between the social and biological sciences. But social medicine would involve the study of the environmental and genetic causes of health as much as disease. Social medicine emerged in the 1940s, therefore, as a social biology of health, which contributed to planned human evolution through the sociological and biostatistical analysis of populations.⁶⁵

OPPOSITION

While British eugenism did not achieve the same level of state funding and support as it enjoyed in Sweden, it did experience opposition from within academic and professional spheres. It was thus thwarted in establishing the kind of institutional influence that eugenics had gained in Sweden from before the First World War. Within social science, Social Darwinism and eugenics were vigorously opposed by L.T. Hobhouse, the first professor of sociology at the London School of Economics and a powerful influence in the development of British sociology. Hobhouse developed an historicist model of social development as part of his critique of the organicist model of social evolution developed by Herbert Spencer.⁶⁶ He translated his opposition to a biological

determinist model of sociology into a campaign to try and prevent the appointment of a professor of social biology at the London School of Economics. Ironically, when his campaign was defeated by LSE's principal, William Beveridge, the person eventually hired for the post was Lancelot Hogben who became one of eugenism's most outspoken critics. Eugenics was powerfully supported by the sociologist A.M. Carr-Saunders once he arrived at the LSE in the 1920s but Carr-Saunders increasingly directed the work of the Eugenics Society toward the analysis of the changing demographic structure.⁶⁷

The creed of eugenism had experienced opposition in Britain from its earliest days. Even before the First World War, public health officers in Britain fought eugenic accusations against them for committing "race suicide" by saving the weakly and the robust indiscriminately.⁶⁸ Pre-war eugenicists claimed that preventive medicine had brought about social amelioration that allowed the unfit to survive and breed. By the time, however, Medical Officers of Health had gained new extensive responsibilities within the state health system in the late 1930s they then found it in their interests to begin supporting legal sterilization for "overburdened" mothers with large families and for the mentally deficient.⁶⁹ As in other national contexts Roman Catholic opposition remained a significant force in the minds of British politicians. Although some Labour Party MPs supported measures such as the Mental Deficiency Act and the 1922 Voluntary Sterilization Bill the majority of the British labor movement continued to voice their opposition to eugenic class prejudice.⁷⁰ British feminists were divided. Feminists joined the British Eugenics Society in order to encourage women to take up their role as future guardians of civic and social morality by rejecting romantic love for responsible eugenic mating.⁷¹ The family planning reformer Marie Stopes advocated the elimination of sexual ignorance and the promotion of contraceptive knowledge and devices on eugenic grounds.⁷² Feminists within the Labour movement, however, rejected eugenic restriction of women to the domestic sphere where their sole purpose was to become responsible breeding machines and child nurturers.⁷³

Opposition to eugenics also came from within the scientific community. In Britain Marxism and socialism inspired some leading biologists to reject the class prejudice of eugenics and attempt to establish the study of human heredity in connection to the understanding of disease. Lancelot Hogben vigorously opposed the class bigotry of eugenics and he sought to separate genetic science from its goals.⁷⁴ He believed that genetic research into blood groups offered the possibility of finding a route to a human genetic

map which would allow genetic science to concentrate on the analysis of disease rather than speculation concerning human behavior.⁷⁵ His colleague the mathematical biologist, J.B.S. Haldane, moved from supporting eugenics to becoming another outspoken critic. He believed that population genetics undermined the basic assumptions of eugenic thought. Perhaps the most damning opposition came from the holder of the Galton Chair, Lionel Penrose. Penrose demonstrated that no link could be proven to exist between heredity mental retardation or mental illness.⁷⁶ Penrose campaigned to have the title of his appointment changed to the Professorship in Human Genetics.⁷⁷ As the historian Dianne Paul has pointed out, however, the greatest blow to the popularity of eugenics was the revelation of mass murder under the Nazi administration.⁷⁸ Immediately following the war, genetic science in both Britain and the United States moved away from topics related to human subjects altogether, concentrating instead on life forms at the opposite end of the organic spectrum.⁷⁹

In both the interwar period and after the Second World War, scientific detachment and sociological and political opposition to biological determinism reflected changing configurations in the operation of social and political power in Britain. A revival in the hegemonic fortunes of biological determinism similarly depended upon economic, political and social transformations in the late twentieth century.⁸⁰

CONCLUSION

Eugenic concern with human reproduction was powerfully influential in the development of welfare ideologies and ideologies of social planning and engineering in both Britain and Sweden before the Second World War. Powerful hegemonic parallels can be drawn in the transformation between mainline and reform eugenics in both national contexts. One significant exception, however, continued to be the British eugenic preoccupation with class. The issue of class remained a more powerful focus of eugenic thought in Britain than applying eugenic methods to the management of special groups such as the mentally deficient. The voluntary sterilization for the mentally deficient, therefore, became a far less important issue for British eugenicists in the interwar period than concerns over the changing demographic shape of British society in the late stages of industrialization. The challenges presented by changing demographic structure led some British eugenicists to consider radically new social values regarding marriage and parenthood and also stimu-

lated the growth of new holistic philosophies of social medicine. The planned control of human evolution also figured prominently in British debates concerning the relationship between science and ethics which have not been discussed in this essay.⁸¹

Unlike in Sweden British eugenic reformers, whether mainline amateurs or professional “welfare” eugenicists, never gained direct access to the political process. In Sweden, the intellectuals, academics and professionals who engaged in eugenic speculation about nation building and social transformation possessed an institutional base supported by the state that provided them with increased access to the political process. The institutionalization of eugenics in the Swedish academy took place before the First World War and by the interwar period this provided genetic scientists and social scientists who supported eugenic reform with a powerful platform from which to influence political decision making and policy formation. These opportunities were strengthened as the social democratic experiment in rationalistic modernisation of Swedish society provided “experts” with a new role in the policy making process. British politics in the interwar period, by contrast, continued to be dominated by the conflict of class interests.

Furthermore, the British state had not embraced the politics of expertise into the policy and decision making processes to the same extent. Consequently, British eugenicists avoided embarking on a collision course with some of the most controversial issues arising within a system of democratic politics underwritten by class conflict, such as the question of civil liberties. The cautious politics of British eugenism partly resulted from the fact that even in the 1930s it was still trying to gain a level of institutionalized support that had been obtained by eugenics in Sweden from before the First World War. While making significant gains, however, British eugenicists were often forced into fighting a rearguard reaction to opposition within a variety of institutional contexts. The aspirations of British eugenicists were highly comparable to those of eugenic reformers in Sweden before the Second World War but they lacked the power and the opportunities to fulfil them in the same way.

NOTES

¹ Daniel Kevles, *In the Name of Eugenics. Genetics and the Uses of Human Heredity* (New York: Knopf, 1985).

² Gunnar Broberg and Mattias Tydén, “Eugenics in Sweden: Efficient Care” in Gunnar Broberg and Nils Roll-Hanson (eds), *Eugenics and the Welfare State. Sterilization Policy in Denmark, Sweden, Norway and Finland* (Michigan, Michigan State University Press, 1996), 77-149.

³ Richard Soloway, *Demography and Degeneration* (Chapel Hill, The University of North Carolina Press, 1990).

⁴ Peel J.D.Y. (ed.), *Herbert Spencer On Social Evolution. Selected Writings* (Chicago, University of Chicago Press, 1972).

⁵ Greta Jones, *Social Darwinism and English Thought: the Interaction between Biological and Social Theory* (Brighton, Harvester Press, 1980).

⁶ Nancy Stepan, *The Idea of Race in Science* (London, Macmillan, 1982).

⁷ Peter Bowler, *Evolution. The History of an Idea* (Berkeley, University of California Press, 1989).

⁸ Broberg and Tydén, *op. cit.* (ref. 2).

⁹ George Stocking, “Paradigmatic traditions in the History of Anthropology,” in R.C. Olby *et. al.* (eds), *Companion to the History of Modern Science* (London, Routledge, 1990), 712-727.

¹⁰ Kevles, *op. cit.* (ref. 1).

¹¹ John Gascoigne, (1998) *Science in the service of empire: Joseph Banks, the British State and the uses of science in the age of revolution* (Cambridge: Cambridge University Press, 1998).

¹² Adrian Desmond and James Moor (1992) *Darwin* (Harmondsworth, Penguin, 1992); Adrian Desmond, *Huxley: From devil's disciple to evolution's high priest* (Harmondsworth, Penguin, 1998).

¹³ Geoffrey, R. Searle, *The quest for national efficiency a study in British politics and political thought, 1899-1914* (London, Ashford Press, 1990); J. Edward Chamberlin and Sander L. Gilman (eds), *Degeneration the dark side of progress* (New York Guildford Columbia University Press, 1986).

¹⁴ Keveles, *op. cit.* (ref. 1), 56-68.

¹⁵ Broberg and Tydén, *op. cit.* (ref. 2).

¹⁶ Donald A. MacKenzie, *Statistics in Britain 1865-1930 the social construction of scientific knowledge* (Edinburgh Edinburgh University Press, 1981).

¹⁷ Geoffrey, R. Searle, *Eugenics and Politics in Britain 1900-1914* (Leyden: Noordhoff, 1976).

¹⁸ Dorothy Porter, “Enemies of the Race: Biologism, Environmentalism and the Public Health in Edwardian England,” *Victorian Studies*, 34 (1991), 159-178.

¹⁹ *Ibid.*

²⁰ Quoted by, Pauline, M. H. Mazumdar, *Eugenics, Human Genetics and Human*

Failings (London, Routledge, 1992), 101.

²¹ Porter, *op. cit.* (ref. 18).

²² Geoffrey R. Searle, *Eugenics and Politics in Britain 1900-1914* (Leyden: Noordhoff, 1976).

²³ Matthew Thompson, *The Problem of Mental Deficiency. Eugenics, Democracy, and Social Policy in Britain, c. 1870-1959* (Oxford, Oxford University Press, 1998).

²⁴ E. B. Sherlock, *The Feeble-Minded. A Guide to Study and Practice* (London, Macmillan, 1911).

²⁵ Boberg and Tydén, *op. cit.* (ref. 2), 124-125.

²⁶ Ornella Moscucci, *The science of woman* (Cambridge University Press, 1990).

²⁷ Sherlock, *op. cit.* (ref. 24), 267.

²⁸ *Ibid.*, 267.

²⁹ *Ibid.*, 267.

³⁰ *Ibid.*, 202.

³¹ Broberg and Tydén, *op. cit.* (ref. 2).

³² Ann-Sofie Ohlander, "The Invisible Child? The Struggle for a Social Democratic Family Policy in Sweden, 1900-1960s," in Gisela Bock and Pat Thane, *Maternity and Gender Policy. Women and the Rise of the European Welfare States 1880s-1950s* (London, Routledge, 1991), 60-71.

³³ Broberg and Tydén, *op. cit.* (ref. 2).

³⁴ Lancelot Hogben, *Lancelot Hogben. Scientific Humanist: An Unauthorised Autobiography* edited by Adrian and Anne Hogben (London, Merlin, 1998).

³⁵ Arnold, J. Heidenheimer and Nils Elvander (eds), *The Shaping of the Swedish Health System* (London, Croom Helm, 1980).

³⁶ Quoted by Broberg and Tydén, *op. cit.* (ref. 2), 105.

³⁷ Ohlander, *op. cit.* (ref. 35); Broberg and Tydén, *op. cit.* (ref. 2).

³⁸ Broberg and Tydén, *op. cit.* (ref. 2).

³⁹ Maija Runcis, *Steriliseringar i folkhemmet* (Stockholm, Ordfront, 1998).

⁴⁰ Lancelot Hogben, L, "Francis Albert Eley Crew, 1886-1973," *Biographical Memoirs of the Fellows of the Royal Society*, 20 (1974), 135-153.

⁴¹ Dorothy Porter, "The Decline of Social Medicine in Britain in the 1960s," in Dorothy Porter (ed.), *Social Medicine and Medical Sociology. Medicine and the Social Sciences in the Twentieth Century* (Amsterdam and Atlanta, Rodopi, 1997), 97-120.

⁴² Robert Olby, *The path to the double helix: the discovery of DNA* (New York Dover Publications London Constable and Company, 1974).

⁴³ Mazumdar, *op. cit.* (ref., 20), 144-145.

⁴⁴ Mazumdar, *op. cit.* (ref., 20), 101-107.

⁴⁵ Soloway, *op. cit.* (ref. 3); Thompson, *op. cit.* (ref. 23).

⁴⁶ Charles Webster, "Conservatives and Consensus: the Politics of the National Health Service, 1951-64," in Ann Oakley and A. Susan Williams (eds), *The Politics of Welfare* (London, UCL Press, 1994), 54-73; Nicolas Timmins, *The Five Giants. A Biography of the Welfare State* (London, Harper Collins, 1995); Howard Glennerster, *British Social Policy Since 1945* (Oxford, Blackwell, 1995).

⁴⁷ Thompson, *op. cit.* (ref. 23), 198-204.

⁴⁸ Thompson, *op. cit.* (ref. 23), 198-204; John Macnicol, "Eugenics and Campaign for Voluntary Sterilization in Britain Between the Wars," *Social History of Medicine*, 2 (1989), 147-170.

⁴⁹ Soloway, *op. cit.* (ref., 3), 170-171.

⁵⁰ Macnicol, *op. cit.* (ref. 48), 156

⁵¹ Thompson, *op. cit.* (ref. 23), 186.

⁵² *Ibid.*, 192.

⁵³ Macnicol, *op. cit.* (ref. 48).

⁵⁴ Thompson, *op. cit.* (ref. 23), 201-204.

⁵⁵ *Ibid.*; Soloway, *op. cit.* (ref. 3).

⁵⁶ *Ibid.*, 188-198.

⁵⁷ Soloway, *op. cit.* (ref., 3).

⁵⁸ Macnicol, *op. cit.* (ref.48), 161.

⁵⁹ Dorothy Porter, "Social Medicine and the New Society: Medicine and Scientific Humanism in mid-Twentieth Century Britain," *Journal of Historical Sociology*, 9 (1996), 168-187.

⁶⁰ *Eugenics Review*, VI, n.s. (1934), 76-77.

⁶¹ *Eugenics Review*, VI, n.s. (1934), 77.

⁶² Blacker, 1934:157-159.

⁶³ Ludovici, 1933:147-155.

⁶⁴ Francis A.E. Crew, (1948), *Measurements of the Public Health. Essays on Social Medicine* (Edinburgh, Oliver and Boyd, 1948, 39-80.

⁶⁵ Porter, *op. cit.* (ref. 59); Porter, *op. cit.* (ref. 41).

⁶⁶ Stefan Collini, *L.T. Hobhouse and Political Argument in England, 1880-1914* (New York, Cambridge University Press, 1979. John E. Owen, *L.T. Hobhouse Sociologist* (London, Nelson, 1974).

⁶⁷ Soloway, *op. cit.* (ref. 3); Mazumdar, *op. cit.* (ref. 20).

⁶⁸ Porter, *op. cit.* (ref. 18).

⁶⁹ Thompson, *op. cit.* (ref. 23).

⁷⁰ Searle, *op. cit.* (ref. 22).

⁷¹ Angelique Richardson, *The Eugenisation of Love. Darwin, Galton and New*

Woman Fictions of Heredity and Eugenics (PhD Thesis, University of London, 1999).

⁷² Richard, Allen Soloway, *Birth Control and the Population Question in England, 1877-1930* (Chapel Hill, University of North Carolina Press, 1982).

⁷³ Jane Lewis, *The politics of motherhood: Child and maternal welfare in England, 1900-1939* (London, Crom Helm, 1980).

⁷⁴ Mazumdar, *op. cit.* (ref. 20); Gary Wersky, *The Visible College* (London, Allen Lane, 1978).

⁷⁵ Mazumdar, *op. cit.* (ref. 20); Daniel Kevles, "Out of Eugenics: the Historical Politics of the Human Genome," in Daniel J. Kevles and Leroy Hood (eds), *The Code of Codes. Scientific and Social Issues in the Human Genome Project* (Cambridge, Mass., Harvard University Press, 1992), 3-36.

⁷⁶ *Ibid.*

⁷⁷ *Ibid.*; Kevles, *op. cit.* (ref. 1).

⁷⁸ Diane Paul, "Eugenics and the Left," *Journal of the History of Ideas*, 45 (1984), 567-590.

⁷⁹ Evelyn Fox Keller, Evelyn, "Nature, Nurture, and the Human Genome Project," in Daniel J. Kevles and Leroy Hood (eds), *The Code of Codes. Scientific and Social Issues in the Human Genome Project* (Cambridge, Mass., Harvard University Press, 1992), 281-299.

⁸⁰ Dorothy Porter, *Health, Civilisation and the State: a History of Public Health from Antiquity to Modernity* (London, Routledge, 1999).

⁸¹ See Porter, *op. cit.* (ref. 59).

Chapter Twelve

Biological Determinism, Evolutionary Fundamentalism and the Rise of the Genoist Society

IN 1984 STEVEN ROSE, Richard Lewontin, and Leon J. Kamin suggested that critics of biological determinism are like members of a fire brigade, constantly being called out to respond to every new manifestation: ¹

Now it is IQ and race, now criminal genes, now the biological inferiority of women, now the genetic fixity of human nature. All of these deterministic fires need to be doused with the cold water of reason before the entire intellectual neighbourhood is in flames.

The most recent fires of evolutionary fundamentalism insist that organic molecular structures possess an inexorable drive – often anthropomorphised as motives² – for reproduction that determines the behavior of organisms. Because the laws of natural selection limit the capacity for organic reproduction, all current organisms and their relationship to the world have been determined by the attainment of evolutionary advantage. This is true whether one is considering the selfless or selfish behavior of fig wasps³, the activities of T helper cells in the human immune system,⁴ or the organization of the human brain and its products such as culture, religion and war.⁵ Long after contemporary historians – let alone post-modernist relativists – have dropped the idea, evolutionary fundamentalists want to assert that there is such a thing as a single motor force in history. It is genetic drive. This argument continues a well-worn line of biological determinism that the way things *are* has

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profound implications for the way they *ought to be*. The dictates of evolution should provide the ethical basis for our society. In 1941 the biologist Julian Huxley advocated that eugenics become a new religion⁶ and the founder of sociobiology, E.O. Wilson, said the same thing in 1975 when he demanded that human society be run on the basis of “genetically accurate and hence a completely fair code of ethics.”⁷

This essay explores some of biological determinism’s own history not to look for a driving force pressing forward its progress but to unpack some of the complex relations that its different manifestations have had to the cultural environment in which they were produced. If there was an evolutionary advantage to developing faith in biological determinism then its own history does not obviously reveal it. The political success of biological determinism at achieving power to determine human futures has been limited to its ability to provide legitimation for existing political ideologies. For example, eugenics played a significant role in legitimating social policies undertaken by National Socialists in Germany in the interwar period. However, German fascism synthesised numerous social, political and mystical traditions of thought. Biological determinism was only one component of this ideological mixture.⁸ Biological determinism has been incorporated into a variety of political creeds throughout the twentieth century but the power to establish itself as an independent ideology that dominated the political organization of any society in the twentieth century has not yet been realized – even if it was envisaged in imaginary dystopias such as Samuel Butler’s *Erewhon*, Aldous Huxley’s *Brave New World* or more recently the Hollywood movie, *Gattaca*.

Historians are not interested in constructing pejorative narratives about progress. They are interested in unearthing the past in order to understand why social and historical transformations occurred. The history of biological determinism here, therefore, will be explored to reveal how it was a product of and participant in social change. Another aim of historical research is to try and reveal the dialectic between change and continuity. This essay will also explore, therefore, continuities in the history of biological determinism and will try to highlight two features in particular: the continuing quest to link the way things are to the way they ought to be by using evolutionary theory to found a new secular ethic for social cohesion and the extent to which this has never been realized. One aim is to point out how the history of biological determinism reveals that its ideological influence has depended upon the extent to which has either legitimated, or was legitimated by, dominant social and political ideological values that have changed over the course

of the last two hundred years. As a result, the hegemonic power of biological determinism has depended upon the extent to which it was able to ideologically adapt itself to changing social conditions and establish a cultural niche. Similarly, opposition to biological determinism has depended upon changing cultural conditions that have denied it any hegemonic opportunities.

EVOLUTION AND ETHICS BEFORE THE HOLOCAUST

As I have already mentioned, seeking the basis for a new social ethic in evolutionary theory has quite a long history. Pre-Marxian European utopian socialists in the early nineteenth century wondered what could replace religion in society.⁹ Without religion, how should society construct an ethical basis and system of values that achieves social cohesion? Some sought solace for consciousness abandoned by the soul in science. Scientific reasoning could create a religion of rationalism and humanistic secular ethics could replace so called divinely revealed mystical theistic doctrines. But exactly how could science dictate morality? What would a religion of rationalism actually look like? How could it be determined?

From the time that Darwin published *The Origin of Species* in 1859, various scientific and social philosophers cited the dictates of evolution as the route to social progress and harmony.¹⁰ Darwin's cousin, Francis Galton, developed a biometric model of heredity that he believed could be harnessed to a social programme for improving the human breed through selective mating. The science of eugenics subsequently focussed upon differential fertility between social classes and was concerned to restrict the procreation of the "unfit."¹¹ The Eugenics Education Society was founded in Britain with a mission to spread eugenic consciousness as a new social ethic that would encourage the middle classes to breed and eliminate the reproduction of the social residuum.¹²

The extent to which the early eugenics movement's preoccupations with class were influential depended upon contemporary social and political concerns.¹³ The question of population health had been a central focus of the Victorian State. The Edwardian government, frustrated at the persistence of mass levels of ill health amongst its national stock and fearful of imperial competition from the United States and Germany, sought new policy directions in new social analyses. The Registrar General's classification of occupations was established in 1911 when the function of class divisions in British Society became increasingly central to high politics, especially as the previ-

ously powerless industrial proletariat made inroads into the political system. Early eugenism added a new spin to existing concerns about the health of the proletariat and imperial decline, which haunted the ruling political orders.¹⁴

By the early twentieth century, the “unfit” had been identified as the feeble-minded in whom criminality and destitution were considered hereditary traits.¹⁵ As eugenism spread beyond Britain from the late nineteenth century, new population policies developed in Europe, North America and the colonised world aimed at restricting the reproduction of the feeble-minded.¹⁶ In Scandinavia and the United States, compulsory sterilization of the retarded and various criminal categories was established before the First World War.¹⁷ In Britain the feeble-minded were institutionalized and segregated. Social welfare under the Weimar Republic at the end of the War developed within the context of an organicist philosophy of social integration through biological improvement.¹⁸ Under National Socialism in Germany racial hygiene determined that “lives not worth living” should be eliminated.¹⁹ The entire asylum population in Germany was eradicated under Nazi euthanasia programs that were extended during the Second World War to ethnic groups, Jews and Gypsies, and to political opponents. In each of these contexts, however, eugenics played a legitimating rather than a determining role. In England legislation concerning the feeble-minded was initiated by poor law authorities who were concerned to segregate destitute retarded children from other workhouse inmates who exploited them.²⁰ In Scandinavia population growth had been a feature of social policy from the eighteenth century.²¹ In Sweden, for example, in the early twentieth century eugenics was embraced as part of a new experiment in the social management in a modern society that drew upon the new theories of Scandinavian social scientists such as Gunnar and Alva Myrdal.²² Within Germany, biologism was embraced within a complex mixture of nationalistic and romantic traditions of thought that eventually produced National Socialism.²³

In the United States eugenism was moulded by racialist concerns with immigration restriction. Immigration restriction had been operated in the United States against Asians from the late nineteenth century. In the 1920s, eugenic ideas about intelligence were co-opted into efforts to extend restriction to the immigration of southern and eastern Europeans. In 1908, an American psychologist Henry H. Goddard introduced methods for assessing mental age into the United States that had been developed by two French educationalists, Alfred Binet and Theodore Simon. IQ testing was subsequently developed for examining mental ability within the American military in the

First World War by Harvard psychologists Robert Yerkes and James Bridges, following the work of Stanford psychologist Lewis Terman. One of the wartime testers, Carl Bingham, used the army data to extend the analysis to a *Study of American Intelligence* which was published in 1923 at the height of a debate about renewed immigration restriction. Taken up by promoters of immigration restriction, intelligence testing became the main barrier faced by migrants at the famous clearing-house at Ellis Island.²⁴

Through the debates surrounding heredity, evolutionary logic influenced an expanding biological determinist discourse on human social behavior, psychological states and human intelligence. Through a eugenic agenda, biological determinism in the first half of the twentieth century reconfigured conceptualizations of social, ethnic, physiological and behavioral difference as racial categories. But these reconfigurations took place within the context of an international atmosphere of nationalistic and imperialist competition that existed before the Second World War. This was reflected in the links between eugenic thought and nationalistic and racial ideas underlying health promotion in this period.

In the United States health was linked to the politics of conservation during the Progressive era. President Teddy Roosevelt popularized his “strenuous life” philosophy for invigorating the nation. In the interwar years the promotion of muscular strength, physical fitness, dietary and sexual reform were integrated into utopian physical culture philosophies that justified health dictatorship as an educative necessity for the prevention of disease, race survival and nation-building. National and personal health was bound within physical culture patriotism. In Britain and America it was the man in the street’s duty to make sure that the Anglo-Saxon, English speaking nations did not become a weakened stock.

As discussed earlier in Chapter Three of this volume, Charles Atlas, the self-styled “Founder of the Fastest Health Strength and Physique Building System,” goaded his potential clientele into pursuing his “dynamic tension” system of musclebuilding by shaming them for only being “half-alive,” flat-chested and enfeebled, unable to deliver a “knockout defence” when insulted. The rhetoric of his advertising campaigns echoed the concerns of the physical culture movement with race-suicide and fears of imperial decline. Physical culture movements in Britain and the United States had, however, strong competitors for becoming Charles Atlas’s “lion in the jungle” who made “every other animal sit up and take notice as soon as he lets out a roar.”²⁵ Physical culture movements in continental Europe also stressed the

identity between the vigorously health body of the individual and the vigorous strength of the nation. The most emphatic expression of the equation between bodily and national-racial strength was voiced in pre-war Germany. In this respect the healthy body became reified into a metonymical trope for the international culture of racial and national competition before the Second World War.²⁶

The increasing power of labor movements together with heightened nationalistic concerns stimulated the growth of philosophies of social and economic planning in European states in the interwar period. Eugenics in the interwar years adapted to liberal and socialist politics of reform by advocating state policies to create greater social equality in order to allow the talented from all classes to be recognized, rewarded and encouraged to breed. Family allowance policies throughout Europe were supported by eugenic arguments that pointed out the need to provide economic protection to assure large families amongst the productive laboring classes whose birth rate was also declining by the 1930s.²⁷

While the diffuse discursive influence of biological determinism in industrial societies before the Second World War was substantial, its political success depended upon its incorporation into broader ideological hegemonies existing within nationalist and imperialist cultures. Widely varying ideologies of political reform in this period embraced the idea that national and economic success and social progress was linked to the control of human evolution through biological and racial engineering. A hegemonic revulsion against biological determinism, however, followed the revelation of its murderous potential when the results of the Nazi policy of the Final Solution were discovered after Germany's defeat in the Second World War. Social planning philosophies subsequently sought to expunge biological explanations from their discourses and evolutionary science and the biology of inheritance sought to detach themselves from eugenic racial and social planning. That detachment, however, was to be short-lived.

OPPOSITION AND DETACHMENT

Eugenism had a coalition of opposition from its earliest days. Even before the First World War, public health officers in Britain fought eugenic accusations against them for committing "race suicide" by saving the weakly and the robust indiscriminately.²⁸ Eugenists claimed that preventive medicine had brought about social amelioration that allowed the unfit to survive

and breed. Roman Catholic opposition was prominent in numerous national contexts. International labor movements and some elements of national left wing political organizations vigorously opposed eugenic class prejudice.²⁹ Feminists in Europe and the United States were divided. Feminist joined the British Eugenics Society in order to encourage women to take up their role as future guardians of civic and social morality by rejecting romantic love for responsible eugenic mating.³⁰ In the United States and Britain family planning reformers Margaret Sanger and Marie Stopes advocated the elimination of sexual ignorance and the promotion of contraceptive knowledge and devices on eugenic grounds.³¹ Feminists within labor movements on both sides of the Atlantic, however, rejected eugenic restriction of women to the domestic sphere where their sole purpose was to become responsible breeding machines and child nurturers.³²

Opposition to eugenics also came from within the scientific community. In Britain, Marxism and socialism inspired some leading biologists to reject the class prejudice of eugenics and attempt to establish the study of human heredity in connection to the understanding of disease. Lancelot Hogben, professor of social biology at the London School of Economics, believed that research into blood groups in the interwar period offered the possibility of finding a route to a human genetic map. John Burdon Sanderson Haldane believed that population genetics undermined the basic assumptions of eugenic thought. Thomas Huxley's grandson, Julian Huxley, remained an enthusiastic fellow of the Eugenics Society throughout the 1930s but was ultimately persuaded by Hogben of its pseudo-scientific status and its discriminatory implications.³³

Scientists working in evolutionary biology, genetic science and experimental psychology sought to separate their scientific purpose from the racialist implications of biological determinism and eugenic discourse. Thomas Morgan Hunt who headed the genetic research laboratory at the California Institute of Technology declared in the 1925 edition of his *Evolution and Genetics* that:³⁴

Least of all should we feel any assurance in deciding genetic superiority or inferiority as applied to whole races, by which is meant not races in a biological sense, but social or political groups bound together by physical conditions, by religious sentiments, or by political organizations.

Psychologists such as Otto Klineberg produced environmental explanations of racial differences in intelligence. He claimed that differential IQ scores between ethnic groups, migrants and other populations were determined by factors such as educational opportunity and urban and rural lifestyles. In the *New Republic* in the 1920s, the journalist Walter Lippman attacked psychologists' pretensions regarding IQ testing altogether and insisted that intelligence levels were the product of one's social and economic environment.³⁵

The whole drift of the propaganda based on intelligence testing is to treat people with low intelligence quotients as congenitally and hopelessly inferior ... [testers] believe that they are measuring the capacity of a human being for all time and that this capacity is fatally fixed by the child's heredity.

The most forceful attack on biological determinism was made by those with most to gain from environmental explanations of human characteristics and the malleability of behavior, ie, the social sciences. The founder of social anthropology, Franz Boas, at Columbia University suggested that IQ scores only reflected proficiency in what was being tested, the significance of which for the entire spectrum of human intelligence was impossible to gauge. He insisted that there was no proof of hereditary traits specific to blacks, immigrants or other groups and encouraged research on race amongst his students. One of his students, Margaret Mead, produced a definitive work demonstrating the correlation between the academic performances of Italian immigrant school children and their social status, length of residence in the US and their capacity to speak English. Klineberg was also set upon his studies of race as the result of his period within Boas's Columbia department.³⁶

The biological determinism of Social Darwinism had been opposed by the founder of the Chicago School of Sociology, Albion Small, even though it was embraced by his colleague Edmund Ross. Sociology in both the American and European context attacked the assumption that biology determined behavior and social organization. L.T. Hobhouse at the LSE objected to the organic analogy for understanding society and insisted upon the historically contingent nature of social behavior and human relations. He opposed the appointment of a Professor of Social Biology at LSE altogether.³⁷

And, as further discussed in Chapter Eleven of this volume, the greatest blow to the popularity of eugenics was the revelations of mass murder under the Nazi administration.³⁸ Immediately following the war, genetic science

moved away from topics related to human subjects altogether, concentrating instead on life forms at the opposite end of the organic spectrum.³⁹

In both the interwar period and after the Second World War, scientific detachment and sociological and political opposition to biological determinism reflected changing configurations in the operation of social and political power. A revival in the hegemonic fortunes of biological determinism similarly depended upon economic, political, and social transformations in the late twentieth century.

THE EVOLUTION OF DNA SENSIBILITY

Following the discovery of the structure of DNA in 1953 molecular genetics began to readdress the subject of disease, picking up the lead outlined by Hogben's pre-war study of blood groups. New technologies of splicing and sequencing DNA developed in the 1970s during the course of investigating the genetic basis of disease, facilitated a second of Lancelot Hogben's dreams – the possibility of mapping the human genome. Renato Dulbecco, a Noble Prize winning physiologist declared in 1987 that the science of cancer research had then reached the point where its future development depended upon having the complete sequence of DNA in the human genome mapped. Subsequently the human genome project became the largest funded single scientific project.⁴⁰ However, its goal was not simply to identify disease but, as the 1988 Office of Technology Assessment Report states, to identify “the eugenics of normalcy” in order that genetic information could be used to “ensure that ... each individual has at least a modicum of normal genes.”⁴¹

Pre-war eugenicists had wanted to “protect the unborn” and endow each child with the gift of health by making sure the unfit were never conceived. Molecular biologists in the 1960s wanted to ensure genetic normalcy through technological manipulation. The molecular biologist from Santa Cruz, Robert Sinsheimer, in 1969 called this “a new eugenics” aimed at freeing humanity from the bounds of deviant DNA. Sinsheimer claimed that where old eugenics relied on massive social programs to cull the unfit, the new eugenics had technologies that could permit the conversion of all individuals to the highest genetic level – whatever that meant.⁴² The first director of the human genome project, James Watson, believed that genetic normalcy could be defined as the inalienable right of each individual to “health.” In the human genome project genetic normalcy was defined in terms of the search for the abnormal, genetic deviancy that inhibited health.⁴³

As the philosopher and historian of science Georges Canguilhem pointed out, definitions of the normal normalize just as standards standardize. Eugenic normalcy was a normative value masquerading in the human genome project as an objective, value neutral fact. Perfect health, and by implication physiological or genetic normalcy, has never been a neutral or objective value. Before the Second World War concepts of normal health were inherently bound to nationalistic and racial competition. German Fascism believed that human physiological perfection was personified in blond-haired, blue-eyed muscularly toned bodies. In the United States American military and economic might was represented in an idealization of Herculean hulk. The healthiest female bodies in the pre-war era were identified as those that conformed to contemporary beliefs about indications of fecundity such as fulsome breasts and rounded hips and bellies.⁴⁴

In the post-war world, the concept of health remained equally dependent upon socially derived conceptualizations of normalcy. Since the Second World War, gains in political and economic power by social groups that were largely powerless before the war such as African Americans, Asian immigrants in Europe and women throughout Western democracies, dramatically challenged conceptualizations of the healthy body, and by implication, eugenic normalcy. The cultural relativity of normative values regarding height and weight, eye color, skin shades or gender changed over time according to these reconfigurations of power. The accumulation of social power and increasing political representation of those once considered biologically inferior and eugenically unfit transformed cultural definitions of normalcy following the Second World War.

If the eugenics of physiological normalcy continued to reflect changes in the distribution of social and political power, the eugenics of behavioral normalcy have been equally bound to historical transformation. The post war genetic analysis of disease expanded the concept of what constituted a disease altogether, which began to include changing conceptualizations of deviant psychological states and social behavior.⁴⁵ By the late 1960s, human behavior and intelligence once again fell increasingly within the purview of the hereditary gaze. In this context biological determinist rhetoric in the last four decades of the twentieth century repeated earlier arguments with minimal variation.

In the 1960s, Harvard psychologist Arthur Jensen reinvoked fantasies of a brave new world wherein blacks and whites should be educated to perform appropriate social and economic tasks according to their innate, genetic

differential intelligence. At the same time, Daniel P. Moynihan advocated benign neglect of the poor by the American government for the similar reasons. In England the psychologist Hans Eysenck supported Asian and black immigration restriction on the basis of genetic differences in IQ.⁴⁶

Genetic explanations, however, reflected changing social values concerning behavioral normalcy. Up to the late 1970s homosexuality continued to be classified as a psychological sickness. Gains made by the gay rights movement during the 1970s and '80s established sexual preference as a lifestyle choice rather than a psychotic condition and as a result practices of aversion therapy went dramatically out of fashion amongst clinical psychologists. Genetic determinism in the 1990s, however, reasserted a physiological explanation for sexual preference when some experimental psychologists inferred that a gene could be found for homosexuality. The hegemonic success of this claim has depended upon its mixed reception amongst the gay community. In the early 1990s a gay neuroscientist, Simon LeVay, who claimed to discover that male homosexuals had a genetically determined larger hypothalamic nucleus than heterosexual males, believed that homosexuality would be less discriminated against by conservatives if they thought it was a genetic disorder rather than an immoral choice.⁴⁷ The embrace or rejection of the biological explanation of homosexuality by the gay community has continued to determine its scientific legitimacy.

Within the genetic investigation of disease, conceptualizations of physiological and behavioral normalcy reflected changing configurations in the sources of social power. The story of gene did not, however, remain confined to the investigation of disease. It became central to new biological determinist explanations of social and historical transformation that paralleled pre-war eugenicists' perception of heredity as the basis for social progress or decline. Post-war biological determinist discourses concerning social progress and decline now focussed on the gene as the currency of evolutionary transformation.

In the 1970s E.O. Wilson invented sociobiology as the means of drawing in the social sciences into the Modern Synthesis of evolutionary theory.⁴⁸ The new synthesis was a science dedicated to a prescriptive mission. In the nineteenth century, Auguste Comte invented sociology as a science of society that would discover laws of social harmony which could be used to construct what he believed would be a utopian meritocratic hierarchy run by savants like himself.⁴⁹ In a similar way, E.O. Wilson believed that the new synthesis of sociobiology could fulfil the behaviorist psychologist F.B. Skinner's dream

of creating a culture predesigned for happiness. Sociobiologists could provide the scientific tools to create correct social organization. The Wilsonian vision of correct social organization, however, was sadly banal, differing very little in principle from either the positivist meritocratic hierarchy of Auguste Comte or the eugenic dystopia of Aldous Huxley's *Brave New World*, where each would perform the task most appropriate to their ability and their evolutionary worth.

In echoing pre-war models of social-biological thought, Wilson's new synthesis looked remarkably dated from his first contributions to the social theory debates of the 1970s. But his social-biological successors chimed with their times far more effectively by the 1980s. The zoologist Richard Dawkins produced a "greed is good" biology that replicated the neo-liberal economic philosophy of the New Right who seized power throughout the liberal democratic world as Western free market societies rebounded from the economic crises of the mid-1970s.⁵⁰

Evolutionary biology of the late 1970s and 1980s gave biological Malthusianism a new twist by anthropomorphizing genetic structures and attributing them with the motivation that was supposed to be able to heal the wounded economic market places of the West. According to Dawkins, "greed is good" was written into the programming of our predetermined biological destiny in selfish genes that relentlessly pursued evolutionary advantage in order to ensure their reproduction. Dawkins and a new generation of evolutionary biologists extrapolated from all manner of complex sophistry to insist that even what appeared to be selfless altruism resulted from rigorous adherence to the principle of self-reproduction.⁵¹ Comte had employed an organic analogy to produce a highly conservative model of social evolution.⁵² Dawkins and his contemporaries now employed the analogy of society to produce a conservative biological model that served to explain not only existing social organization but again to suggest how it *ought* to be. Matt Ridley discussed biological organisms as "societies of cells"⁵³ cooperating in campaigns to reproduce their DNA and in true Malthusian tradition, while Dawkins criticised the welfare state as an unnatural aberration.⁵⁴

Dawkins also revamped the mechanistic metaphor to describe reproductive behavior as robotic repetition. Man the machine continued to be the favored trope of the most recent generation of biological determinists who want to explain how the mind works as a computational system designed by natural selection. Throughout the twentieth century social biologists have longed to subsume the social sciences within the biological sciences where the

truth about social behavior was really to be found. Indeed, E.O. Wilson recently crystallised this view when he called for consilience that will reduce all knowledges to one epistemological unity for understanding ourselves and the world around us.⁵⁵ Psychologists, a new generation of frustrated polymaths in the 1990s, now want to break out of the restricting boundaries of their discipline. Throughout their history, psychologists have been looking for a way to get some respect from their colleagues in the natural sciences. Relegated for so long to the realm of the despised social sciences, experimentalist and developmental psychologists have yearned to develop enough law-like looking explanations of “how the mind works” to be accepted into the fold of the high powered, high financed academy of the natural sciences. With a little help from like-minded friends from contemporary studies in the philosophy of mind, such as Dan Dennett, evolutionary psychologists propose they can now explain not only why individuals want to eat fatty foods but also why societies go to war, invent religious systems and develop cultures.

The latest generation of evolutionary fundamentalists, however, claim to have broken with the moralistic traditions of biological determinism. Steven Pinker, for example, claims to be no Gordon Gekko doing anything as crude as Dawkins’ “greed is good” biology. He argues that his science is offering an objective explanation of why the human mind is designed like it is that does not involve a eugenic exploration of the evolutionary biological basis of intelligence. That problem, he suggests, has been solved.⁵⁶ Pinker believes that he is able to unpack the biological basis to sentience, or consciousness, with an epistemological knife which “separates the scientific explanation of behavior from moral responsibility,” because, through a process of reverse engineering, he can replace God in Paley’s argument from design with natural selection.

The claims of evolutionary psychology to have moved beyond the crude moralism of biological determinism reflects current intellectual fashions for “new age” relativism. Intellectual post-modernism in turn reflects the changing multicultural configurations of power in late twentieth century post-industrial societies. However, evolutionary psychology continues to deny the normative basis of belief in a way that has characterized all biological determinist argument throughout its history.

Pinker illustrates the way in which he maintains the divide between science and moralism that Dawkins crossed, for example, by re-spinning the story of the selfish gene in a tale of reciprocal altruism produced by genetic empathy. Pinker deduces from such a model that the passions and the intel-

lect are designed to keep each other in check. He uses the economist Robert Frank's analysis of the British invasion of the Falkland Islands as an example of how the passions can become a doomsday machine if they outstrip the intellect's capacity to control them. For example, if redress or vengeance become compulsions,⁵⁷

though useful in the long run can drive people to fight far out of proportion to the stakes. In 1982 Argentina annexed the British colony of the Falklands, desolate islands with virtually no economic or strategic importance. In earlier decades it might have made sense for Britain to defend them as an immediate deterrent to anyone with designs on the rest of its empire, but at that point there was no empire left to defend. Frank points out that for what they spent to reclaim the islands, Britain could have given each Falklander a Scottish castle and a lifetime pension. But most Britons were proud that they stood up to the Argentines. The same sense of fairness makes us sue expensively for small amounts or seek a refund for a defective product despite red tape that costs us more in lost wages than the product was worth.

The lust for revenge, Pinker argues, is an especially terrifying emotion but "in many societies an irresistible thirst for vengeance is one's only protection against deadly raids." What's more the resolve to seek vengeance is accompanied by the emotion "traditionally referred to as honour: the desire to publicly avenge even minor trespasses and insults." Pinker identifies the social circumstances in which honor and vengeance come into play in social relations.⁵⁸

Honor and vengeance are raised to godly virtues in societies that lie beyond the reach of law enforcement, such as remote horticulturists and herders, the pioneers of the Wild West, street gangs, organized crime families, and entire nation-states when dealing with one another (in which case the emotion is called "patriotism").

Despite his denials, in true biological determinist tradition Pinker continues to ignore the culturally value-laden and ahistorical nature of his interpretations. Pinker does not view Frank's assumption that "most Britons" perceived the Falklands war as a kamikaze mission to see fair play to be anything other than a scientific fact. He fails to understand that values such as "fair play" or "patriotism" derive meaning from their place in social systems of belief that are moulded by changing historical conditions. Consequently, he is completely oblivious to the misleading nature of his claim to have sepa-

rated science from morality by emancipating his value-neutral “scientific” explanations from moral judgments.

Like his intellectual ancestors, therefore, Pinker continues to represent normative interpretations as objective scientific facts. Rose, Lewontin, and Kamin attributed this characteristic of biological determinist rhetoric to theoretical naivety. Pinker, however, goes to considerable length to try and demonstrate his familiarity with what he perceives as his epistemological enemy, cultural absolutism. In this context he argues that belief in the normative basis of knowledge is simply another “secular catechism of our age.” The “new age” image, therefore, of evolutionary psychology remains rather unconvincing and epistemologically old hat, which explains why, perhaps, it has yet to gain the hegemonic popularity of the social biology of either Wilson or Dawkins.

TOWARD THE GENOIST SOCIETY?

The philosopher Dan Dennett has offered a philosophically more sophisticated account than Pinker of the mind as an algorithmically naturally selected computational process resulting from the mute deeds of evolution which have replaced the Hegelian World Spirit in bringing about animation, self-replication and intelligence.⁵⁹ Apart from engaging in similar cultural-absolutism bashing (those crazy skyhookers),⁶⁰ Dennett reveals a different agenda from Pinker that revives the quest for biological determinism’s Holy Grail; the construction of a naturalised ethics. The sophistication of Dennett’s philosophical arguments regarding AI, however, is not reproduced once he enters the quagmire of moral philosophy.

The results of Dennett’s deliberations are barely less prosaic than those of Julian Huxley 70 years earlier. In place of Huxley’s religion of eugenism, Dennett offers Darwin’s dangerous idea as a meta-meme providing a “universal solvent capable of cutting right to the heart of everything in sight.”⁶¹ Like all earlier biological determinist seekers of a new ethic Dennett continues to ignore the relationship between ideas and the operation of power. Dennett, like seekers of a naturalized system of ethics before him, ignores the fact that biological determinism is enfranchised by a historical cultural product, Enlightenment rationalism, and fails to grasp the historical relationship of morality to transmutations of theaters of power. The hegemonic achievements of an ethical, or any other, belief system is an objectification of interests that change over time. Seeking a universal ethical system is as ahis-

torical as interpreting all the ways there are to be human as being singularly determined by the process of biological natural selection. And the price to pay for such ahistoricism is political naivety and impotence

From the nineteenth century, biological determinist ideology has lacked an understanding of the contingency of historical transformation of either the biological or sociological world. Biological determinist arguments have also consistently failed to understand the role that the operation of power plays in determining the outcome of historical contingency. As a result, biological determinism has tried to capture the moral sphere rather than aim to dominate the political realm and has failed to become an independent political creed with the power to determine major social transformation. The right wing historian Gertrude Himmelfarb has argued that languages of social discrimination began to become biologized with the rise of evolutionary theory in the nineteenth century.⁶² Despite the diffuse ideological influence that biological determinism gained in discriminatory discourses in the twentieth century its establishment as a moral creed with a dominant political influence has never been realized. Biological determinism has failed historically to gain sufficient political influence to turn any dystopic visions into a reality, whether they were possessed by Galton, Julian Huxley, Wilson, Dawkins or Dennett. Biological determinism has not yet become politically determining. The rise of a Gattigan society consisting of artificially selected and genetically enhanced (together with mechanically constructed) intelligences held together by a universal genioist ethic remains elusive.

NOTES

¹ Steven Rose, R. C. Lewontin and Leon J. Kamin, *Not in Our Genes. Biology, Ideology and Human Nature* (London, Pantheon Books, 1984), 265.

² Richard Dawkins, *The Selfish Gene* (London, Oxford University Press, 1976); *Idem* (1997), *Climbing Mount Improbable* (Harmondsworth, Penguin); George, C. Williams, *Adaptation and Natural Selection: A Critique of Some Current Evolutionary Thought* (Princeton, N.J., Princeton University Press, 1966); William Hamilton, "The Evolution of Altruistic Behavior," *American Naturalist*, 97 (1963), 354-356.

³ *Ibid.*, Dawkins (1997).

⁴ Ridley, *op. cit.* (ref., 2).

⁵ Steven Pinker, *How the Mind Works* (Harmondsworth, Penguin, 1997); Henry Plotkin, Henry, *Evolution in Mind* (Harmondsworth, Penguin, 1997).

- ⁶ Julian Huxley, *The Uniqueness of Man* (London, Chatto and Windus, 1941), 34-83.
- ⁷ Edward, O. Wilson, *Sociobiology. The New Synthesis* (Cambridge Mass.:Harvard University Press, 1975), 575.
- ⁸ Richard, J. Evans, "In Search of German Social Darwinism. The History and Historiography of a Concept," in Manfred Berg and Geoffrey Cocks (eds), *Medicine and Modernity. Public Health and Medical Care in Nineteenth and Twentieth-Century Germany* (Cambridge, Cambridge University Press, 1997), 55-79.
- ⁹ Gareth Stedman Jones, *The Languages of Class. Studies in English Working Class History, 1932-1982* (Cambridge, Cambridge University Press, 10983).
- ¹⁰ J.D.Y. Peel (ed.) *Herbert Spencer On Social Evolution. Selected Writings* (Chicago, The University of Chicago Press, 1972).
- ¹¹ Daniel Kevles, *In the Name of Eugenics. Genetics and the Uses of Human Heredity* (New York: Knopf, 1985).
- ¹² Pauline M. H. Mazumdar, *Eugenics, Human Genetics and Human Failings* (London, Routledge, 1992).
- ¹³ Geoffrey, R. Searle, *Eugenics and Politics in Britain 1900-1914* (Leyden: Noordhoff, 1976).
- ¹⁴ Dorothy Porter, "Enemies of the Race: Biologism, Environmentalism and the Public Health in Edwardian England," *Victorian Studies*, 34 (2) (1991), 159-178.
- ¹⁵ Greta Jones, *Social Hygiene in Britain* (London: Croom Helm, 1986).
- ¹⁶ Kevles, *op. cit.* (ref. 11).
- ¹⁷ Gunnar Brodberg and Nils Roll-Hanson (eds), *Eugenics and the Welfare State. Sterilization Policy in Denmark, Sweden, Norway and Finland* (Michigan, Michigan State University Press, 1996).
- ¹⁸ Paul Weindling, "Eugenics and the Welfare State During the Weimar Republic," in W.R. Lee and Eve Rosenhaft (eds), *The State and Social Change in Germany, 1880-1980* (Munich, Berg, 1990), 131-160.
- ¹⁹ Robert, N. Proctor, *Racial Hygiene. Medicine Under the Nazis* (Cambridge, Mass., Harvard University Press, 1988).
- ²⁰ Dorothy Porter, *Health, Civilization and the State. A History of Public Health from Ancient to Modern Times* (London, Routledge, 1999).
- ²¹ Karin Johannisson, "The People's Health: Public Health Policies in Sweden," in Dorothy Porter (ed.), *The History of Public Health and the Modern State* (Amsterdam and Atlanta: Rodopi, 1994), 1650182.
- ²² Broberg and Roll-Hansen, *op.cit.* (ref. 17).
- ²³ Paul Weindling, *Health, Race and German Politics Between National Unification and Nazism 1870-1945* (Cambridge, Cambridge University Press, 1986).

²⁴ Kevles, *op.cit.* (ref. 11).

²⁵ Charles Atlas, *Charles Atlas, Founder of the Fastest Health, Strength and Physique Building System* (London, Charles Atlas Ltd, 1930), 3.

²⁶ Dorothy Porter, "The Healthy Body in the Twentieth Century," in Roger Cooter and John Pickstone (eds), *Twentieth Century Medicine* (London, Harwood Academic Publications, 1999).

²⁷ John Macnicol, "Eugenics and Campaign for Voluntary Sterilization in Britain Between the Wars," *Social History of Medicine*, 2 (1989), 147-170; Richard, Allen Soloway *Demography and Degeneration*(Chapel Hill, The University of North Carolina Press, 1990).

²⁸ Porter, *op. cit.* (ref. 17).

²⁹ Searle, *op. cit.* (ref. 16).

³⁰ Angelique Richardson, "The New Woman Novel and the Eugenisation of Love," (University of London, PhD Thesis, 1999).

³¹ Richard, Allen Soloway, *Birth Control and the Population Question in England, 1877-1930* (Chapel Hill, University of North Carolina Press, 1982).

³² Richardson, *op. cit.* (ref. 30).

³³ Mazumdar, *op. cit.* (ref. 12).

³⁴ Quoted by Kevles, *op. cit.* (ref. 11), 133.

³⁵ *Ibid.*, 139.

³⁶ *Ibid.*

³⁷ Dorothy Porter, "Social Medicine and the New Society: Medicine and Scientific Humanism in mid-Twentieth Century Britain," *Journal of Historical Sociology*, 9 (1996), 168-187.

³⁸ Diane Paul, "Eugenics and the Left," *Journal of the History of Ideas*, 45 (1984), 567-590.

³⁹ Evelyn Fox Keller, "Nature, Nurture, and the Human Genome Project," in Daniel J. Kevles and Leroy Hood (eds), *The Code of Codes. Scientific and Social Issues in the Human Genome Project* (Cambridge, Mass., Harvard University Press, 1992), 281-299.

⁴⁰ Daniel Kevles, "Out of Eugenics: the Historical Politics of the Human Genome," in Daniel J. Kevles and Leroy Hood (eds), *The Code of Codes. Scientific and Social Issues in the Human Genome Project* (Cambridge, Mass., Harvard University Press, 1992), 3-36.

⁴¹ Quoted by Fox Keller, *op. cit.* (ref. 39), 295.

⁴² Kevles, *op. cit.* (ref., 40).

⁴³ James Watson, "A Personal View of the Project" in Daniel J. Kevles and Leroy Hood (eds), *The Code of Codes. Scientific and Social Issues in the Human Genome*

Project (Cambridge, Mass., Harvard University Press, 1992), 164-176.

⁴⁴ Porter, *op. cit.* (ref. 26).

⁴⁵ Fox Keller, *op. cit.* (ref. 39).

⁴⁶ Rose, Lewontin and Kamin, *op. cit.* (ref. 1).

⁴⁷ Simon Levay, *The Sexual Brain* (Cambridge, Mass., M.I.T. Press, 1993).

⁴⁸ Wilson, *op. cit.* (ref. 7).

⁴⁹ Irving M. Zeitlin, *Ideology and the Development of Sociological Theory* (Englewood, New Jersey, Prentice-Hall, 1968).

⁵⁰ Dawkins (1976), *op. cit.* (ref. 2).

⁵¹ Dawkins (1997), *op. cit.* (ref. 2).

⁵² Dorothy Porter, "Introduction," in Dorothy Porter (ed.), *Social Medicine and Medical Sociology in the Twentieth Century* (Amsterdam and Atlanta, Rodopi, 1997), 1-33.

⁵³ Ridley, *op. cit.* (ref. 2), 19.

⁵⁴ Rose, Lewontin and Kamin, *op. cit.* (ref. 1), 8.

⁵⁵ Edward O. Wilson, *Consilience. The Unity of Knowledge* (London, Little, Brown and Co., 1998).

⁵⁶ Pinker, *op. cit.* (ref. 5), 60.

⁵⁷ *Ibid.*, 413.

⁵⁸ *Ibid.*, 413.

⁵⁹ Daniel Dennett, *Brainchildren. Essays on Designing Minds* (Harmondsworth, Penguin, 1998).

⁶⁰ Daniel Dennett, *Darwin's Dangerous Idea. Evolution and the Meaning of Life* (Harmondsworth, Penguin, 1995), 472.

⁶¹ *Ibid.*, 521.

⁶² Gertrude Himelfarb, *The Idea of Poverty. England in the Early Industrial Age* (New York, Knopf, 1984).

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