Professor Lionel Penrose and the Department of Eugenics, Biometry and Genetics, 1944-1965

**LONDON’S GLOBAL UNIVERSITY**

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### **Background**

In 2018, UCL’s then President & Provost Professor Sir Michael Arthur commissioned an inquiry led by Professor Iyiola Solanke of the University of Leeds to look into UCL’s historical role in, and current status of, the teaching and study of eugenics, as well as the current status of UCL’s benefit from any financial instruments linked to the study of eugenics. The Inquiry’s report and recommendations were published in February 2020 and accepted by UCL, with a response group set up to deliver approaches to implementing the report.

It was subsequently felt that the role of Professor Lionel Penrose in UCL’s history of eugenics and anti-eugenics deserved greater attention. This research and report was commissioned by Professor Dame Hazel Genn, co-chair of the UCL Eugenics Inquiry Response Group, and delivered in November 2021 by Dr Maria Kiladi, Research Fellow working on the history of eugenics in UCL’s Department of Science and Technology Studies.

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**Structure of the Department in the 1940s**

Lionel Penrose was the third Galton Professor at UCL. When the second Chair, Ronald Fisher, resigned in 1943, the Department of Eugenics, Biometry and Genetics was formed, under the directorship of JBS Haldane who was already Professor of Biometry since 1929, and of Biometry and Genetics since 1933. The Galton Chair became part of that Department. It was the first time since 1911 that the Galton Professor was not automatically Head of the Department, as it had been the case with Pearson and Fisher who had the Galton Chair and were also Heads of the Department of Applied Statistics and Eugenics (Pearson) and the Department of Eugenics (Fisher).

Penrose remained Galton Professor under Haldane until 1957 when Haldane left. He then became Head of the Department in addition to being Galton Professor. In 1963 he succeeded in renaming the Department as Department of Human Genetics and Biometry. Upon his retirement in 1965, Harry Harris took over.

Penrose’s appointment was a milestone for the Galton Chair. To begin with, this was the first time that the Galton Professor was not a statistician as had been the case with Pearson and Fisher, but a professor with medical training (Harris 1973). Under his directorship, the Galton Laboratory took a medical approach to questions of Eugenics, shifting the focus from the study of pedigrees and statistical surveys to a medical and biological study and turning the Laboratory into a ‘mecca for aspiring human geneticists from England, the Empire, the United States and the Continent’ (Kevles 1985). While Haldane can be credited for personally choosing Penrose for the post (Penrose Papers), turning the Galton Laboratory to a ‘mecca’ of human genetics was singlehandedly Penrose’s work. His strong collaborative ethos, his respect for collaborators and fellow scientists alike, and his ‘laissez-faire’ (Povey 1998) attitude towards his Galton Laboratory workers comes in complete contrast with his two predecessors.

Penrose was known for developing ‘harmonious collaborations’ with his colleagues (Smith 1998), with a ‘kindness and helpful disposition’ towards everyone (Dromanraju 1998), inherently very sociable with a lively sense of humour (Hodgson 1998), allowing his collaborators to flourish in the Laboratory without any intervention (Fraser 1998). In contrast, Karl Pearson was a domineering, combative personality that would not allow questions about his scientific practices. As a Galton Laboratory director, Pearson personally chose ‘research problems’ for his collaborators and went on to personally guide, execute and edit results (Kevles 1985). He was known for editing heavily other collaborators’ papers before publishing them in journals he organised and controlled (Kevles 1985).

Historian Daniel Kevles describes Pearson as a domineering personality both in the laboratory and outside, which is also confirmed by his biographer, Theodore Porter. Pearson created a climate of fear within the laboratory where his collaborators were not allowed to voice concerns or reservations about research questions (Kevles 1985). Throughout his career as Galton Chair, he went on to alienate collaborators, constantly getting involved in bitter disputes, unwilling to admit error and ‘beyond question a fierce antagonist’ who made many enemies (Porter 2004).

My archival research has not focused so far on Ronald Fisher, but accounts of him as a Galton Laboratory director also point towards a difficult personality, though not to the same extent as Pearson. There was certainly a mutual antipathy between Pearson and Fisher, not least because Fisher had refused to join the Laboratory in 1919 and submit to Pearson’s control (Penrose Papers; GO 1812), but also because he made a point on essentially erasing everything from Pearson as soon as he was appointed as Galton Chair, leading Pearson to complain that his main aim was to ‘cast scorn on his predecessor’ (Kevles 1985). In this context, Penrose’s egalitarian leadership of the Laboratory and later the Department is even more striking.

**Penrose as anti-eugenicist and anti-racist**

Inevitably, Penrose’s disciplinary background set him apart from his predecessors as Galton Professors and meant that the Laboratory was set for a different approach in investigating heredity. In fact, when Haldane personally chose and insisted on Penrose’s appointment, it was exactly with that in mind. For Haldane, ‘the eugenic movement will become a good deal more concrete’ with Penrose shifting the focus from statistics to biology and genetics (Penrose Papers). This also meant that UCL had now the opportunity to allow the Department of Statistics to flourish entirely independently under Egon Pearson (son of Karl) as the two Departments (Eugenics and Statistics) had to co-operate at times and relations between Egon and Fisher were particularly strained – another indication of the difficult personality of Fisher when it came to collaborations (Penrose Papers; GO 1812).

Penrose’s scientific work before joining UCL focused on the biological study of mental defect, with his most important work at the time being the Colchester Survey, commissioned by the Medical Research Council and the Darwin Trust to investigate the causes of mental defect (Kevles 1985; Mazumdar 1992; Povey 1998). He played a central role in shifting the focus from intelligence tests widely used in diagnosing mental deficiency at the time, to biology (Kevles 1985). His approach paved the way for the genetic study of mental deficiency, rejecting eugenic ideas previously held about the ‘menace of Feeble Mindedness’ (Kevles 1985). He played a central role in understanding Down Syndrome, to which he devoted most of his scientific work. The Syndrome was initially called ‘Mongolian imbecility’, and Penrose went on to discredit ideas of reversion to a Mongolian race by meticulous blood test investigations that proved such theories wrong, rejecting the scientifically inappropriate name and renaming it ‘Down Syndrome’ instead, after physician John Langdon Hayden Down who first identified it in 1866 (Kevles 1985). Penrose’s further ground-breaking work on Phenylketonuria (PKU) led to the understanding of the genetic causes of the diseased, and to its later treatment with specific diets, with which he was the first to experiment (Kevles 1985).

Penrose maintained an egalitarian stance throughout his life, which has been accredited to his Quaker upbringing (Mazumdar 1992). His deeply anti-eugenic stance was consistent throughout his life and remained unchanged. This is evident from the early 1930s, long before he joined the Galton Chair in 1944, and can be explained independently of developments in genetics or the post-World War II period that forced many eugenic-sympathetic individuals or organisations to adapt, take a softer stance or distance themselves from eugenics altogether.

Unlike Ronald Fisher, who was also a member of the Eugenics Education Society, Penrose refused to join and actively discredited the Society’s work, though crucially without ever becoming offensive. Karl Pearson on the other hand was also never a member of the Eugenics Education Society, not for ideological reasons like Penrose, but for reasons of wanting to dominate the field of eugenics. For Pearson, the society represented an amateur group that did more damage than good to furthering the eugenic cause, for which he thought himself the only appropriate person (Kevles 1985, Porter 2004).

Penrose made a sharp distinction between eugenics and genetics, in that ‘eugenics is an ideology, but human genetics is a science’ (UoL ST2/1/52; AR485). He described eugenics as a term ‘open to a good deal of latitude’ (Penrose 1949), with a ‘narrow conception’, espousing unscientifically proven theories. He turned eugenic arguments on fertility around by arguing that the assumption of excessive fertility of the undesirables *ipso facto* meant their biological fitness ‘making superiority of the infertile intellectuals as illusory’ (Penrose 1949). He opposed both negative and positive eugenics as futile arguing that ‘it is not sufficient to assume that the perfect human being is exactly like ourselves’ (Mittwoch 1998) and commented on how eugenicists always appear to consider themselves as belonging to the ‘superior class naturally seeing the others as inferior’ (Penrose 1949).

A ‘dedicated opponent of eugenics’ (Robson 1998), he considered the key eugenic idea of selective breeding as a means of improving human race scientifically flawed (Mittwoch 1998) and consistently described people with mental defects as ‘harmless’, rejecting the eugenic idea of them being the ‘social problem group’ that needed to be investigated (Penrose Papers; Kevles 1985; Mazumdar 1992). If anything, for Penrose those considered defective were ‘the genetical backbone of the population’ (Penrose Papers; Kevles 1985; Mazumdar 1992). He described the work of early eugenicists as ‘childish’ (Penrose Papers) since ‘desirable or objectionable traits’ were in fact ‘loaded with environmental causation’ (Penrose Papers) and found the idea of sterilising paupers as ‘ill conceived’ based on the unfounded assumption that ‘pauperism was inherited’ (Penrose Papers).

On the perceived ‘problem’ of declining intelligence, which he rejected, he made a point that even ‘elaborate surveys’ of the past ‘have failed to demonstrate a fall of intelligence’, and if educational methods are widely accepted as a means of improving intelligence then ‘the genes for low mental capacity cannot be as bad as we thought: their effects are modifiable’ (Penrose Papers). He additionally attacked the eugenic argument of intelligence and fertility being somehow connected.

As well as being a ‘Eugenic attacker’, as historian Pauline Mazumdar (1992) has very accurately described him, Penrose was also anti-racist. He described the inclusion of the word ‘race’ in the definition of eugenics by Galton as ‘unfortunate’ since ‘no qualities have been found to occur in every member of one race’ (Penrose 1946). In correspondence with Burt, he criticised Galton’s Hereditary Genius for the ‘wild statement’ of racial intellectual abilities (Penrose Papers). Contacted by UNESCO in 1951 and requested to offer his expertise on the ‘Statement of Race’, Penrose objected to the use of the word ‘race’ altogether, which he thought ‘must be discontinued’ for describing an ‘inexact and archaic’ concept. Instead, he offers the description ‘populations’ which can be ‘precisely defined geographically, genealogically, linguistically or culturally according to the needs of any investigation’ (Penrose Papers).

Penrose possibly came onto the radar of the Eugenics Education Society in 1931, when he was appointed by the Medical Research Council and the Darwin Trust to undertake an extensive study on the genetic causes of mental defect at the Royal Eastern Counties Institution in Colchester. The survey, which lasted until 1938 when its findings were published, became known as ‘The Colchester Survey’ and is one of Penrose’s most important scientific works. The survey can be seen in the context of the 1929 Wood Report and the 1934 Brock Report, both of which promoted the existence of a ‘social problem group’ and argued for sterilisation as an effective way of controlling it. The Eugenics Education Society was involved in both reports, the findings of which came in support of the Society’s sterilisation campaign (Mazumdar 1992).

Throughout his interactions with the society, which started in 1931, Penrose was always polite but firm in pointing out his fundamental disagreements with the Society’s causes, branding books sent for review as ‘extremely stupid’ and ‘difficult to be taken seriously’ (Lewis Terman’s ‘*Genetic Studies of Genius’*), contesting the hypothesis of the ‘social problem group’ promoted by the society, and arguing that the organisation’s attitude ‘has not been altogether favourable to the strictest fact-finding enquiries’ (Penrose Papers).

**Character**

All accounts of Penrose as a person point towards an individual with a very strong collaborative ethos. He was known for having ‘harmonious collaborations’ with his colleagues, someone who would never ‘speak unkind words about any person’ despite disagreements (Smith 1998), an inherently very sociable person with a lively sense of humour (Hodgson 1998) displaying a ‘laissez-faire attitude as Head of Department’ (Fraser 1998), who would ‘lock [his colleagues] in the room and let them get on’ with whatever research they were doing (Fraser 1998). He was ‘distinguished as a humanitarian, preoccupied by social and economic injustice and hardship’, ‘kindness and helpful disposition towards colleagues and students’ (Dromanraju 1998).

All this marks a complete contrast to what we know about Karl Pearson, the first Galton Chair: a domineering, combative personality who would not allow anyone to question his scientific practices, who would remove from his journals individuals who would even suggest publishing different views to his, who would alienate collaborators, constantly involve himself in bitter disputes, was unwilling to admit error, was ‘beyond question a fierce antagonist’ who made many enemies, and was patronising to collaborators, fellow scientists and university administrators (Porter 2004; Kevles 1995).

Penrose worked with what was referred to at the time as ‘the feeble minded’ throughout his life. Upon retiring from UCL in 1965 he became Director of the Kennedy-Galton Centre set up at Harperbury Hospital where he continued his research (Harris 1973; Povey 1998). Unlike eugenicists, he approached patients with respect and a complete lack of superiority, ‘as a personal friend’ (Smith 1998). Countless accounts of those who knew him describe an individual with an almost child-like disposition, ‘innate gentleness and kindness’ who ‘listened with sympathy and understanding’ (Fraser 1998), thoroughly enjoying working particularly with Down Syndrome patients, who he believed had ‘a particular temperament […] a secret source of joy’ (Harris 1972; Kevles 1985; Fraser 1998). Many of his collaborators who accompanied him to the hospitals attest to the ‘feeling of delight’ with which his patients greeted him, and the affection they displayed towards him (Fraser 1998; Povey 1998). He actively tried to understand his patients in order to help them, a fundamental difference between eugenicists who were not interested in understanding, but in finding ways to discriminate.

**Renaming of Annals of Eugenics and of the Department of Eugenics, Biometry and Genetics**

In 1925, Karl Pearson founded the Annals of Eugenics, one of the numerous journals that he organised between 1901 and 1925, and which became his main publishing outlets. The journal was traditionally under the editorship of the Galton Chair/Departmental Director, and as a result was passed over to the responsibilities of the second Galton Chair, Ronald Fisher. Under Fisher it acquired the sub-title ‘A journal devoted to the genetic study of human populations’ between 1933 and 1944, which changed under Penrose to ‘A Journal of Human Genetics’. In 1954, Penrose successfully changed the journal’s title to ‘*Annals of Human Genetics’*, a further indication of his rejection of the eugenic causes.

Contrary to the general belief that there was resistance on behalf of UCL or the University of London regarding the Department’s renaming, archival material points towards a supportive leadership environment that understood the necessity of reviewing the word ‘Eugenics’ but which did however recognise the legal implications of renaming a Department that was dependent upon the Galton Bequest which was set up in 1911.

There are two aspects that need to be taken into account when discussing the Department’s change of title.

Firstly, Penrose was not the Head of Department until 1957, and as a result it would have been inappropriate for him to suggest the renaming of a Department that he did not direct. Questions therefore on why the renaming of the Department was not suggested sooner might be more appropriate to be discussed in relation to its Head, JBS Haldane, rather than Penrose.

A second and very important point is the role of administrators and the University hierarchies in the decision making within an institution. This is quite often overlooked, the assumption being that a Vice Chancellor, Provost or Professor has the power to change titles of Chairs, Professorships and Departments without any consultation with the institution’s administrators who can advise on the appropriate steps that need to be taken. University and Institutional leadership tend to change every few years, and as a result a Vice Chancellor or a Provost needs the expertise of the administrators who are quite often at the institution much longer and understand better its mechanism. Furthermore, institutional structures tend to be democratic: There is consultation involved, and all aspects of the suggested change is explored from all possible angles, including its legal aspects.

In actual fact, it is the administrators that turn decisions into reality. Much like a Provost who might have liked a key document to be at the front web page at UCL, rather than hidden a few clicks away (where presumably administrators feel it should be), similarly Penrose might have liked to rename the Department immediately after being appointed in this position, but there were layers of administration that needed to be informed, consulted, and the appropriate legal steps to be taken before this takes place. Very important in this context is also the point that institutions tend to operate by forming various committees to discuss matters (an obvious example is the Senate Committee at the University of London), and as a result a decision is very rarely that of one person alone – rather, it is a collective act and is in fact recorded as such in minutes of meetings. The idea of identifying the one person that is to blame for a decision is, I feel, unreasonable, and displays nothing but a lack of understanding of the complexity of institutions.

In the case of this particular Department, as well as the layers of UCL leadership and administrators, there were also layers of leadership and administration from the University of London that needed to be informed, as this was the organisation responsible for administering the Galton Bequest. Crucially, the role of the University of London in the history of this department has been consistently overlooked, leading to simplistic assumptions about UCL’s leadership and decision making at the time. The role of the University of London in relation to our institutional history has been only recently uncovered by my research at the University of London Archives.

**Supportive leadership**

UCL’s then Provost, Ifor Evans, was very supporting when renaming of the Department was suggested in 1961 (Penrose Papers; UoL ST/2/1; AR 485). It could be argued that he was perhaps ‘initially naively supportive’: he found no reason why the matter should be delayed, when it was suggested to him by Penrose in June 1961, finding ‘really no difficulty before us in trying to make the change’, and asking Penrose to redefine eugenics in a way that could help them put a proposal forward to the University of London for a change (Penrose Papers; AR 485). On the very rare occasions that the Provost’s letters were unanswered by Penrose, the Provost persisted by reminding him about the matter again (AR 485). This to me clearly indicates the desire on behalf of UCL’s leadership to support Penrose in the renaming.

At the same time, the Senate of the University of London was supportive, but it was down to the administrators reminded all about the possible legal obstacles of renaming a Department that depends on a bequest. The initial doubts as to whether this was at all possible, very soon turned into a positive reply when administrators clarified the various legal aspects surrounding the bequest and understood the legal process fully, which paved the way for the appropriate steps to be taken by applying to the Ministry of Education (AR 485).

I have not been able to locate correspondence with the Ministry of Education (the matter has been referred to the University of London Archives, where I believe the correspondence is and I am awaiting for a response) but no objections were raised by the Ministry of Education either as far as I am aware. I have not seen any indication either at our UCL Archives (Special Collections and Records Office) or the University of London Archives (Senate Minutes) to indicate that at any point there were objections to the renaming on ideological grounds (i.e. supporters of the eugenic cause that wanted the Department to remain with ‘eugenics’ on its title), other than initial doubts about the task, owing to inadequate understanding of the legal frameworks around bequests at the time.

As pointed out above, the initial renaming of the Department was suggested by Penrose in 1961 and was fully completed by 1963. One of the questions that can arise is ‘why it took so long’. Again, this goes back to administrative layers within organisations (in this case, in two different organisations plus a governmental one) and also begs the question ‘how long is too long’ for a Department to change its name. Certainly, those of us working in universities are aware of how long processes can take in regard to all sorts of matters. With this in mind, it is hardly surprising that a difficult legal task, which also required Ministry of Education involvement, took two years to disentangle. Ultimately, the Department was able to continue its operations under a different name while still benefiting from the Galton Bequest.

One last thing that I think is worth noting when it comes to Penrose and his communication with UCL and University of London leadership and administrators is his collaborative spirit and ethos, which is palpable in the archival records. Penrose did not pick fights or patronise administrators when things were moving too slowly or legal objections were raised, nor did he harass the University of London with demands about the urgency of the matter, as Karl Pearson did when the University of London was working towards establishing the Galton Bequest. Penrose appeared to understand that formal routes need to be taken, and approached the Provost formally about the matter, before leaving everything else to be taken care of by administrators.

This I feel further confirms the laissez-faire approach that has been noted over his directorship of the Galton Laboratory, where collaborators were left to get on with whatever task/research they had without any overbearing interventions by him. The University of London archives are especially ‘quiet’ about the topic of renaming, with the exception of two references: one in 1961 when the renaming was formally suggested to the Senate by Ifor Evans, which also contains a contribution by Penrose outlining the necessity of the renaming, and a further entry once the decision had been taken in 1963 (UoL ST2/1). In complete contrast, Karl Pearson did not hesitate to contact the Senate very frequently (almost in every meeting), when due to a legal matter the Galton Bequest money in 1911 could not be released on time for his newly formed Department, so much so that the Senate appropriated the money from another fund in order to appease him (UoL ST2/1).

**Conclusions**

There is absolutely no doubt that Penrose operated in a Department with ‘eugenics’ in its title until 1963, but was in fact an anti-eugenicist, an anti-racist, and an egalitarian. Not only had he rejected fundamental ideas of eugenics, such as positive/negative eugenics and ideas on declining intelligence of the nation, but he actively went on to prove such theories wrong, using scientific methods that left no space for subjective interpretation. Under him, the Galton Chair took a decisively medical approach to problems of heredity. He became an outspoken critic of eugenicists and rejected ideas on race as outdated and archaic. From a historian’s point of view, it is truly inappropriate that such a scientist has not received more attention from historians, given his scientific work and its significance, as there is currently no in-depth biographical work to document fully the significance of Penrose’s work.

*Dr Maria Kiladi, November 2021*

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