

# Eugenics, Public Health, and the Control of Tuberculosis in the Early Twentieth-Century Britain

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## 20세기초 영국의 우생학, 공중보건 및 반결핵 운동

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### 요 약

20세기 초 우생학 운동은 유럽과 남·북 아메리카 곳곳에서 일어난 국제적인 운동이었다. 최근 10여년 간의 한 연구 추세는 영·미를 벗어나, 지금까지 간과되었던 개개의 나라를 중심으로 연구하는 것이었다. 한편, 이러한 연구들은 그동안 타당한 것으로 받아들여져 왔던 우생학에 대한 여러 생각에 의문을 던지게 함으로서, 다시 '중심부' 연구에 영향을 미치고 있다. 그러한 쟁점 중의 하나가 '우생학은 유전을 가장 중요한 것으로 여기기 때문에, 환경을 돌보고 개선하려는 공중보건과는 적대적일 수 밖에 없다'는 생각일 것이다. 이 글에서 필자는 영국의 경우를 다룸으로써 이러한 생각이 단순한 도식화일 수 있음을 보여주하고자 하였다.

우선, 영국의 우생학 운동은 여러 가지 점에서 공중보건과 밀접한 관계에 있었다. 이 두 부분의 구성원들은 주로 전문 지식을 가진 중류계급 출신이었으며, 따라서 공통의 의식과 이상을 가지고 있었다. 게다가, 우생론자들은 실제로 공중보건의 도움을 필요로 하는 일이 많았고, 공중보건의들은 통계자료의 제공이라든가 학회의 주요 사업인 강연, 전시회 등의 교육 프로그램 운영을 지원함으로써 협조하였다. 둘째로, 우생학과 공중보건의 공존할 수 있는 이론적 근거로서 '예방 우생학'이라는 영역이 있었음을 주목해야 할 것이다. 예방 우생학이란, 생식질에 유해한 독소적 요소들, 예를 들어, 결핵, 술, 담, 성병 등으로부터 부모를 보호하는 것을 의미했다. 예방을 강조한 우생론자들은 따라서 이러한 독소를 제거하고 통제하는 공중보건의 중요성을 간과하지 않았다. 끝으로 이 글에서는 우생학과 공중보건의 관계를 보여주는 구체적인 사례로서 결핵에 대한 양측의 의견과 대응을 살펴보았다. 결론적으로, 20세기 초 영국의 우생학과 공중보건은,

적대적이거나 양립불가능의 것이었다기 보다는, 사회를 개혁하려는 하나의 움직임으로서 이해되어야 할 것이다.

## I. Introduction

Recent studies on the history of eugenics movement in the early twentieth century have a tendency to emphasize the various national contexts.<sup>1)</sup> These studies have revealed the existence of the diversity of national styles, which corresponded with the situations and problems each country faced. As Mark Adams has pointed out, a considerable part of the earlier impressions on eugenics are "myths", and we are forced to see the diverse "realities."<sup>2)</sup> According to Adams, one of the myths in the history of eugenics is the essentialist view.

The best example of the essentialism is probably the view to equate eugenics with hereditarianism. This view, consequently, defines eugenics as being incompatible with environmentalism. One can often find this view among the studies on the relationship of eugenics and public health: in fact, the subject provides the most complex and diverse picture of eugenics.

So far the studies concerning the relationship of eugenics and public health in Britain have remained within the limit of this essentialism. One of the earliest remarks is Donald MacKenzie's. MacKenzie has considered the relationship between them as being antagonistic. Some eugenisists, he noted, believed that their major opponent was "a social reformer who ascribed all to environment and nothing to heredity" even though in reality such an extreme case rarely happened. As MacKenzie pointed out, among certain groups, temperance workers and public health workers for example, their *raison d'être* and programme might have been threatened by eugenics ideology.<sup>3)</sup> G. R. Searle, though a critic of MacKenzie's works, has followed this point and elaborated on the hostility between two groups.<sup>4)</sup> Along the same line, Dorothy Porter has argued that the hereditarianism of eugenisists consequently meant that preventive medicine was useless, and even detrimental, since it might contribute to the protection

1) For an overview of the recent studies, see Mark B. Adams (ed.), *The Wellborn Science: Eugenics in Germany, France, Brazil, and Russia* (Oxford, 1990).

2) For the discussion about the "myths and realities," see Mark B. Adams, "Toward a Comparative History of Eugenics," *ibid.*, pp. 217-231.

3) Donald A. MacKenzie, "Eugenics in Britain," *Social Studies of Science* 6(1976), 499-532, esp. p. 520.

4) Geoffrey R. Searle, "Eugenics and Class," Charles Webster (ed.), *Biology, Medicine and Society 1840-1940* (Cambridge, 1981), pp. 212-242.

of the unfit.<sup>5)</sup>

But these historians have overlooked the fact that these two groups could have something in common. As Pauline M.H. Mazumdar has suggested, the Eugenics Education Society shared the aims and ideals of the social activism of middle class, from which the majority of the members of the Society came.<sup>6)</sup> The constituents of the public health services were also chiefly middle class. While they were often assumed or expected to sympathetic to the lower class, they shared the preoccupation against the poor with other middle-class social activists.<sup>7)</sup>

In this paper, I will discuss the relation of the eugenics movement to public health, emphasizing the shared middle-class consciousness and specialized professional interest. First, in the second section, I will show that the eugenics circle and public health camp were not always hostile. I will also reveal that the rhetoric of eugenics was widely spread among the middle-class public health experts so that they shared with eugenisists not only the origins and membership but also the attitudes and activities. It implies that their relationship was not necessarily hostile. Next, in the third section, I will examine the notion of preventive eugenics as an area in which eugenics and public health could be more closely related. It means that there existed a wider spectrum of attitudes in the eugenics camps than previously thought. In addition, I will raise the question of the definition of British eugenics. The preventive aspect in the British eugenics movement has so far been paid little attention. As will be seen, however, it was so prevalent among the middle class that it could be interwoven with the public health ideology in terms of racial health. In the fourth section, I will concentrate on the problem of tuberculosis as a case study, a disease which was highly meaningful to eugenisists as well as to public health experts. Finally, I will make some concluding remarks.

This study will be useful in understanding the relationship at issue as well as the conflict within the middle-class. It will also show that the history of eugenics can be best understood when the intertwined threads of the professional interests and class ideologies are disentangled.

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5) Dorothy Porter, "Enemies of the Race: Biologism, Environmentalism, and Public Health in Edwardian England," *Victorian Studies* 34(1991), 159-178.

6) Pauline M.H. Mazumdar, *Eugenics, Human Genetics and Human Failings: The Eugenics Society, its Sources and its Critics in Britain* (London/New York, 1992), esp. ch.1.

7) For their origins, see Virginia Berridge, "Opium Eating and the Working Class in the Nineteenth Century: the Public and Official Reaction," *British Journal of Addiction* 73(1978), 107-112; Gareth Stedman Jones, *Outcast London: a Study of the Relationship between Classes in Victorian Society* (Oxford, 1971).

## II. Friends, or Foes?: Eugenics and Public Health

At various points, the relationship between eugenics and public health was close and cooperative rather than hostile. First, the eugenists and public health experts mainly came from the middle class. Second, accordingly, the personnel of two groups largely overlapped. Third, there were the Medical Officers of Health(hereafter MOHs) who had eugenic ideals. Fourth, the eugenists needed the public health experts. Finally, they shared the discourse in common. These will be dealt with in this section.

As Lyndsay Andrew Farrall has demonstrated, the Eugenics Education Society, the leading circle of the eugenics movement in Britain, attracted its members exclusively from the professional middle class.<sup>8)</sup> Public health experts were also largely drawn from the same class by the end of the nineteenth century.<sup>9)</sup> The public health services in Britain became filled with highly qualified MOHs toward the end of the nineteenth century. Few of them practiced the treatment of individuals. They were responsible for the inspection and control of sanitary conditions, housing, industrial hygiene, food and drugs, and infectious diseases in the district, because of which they were often regarded as environmentalists.<sup>10)</sup> The full-time MOHs were distinguished from part-time provincial MOHs. While the latter were insecure and lower in status, the former enjoyed the professional prestige and were the principal members of their Society of Medical Officers of Health(hereafter SMOH), founded in 1887.<sup>11)</sup> These professional Medical Officers were responsible for the control and interest of the poor, but were not always sympathetic to them. For example, George Newman(1870-1948), the Chief Medical Officer to the Board of Education since 1907 and the authority on infant mortality, maintained that the habits of the poor, rather than their external surroundings, were responsible for the high infant mortality rate.<sup>12)</sup> In this sense, the

8) First of all, the large part of the members of the Society came from professional doctors. See Lyndsay A. Farrall, "The Origins and Growth of the English Eugenics Movements 1865-1925," Dissertation, Indiana University. Reprinted with the same title (New York, 1985), pp.210-230. See also MacKenzie, *op.cil.*, pp.503-505.

9) For the changing status of the MOHs, see D. Porter, "Stratification and its Discontents : Professionalization and Conflict in the British Public Health Service, 1848-1914," Elizabeth Fee and Roy M. Acheson (eds.), *A History of Education in Public Health: Health that Mocks the Doctors' Rules* (Oxford, 1991).

10) For the discussion of the MOHs, see W.M. Frazer, *A History of English Public Health 1834-1939* (London, 1950), pp.235-365; Jeanne L. Brand, *Doctors and the State: The British Medical Profession and Government Action in Public Health, 1870-1912* (Baltimore, 1965), pp.114-136; Dorothy Watkin, "The English Revolution in Social Medicine," Dissertation, University of London, 1984.

11) D. Porter, *op.cil.* ("Stratification"), esp. pp.105-113.

12) See Carol Dyhouse, "Working-class Mother and Infant Mortality in England, 1895-1914," Charles Webster (ed.) *Biology, Medicine and Society 1840-1940* (Cambridge, 1981), pp.73-98, esp.

MOHs shared the idea of the limitation of nurture with the eugenists.

Moreover, one can find eugenists among the public health experts as well as the medical profession in general. The simple fact that there were as many MOHs to sympathetic the eugenics as those opposite to it has hitherto been ignored. Many of them advocated the idea of eugenics in *Public Health*, the journal of the SMOH, or *Medical Officer* and sometimes *Eugenics Review*.<sup>13)</sup> Some of them eagerly supported the eugenics education activities. To name a few, Dr. Chalmers, the MOH for Glasgow helped the eugenics propagandist lectures<sup>14)</sup>; James Niven, the MOH for Manchester, accepted that incurable degenerates should be sent to detention colonies, and approved Mary Dendy's suggestion for the feeble-minded<sup>15)</sup>; Sir Thomas Oliver (1853-1942), the leading figure in industrial medicine, gave a lecture titled "Racial Poison: Lead poisoning" in the Eugenics Education Society in 1911, showing his belief in eugenics to improve the racial qualities<sup>16)</sup>; Edward William Hope (1857-1950), president of the Society of MOHs in 1912 and the MOH for Liverpool, participated from the beginning in the Liverpool Branch of the Eugenics Education Society and frequently contributed to the *Eugenics Review*.<sup>17)</sup>

There was a practical demand for public health from eugenists as well. From the practical viewpoint, eugenists needed the help of the public health administration would provide a foundation of the problems of human heredity. That is to say, it would throw light on the problems such as family susceptibility to particular diseases, the correlation between the susceptibility to other characters, and so on.<sup>18)</sup> Sybil Gotto (1887-1995), long-time Secretary of the Eugenics Education Society, attended the Royal Institute of Public Health Congress in Paris in 1913, and estimated highly the importance of the public health officers as a gatherer of the large quantity of data upon which eugenical research depended.<sup>19)</sup> In fact, the public health service produced a great amount of data in various forms of reports. According to Karl

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p. 89.

13) For example, Robert John Ewart, "The Aristocracy of Infancy and the Conditions of its Birth" *Eugenics Review* 3(1911), 143-169. See also C. Webster, "Introduction" in his (ed.), *op.cit.*, p. 8.

14) *Second Annual Report of the Eugenics Education Society* (hereafter *Annual Report*), 1909, p. 17.

15) See James Niven, "Poverty and Disease," *Proceedings of Royal Society of Medicine* 3(1900), 1-45.

16) Oliver, however, did not have much knowledge about the current discussion on racial poisons. He did not distinguish the transmission of poisons through parents from the transmission of the modified germ-cell. For example, he thought that the direct transmission of lead from mothers to their offsprings contributed to race-poisoning. Thomas Oliver, "Lead Poisoning and the Face," *Eugenics Review* 3(1911), 83-93.

17) See *Third Annual Report*, 1910, p. 38.

18) E. Schuster, "Suggestion for the Utilisation of Byproducts by Medical Officers of Health," *Eugenics Review* 3(1911), 239-240.

19) Sybil Gotto, "Eugenics and Public Health," *Eugenics Review* 5(1913), 157-165.

Pearson (1857-1936), "in increasing numbers," the MOHs sent their reports to the biometric laboratory so that he could study and file such reports.<sup>20)</sup>

There are many other evidences which indicate that their relation was not merely hostile: The *Eugenics Review* favourably reported and informed about the public health meetings; the eugenists attended public health conferences as well; sometimes public health congresses had eugenics sections in which eugenists actively participated; some even argued that the fates of eugenics and public health were destined together.<sup>21)</sup> These all show that eugenists and public health experts shared something in common. It was a belief that even if health would be a matter of hereditary character and the parental health is more important, the discovery of what would improve or impair the racial qualities of future generations would be highly important, in which case all public health officers would be eugenists.<sup>22)</sup>

Perhaps more important was the fact that the eugenic discourse was so prevalent. Even in the preface of his third edition of *Diseases of Occupation*, Thomas Oliver, though he had never been classified as an outspoken eugenist, explained the reason for adding a new chapter on race health.<sup>23)</sup> Arthur Newsholme (1857-1943), the MOH for Brighton from 1888, president of the Society of MOHs in 1900 and the Chief Medical Officer at the Local Government Board between 1908 and 1918, also expressed his idea of eugenics, though he is known as a liberal very sympathetic to the poor.<sup>24)</sup> As to the hereditary defects, he asserted that "the discouragement of parenthood among the unsound is an important function of public opinion" and that "their propagation to another generation should be prevented."<sup>25)</sup>

In light of such evidence, the criteria of hereditarianism and environmentalism did not seem clear-cut. Rather, it is more appropriate to view both eugenics and public health movements as two different aspects of a single program of social reform of the

20) Karl Pearson, *Eugenics and Public Health* (London, 1912), p. 5.

21) Pearson was invited and delivered a lecture to the Congress of the Royal Sanitary Institute at York in 1912. In the lecture, entitled "Eugenics and Public Health," he asserted that "the science of eugenics must go hand in hand with the science of public health." Furthermore, he argued that "whatever makes for adequate treatment of public health problems, makes for sure foundations for the science of eugenics: whatever deductions are drawn by superficial and inadequate treatment from public health experience will damage the science of eugenics as much as they damage the science of public health." See *ibid.*, p. 15.

22) *Ibid.*, pp. 32-4.

23) Thomas Oliver, *Diseases of Occupation from the Legislative, Social, and Medical Points of View*, 3rd ed. (London, 1916), iv-v.

24) See John M. Eyler, "Poverty, Disease, Responsibility: Arthur Newsholme and the Public Health Dilemmas of British Liberalism," *Milbank Quarterly* 67 (1989, supp. 1), 109-126.

25) A. Newsholme, *The Declining Birth-rate: Its National and International Significance* (New York, 1911), p. 51.

British middle class, of which the aim was to preserve the fit and strengthen the existing society. How could these two ideas – eugenics and public health – coexist? In the next section, I will try to answer this question, in terms of “preventive eugenics.”

### III. “Preventive Eugenics”

The Lamarckian style of eugenics and its close connection with public health in France and in South America have been well revealed.<sup>26)</sup> These eugenics movements were theoretically based upon the Auguste-Henri Forel’s (1848–1931) idea of “blastophthoria,” or a lesion of the germ plasm, which could cause defects in the offspring. Alcohol, lead, tuberculosis, and venereal disease could be causes of blastophthoria and new hereditary predisposition. These studies have shown not only that eugenics and Lamarckian environmentalism were not essentially incompatible with each other but also that the eugenics movement in some degree depended upon environmentalism. According to Nancy Stepan’s study on Latin America, Lamarckism could be in harmony with negative eugenics as well, because Lamarckism could be interpreted in such a way that accumulated bad effects such as blastophthoria could be inherited.<sup>27)</sup>

Were those characteristics described above limited to those countries? Up to now historians of the British eugenics movement have failed to notice such an aspect in the British picture. As a matter of fact, there was a central figure who devoted himself to Lamarckian eugenics in Britain. It was Caleb Williams Saleeby (1878–1940), who was a physician, biologist, social activist and Fabian. In addition to the concepts of positive and negative eugenics, Saleeby presented the idea of “preventive eugenics.” Generally speaking, positive eugenics was the encouragement of worthy parenthood, and negative eugenics the discouragement of unworthy parenthood. On the contrary, he argued that preventive eugenics was the protection of potential parents from racial poisons such as tuberculosis, syphilis, lead and alcohol.<sup>28)</sup> In practice, preventive eugenics was complementary to negative eugenics.<sup>29)</sup>

Saleeby’s idea on preventive eugenics was closely related with his idea on heredity and environment. He argued that even the founder of the theory of the continuity of

26) See William H. Schneider, *Quality and Quantity: the Quest for Biological Regeneration in Twentieth Century France* (Cambridge, 1990); Nancy Stepan, *“The Hour of Eugenics”: Race, Gender and Nation in Latin America* (Ithaca, 1991).

27) N. Stepan, *op.cit.*, p. 111.

28) See C.W. Saleeby, *Parenthood and Race Culture: An Outline of Eugenics* (London, 1909); S. Gotto, *op.cit.*, esp. p. 158.

29) C.W. Saleeby, *The Methods of Race Regeneration* (London, 1911).

germ-plasm, August Weismann himself, also believed that alcohol and other poisons might damage the germ-plasm.<sup>30)</sup> Saleeby therefore emphasized the interdependence of heredity and environment. For him, heredity meant the "potential" susceptibility to the attacks of pathogen, and environment was the power of developing, suppressing and modifying the potential. Consequently, it was necessary to interfere with the reproduction of those who transmitted the susceptibility to their offsprings.<sup>31)</sup> On the other hand, to control the environment was also very important. He said,

If, however, the action of the environment cannot be denied access even to the germ-plasm, then its potencies are to be regarded as immeasurable; and it becomes a duty of mankind to exercise its power, its unprecedented power, of so modifying the environment that the germ-plasm of any generation may be educated for the benefit of the next.<sup>32)</sup>

With such theoretical foundations, Saleeby tried to make a close connection of eugenics with public health fields for more effective results. His concerns and activities reached from various racial poisons such as alcohol, tuberculosis, and syphilis, to sunlight and birth-rate. He was frequently appointed as a delegate to public health events, and lectured on public health. When editing a series, the New Library of Medicine, he invited public health authorities such as George Newman, Thomas Oliver and Arthur Newsholme to contribute.

His emphasis on the relative importance of heredity and environment, however, was not favoured by some members of the Eugenics Education Society. Saleeby, as G. R. Searle has pointed out, was increasingly marginalized in the Eugenics Education Society.<sup>33)</sup> It was ironical that while Saleeby attached an appendix introducing the Society to his new book, the book review which appeared in the *Eugenics Review* was very critical to his view.<sup>34)</sup> Saleeby, who had been an early, active member, eventually withdrew from the Society in 1910, though that did not mean his disappearance in the field of eugenics.<sup>35)</sup> As Stepan has stated, Lamarckian position "continued to take the minority, in the face of the majority endorsement of the Mendelian point of view."<sup>36)</sup>

30) He complained that people more frequently quoted than read August Weismann. C.W. Saleeby, *The Eugenic Prospect* (London, 1921), p.40.

31) C.W. Saleeby, *Heredity*, Shilling Scientific Series (Edinburgh/London, 1905), pp.84-114.

32) *Ibid.*, p.91.

33) G.R. Searl, *Eugenics and Politics in Britain, 1900-1914* (Leyden, 1976), p.19.

34) The author of the review maintained that "we differ from him" in several points. *Eugenics Review* 1(1909), 126-130.

35) The available materials do not say exactly what made him alienated from the Society. See *Third Annual Report*, 1910.

Although Lamarckian eugenics was not the mainline, its influence was not minor. The campaign against venereal disease was in fact based on the concept of racial poisons. The Lamarckian idea of Saleeby was the source of the campaigns against racial poisons. The predominance of the idea of "preventive eugenics" to protect the potential parent and improve the racial health among the middle-class activists shall be examined in the following case study of tuberculosis.

#### IV. The Problem of the Inheritance of Tubercular Diathesis and the Campaign against Tuberculosis

By the early twentieth century the inheritance of mental and physical defects or diseases had long been sources of concern. It seemed that the inheritance of these characters, which were widespread among the poor, caused degeneration and, as a result, threatened national efficiency. Among those characters, what attracted the concern of both eugenicists and the public health experts were tuberculosis and venereal disease.<sup>37)</sup> Some kinds of segregation were suggested. The campaign against venereal disease which was not limited to the poor, however, failed to legislate the detention of the infected.<sup>38)</sup>

Although the death rate from tuberculosis had declined since 1840s with the reduction in the general death rate, still in the early of decades of this century, one of eight deaths at least was due to tuberculosis. What was more important is that tuberculosis was considered an inherited character of paupers.<sup>39)</sup> The death rate from

36) N. Stepan, *op.cit.*, p.70.

37) Nevertheless, there were several differences between them. First, the campaign against tuberculosis had started at the end of the nineteenth century, while venereal disease just began to be discussed by the Eugenics Education Society from the 1900s. Since the repeal of the Contagious Diseases Act in 1886, people avoided discussing and the local authorities took little action in connection with venereal disease, due to the secret and sensitive character of the subject as well as the fear of hatred of the repealed Act. The eugenicists were the ones who opened fire. Secondly, while tuberculosis was the greatest cause of death, the death rate from venereal disease was relatively small. Venereal disease threatened the people with its dysgenic effects and influence upon offsprings. Both soon became the target of social reformers including eugenicists. For the repeal of the Act, see Judith R. Walkowitz, *Prostitution and Victorian Society: Women, Class, and the State* (Cambridge, 1980), part II. For a discussion of wilful transmit of syphilis, Gregg S. Meyer, "Criminal Punishment for the Transmission of Sexually Transmitted Diseases: Lessons from Syphilis," *Bulletin of the History of Medicine* 65(1991), 549-564.

38) *Fourth Annual Report*, 1911, p.23. See also P.M.H. Mazumdar, *op.cit.*, pp.32-34.

39) For tuberculosis as a disease of poverty, see F.B. Smith, *The Retreat of Tuberculosis 1859-1950* (London, 1988), chaps. 1 and 8.

tuberculosis indicated enormous differential rates between classes. Tuberculosis was the very disease of the poor. It was also regarded as having a dysgenic effect of insanity. Another believer in race poisons, Alfred F. Tredgold (1870-1952), noted tuberculosis as one of the causes of insanity.<sup>40)</sup> Poor Law infirmaries contained the tuberculous persons, and tuberculosis was the cause of a considerable amount of the cost of Poor Law administration, perhaps as much as one tenth.<sup>41)</sup>

Since the discovery of the tubercle bacillus by Robert Koch in 1882, the bacterial aetiology of tuberculosis was increasingly accepted, and it weakened the hereditary theory of tuberculosis. As early as 1896, a contributor to the *System of Medicine* took note that the inheritance of the tubercular diathesis had no strong argument and many cases of so-called heredity were only cases of infective surroundings.<sup>42)</sup> The article "tuberculosis" in the eleventh edition of the *Encyclopaedia Britannica* also clearly declared that tuberculosis was not hereditary at all.<sup>43)</sup>

Nevertheless, the discovery of the tubercle bacillus never quite swept away the idea of hereditary character of tuberculosis. It was partly because not all exposure to the bacillus led to tuberculosis and partly because the statistical data submitted as evidence was often controversial. Under such circumstances, and linked with the fear of "degeneration," the old view that tuberculosis was hereditary remained in a modified form. One possible answer was tubercular diathesis or predisposition, that is, a special weakness or openness rendering them more liable to infection than others. In fact, "predisposition" as a reason for selective infection was not a new concept. It was an old observation that at the time of the exposure to the germs, some people got sick but others did not. The idea that tuberculosis was inheritable was not new. What was new was the more elaborate explanation of what was inherited and the sophisticated statistical evidence.

The central element in the hereditary understanding of tuberculosis were the following two. First, the congenital infection was distinguished from the hereditary one. The case in which the offspring was infected at birth was a kind of parental infection. Second, the supporters of the hereditary explanation argued that what was inherited was not a disease itself but a predisposition. Even though acknowledging the infection, they still regarded the hereditary influence as an important part. For these supporters, the invasion of the tubercle bacillus and hereditary predisposition were the

40) See A. F. Tredgold, "The Feeble-minded: a Social Danger," *Eugenics Review* 1(1909), 97-104, esp. 99; A. F. Tredgold, *Mental Deficiency (Amentia)*, 4th ed. (London, 1921), pp. 39-71.

41) Arthur Carlyle Latham and Charles H. Garland, *The Conquest of Consumption: an Economic Study* (London, 1910), p. 74.

42) Thomas Clifford Allbutt (ed.), *A System of Medicine* (London, 1896), vol. 1, pp. 34-35.

43) Harriet L. Hennessy, "Tuberculosis," *Encyclopaedia Britannica*, 11th ed., 1910, vol. 27, pp. 354-360, esp. p. 357.

points of different levels.

One of the prominent supporters of the hereditary theory was John Arthur Thomson (1861-1933). Thomson, Regius Professor of Natural History at the University of Aberdeen, was a member of the council of the Eugenics Education Society for a long time and an active propagandist. In his influential textbook, *Heredity*, he said, "what is really inherited is a constitutional peculiarity, which expresses itself ..... in a deteriorated power of resistance to the tubercle bacillus."<sup>44)</sup> Cautious attitudes, however, were more popular. Montague Crackanthorpe (1832-1913), the second president of the Eugenics Education Society, mentioning favourably the view of Thomson, suspended his judgment about the fact that tuberculosis was strongly related with inheritance.<sup>45)</sup> Newsholme also recognized the prevalent idea: "Phthisis is usually regarded as a typically hereditary disease, in the causation of which family predisposition plays a large part."<sup>46)</sup> He asked for a sufficient collection of evidence: "The most prevalent view" was "by no means settled questions, but still open to further inquiry." As late as the year 1938, a chronicler noted that the year 1882 in which Koch discovered the tubercle bacillus was indeed a climax in the history of tuberculosis. Even then, "hereditary doctrine of Tuberculosis proves difficult to uproot."<sup>47)</sup> The "causes" of tuberculosis remained highly controversial.

On the other hand, some eugenisists felt unsatisfied with the situation and needed a more convincing evidence. More "scientific" study on tuberculosis inheritance was required. Some of them, therefore, tried to show the inheritance of tuberculosis by means of particular statistical methods. In particular, the biometricians who investigated the inheritance of the physical and mental characters devoted themselves to the problem of tuberculosis as part of their project. Several statistical studies were published. Bulk of them was produced by the Studies in National Deterioration. Using the correlation coefficient as an objective and powerful technique, they concluded that offsprings' tuberculosis was highly correlated with parents, while environment had a small correlation with tuberculosis. Pearson paid special attention to the environmental factors. All environmental factors, he asserted, were highly correlated with each other, but not with physical characters. His conclusion was that the "intensity" of nature was much greater than that of nurture. On this conclusion, he criticized the medical opinion that tuberculosis could be conquered by environmental measures.<sup>48)</sup>

His mathematical studies on the heredity of tuberculosis were soon refuted by

44) John Arthur Thomon, *Heredity* (London, 1908), pp.255-256.

45) "Presidential Address," *First Annual Report*, 1908, pp.1-15, esp. pp.8-9.

46) A. Newsholme, *The Prevention of Tuberculosis*, The New Library of Medicine (London, 1908), pp.182-184.

47) Richard Burke, *A Historical Chronology of Tuberculosis* (Springfield/Baltimore, 1938), p.42.

48) Karl Pearson, *Tuberculosis, Heredity and Environment* (London, 1912).

opponents and had little direct impact on the ongoing movement against tuberculosis. As the statistical studies and hereditary controversy were going on, an extensive antitubercular campaign continued and after the First World War it gained a gradual sanction of the state and became a part of public health service. The anti-tubercular movement was at first enforced after the establishment of the National Association for the Prevention of Consumption and Other Forms of Tuberculosis in 1898. The anti-tubercular campaign, as Linda Bryder has shown, can only be understood in the context of middle class social activism.<sup>49)</sup> The campaign led to the sanatorium movement, which aimed mainly at the lower class.

The role of the tubercular institutions including sanatoria and colonies was the isolation and retaining of the tuberculous persons, as the Poor Law Reports had predicted. The eugenically minded Newsholme, who, in his tenure at the Local Government Board, laid the foundations of the public health services dealing with tuberculosis, supported the "isolation" of tubercular persons to sanatoria and colonies to prevent its spread. He used an analogy of the medieval lazar-houses and the extinction of leprosy.<sup>50)</sup>

Unlike the campaign against venereal disease, the Eugenics Education Society did not intensely support the campaign against tuberculosis. What the Society did was only the discussion of the use of marriage certificate to prevent the spread of tuberculosis. A similar measure was recommended from the field of public health. Whether or not admitting the hereditary diathesis, the two measures suggested were very similar. The essence of them was the prevention of the consumptive from reproducing by cautious marriage or by isolation. For example, Saleeby asserted that consumptives should not marry, since they would either provide infectious surroundings or produce susceptible offspring.<sup>51)</sup> Newsholme said that from the standpoint of practical public health administration "the existence of this larger number of susceptible people would call not for the neglect but for the more careful enforcement of the precautions by means of which susceptibility is prevented from developing into actual infection. The logical alternative is to kill off the susceptible stock or, as has been suggested, to allow them to infect their susceptible brethren and together with them perish of their disease." He recommended special precautions before marriage.<sup>52)</sup>

Furthermore, the Society showed a favourable response toward the anti-tubercular movement. The Colonies for the tuberculous were regarded as distinctly eugenic

49) See Linda Bryder, *Below the Magic Mountain: A Social History of Tuberculosis in Twentieth-Century Britain* (Oxford, 1988), ch. 1.

50) C.W. Saleeby, *op.cit.* (*The Eugenic Prospect*), p. 167.

51) *Ibid.*, pp. 157-158.

52) A. Newsholme, *op.cit.*, pp. 188-189.

agencies.<sup>53)</sup> The Society's acceptance of the sanatorium movement can be understood in two ways. First, sanatoria could prevent pauperism, which the middle class worried about most. Secondly, the sanatoria functioned essentially as isolating the consumptives, and pacifying the worries. As Newsholme himself believed that "institutional segregation is the predominant cause of the decline of phthisis in this country," the on-going function of the institutions might have deterred any action on behalf of the Eugenics Society.<sup>54)</sup>

In the 1920s, the hereditary explanation of tuberculosis attracted more concern abroad than it did in Britain.<sup>55)</sup> There was some controversy, but it never became a central issue. The specialized and organized professional interests soon became involved in the campaign against tuberculosis which had been at first the product of the middle-class fear of deterioration. In 1920, the MOHs who served the tuberculosis service formed the Tuberculous Group of the SMOH. The services for the control of tuberculosis was a big opportunity for resolving their occupational problem. Sanatoriums, dispensaries, etc. could absorb the qualified public health experts. The Group became a self-interested organization. Its aim was not only to collect and coordinate statistics but also to ensure the minimum salaries of tuberculosis officers.<sup>56)</sup> The Group protected the vested interest of its members and had a certain hegemony in the field of public services. Now the campaign became included in the professional realm. Eugenists still showed a strong belief in hereditary tuberculosis. For example, Major Greenwood (1880-1949), one of the active Council members of the Eugenics Education Society (Research Committee) and medical statistician in the Lister Institute of Preventive Medicine, thought that "the genesis of active tubercular disease involves three factors: (1) a seed; (2) a soil; (3) some methods of husbandry. Of these three, only the first is essential."<sup>57)</sup> Such ideas, however, exercised little influence upon the organized professional services.

## V. Conclusion

Without an understanding of the prevalence of the idea of eugenics in the early

53) "The Fight Against Tuberculosis," *Eugenics Review* 9(1917), 231.

54) A. Newsholme, *op.cit.*, p.v. In addition, the Society approved isolation and colonies for the feeble-minded, alcoholics, and venereal disease sufferers.

55) For example, there were Paul A. Lewis, Sewall Wright, and S. Adolphus Knopf in the United States, and Albert Govaerts in the Netherlands. There was a group in Germany and Austria, too.

56) Bryder, *op.cit.*, p.101.

57) Major Greenwood, *Epidemics and Crowd-diseases: An Introduction to the Study of Epidemiology* (London, 1935), p.359.

twentieth century, one could be led to a misinterpretation of the history of that time. In particular, the histories of public health have been subject to such misunderstanding, since most witnesses of the history of English public health omitted the part eugenics played.<sup>58)</sup>

So far I have examined the public health experts and eugenists in three different ways: first, their overlapping origin, concern, and activities; secondly, the possibility of their ideological affinity; thirdly, the practical problem of tuberculosis. I suggest that the language of eugenics permeated the discourse of those who hoped to reform the British society. As I have shown, they both came from the professional middle class and both worried about the health status of the race. The difference lay in the strategies. The Eugenics Education Society aimed at the propaganda, campaigns, and education, while the public health experts aimed at the more organized activities. In view of occupation, the Eugenics society was more or less heterogeneous while the public health camp was homogeneous. The public health camp was also an occupationally consolidated group. It could reflect their interests immediately, and tuberculosis as well as venereal disease soon became included under their public health territory. Therefore, they succeeded to some extent in accomplishing their propaganda in the light of the study of tuberculosis.

The ideology of public health and eugenics movement, if not identical, had room for coexistence. It can be properly understood only in the wider context of middle-class social activism. The notion of social activism corresponded to the rhetoric of eugenic ideas, that is, improvement of race status. The relationship between eugenics and public health, which could have been cooperative, became entangled with specialized professional interests.

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58) For example, see Malcolm Morris, *The Story of English Public Health* (London, 1919). Morris was the member of the Council of the Eugenics Education Society and an active member of the campaign against venereal disease, but did not mention eugenics at all.