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Intelligent Design?

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Genetics, Race and Intelligence

Davide Serpico describes his research at the Special Collection dedicated to the distinguished population geneticist John R. G. Turner at the University of Leeds' Library.

he Leeds University Library's "Special Collections" archive hosts hundreds of thousands of rare and invaluable books and manuscripts. One of the Collections is dedicated to the work of the population geneticist John R. G. Turner (School of Biology, University of Leeds) and includes materials, produced between 1956 and 2007, covering topics in evolutionary biology, population genetics, and the genetics of human intelligence. In 2018, I spent a few months at the Collection analysing a large private correspondence between hundreds of famous geneticists - including, for instance, James F. Crow, Robert G. Fowler, Douglas J. Futuyma, Richard C. Lewontin, and Evelyn M. Witkin. The letters relate to the convoluted drafting process of the *Resolution of Genetics*, *Race, and Intelligence*, published in 1976 (Genetics, Vol. 83, No. 3) by the Genetics Society of America (GSA), which at the time was the largest society of geneticists worldwide, boasting around 2600 members.

The letters discuss the social impact and scientific limitations of

behavioural genetics research, particularly studies of group differences in intelligence assessed through Intelligence Quotient (IQ) tests – the so-called IQ controversy. The issue has been debated since the early history of eugenics, but this time the GSA aimed at settling the issue once and for all. In this respect, the Resolution's success was limited, to say the least: the document had surprisingly little impact on public debates on the topic, and even its existence is largely neglected in the field. According to historian of science William B. Provine, plausible reasons for this are that the Resolution did not clearly rebuke the hereditarian hypothesis, it was not sufficiently publicised, and, most importantly, it was "ethically naive."

An Ineffective Resolution?

In my understanding, the Resolution's minor impact had probably little to do with scientists' limited appreciation of ethical questions. As I argued in a 2021 article for the *Journal of the History of Biology* (Vol. 54, pp. 199-228), the correspondence among the GSA members uncovers extensive



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Above: Front cover of latest issue of Genetics journal..

disagreement on early versions of the document, which led the Society to make it progressively more impartial in both political and scientific terms. The Resolution's limited impact thus reflects a gradual shift in the GSA's aims, as its members became increasingly aware of the complexity of the debate.

By hosting hundreds of private letters, the Leeds' Collection brings to light a fascinating articulation of the IQ controversy, particularly regarding ethical and epistemological nuances that even today may not be appreciated enough. The controversy is generally understood as a debate between two well-delineated sides: on the one hand, hereditarianism, according to which hereditary factors play a major role in IQ individual differences within and between groups; on the other hand, environmentalism, according to which there is no definitive evidence of the role of heredity in such differences. However, the Leeds' Collection reveals that this controversy was – and probably still is – much more complex than that.

Science and Ethics

One of the most intriguing aspects is the interplay between moral values and scientific data. Early drafts of the Resolution stated unequivocally that "neither theory nor practice in education or politics shall rest upon a premise of difference in mental capacity between races unless or until the reality of such a difference has been established." While this stance initially received broad support, it soon sparked debate. Critics argued that it weakened the GSA's moral position by suggesting that egalitarianism – a moral principle – should rely on the genetic equality of all humans, a factual assertion. Some GSA members contended that political and social equality should stand as moral ideals independent of biological facts.

Eventually, the GSA drew a sharp divide between the scientific and ethical contents of the Resolution – a move that did not please the entirety of the membership. Many scholars blamed the committee for having lessened the political force of the statement: in their view, it had lost sight of its original motivations, namely, persuading geneticists to oppose unwarranted (and potentially racist) interpretations of biological findings.

Potential Lessons

Could the GSA have approached this issue differently, and what lessons can we draw from this history to inform and enhance contemporary debates on the topic?

A consequence of pursuing impartiality

was that the GSA was unable to explore the full range of implications of the disconnection between science and ethics. The position expressed in the Resolution involved the following principle: whether or not there are significant genetic inequalities, this in no way alters our ideal of political equality. Educational policies are expected to provide equal opportunity for all persons, helping them realise their full potential, not as members of groups but as individuals. As highlighted by scholars such as Justin Frost, Satva Prakash, and Douglas Futuyma, this principle directly questions the social utility of research on the genetics of group cognitive differences.

By pursuing neutrality, the GSA was also unable to uncover ways in which non-epistemic values can affect empirical research. For example, the document never addressed the question of whether ethno-racial groups correspond to reliable, biological categories worth investigating through genetics methods: the partitioning of humans into distinct groups can depend on pre-scientific, interest-relative, or even biased interpretations of what matters as a group-defining characteristic (e.g., skin colour, habits, or geographical factors). In the Resolution, there is a reference to the fact that intellectual abilities are not uniformly distributed within human populations, implying that average effects have little predictive power at the individual level. But the concept of race is never really questioned, which is surprising if we consider that, in the 1950s, UNESCO had already scrutinised the validity of racial categories. As another example, whether IQ tests effectively measure intelligence depends on how one defines intelligence and which cognitive abilities are considered relevant for such a trait, and thus involve cultural and normative elements.

Scientists' Responsibility

These considerations indicate that a clear-cut distinction between science and politics can be misleading – or even harmful – in some contexts: scientific research is neither disconnected from its motivations nor its effects. If so, the pursuit of certain research questions cannot be value-free. On the one

hand, the very choice to investigate the relationship between IQ and genetic differences between human populations may reflect specific political beliefs. On the other hand, scientists working in this area have a duty to prove not only that their work may have positive effects on society, but also that empirical findings will have no negative effects, that is, will not increase racism and discrimination.

In an era where the interplay between genetics and social policies continues to provoke heated debates, the lessons from the GSA's Resolution remain profoundly relevant. As we advance in our understanding of human genetics, we are required to conscientiously navigate the delicate balance between empirical investigation and ethical responsibility. The unresolved complexities of the IQ controversy remind us that our commitment to equality and justice is not just a scientific obligation, but a moral imperative.

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Above: Human karyotype with bands and sub-bands. CC0 1.0. Source: Wikipedia



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