"TO MAINTAIN THE LIVING, BUT NOT THE LIVING DEFICIENTS" HAROLD BENJAMIN FANTHAM, EUGENICS AND EDUCABILITY

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## ABSTRACT

This research project is a reconstruction of the eugenic theories of Harold Benjamin Fantham, with special reference to his theories about education. After arguing for materialist histories of ideas, the political and intellectual context in which Fantham worked is sketched. This is followed by an elaboration of his ideas about race, class, and human deterioration, and his eugenic theories. The way these ideas about the inheritance of superior and inferior capacities influenced Fantham's consideration of education is demonstrated. Finally, the project looks at the submergence of eugenics with the rise of Afrikaner Nationalism, as well as its lasting traces.

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## DECLARATION

I declare that this research project is my own, unaided work. It is being submitted for the degree of Master of Education in the University of the Witwatersrand. It has not been submitted before for any degree or examination in any other University.

protonot:

Stephen William Daniel Appel

23rd day of August 1988.

То

# my mother and my father

## and to

# the memory of my grandparents

#### ACKNOWLEDGEMENTS

Like midwives gathered around a particularly difficult birth, several people have been concerned that this project would never see the light of day. Because of my rapidly changing interests, inability to balance carefully enough teaching with research, and reluctance to stop reading and to begin writing, this work has been, after several abortive starts, a long and painful labour. The midwives are to be thanked for their patient coaxing and encouragment, but should not be held responsibile for what has emerged. The baby, I am afraid, is mine.

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### PREFACE

In a country obsessed since its earliest days by racial questions, one of the most surprising facts of South Africa's psychological and educational history is that eugenics did not become part of State policy. Although it reached a level of academic respectability in the 1920s and has resurfaced in the philosophy of ultra-right wing groups, eugenics has never been more that a (not to be underestimated) part of racist common-sense.

The problem of uplifting indigent whites while maintaining a ready, willing, able and largely out of sight black population for 'dirty' work has been, and remains, the central feature of modern South African history. Haunted by the Poor White Problem and the Native Question, South African social science was preoccupied for the first three and a half decades of the century with the question of 'educability'. Who could be improved by education, and by how much? Intelligence, vocational and personality testing, vocational guidance, the 'educated native', criminality and delinquency, feeble-mindedness, eugenics - none of these could escape from or deal finally with race and class. The social sciences of the early years of the Union could not

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answer an insoluble problem: how to justify using the same or similar evidence differentially.

Ultimately, liberal individual-centered psychology lost its position of dominance in South Africa a decade earlier than in Europe and the U.S.A. The advent of Christian Nationalism with its unapologetic promotion of the 'volk' before, and at the expense of, blacks saw the increasing irrelevance of the question of educability. By the mid-1930s it no longer made sense to inquire into 'the inferior mental development of the native', or 'the feeblemindedness of the poor White'. The future of these people had been decided and racist psychological findings were thenceforward to be used to back up Nationalist political doctrine.

The material of this research is based on the utterances of academic, professional and state intellectuals of the time - many of which appeared in the pages of the <u>South African</u> Journal of Science.

This research project is not arguing about the truth or falsity of its subject, nor is it trying to judge it. Like Nikolas Rose (via Foucault) I rather am interested in:

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In what ways, and with what consequences, did it become possible to think psychologically about the variations of capabilities and attributes amongst individuals

(1985, p. xx).

Although I agree with this statement about his own work (by which I was greatly influenced), it cannot be left there. The object of this study, the way it was done, and (no doubt) my conclusions were motivated and directed by my massive objections to, and small struggles against, Bantu Education and Special Education. I have undertaken this research in an attempt to begin to uncover the roots of current mainstream educational ideas in South Africa. That said, I have tried, as far as possible, to let the actors speak for themselves, or at least, not to put words into their mouths.

It cannot be said often enough: education (and research) are political.

Applying [Lamarckian and Mendelian] principles to sociology, it must be realised that sentiment must be curbed or kept in bounds in accordance with scientific knowledge. The fit must not be unduly burdened or penalised merely to preserve the unfit, but, while still maintaining human sympathy, the mentally deficient and the criminally tainted must be deprived of the means of producing more unfit like themselves. In other words, society must do its best to maintain the living, but not the living deficients (Fantham, 1924, pp. 524 - 525).

### INTRODUCTION

When theorising about education and educational policy, one is faced with an (often unarticulated) question: are people capable of improvement through education? Or: are they educable? The strategies that are employed to answer this question rise up out of the assumptions that are held about the ability of the group, or person in question, to adapt to benefit from education. Now, underneath these suppositions lie deep-seated beliefs about human nature; about the past, the present and the future; about potential. These beliefs do not simply exist, as it were, in a vacuum. They are the result of the complex interactions between people, and between people and the environment. In other words, our beliefs about each other are social constructions. They are made by people and make sense only in a socio-historical context. This is not to say, however, that these beliefs are therefore false (or true). To understand this process of belief-construction we must precisely avoid making those moral judgements. We need, rather, as Gordon (1979) says, to ask how it is that such-and-such a set of practices could exist - to analyse:

...sanctioned forms of rational discourse...according to their material, historical conditions of possibility and their governing systems of order, appropriation and exclusion (p. 26). This research project does not pretend to be a fullyfledged 'history' or 'archeology'. Rather it is a remembering of the discourse of South Africa's most vocal advocate of eugenics. It attempts to reconstruct the emergence, the dominance, and finally, the submergence of these notions of normality and abnormality, socialisation and segregation, and individual and group differences. While this research steps unavoidably into other fields economic/political/ cultural - it is, at most, a rough mapping out of the territory of the political economy of educational psychology, providing some direction-pointers to uncharted waters and previously unrelated regions. It should be read, then, as a part of a broader and deeper (and still unwritten) cultural history of ideas of human psychology and development in South Africa. (1) My entry point into this complex area will be the life and writings of one Harold Benjamin Fantham, an ordinary scientist, who was born in 1876 and died in 1937.

Chapter 1 discusses the importance of producing materialist histories of ideas. The methodological problems attached to avoiding positivism, idealism and superficial biography while writing rich historical work are dealt with.

Chapter 2 is an attempt to sketch the context in which Fantham lived. It looks at the socio-political trends of

the early years of this century, and more specifically, it describes the relevant academic language and institutions in which he worked. The place of eugenics whithin this scheme is shown.

Chapter 3 provides a brief, factual description of Fantham's career.

Chapter 4 paints a picture of the world as it appeared to Fantham. His scientific training, together with the common intellectual practice of his day of treating the social like the biological, led him to advocating strict racial segregation.

Chapter 5 shows how Fantham's views of hereditary superiority and inferiority extended beyond conceiving of a natural racial hierarchy. The inferiority of the lower classes within the White population was also seen as a major problem. The solution to the possible degeneration of the "fit" was, for Fantham, eugenics, and his activism in eugenic circles is elaborated upon.

Chapter 6 explores the connection between Fantham's social and eugenic beliefs, and his ideas about education. The problems he detected in modern education, and his belief that only some people were educable, as well as his advocacy of the school subject Biology, are shown. Finally, Chapter 7 attempts to make sense of Harold Benjamin Fantham. It is shown that, while very influential for a while, Fantham was also a product of his time. He was a member of a particular fraction of the ruling group whose elitist dreams of a society dominated by a handful of White, middle-class intellectuals was surpassed by the burgeoning, cross-class Afrikaner Nationalist movement. CHAPTER 1

## INTELLECTUAL HISTORY

The same men who establish their social relations in conformity with their material productivity, produce also principles, ideas, and categories in conformity with their social relations.

Thus these ideas, these categories, are as little eternal as the relations they express. They are historical and transitory products.

There is a continual movement of growth in productive forces, of destruction in social relations, of formation in ideas; the only immutable thing is the abstraction of movement - mors immortalis (Marx, 1977a, p. 202).

The 'history of ideas' stand in historical writing has been discredited by Marxists as being a part of an idealist historiography. Foucault (1977), too, tried to distance himself from this area as it had traditionally been presented:

Archeological description is precisely...an abandonment of the history of ideas, a systematic rejection of its postulates and procedures, an attempt to practice a

quite different history of what men have said (p. 138). Such an historiography has been shown to be empiricist, politically liberal, and intentionally or unintentionally, allied to capitalism (Johnstone, 1979, pp. 3-9). It is principally for the charge of idealism that intellectual history has largely been neglected. Idealism is the belief that ideas determine the material world - "descends from heaven to earth" (Marx, 1977, p. 164). And it is idealism which allows the liberal historian Richard Elphick to claim that "(i)ntellectual history is a natural terrain for liberals" because "they are more likely than Marxists to take seriously the independent force of ideas" (my emphasis) (1987, p. 178). He criticises (unnamed) young historians for believing that "ideas are mere ideological smoke screens" (p. 177). Whether or not this criticism is justified, Elphick is correct to notice the neglect of the history of ideas.

An intellectual history which takes ideas and utterances seriously (not necessarily at face value), but which locates them in their material reality is needed. It is necessary that the work of intellectuals be understood in relation to the exploitation that surrounds them and their work. Marxism has perhaps moved too far in the direction of 'structures' at the expense of human agents. As a response to this tendency, there is a growing field of scholarship which, while materialist, takes the ideas and actions of individuals seriously (see for example, Cock and Emdon (1987), Coetzee (1988), Dubow (1987), Marks (1986), Nkadimeng and Relly (1983), Willan (1984))

1.1 A Materialist History of Ideas

Faced with a set of texts written by a long dead and quite forgettable scientist called Fantham, one is confronted with several problems relating to the interpretation of that work. The questions to be asked include: who was he? what did he say? why did he say it? what influence has he had?

These questions are, obviously, related to each other and, in a certain respect, inseperable. But they can be addressed at different depths. One could conceivably answer the first two questions, and even possibly the last two, in an empirical way. In other words, by accumulating factual data and hoping that this conglomeration somehow answers the questions. In fact though, this type of detail-chasing history describes but does not explain. Worse than this, it disguises the fact that it is the result of a selection process. Of the innumerable things that can be found out about a subject only those that appear relevant are chosen for inclusion in a positivist history. People do not see a pristine world. What we observe could take on an infinite variety of meanings, but we necessarily 'interpret' -

select out and give meaning to - only some things. Much liberal history has been written in this way - like telling a story. It is presented as the true story while hiding its assumptions.

On top of this, such a history of an intellectual would be an idealist one. If one simply describes something by listing facts without making connections between social forces, or distinctions in the relative importance of forces, one tends to end up arguing that the person concerned 'created' their thoughts and ideas. In its crudest examplars the 'Great Man' or 'Genius' theory of history emerges.

Marxists, in contrast, would attempt to avoid the traps of positivism and idealism by emphasising the social - the material base of human actions. People do not simply behave as they choose, Marxists would claim; they are impinged upon by social structures, the principal structure being the mode of production. A materialist historian must always remain aware that knowledge is socially constructed. Marxists should not, therfore, disguise their assumptions as 'the truth'.

Marxists are accused, with varying degrees of justice of 'economism' or 'reductionism', that is, of relating events too blithely to the fundamental conflict between capital and labour - the class struggle.

While it is true that empirical data is important to back up argument, exactly what it signifies is the analytical problem, especially when the bulk of the data consists of the utterances of one person. Historians of all political shades in South Africa have been guilty of simply taking what important people say to explain complex social events and movements. So, by quoting Eiselen, or Verwoerd, or De Lange, many writers assume that they have demonstrated why and that something happened. There is a danger of giving far too much credence to the words of ideologues and ignoring the history leading up to their policies, as well as the mechanisms of implementing them. It is not good enough to say: "Because Verwoerd said X, Y is happening in Black education", or "The De Lange Commission responded to the needs of capital" to prove that these things necessarily transpire (2).

Morley (quoted in Longhurst, 1981) warns against two other common errors when trying to establish what a text, or set of texts means. Firstly, (as has been shown by the field of literary theory), it is mistaken to believe that the text has one fixed meaning. Conversely, the reader should avoid thinking that a text is completely open to his or her interpretation. Rather, Morley advocates the concept of a 'preferred reading'. In other words the reader is free to read creatively, but, like the writer, he or she is placed under determinate limits within which the interpretation can take place (p. 129).

Developing the complexity of reading texts, Macherey (1978) points out the the importance of detecting the un-said:

The speech of the [text] comes from a certain silence, a matter which it endows with form, a ground on which it traces a figure. Thus, the book is not self-sufficient, it is necessarily accompanied by a <u>certain absence</u>, without which it would not exist. A knowledge of the book must include a consideration of this absence (his emphasis) (p. 85).

In understanding the meaning of texts, the sociologically sensitive reader must ascertain what the writer intended (and, therefore, also what he or she omitted): the audience reached by the texts and its likely understanding of these texts, and the meaning of them to a critical reader today.

1.2 The Subject

When dealing with ideas one needs to avoid dwelling upon the speaker's feelings or personality. This is not to say that a decent psychoanalysis of Fantham would not be revealing. But (and really this was Freud's point), people are not free-floating, autonomous individuals. We are subjects. In Althusser's (1971) famous formulation: ...all ideology hails or interpellates concrete individuals as concrete subjects, by the functioning of the category of the subject (p. 173).

Ideology, Althusser showed, positions people in various subject positions such that we believe that we are free autonomous individuals. We unconsciously assume identities in relation to an "imaginary relationship" to our "real conditions of existence" (p. 162). To simplify, we do not see the world 'as it is', but always encounter the world via an image or representation of the world and our relationship to it. This does not mean, though, that we are 'ideological dupes' who are blind to reality. The point is, this is the only possible way of relating to the world via interpretation. Ideology is therefore for these purposes not to be regarded as 'true' or 'false', or as a figment of the imagination. "Ideology has a material existence" (p. 165). The 'ideas' of an individual exist, in other words, in his or her actions. These actions are "inserted into practices" which are governed by the rituals "...within the material existence of an ideological apparatus" (p. 168). Or: "An ideology always exists in an aparatus, and its practice or practices. This existence is material" (p. 166). Althusser analyses the link between ideological practices and the class structure of society in the following way:

...let me move straight on and see what happens to the 'individuals' who live in ideology, ie. in a

determinate (religious, ethical, etc.) representation of the world whose imaginary distortion depends on their imaginary relation to their conditions of existence, in other words, in the last instance, to the relations of production and to class relations...(pp. 166-167).

Pêcheux (1975) explains more specifically how the study of discourses should be tackled, given Althusser's analysis. He says that the "position in a given conjuncture" and the "institutional areas" of a discourse together determine:

...what can and should be said (articulated in the form of a speech, a sermon, a pamphlet, a report, a

progamme, etc.) (p. 111).

This means that the historical context of the specific discourse, as well as its siting in particular apparatuses must be established in order to understand what Foucault (1977a) calls:

...necessary and sufficient for people to use these words rather than those, a particular type of discourse rather than some other type,...for people to look at things from such and such an angle and not some other one (p. 211).

Let us return for a moment to the questions posed earlier, especially the first two: who was Fantham? and what did he say? Here one is faced with the problem of determining what an author is. Barthes (1972) makes a distinction between the 'writer' and the 'author':

The writer...is a 'transitive' man, he posits a goal (to give evidence, to explain, to instruct), of which language is merely a means; for him language supports a practice, it does not constitute one (p. 14).

While the writer performs an activity, the author performs a function:

...the author is the man who labours, who works up his utterance (even if he is inspired) and functionally absorbs himself in this labour, this work (p. 144). These types are combined, he said, in the modern intelligentsia.

This theoretical distinction is important for materialism. Macherey (1978) puts it like this: "The proposition that the writer or artist is a creator belongs to a humanist ideology" (p. 66).

Before disposing of these works - which can only be called theirs by an elaborate evasion - men have to <u>produce</u> them, not by magic, but by a real labour of production. If man creates man, the artist produces work, <u>in determinate conditions</u>; he does not work on himself but on that thing which escapes him in so many ways, and never belongs to him until after the event (his emphases) (pp. 67-68).

In other words, a writer, like Fantham, does not simply create his theories and his work either by releasing what is already there, or by a mysterious irruption. "In the former, nothing has happened; and in the latter what has happened is inexplicable" (Macherey, 1978, p. 68). Even those most abstract of things - concepts, theories, ideas are produced by the labour of real people in particular conditions. The writer, after all, is a subject. "In this sense," says Foucault (1977b), "the function of an author is to characterise the existence, circulation, and operation of certain discourses within a society" (p. 124).

The first two questions cannot therefore be adequately answered without addressing the third: why did he say this? This question itself implies several others. We are not here interested in a psychological/motivational answer, but rather an answer to the questions: how was it possible to say this? why were they legitimate things to say? In other words - in what context did they happen?

1.3 The Context of the Subject

The somewhat overworked word 'context' needs some elaboration. Context - in this case the socio-political and intellectual climate - is important to any intellectual history. Certain things, for example, can only be thought and said at certain tmes. The Declaration of Human Rights,

to give an instance, could not have been drawn up in feudal times before the emergence of the bourgeois subject because then there was nothing yet extant from which such ideas could be formulated. On the other hand it is important to remember that the context does not determine what is thought. Context only sets the limits of what is possible. Hall (1983) has most insightfully shown that material determination happens in the first instance (p. 84). So, in Marx's much misunderstood metaphor the base determines the superstructure only in the same way that the foundations limit what kinds of building can be erected upon them.

So far it has been argued that in order to interpret the work of an intellectual one needs to delve into the relevant facts of that person's career, the content of his or her writing, and the context he or she lived in. But of course, there is a question which is both prior to all of this, and which also follows it. The question - what influence did his work have? - is asked at the outset of the research as it represents the very reason for embarking on such a study. Why, unless Fantham was an important (or typical, or enigmatic) figure, would his work be worth resurrecting? Once his work and its context is understood, this ephemeral task can be cautiously undertaken.

To determine the effects of the work of an intellectual there are several areas to consider: his or her tangible achievements, the likely effect his or her work had on the audience, the changing nature of the influence of his or her ideas, and the traces that persisted after his or her career. The progression along this list is a journey of increasing uncertainty and speculation. Inevitably one can, in the end, only make a tentative, but informed, assessment of the way certain ideas have been absorbed into the deep recesses of culture.

## **CHAPTER 2**

## CONTEXT

We set out from real, active men, and on the basis of their real life-process we demonstrate the development of the ideological reflexes and echoes of this life-process. The phantoms formed in the human brain are also, necessarily, sublimates of the material life-process, which is empirically verifiable and bound to material premisses. Morality, religion, metaphysics, all the rest of ideology and their corresponding forms of consciousness, thus no longer retain the semblance of independence. They have no history, no development; but men, developng their material production and their material intercourse, alter, along with this their real existence, their thinking and the products of their thinking. Life is not determined by consciousness, but consciousness by life (Marx, 1977, p. 164),

2.1 Race and Science

This chapter does not discuss the by now well documented 'bad science' involved in scientific racism, eugenics and intelligence testing (3). It is simply a recounting of some the dominant intellectual ideas of the period 1900 - 1930 in South Africa.

In the first three decades of the twentieth century, between the ages of Victorian liberalism and apartheid, there was a short but influential period when ideas of scientific racism came to dominate (Dubow, 1987). This was a time when Victorian pessimism, evolutionary thought and eugenics quickly became part of middle-class and academic common-sense. The theory and practices of apartheid bear strong traces of scientific racism, as does the recent emergence of ultra-right wing groups like the Blanke Bevrydings Beveging (White Liberation Movement) (Weekly Mail, 1987). Importantly, however, scientific racism itself never developed into a popular social movement. It began as an elite and intellectual theory and survives in complex ways in segregationist ideology. How eugenics achieved this level of influence can be traced to the coming together of race and science at the turn of the century.

The most important factors in the development of racial science were, argues Stepan (1982), the existence of Black slavery during colonialism, and of modern biological and human sciences (4). Stepan shows that the derogatory associations of blackness only developed with Black slavery in the colonies of Europe where skin colour became a 'natural' sign of superiority or inferiority. Paradoxically, both the abolitionists and the antiabclitionists began to use anatomy in their respective arguments between 1775 and 1833:

If all races were found to be anatomically and physiologically alike, then the rights and privileges enjoyed by Europeans would be guaranteed for all peoples (pp. xii - xiii).

In this regard, scientists, especially comparative anatomists, became the ones to answer questions about human similarity and difference. Stepan points out that these scientists were not uninfluenced by the ideas of society at large - and their work inevitably reflected this. On the other hand, however, these scientists were often humane people whose work cohered with the established scientific practices of the day. They were often people earnestly trying to contribute to solving the social problems they saw around them.

In South Africa too, race was seen as a legitimate domain for scientific work. Campbell (1916) appealed for a scientific basis for racial legislation. Loram (1921), a member of the Native Affairs Commission, and later professor of education at Yale, also emphasised the importance of scientists to racial policy development as did Hofmeyer (1929), while Duerden (1921), president of the South African Association for the Advancement of Science (SAAAS), related social anthropology to South Africa's racial problems. Scientists were eager to accept the responsibility for deciding how best Whites and Blacks could co-exist at a time of increasing social contact. Victorian liberalism had been official policy during the mid-nineteenth century. This civilising mission was based upon the belief in the ability of all people to improve. In no doubt about the superiority of colonialist culture, officials like Sir George Grey, Governor of the Cape in the 1870s, believed in upliftment by the intermingling of the races; in other words, civilising Africans by turning them into Black Europeans.

By the end of the nineteenth century however, a scepticism had crept in. Although the rhetoric of assimilation continued for some time, the integrationist vision was no longer being implemented (Dubow, 1987, p. 73-74). The legacy of years of rebellions and border wars, administrative difficulties, and the advent of gold mining subverted ideas about 'civilising the backward races'. Between 1890 and 1899 the number of laborers on Rand gold mines increased from 14 000 to 100 000 (Callinicos, 1980, p. 22). Black subsistence farmers were compelled to become migrant workers by the implementation of cash hut, poll and labour taxes. The Glen Grey Act of 1894 was the first major piece of legislation against assimilation. It led the way for the 1913 Land Act, protectionist job reservation, the contract labour system, the compound system and pass laws. So at the turn of the century, the rise of mining capitalism increased the competition for jobs and between

Blacks and Whites, while enforcing legal separation.

Dominant ideas about the education of Blacks also changed with the rise of pessimism about the possibility and desirability of civilising Blacks. In the mid-eighteenth century the governor of the Cape had spoken of establishing schools for Black children to supplement the scattered mission schools in order:

...to win them over to civilisation and Christianity, and thus to change by degrees our present and unconquered and apparantly irreclaimable foes into friends who may have common interests with ourselves (Molteno, 1984, p. 51).

The schooling of Black South Africans continued to grow throught the second half of the nineteenth century. In Natal's Black schools, for example, enrolement increased from 145 in 1855 to 10 618 in 1900 (Molteno, 1984, p. 58). This increased into the twentieth century, but the rise was not initially in response to the need for skilled labour on the mines. Black schools taught manual labour skills and religious and moral training.

At the same time that the 'Native problem' was receiving official, academic and public attention, its doppelganger, the 'poor White problem', was being increasingly studied in the first decades of the twentieth century.

Dutch-Afrikaans speaking farmers had for two hundred years inherited farms according to a system which required ever-increasing land areas. While the eldest son inherited his father's farm, his brothers would move away to start their own farms. When land became less available for the taking, farmers would sub-divide their farms between their sons. Before long some farms became too small to exploit using traditional agricultural methods, and many farmers sold out their land and became bywoners on someone else's land. The rinderpest epidemic of 1896-7 and five years of drought from 1903-8 contributed to the unviability of farming, as did British burning of farms during the Anglo-Boer War. These people became gradually poorer and a process of urbanisation began at the end of the nineteenth century (Davenport, 1977, p. 225).

Large groups of exceedingly poor Afrikaans-speaking Whites were identified and discussed at Afrikaner Bond congresses in the 1890s and later by the Transvaal Indigency Commission of 1908. In 1916 the Nederduits Gereformeerde Kerk convened a conference to discuss remedial measures like sheltered employment. Most importantly, from 1928-32 the Carnegie Commission of New York carried out country-wide research into the situation of poor Whites. Under economic, psychological, educational, health and sociological headings, the commission sought to establish the extent of the problem, its causes and ways to remedy and prevent it.

Grosskopf (1932, p. vii), responsible for the economic research, found that 300 000, or a fifth, of the Afrikaner population could be classified as "very poor". This term referred to people "...unfit, without help from others, to find proper means of livelihood". Uneducated and unskilled Afrikaners competed with Blacks for unskilled mining jobs. It must be remembered that the spectre of Black poverty was largely taken for granted by Whites and not perceived as a 'problem' - poor Whites, however, did constitute an economic, political and moral problem.

The findings of the commission were many. Its report was well received by the White public, and it was followed by a Volkskongres on the poor Whites in 1934 and the Ekonomiese Volkskongres of 1939 (Louw, 1986, p. 102). The tangible results of all these meetings alone were few. Economic and political processes were ultimately to solve the poor White problem.

There has, then, been for about a century in South Africa a contradiction in dominant attitudes to education. On the one hand, education helped to 'civilise' Blacks by making them more temperate, harder working and financially productive. Education, the Reverend Albert Le Roy (1918) claimed, created good workers by instilling: ...the discipline, the insistence on regularity and punctuality, on order and cleanliness, on obedience and work, that are the foundation of character" (p. 339). Atkins (1923), a missionary in Natal, showed how each day spent in school increased the productive power, consumption and market for goods of Blacks.

On the other hand, however, a skilled Black labour force, accustomed to working for low wages, would compete with poor Whites for jobs. After decades of head-scratching this matter was resolved by Bantu Education, a system of inferior tribal education for Blacks. Verwoerd, Minister of Native Affairs and later Prime Minister, put it baldly in 1954:

Until now (the Bantu) has been subjected to a school system which drew him away from his own community and misled him by showing him the green pastures of European society in which he was not allowed to graze (Rose and Tunmer, 1977, p. 266).

For decades scientists had been grappling with the problem of opposing or justifying a different education for Blacks and Whites. By 1930 there was a wide-spread acknowledgement in official and academic circles that there were sound scientific reasons for the differential treatment of races. Two of the vehicles whereby these notions were given a wider audience were the conferences of the SAAAS, recorded
in the <u>South African Journal of Science</u> (SAJS), and, more especially, the association's Eugenics Committee.

2.2 The SAAAS, Race and Class

The constitutin of the SAAAS was drawn up along the same lines as those of the British Association for the Advancement of Science (whose officials visited South Africa in 1905 and 1929), and its first annual meeting was held in Cape Town on 27th April 1903 (Schonland, 1952). In the SAAAS's first presidential address Sir David Gill (1903) emphasised the SAAAS's goals: the promotion of the scientific project, the meeting together of all those interested in science, and the encouragement of younger scientists and "amateurs". The goal of the SAAAS was never exclusively to publish specialised original work, but rather to create a fraternity of those concerned with scientific matters.

In 1903, when the SAAAS began its activities there existed only one other similar body - the South African Philosophical Society (later the Royal Society of South Africa). By the time Schonland presented his presidential address and review to the SAAAS at the golden anniversary of the Association there were more than 22 societies dealing with subjects the SAAAS had discussed in its early years. Schonland argued that these societies should all have links with the SAAAS because "...our Association has a natural and an historical right to be considered as the proper body" to provide a "forum for general discussion of the problems of this country from the scientific angle" (p. 63). From its earliest days the SAAAS was addressed by a diversity of speakers - academics, practitioners, professionals, state officials and politicians. Collected papers presented to the SAAAS still provide a "...fascinating panorama of the development of the scientific, educational, engineering and social history of this country" (Schonland, 1952, p. 65).

I have attempted to describe the wide membership, audience and scope of the SAAAS, and how central its journal was as a source of popularising dominant scientific and social theorising. This research project regards that set of publications as texts which both record influential discourse, and present refracted pictures of South African history in the quarter century after Union.

From its earliest days the SAAAS concerned itself with issues of race and class - specifically the 'Native problem' and the 'poor White problem'. Balmforth (1910) called for the "healthy eugenics" we all show "when the health and welfare of our own decendants are concerned", but he was cautious about "...that dangerous incline which might lead us to a worse than Pagan cruelty, selfishness

and slavery" (p. 395). Beattie (1928) named "Africa's greatest problem, the contact of non-homogeneous races", and Deurden (1921) described the "native" as "a new creature, in a new environment" (p. 19). Rich (1917) appealed for more intelligence testing so that "...it will be possible to devise what has hitherto been impossible: a system of education that will fit the natives" (p. 482). Speaking about poor White children and "concealed pauperism", Leipoldt (1915) argued for "...improving the conditions which are the primary causes of racial deterioration" (p. 534). Deurden (1921) argued that it was too late for adult poor whites to be uplifted, but that their was hope for their children (p. 25).

Several theories of intellectual differences were propounded. Loram (1916) and the Reverent A. T. Bryant (1917), for example, argued that although Black boys were mentally more advanced than White boys, after puberty there was mental arrest and even retrogression in the mental development of Black males. Black females, Bryant said, were at all ages the mental equals of White females. Rich (1917), setting out to detect "cases of arrested and precocious mental development", used the Godard revision of the Binet-Simon intelligence test on 170 Black pupils. He found, he said, "...not a check in mental growth at puberty, but that the direction of growth is not the same as in adolescent Europeans" (p. 482). Deurden (1921) argued

for the zoologist's claim to study South Africa's "...many distinct races and nations settled within its borders, and at such diverse stages of social evolution" (p. 6). He also claimed that Blacks did not have "the power of originality", but rather "...a high degree for the capacity for assimilating the attainments of others" (p.14).

By virtue of his higher intelligence, not because of absence of colour, I see the White man leading in South Africa; he will constitute an aristocracy of ability,

benevolent to the races less endowed (p. 30). Dunstan (1923), the commissioner of mental disorders, displayed most clearly how common-sense ideas influenced scientific work. Blacks, he said, showed little initiative or foresight and they learned little by experience. They had bad orientation in time (i.e. did not know their own ages) and were poor mechanics and artisans. They had never had a written language, their art was crude and their dancing had no delicate motions - "...an important psychological point which should be carefully studied" (p. 155). Dunstan even managed to argue that the relative sanity of Blacks was a sign of their inferiority: "I have never seen a case and, so far as I know, no single case of that mental disorder known as paranoia, has been reported among them". Blacks, he said, "...have not the reasoning power to become paranoics" (p. 155). Because of their "lack of brain cells" Blacks had been shown, said Dunstan, by Porteus, Knox, Healy and other mental tests to have an

intellectual capacity far lower than that of the average White (p. 155).

The psychologist I.D. MacCrone (1928) drew the following conclusion from Porteus Maze tests on Black scholars: their average performance was lower than that of the fraudulent (see Simon, 1985) Cyril Burt's London school children (Table I). Whereas Burt's children ceased development at 13 - 14 years, MacCrone's subjects ceased development at a mental age of 11 - 12 years, and he in fact indicated a regression (p. 482).

# A comparison of the mental age of Black South African and London children

Chronological	MacCrone's	Burt's
Age	Subjects	Subjects
9 years	7.75	9.8
10 years	9.5	10.6
ll years	10.9	11.5
12 years	11.5	12.3
13 years	11.9	13.8
14 years	11 5	13.8

Table I

Fick (1929), psychologist to the Department of the Interior, said that he found that the medians of the Black children he had tested to be so low that they almost coincided with the scores of mental defectives. "Possibly", he said, "the native child may have a different type of intelligence" (p. 909). Interestingly, MacCrone (1930) found that common conceptions held by Whites of Blacks largely overlapped with those of scientists of the day: "The White sees a member of that (Black) race not as an individual personality like himself but as a representative of an alien race" (p. 595). The characteristics of Blacks, as perceived by Whites, were low intelligence, knowledge, standards of living and occupation; criminal tendencies; and childish and ridiculous behaviour. "In short, the opposite of all those qualities which form the image which the White has in mind when he thinks of his own race" (p. 595).

So there was a widespread consensus about the psychological structure of the mind. In 'Tendency, ability, capacity' (1927) MacCrone spelt it out. While each person has innumerable abilities, there is only one capacity – educable capacity, or modifiability (p. 596). This notion informed thinking about education. Extending it to mean the capacity of whole communities, educators thought increasingly that some races were more educable than others.

Eugenics, the 'science' of improving races fitted comfortably into this racist paradigm.

2.3 Eugenic Ideas in South Africa

Alongside widespread belief in the inferiority, or at least unbridgeable difference, of Blacks was a harder eugenic discourse. Eugenics, improving the race by controlling breeding, for some time provided scientific legitimacy to notions of White superiority. Morice (1920). a prominant lawyer, argued, for example, that because feeble-mindedness is hereditary (following Mendel's law) those unfortunates "should be prevented from propagation" (p. 119). Duerden (1921) claimed, as was typical in early anthropology, that races were at different stages of evolution: "At one extreme are the survivors of the earliest historic inhabitants, the Bushmen [San]", and "at the highest extreme of civilisation, are the Nordic whites" (p.6). He argued against the theory of arrested development, saying that racial/class characteristics are "germinally different" (p. 15).

Heredity is all powerful, the blood of the labourer produces the labourer, and oustanding individuals do not arise from ancestrally poor stock (p. 29). On the subject of "eliminating the undesirable" he said

that "...social sentiment has not yet reached [that] stage" (my emphasis) (p. 27). By 1925, though, Duerden was convinced "...that it will not be long before public opinion will become alive to the real need for controlling the quality and quantity of humanity" (p. 60). The psychiatrist Moll (1922) spoke of "germ-psychoses" like manic depression, hysteria and psycho-neuroses which were non-preventable "faults" or "imperfections". Also on the topic of mental disorders, Dunstan (1923) argued that as many such disorders were hereditary, if "retarded and defective" children had not been born the mental hospitals would be emptier (p.151), and because of a large poor Black population there was "...absolutely no room for subnormal white persons". These people should not be allowed "...to reproduce their degenerate stock" (p. 152). Norman (1926), the Probation Officer for the Witwatersrand, discussing delinguency, was convinced that science could show "...what steps are desirable in removing the type permanently from social life" (p. 1063). Norman produced figures that showed that over 15% of the total national budget was spent:

...to patch up and maintain that section of people, who because of their inherent inferiority, are unable to pull their full weight and carry their fair share of the burden in our national life (p. 1065).

Theories of White supremacy faced the paradox of poor Whiteism. How, if Whites were genetically superior, was one to explain the fact that so many lived at such a low "level of civilisation"? Eugenically inspired social scientists had different ways of approaching this problem.

Duerden (1921) argued that if the original stock of a group was good, the eugenicist could offer optimistic predictions. The case of poor Whites was, he said, "not without hopefulness" (p. 25). Poor Whites found themselves in such a depressed position not because of inferior genetics, but because of social and geographical isolation, the harsh climatic conditions, and "the presence of the inferior Bantu" (p. 24). Because poor Whites had been subject to these conditions for two to three hundred years, it was impossible for their adults to improve. But, like Fantham (1932), he felt that their children, because their original germ plasm was good, had a bright future as long as they were seperated from their parents and their depressed environment. He advocated sending poor White chlidren to Industrial schools and similar institutions at an early age.

Wilcocks (1929), professor of psychology and philosophy at the University of Stellenbosch, tested 396 pairs of siblings beween the ages of 10 and 16 years from different environmental backgrounds to find the state of the germ plasm of poor Whites. He established the "...relative 'goodness' of the germinal factors of the individuals in so

far as they affect our scores" (p. 887).

The problem of poor Whites was explained in this fashion by Dr. Boehmke (1928), principal of Oudtshoorn Training College: these people were the victims of cutting up of farms, exploitation of bywoners, geographical and social isolation, habits of laziness, financial depression, crop failure, droughts, burning and denudation of the veld, and ignorance. But:

...with good racial inheritance, with naturally strong physique, and with certain sterling qualities, the Poor Whites are a potential force in our land (p. 88).

Blacks, however, with the same, and worse, socio-economic conditions as Whites, were not improvable because their genetic make-up was not as good as that of Whites.

Also considering the poor Whites, Malherbe (1932) argued that the large families of this group were "disgenic" as there was an inverse ratio between the number of children in a family and their intelligence. This would, if not checked, lead to:

... the White race in South Africa [losing] much of that stamina and virity so necessary for the maintainance of a white civilisation in Africa (p. 819).

This, then, was the intellectual context into which the eugenic movement and Fantham were to step.

CHAPTER 3

HAROLD BENJAMIN FANTHAM (1876 - 1937)

In any reasonable society, based on evolutionary principles, reverence and respect for those able to think clearly, balance and weigh evidence, and follow out cause and effect, must be inculcated. The expert will then be given his rightful place (Fantham, 1918, p. 305).

Educated at Christ's College, Cambridge (MA) and University College, London (DSc), Harold Benjamin Fantham was Gold Medallist and Derby Research Scholar at University College, and Darwin Prizeman at Christ's College. (5)

After teaching biology at St. Mary's Hospital Medical School, University of London from 1904 to 1907, he was assistant in the Zoological Department, University College, London from 1906 to 1908 where he conducted research into protozoa, and from 1908 - 1910 he was University assistant to the Quick Professor of Biology at Cambridge, acting as protozoologist to the Grouse Disease Inquiry and researching coccidiosis. From 1910 - 1915 he lectured in Parasitology at the School of Tropical Medicine, University of Liverpool researching amoebiasis and Rhodesian sleeping sickness. After having studied spirochaetosis in Khartoum,

he was honorary parasitologist to the Western Command and then protozoologist to the British forces in Salonica during World War I until invalided in 1917. From March 1917 until 1932 Harold Fantham was Professor of Zoology and Comparative Anatomy at the University of the Witwatersrand, founding the School of Zoology. In 1920 he was a member of the Union Government Sleeping Sickness Commission.

He was an associate of the Royal College of Science, London in both chemistry and zoology, fellow of University College, London, the Zoological Society of London, the Cambridge Philosophical Society, the Royal College of Medicine, and of the Eugenics Society. Corresponding member of the Societé de Pathologie Exotique, Paris, professor Fantham was also fellow and twice vice-president of the Royal Society of South Africa, president of the SAAAS, Section D of that Society, the South African Biological Society, the South African Geographical Society, and the South African Race Welfare Society.

Fantham's main research interests while at the University of the Witwatersrand were the protozoa found in South African soils, previously unknown parasitic protozoa found in South Africa, and heredity and eugenics of the 'population groups' of South Africa. He published over a hundred papers on these subjects, several with his wife, Dr. Annie Porter.

From 1933 until his death in 1937 Fantham was Strathcona Professor of Zoology at McGill University, Montreal, conducting research into freshwater biology.

Besides being president of the SAAAS in 1927, he edited its journal, the <u>South African Journal of Science</u>, for 13 years from 1919, and published over thirty papers therein.

#### **CHAPTER 4**

## THE HUMAN CONDITION

Much speculation has been given to trying to find the reasons as to why Greece or Rome decayed, little consideration being paid to such biological factors as the mixing of the races (the conqueror with the conquered), infection by disease (such as malaria) and the like (Fantham, 1927, p. 8).

From his earlist writings on social matters, Fantham was obsessed with the lowering of 'civilised' standards. And from the start he related his arguments to the theory of evolution: "There can never be really absolute democracy or socialism, because of the existence of natural variations" (1918, p. 304). He was not unaffected by the revolutionary times he lived in, but his inclination was always to temper any fervour. He admitted that there were legitimate grievances, and that some socialistic views were theoretically correct, but he argued rather that human rights had been emphasised at the expense of human responsibilities. Mental ability, he said, was the crucial variable which had been omitted from socialism and democracy, so that these systems were reduced to railing against capitalism, repudiation of responsibilities, and confiscation of liabilities. Permanent good, he said, could only result when those who had inherited superior mental

ability achieved their rightful place in society. With the aid of biological scientists, modern democracy would understand the laws of Nature and the fact that government resting upon any other theory was doomed:

The people of the world should realise that they are members of one great brotherhood, the world being its home, and that consequently, as in a human family, there must be discipline....Freedom, justice and equality of opportunity for all, according to their capabilities, would then be the natural order of affairs, instead of the constant straining after individual personal success, regardless of whatever stands in the way of its achievement....All cannot rule, and in a multitude of counsels there is confusion (1918, pp. 304-5).

Fantham's adaptation of the socialist slogan "From each according to their abilities, to each according to their needs" to "freedom, justice and equality of opportunity for all, according to their capabilities" was a crystallisation of the social theories he was to promote throughout his career. All are not born equal, he said, and therefore the laws of evolution, heredity and variation do not contradict ethical ideals. Indeed, "...idealism is but the perfected expression of the laws of the Universe" (1918, p. 305). Fantham always believed in the supreme imortance of his work: "By service and sacrifice as a people shall we attain

harmony with nature and the infinite" (1927, p. 20).

When considering social matters, then, Fantham's basic premise was that people were not born equal. Just as with animals and plants, people differed because of natural variation. This variation occurred both between nations and within them. Early on his writings credited both natural and cultural forces with the power to make these differences. On the one hand, climate, food and air affected the average character of a population, but among modern civilised people the greatest effects were caused by education, books, companionships and systems of military service which "stamp people with seperate nationalities" (1918, p. 301). In other words, nature was responsible for the great 'racial' differences, while culture seperated out nations within those. At the end of his career, Fantham was however, no longer interested in the smaller cultural varieties, but rather concerned to show the natural and unchangeable differences - physical, mental and moral between and within races.

## 4.1 Inherited Levels of Civilisation

Fantham was convinced that human beings could continue to adapt and improve, but also that they could just as easily degenerate. He made no secret that he believed that the most superior of all people were the intellectuals. This

was for two reasons. Firstly, the development of the mind was the most noble and god-like potential of the human species. And secondly, thinkers were most likely to be able to show the ways to human betterment. Among intellectuals, the most valuable were those who understood the "laws of Nature", specifically those who applied Darwin's theories of natural selection to people. Time and time again he urged that the government, clergy and educators should become familiar with hereditary evolution.

However this small and under-valued group of biological thinkers were opposed in their efforts to improve humankind by a massive force, namely the swamping of the higher and more energetic classes by the inferior classes. This was true, he said, all over the world, and in Africa the Africans were at a lower livel of civilisation than the Whites, while the standard of living and morality of Asiatics was also different from those of the Whites.

It is essential that the question should be realised and decided - is the world to be ruled by races of high standards, or is the higher civilisation to become submerged under the dominance of races whose standards are relatively low? (1924, p. 525).

J.M. Coetzee (1988) has shown how in White writing and White thinking there has always been:

... the idea of cultural progress, the idea that

cultures can be ranged along a scale of evolutionary ascent from 'backward' to 'advanced'. Through this schema the European enabled himself to see in South Africa, layered synchronically one on top of another as in an archeological site, hunters, pastoralists, early agriculturalists, advanced precapitalist peasant agriculturalists, and even agriculturalists in the process of regressing to nomadic pastoralism, all of whom, belonging to 'simpler' stages of evolution, could be understood as 'simple' people thinking simple thoughts in their various simple languages (p. 10).

Fantham affirmed that Whites should form an aristocracy of labour in Southern Africa (1927, p. 3). He was in no doubt as to the inferiority of Blacks. Left to themselves, he said, the social evolution of Africans was extremenly slow and sometimes hardly above barbarism. Even environmental changes brought about when Africans slaves were taken to America and Haiti had confirmed their weak development of the ability to control and organise. In Liberia, repatriated Africans hardly developed, while even when in close contact with Whites and with equal education, Blacks in America had not been able to achieve the standards of Whites.

Energy, perhaps the most valuable of human attributes, is inherited, and, in the germinal make-up of the negroid peoples, this factor appears to be either very feebly developed or lacking (1925, p. 408).

This natural inferiority of Africans, Fantham said, extended to their intelligence. Although sometimes cautious about the use of intelligence tests - "...deductions must not be drawn too readily or on insufficient evidence" (1927, p. 12) - he referred admiringly to Fergusen's comparative study of intelligence conducted in Virginia, USA in 1916 (Table II) (1925, p. 409).

Fergusen's figures showing the percentage of "White intelligence" obtained by bearers of various proportions of "White blood"

Race	Percentage of	Percentage of	
	"White blood"	"White Intelligence"	

White	100	100.0
Quadroons	75	91.8
Mulattoes	50	81.2
Three-quarter Negroes	25	73.2
Pure Negroes	0	69.2

Table II

Expressed as a graph these figures produce an almost perfectly straight line (figure 1).



Africans, Fantham suspected, lacked continuity of purpose and they had strong sexual impulses but weak sexual inhibitions and lack of foresight. On top of all this, Africans could act as carriers of diseases like malaria and hookworm to Whites (1925, pp. 408 - 409). The promiscuity of African, coupled with their potential as disease carriers, can only have strengthened Fantham's resolve to: ...deplore the fact that the better elements of modern

society are not reproducing at the same rate as the unfit (1921, p. 98).

He criticised the religious workers who wanted to improve the lot of Africans. They failed to understand, he said,

that Whites needed to make "...a happier and more capable African and not a caricature or imitation white man" (1927, p. 12). What was needed instead, therefore, was a biological understanding of Africans and their customs. As primitive peple they needed to be guided in the direction indicated by their own customs. "It is quite wrong," he insisted,

...to treat them and educate them as whites without considering their environment, social heredity and what may be termed their glandular heredity (1927, p. 12).

## 4.2 Inheritance of Racial Traits

While he had located the source of Black inferiority in the 'blood' or 'germ-plasm' before, Fantham in his later work became more precise and spelt out a developed thesis about the biological inheritance of human endocrine constitution which in turn determined behaviour and abilities. His paper 'Glands and personality' (1932a) set out to show that when translated into modern scientific terminology, the Middle Age notion of 'humours' in the body causing characteristics like hastiness and anger (spleen or liver), spitefulness (bile), and cowardice (coldness of the extremeties) were "not far wrong" (p. 589).

Personality, the sum total of an individual's physical, mental and moral characteristics, was largely influenced by the secretions of certain glands. These glands, then, regulated physical make-up (stature, hair, skin colour and musculature), mental characteristics (energy, activity, temper, and quickness and accuracy of judgement), and moral qualities (justice and honesty of purpose).

Fantham went on to quote research which demonstrated the effects of the quantity of various glandular secretions. Thyroid deficiencies, for instance resulted in cretinism, while excess produced hyperthyroidism. The former had a "stupid and common" faces and "podgy, coarse, stumpy hands", while the latter had delicate features and "the least animal" faces. A person's energy ("perhaps the most valuable of human attributes (1925, p. 408)) was determined by their thyroid gland. Indeed, the world's thinkers and doers "are of the mature thyroid type" (1932a, pp. 594-5). The pituitary gland, on the other hand controlled the psychological state of the individual. An undersized pituitary resulted in moral and psychological inferiority. For example, obsessions and lack of inhibitions were caused. Also, in the pituitary-dominated personality, two distinct types were found: the masculine and the feminine. These types were unrelated to the person's sex. The adrenal gland controlled potentialities and mental vigour. Violent tendencies, resentful emotionalism, a craving for excitement and malajustment were all the result of an underdeveloped adrenal cortex. The thymus dominated person

tended to crimes of passion, homosexuality, moral irresponsibilty, drug and drink abuse, and criminal activities. Finally, the sex-glands too controlled the personality: lower eunuchoid types were timid, they burked resonsibility, and were "...simple souls, easily excited to laughter or tears" (1932a, p.604).

It must be understood that the person with the best balanced or adjusted internal secretions is regarded as the normal person (1932a, p.592).

A close reading of the characteristics produced by the various glands reveals a tendency by Fantham to regard certain traits positively and others negatively. Now, endocrine constitution, he said, "...can be inherited not only by individuals, but by races" (1932a, p. 589). In fact, the positive features, physical, mental and moral, were all identified by Fantham with Whites. He made his social agenda clear:

The Negro races are sub-adrenal, the yellow races sub-thyroid, and their deficiencies in endocrine make-up constitute 'the White Man's burden' (1932a, p.605).

4.3 'Racial Admixture'

As Fantham was convinced of the inherited inferiority of Blacks, and as he was also interested in variations in species, it is not surprising that he would be interested in the possiblities of what he called "racial admixture".

Fantham, together with Dr. Annie Porter, conducted research into the origins of the 'coloured' population. The results of these investigations were published in two papers in the SAJS, viz. 'Notes on some cases of racial admixture in South Africa' (1927) and 'Some further cases of physical inheritance and of racial admixture observed in South Africa' (1930). As racial groups in South Africa were living in ever-increasing proximity, the authors set out to find out the results and desirablity of racial inter-marriage.

In the former paper the origins and products of nine 'mixed' families were traced in some detail. So that the blurring of the boundary between physically verifiable characteristics and inferred psychologial conditions is demonstrated to the reader, one case is cited here verbatim:

## The Legr. Family

Founder Belgian Huguenot; foundress, Polish from Vilna; both Roman Catholics. Fl generation, 1 son and two daughters. Fl, eldest, son V., born in Belgium, came to South Africa as small child; married daughter of Jewish trader and Cape coloured mother, probably Dutch Hottentot, who was brought up by Jewish friends. This lady, now old, looks Jewish, but has crimpy white hair, native gait, laughs explosively. Family F2, 3 sons, 1 daughter. Other members of F1 unknown.

F2, eldest son A. Legr., Jewish features except for negroid lips, sallow skin, poor physique; alert, great bargainer, boastful, great talker - mostly irrelevantly. F2, second, son R. Legr., much darker than A., crimpy hair, negroid lips; much quieter and less boastful than A., but a great begger. F3, daughter T. F., recently married, fine-looking, somewhat Syrian in appearance; has had outbursts of temper; greatly excited over colour problems; according to her, as her father is white, she is white, regardless of the coloured maternal side. F2, fourth, son V. Legr. junr., native in appearance, poor physique; sometimes suspicious and sulky, sometimes friendly and communicative; married recently to a finely built Basuto girl

Analysing the family, there is a curious admixture. The Belgian and Polish influences seem quite masked by Jewish and Hottentot admixtures, and after the introduction of the native element, the progeny were usually of poor physique, especially the males. The

family pride was very noticeable. All had grotesquely high-sounding names and desired "to get into the papers". Three of the F2 generation wish to be considered white, but the youngest son has no such desire, has a native wife and is despided by his relatives accordingly (pp. 479 - 480).

Fantham and Porter display sloppy methodology. While accurate on certain factual data, their discussions show an unjustified propensity for cultural stereotyping and psychological inference, as well as a willingness simply to take their subjects at their word. While acknowledging that the studies are not comprehensive (p.476), the authors did make "some tentative conclusions". Racial admixture, they said, often resulted in resentment between family members, and poor health and physique. Additionally, "mental and moral disharmony" resulted in "...violent outbursts of temper, vanity and sexual instablity" (p.484). While they condemned mixture between Whites and Blacks on the grounds that such mixtures were biologically and socially undesirable, they asserted that racial admixture of "...races at similar levels of civilisation may result in the perpetuation of highly desirable qualities" (1927, p.485).

In the second paper, however, Fantham and Porter describe "...a coloured population of heterogenous origin, and temperaments equally heterogenous and often equally unbalanced" (1930, p.391). While welcoming legislation that prevents White and Black inter-marriage, the authors now consided that such a prohibition for 'coloureds' might be necessary.

The paper began with cases of physical inheritance: Brachydactyly (squat fingers), supernumerary fingers, supernumery big toe, white forelock in Africans, and premature whiteness of hair in White women. It was demonstrated that some of these characteristics were inherited while others tended to dissipate over generations. The paper then discussed cases of racial admixture. The physical characteristics of three generations of progeny from a White-Black (Dutch-Xhosa) marriage were discussed in some detail. Figures 2, 3 and 4 show the distribution of skin colour, the hair type, and nose and lip characteristics respectively (pp. 397 - 398). Case showing inheritance of skin colour. Squares indicate males, circles females. ? indicates coloured people who were not seen and of whom details are not known (p. 397).



Black indicates dark, negroid skin colour; shaded shows intermediate (olive) colour and plain squares and circles people of white skin (p. 397).





Black indicates crimpy, Native type of hair; shaded, indicates slightly crimpy hair; plain shows non-crimpy, European type of hair (p. 397).



(S) howing inheritance of lips and nose characters. Black indicates Native type; plain indicates European type. X indicates a woman of the Fl generation with European type of lips but Native type of nose (p. 398). Figure 4

The findings here showed, the authors wrote, a blended inheritance of skin colour, the dominance of "crimpy" hair, and also of the "non-European element" of nose and lips. This is evidence of the tendency of discourse to formalise and quantify - in other words, to technisise and make 'scientific' arbitrary features of difference. This type of obsession with the technical details of physical racial characteristics as if they mean much more, while common in its day, has become institutionalised in South Africa.

The physical features of eight other cases of racial admixture were also described. In conclusion the authors also saw fit to describe the psychological states of various racial permutations despite not having considered these in the body of the paper. An "...instability of temperament in the hybrid population" (p. 404) was produced in the "European/Native" cross. In "Chinese/Native/ Coloured" mixtures "...the Chinese temperament seems to be dominant....The progeny certainly showed more initiative than Native children" (p. 405). When Indian and African mixed "their character...is seldom good" (p. 405). Therefore:

Race purity, it is evident, is an ideal, for the preservation of which greater insistance is needed, no less for the people of colour than for whites (p. 405).

## 4.4 Racial Policy

Keen to maintain his status as a neutral scientific expert, Fantham, rather incredibly, saw his way clear to make the following disclaimer:

It is hoped that the suggestions put forward cause no offence to anyone. They are presented from an observational and constructive aspect and are devoid of

anything of a political spirit (1932, p. 533). However, he did not only simply describe what he assumed to be evolution in humans, he made several highly political suggestions, for example, about a suitable racial policy for South Africa. Discourse moves always to homogeneity and an inseperability into distinct parts. Because of the gross danger of racial mixture, Fantham did not hesitate to recommend geographical segregation (1927, p. 13). Blacks, unsuited to town life should be given good land in the country. The numbers of those remaining in the town were to be strictly controlled. Whites had to consider doing more of their own work - the alternative being a Black proletariat, White unemployment, the slackening off of White immigration, and indiscriminate White/Black intermarriage.

So far it would seem as though Fantham was proposing a radical proto-apartheid. However, his ideas about biological inheritance extended beyond describing it across racial barriers. He became an activist for a movement which believed that the reduction of the socially unfit, and the increase of the fit, could be achieved by following its principles, thereby averting social decay.

#### **CHAPTER 5**

## IMPROVING HUMANITY

The main efforts of the eugenist should be to bringing about an all-round relative improvement of the inborn qualities or characteristics. In other words, only the nobler, more intelligent, energetic and healthier citizens of the present should be the ancestors of the future generations. This will also entail attempting to limit multiplication among those who are definitely inferior or below the average in inborn good qualities (1926a, pp. 627 - 628).

5.1 Social Deterioration

The decline of the human race as a whole can safely be called Fantham's primary social concern. This concern, however, did not stop with the fear of Whites being swamped by Blacks. Indeed, such was the elitist philosophy of the man that he firmly believed that a small group, if fit enough and if it remained pure, could cater for the needs of all, as "...to the genius of a few hundred individuals among the thousands of millions that have lived is due all art, music, literature, science and discovery" (1924, p. 522). Fantham was therefore deeply worried about the decline of the White group:

The better-endowed classes, physically and mentally,

are not now reproducing to such an extent as the lower strata of society. Hence, many excellent hereditary strains are in danger of being lost or actually are being lost, while the thriftless and irresponsible are relatively increasing in number (1927, p. 11).

The White group, then, was not comprised of uniformly superior people. As long as the average standards of Whites remained high; as long as the White elite remained fit and pure; so long would Whites be able to dominate.

Several factors led to the decline in number of the fit. Firstly, the birth-rates of the better families had dropped because so many of the fitter men had been killed in World War I. In wars, he lamented, "(t)he best blood is lost; the dull and stupid and physically unfit remain to repopulate the countries" (1932a, p. 606). Greater consideration was to be given to marriage, he said. Miscegenation undoubtably weakened the White group. But it was also essential that everyone took seriously the fact that "...one married not merely an individual, but into a family" (1925, p. 411).

Slack control of immigration was another cause for concern. As America had closed "its doors to the physically and mentally unfit" (1924, p. 499), he urged that South Africa immigration authorities also enforce stringent controls: "...bluntly expressed, a state cannot afford either to

import or breed idiots" (1925, p. 407).

Yet another factor threatening to degenerate Whites was the poor White problem. Like Malherbe (1932), he worried that:

The less the sense of responsibility and the greater the thriftlessness the larger are the families, all inheriting the same low-grade social traits, and many of them bordering on the feeble-minded (1925, p. 402).

Like the bulk of the social scientists and workers of his day, Fantham was concerned about the problem of 'feeble-mindedness', which he described as "...one of the greatest problems of modern civilisation" (1924, p. 515). Table III lists the official definitions of mental subnormality prevailing at the time:

Supernormal	IQ above 105
Normal	95 - 105
Backward	<b>85 – 95</b> ´
Very Backward	70 - 85
Feeble-minded	50 - 70
Imbicile	25 - 50
Idiot	under 25
(Federal	Education Board, 1928)
	Table III

Noting that very many of the American population carried

"hereditary taints" he deplored the fact that "the non-energetic and unenterprising", prefering to live in squalor, freely reproduced themselves.

Anti-social colonies are thus produced, consisting of the won't-works, the unable-to-works and general ne'er-do-wells, all of a more or less low morality and of the moron type (1924, p. 516).

The conflation of physical, mental and moral characteristics runs deep furrows through all of Fantham's work. The "cretins of Aosta", for example, were "...often qoitrous, devoid of intelligence and decency" (1924, p. 516). Cretinism was a heritable disease, he said, as were other forms of feeble-mindedness, "...and it is a matter of common knowledge that feeble-minded persons are very prolific, having no power of restraint over their desires" (1924, p. 516). Citing the work of the American, H.H. Goddard, director of the Vineland Training School for Feeble-Minded Girls and Boys in New Jersey (Gould, 1981, p. 158), Fantham described a study in which it was claimed that of 144 matings of feeble-minded couples, only 6 of the resultant 482 children were not feeble-minded (1924, p. 516). Some insanity, epilepsy and other nervous disorders were also inheritable. Three per thousand people in America were feeble-minded, epileptic or insame through heredity (1924, p. 516). Breeding within families was also harmful. Figure 5 shows an example from Goddard's work (see Fantham,



Pedigree showing inheritance of feeble-mindedness. The parents were cousins. Square denotes males, circles females. Information regarding the two children represented by small circles is lacking; all the rest were known to be feeble-minded (p. 518).

#### Figure 5

To demonstrate the disasterous effects of the breeding of the "mentally and morally weak", Fantham quoted at length the work of Goddard in New Jersey. The taxonomy of the Kallikak family (a fictitious name) was a widely cited case 'proving' the undesireability of allowing bad genetic lines to propagate (see later, pp. 68 - 70).

Relating this type of information to South Africa, Dunstan, the Commissioner of Mental Diseases for the Union, and a Dr. Bidwell, Fantham noted, had described the great numbers of known feeble-minded as well as the fact of the ailment being due to heredity (1924, p. 519).
### 5.2 Biology and Social Ills

Social problems could often, said Pantham, be traced to biological origins: that is, many traits were biologically inherited. The understanding of these problems and their solution should therefore be grounded in biology - " the laws of Nature". Once the laws of natural selection were accepted by all, the problem of racial decline could be seriously addressed. Many modern practices would be seen to run counter to the laws of Nature, and could therefore be changed.

For example, social services like education, hygiene and public health, poor relief, maintainance of general and mental hospitals, venereal disease clinics, and the police were generally accepted by Whites to be necessary institutions despite the financial burden involved. However, people were to realise, Fantham said, that "...with the increase of charity, of baby-saving devices and misguided philanthropy, bad breeding tends rather to increase" (1924, p. 518).

Over-administration by bureaucrats was another modern phenomenon which was unnatural. Over-administered organisms had responded by either becoming lethargic or apathetic, or by violent reaction:

Administration becomes a matter of files, documents and

mere numbers, and knows little or nothing of natural variations (1927, p. 9).

Each extra cog retarded progress and increased the chance of breakdown. It was an over-stimulation resulting in pain and annoyance and which inhibited creative work. "The removal of such unnecessary irritants is desirable in the interests of the race" (1927, p.10).

Again, the increase of special schools for infirm children was a financial and biological danger to the White group. People should be careful that while admirably trying to make the lot of unfortunates happier, "...there is no cessation of selection whereby the survival of unfavourable variations is permitted" (1927, p. 10).

White dependance on Black labour had also reached dangerous proportions. Whites should do more craft and mechanical trades, and domestic work because:

In all spheres, evolution involves struggle or effort and competition naturally occurs between communities and races, for natural selection still operates among men (1927, p. 11).

Fantham, in his Presidential Address to the SAAAS in 1927 warned of the irreversible and unnatural effects of miscegenation:

When once chromosomes of Bantu origin get mingled in

white families, they cannot be bred out, as is so often popularly supposed, but will exhibit themselves in unfortunate ways and at unfortunate times throughout the ages (p. 10).

Family life, the "main fundamentum of man's civilisation" was to be maintained as it "conforms to biological fundamenta" (1927, p. 3). Catchwords, phrases and slogans too were modern phenomena which were unnatural. As medicine often substituted for natural health, so sloganeering was a substitution for individual thought and it inhibited reasoned action (1927, p. 4).

Minorities of all kinds should not, said Fantham, be overwhelmed by the masses in democracies. "It should be remembered that minorities often represent the variations most fitted to survive" (1927, p. 6). However, he regarded the proliferation of little nations after World War I as an artificial and "disharmonious factor in nature". Here he advocated "tribal fusion" (1927, p. 6). This is not as contradictory as it first seems. Unity among groups of similar 'levels of civilisation' was always recommended by Fantham.

There was very little in life that Fantham could not apply a biological explanation to; biology had become a complete world-view: Psychology and education must be founded on biology. Even civilisation itself must depend on the principles of biology for its constitution, and in comparison, ethics and sociology are like 'by-laws' which may have to be changed as time goes on and outlooks alter (1927, p. 3).

Running through many modern 'flaws' was a common feature that Fantham warned against at all times - philanthropy.

# 5.2.1 Philanthropy

The main reason for the urgency of the eugenic measures which he was to champion, Fantham said, was that in modern societies natural selection had been subverted by philanthropy. This meant that many people who would not survive otherwise, could not only live, but also reproduce. The naturally better stock would therefore be overrun by their inferiors. Indeed:

Philanthropic measures have aided in maintaining the physically and mentally unfit, often at the expense of the more adequate members of the community. Also the growth of preventative measures against disease and the greater efficiency of medical services have resulted in the rearing to maturity of many individuals who are inadequate both mentally, physically and socially, enabling them to reproduce offspring often as inadequate as themselves (1925, p. 405).

Modern philanthropy which advocated that favourable surroundings and good education would improve people, had been proved wrong:

Unfortunately, the results do not attain expectations, and much time and money has been expended, not always profitably, in an endeavour to attain these aims (1924, p. 524).

Fantham deplored the fact that in South Africa approximately £5 000 000 out of a total national budget of nearly £32 000 000 in 1926 was "spent in endeavouring to cope with the socially inadequate" (1926a, p. 629). Table IV provides a detailed breakdown (Norman, 1926, p. 1065).

Annual spending on the "inferior" (6)

Magistrates	Ŧ	500,000
Police	:	2,550,000
Reformatories and Prisons		750 <b>,</b> 000
Industrial Schools and Child Welfare		200,000
Mental Hospitals and Lepers		500,000
Salvation Army		60,000
Child Welfare Society		10,000
Charities, Johannesburg		150,000
Charities, other towns		300,000
Total	Ŧ;	5,020,000

#### Table IV

Taxes were spent on government protection and social services to the extent that "...the cost of education has become stupendous and deplorable" (1932, p. 535). Tariffs, surtaxes, currency restrictions on the fit, and doles for the unfit were all "unnatural" (1932, p. 534 and p. 539).

Instead of promoting the numbers of the less fit at the expense of the fit, Fantham held that strict eugenic measures should be implemented to the opposite end.

# 5.3 Eugenics

At the annual meeting of the SAAAS in Bulawayo in 1920 a Eugenics and Genetics Standing Committee was founded with Fantham as its first president. This committee was active in spreading the message of "eugenics, or literally, the science of being born well" (Fantham, 1924, p. 498). Lecture courses as the University of the Witwatersrand, Grey College, Bloemfontein and University College, Potchefstroom were presented in 1925; close relations with the Eugenics Education Society in London and the International Federation of Eugenic Organisations (Fantham was South Africa's representative to the latter) were established (Louw, pp. 111-112).

Copies of the papers "Some factors in eugenics, together

with notes on some South African cases" by Fantham (1925), and "Notes on some cases of racial admixture in South Africa" written by Fantham and Porter (1927), were distributed to members of Senate, Parliament, magistrates and educational authorities. At the height of its popularity the committee gave many addresses to Eugenics Study Circles around the country (Fantham, 1927, p. 19).

Several social problems were confronted with eugenic explanations, and these could be roughly classified into problems of the racially unfit, and of the socially unfit. To put it another way, eugenic explanations were used with reference to problems between races, and within a race. The committee spent much of its time considering mixing between racial groups, irrespective of individual attributes, and mixing between individuals of the same race with different potentialities.

In Fantham's 1925 paper circulated by the Eugenics Committee with a lengthy Afrikaans summary, he again described several families where various physical traits appeared to be dominant. Interestingly, he again showed his entrenched belief that the 'personality' was inherited. He described a family where the 1820 Settler originator "...was a grim old man with a sardonic sense of humour". Despite a severe home atmosphere, of his 127 decendents over four generations: 14 have shown a remarkably keen sense of humour, 32 a keen sense of humour, 19 some sense of humour, 10 none, and the sense of humour posessed by 52 is unknown (p. 421).

Nowhere does Fantham indicate how these degrees of humorousness were measured. This application of strict pedigrees to mental attributes is reminiscent of Galton's (1884) tracing of <u>Heredity Genius</u> in matters like Mathematics or wrestling.

The archetypal example Fantham (1925) used to defend eugenics was the case quoted by Goddard in 1912 of the Kallikak family in America:

As a(n)...example of the inheritance of feeble-mindedness, the case of the Kallikak family may be summarised, for it...shows how heredity 'works both ways'....At the beginning of the Revolutionary War a young man, known in the history as Martin Kallikak, had a son by a nameless, feeble-minded girl, from whom there have decended in the direct line 480 individuals. One hundred and forty-three of these are known to have been feeble-minded, and only 46 are known to have been normal. The rest are unknown or doubtful. Thirty-six have been illigitimate; thirty-three sexually immoral, mostly prostitutes; twenty-four, alcoholic; three, epileptic; eighty-two died in infancy; three were criminal, and eight kept houses of ill-fame. After the

war Martin Kallikak married a woman of good stock. From this union have come in direct line 496, among whom only two were alcoholic, and one known to be sexually immoral. The legitimate children of Martin have been doctors, lawyers, judges, educators, traders, landholders, in short, respectable citizens, men and women prominant in every phase of social life. These two families have lived on the same soil, in the same atmosphere, and, in short, under the same general environment, yet the bar sinister has marked every generation of one and has been unknown in the other (p. 406).

Gould (1981) calls the Kallikak family "...a primal myth of the eugenics movement for several decades" (p. 168). He investigated the way the information about this case was compiled. Rather than, say, administering intelligence tests, Goddard relied on visual identification (done by a Ms. Kite) of the feeble-minded. Goddard's field worker learnt to infer the mental state even of those absent from the language used to describe them. Gould and a colleague, Steven Seldon, also discovered that the photographs of the Kallikaks had been retouched to create "...the appearance of dark, staring figures, sometimes evilness, and sometimes mental retardation" (p. 171).

Goddard himself later recanted. In 1928 he admitted that he

had labled far too many people as morons, that it was unlikely that moron parents would have mentally deficient children, that feeble-mindedness was not incurable, and that such people did not have to be segregated in institutions. "I think," he admitted, "I have gone over to the enemy" (quoted in Gould, p. 174). Fantham, needless to say, never mentioned Goddard's paper 'Feeblemindedness: a question of definition', <u>Journal of Psycho-Asthenics</u>, 33, pp. 219 - 227.

Fantham said that his feelings were well summarised by the following epigram from the Spectator:

Science finds out ingenious ways to kill Strong men, and keep alive the weak and ill - That these sickly progeny may breed Too poor to tax, too numerous to feed. He hoped that widespread knowledge of eugenics would help to avoid these conditions (1926a, p. 643).

In order to stop the degeneration of the White race through miscengenation, to cope with over-population - especially "...among the less desirable elements of the population (1932, p. 543) - and to improve that race, various stategies of segregation and sterilisation were mooted.

Fantham wrote long and often about these active eugenic measures. There were two paths to human betterment, he

said, improving the race because "...the ultimate factor of national decline is racial deterioration", and improving the individuals comprising that race (1924, p. 522).

Tight immigration control was needed. Believing that America's social problems were largely the result of indiscriminate breeeding of lower southern European immigrants (as well as of 'Negroes') he was a great admirer of its Immigration Restriction Act of 1924. This act prevented "...idiots, feeble-minded, paupers, criminals and persons suffering from contagious diseases..." from entering the country. Unfortunately, he said, masked diseases and deficiencies could not be detected (1924, p. 523). South Africa's immigration officials should, he said, implement strict medical checks and demand to see family histories (1925, p. 406). Fantham also admired the marriage laws in some American states.

Sterilisation of those likely to conceive unfit children was seen by Fantham to be a logical and morally correct intervention. He liked the 1924 bill approved by the Saxon ministries in Germany which provided for sterilisation in cases of hereditary mental diseases, feeble-mindedness, degenerate alcoholism, and those showing marked criminal tendencies (1926a, p. 628). Although he was doubtful about the readiness of the public for sterilisation, the government was urged to initiate such a policy.

He was in favour of the popularisation of birth control as: "Continence is ideal, but not always possible" (1926a, p. 629). On the other hand, fit persons were encouraged to have large families to increase the numbers of the desirable (1926a, p. 633).

Another eugenic measure was described in 'Glands and personality' (1932a):

From the point of view of eugenics, now that a certain amount of <u>control of endocrine secretion</u> is possible, there should be selective breeding for the production of the best endocrine types, embodied necessarily in the best germ plasm. Not only can all physical traits be improved, but also the mental and moral traits. This means the encouragement of matings between those of superior types, with well-balanced or <u>re-inforced</u> <u>endocrine constitutions</u>, and discouraging marriages between those of defective endocrine types, since from the latter classes mental and moral defectives are almost invariably produced (my emphases) (p. 606).

Besides limiting the fertility and manipulating the glandular make-up of the less fit, the obvious eugenic measure was segregation. Those in homes were thereby segregated from the general public. They were also to be prevented from mating with each other. While segregation of

the races was an unquestioned given, Fantham extended it to class. He was a radical segregationist on all social levels:

It may be safely stated that young people of good stock should be given full opportunity to make friends with other young people of good stock, good character and good health, and that social intercourse with those of bad stock, and mental, moral or physical taint should be discouraged in the interests of the race (1924, p. 525).

Fantham (1932) proposed a segregationist policy for the poor White problem based upon eugenic principles. Poor White children should be removed from their parents at the age of six years and placed in boarding schools. Their genetic constitutions were basically sound and so such children could overcome the despair and apathy of their homes. But, in a rare nod towards the importance of the environment, he acknowledged that "...mixing with decent ordinary children their heredity will be given every chance" (p. 541). Given his pessimism about the value of education this may seem an odd assertion. However, it does make sense within Fantham's social philosophy. His work can be seen as an ongoing plea for a society where everyone knew his or her place - a society with a definite division of labour, subordination of the individual to the good of the community, great care for the young, systematic work for every individual, and with habits of foresight. The

analogy he used was that of comparing human societies to ant colonies (1929, pp. 866 - 867). So, while there was a limited scope for human betterment in the eugenic view, this improvement was within the rigid limits apparent in society. Poor whites had the potential to fill higher social positions, but blacks were not naturally suited to 'civilisation', said this argument. The reader will not have forgotten, however, that he had said years earlier that the large families of the irresponsible and thriftless all inherited some low-grade social traits, and that many bordered on being feeble-minded (1925, p. 402).

5.2.1 Demise of the Eugenics Committee

While it had a vigourous existence, the life of the Eugenics and Genetics Standing Committee was to be a short one.

Despite repeated calls for it to pay heed to eugenic experts, the South African government never went further than to recommend voluntary sterilisation (Louw, p. 116).

Internationally the Nazi extermination of 'inferior' Jews ended the study of eugenics as a respectable enterprise. Stepan (1982) shows, though, that the scientific credentials of eugenics had started being questioned earlier because of the radicalisation of some scientists

and because of new investigations in genetics (pp. 140-149). In this regard, the work of Hogben (1939) is especially pertinent. As an early opponent of eugenics, he encountered institutional racism during a spell as professor of Zoology at the University of Cape Town and saw that eugenics and racism were cut from the same cloth. Physical anthropology, especially its practices of cranial measurement also began to be discredited. And, ultimately, the notion of 'race' was shown to be inexact, arbitrary and ideological (7).

In South Africa these changes were also apparent. In 1933 all references to the Eugenics and Genetics Standing Committee abruptly ceased in the SAJS. Louw suggests that this was the result of Hitler's rise to power (p. 210). While this was certainly a factor, eugenics never became popular among Afrikaners, many of whom sympathised with National Socialism. It does not completely explain the sudden disappearance of the eugenics committee. Additional reasons for the virtual disappearance of eugenics and crude racial science from academic and official discourse are to be found outside the SAAAS.

Theories of social stratification based upon biology did not sit well with, for example, the large poor White population. It seems likely that eugenics' loss of face was

certainly partly due to the scientific objections referred to above; but more importantly, it was due to the political potential of scientific racism. In South Africa where a large proportion of Whites were exceedingly poor and uneducated, but who had the vote, it was unlikely that an elitist discourse like eugenics would capture their imagination. In a country where Whites were increasingly seeing Blacks as their opposition, a call to sterilisation of 'the unfit' could not become an important mobilising discourse outside intellectual circles. Eugenic discourse could not become a political mobilising discourse. Eugenics was a discourse with a middle-class base involving a particular fraction of that class. Intellectual leaders concerned about the 'degeneration of the White race' inevitably appealed to people of their own type - middle class and highly educated - who felt sure of their own superiority. The task of mobilising Whites of all classes was to be achieved by Afrikaner Nationalism.

### CHAPTER 6

LIMITS AND POSSIBILITIES OF EDUCATION

The popular belief that universal education is one of the chief panaceas for human ills is due to a misunderstanding, for education means 'bringing out', that is, education can bring out what is in a man but cannot put into a man that which is not there. It cannot make a dullard bright (Fantham, 1924, p. 525).

6.1 Educability

Fantham's thoughts on education were influenced directly by two sources. Firstly, he was dissatisfied with what he saw happening in schools and universities as education became more universal. He believed that there was an alarming dropping off of standards. Secondly, his total theory of Social Darwinism led him to believe that:

Aquired characteristics are inherited very slowly, if at all. Thus it would probably take centuries before the cumulative effects of continuous education of ancestors produced any improvement in the capacity for education of the race (1926a, p. 626).

This second factor explained the first - the failure of modern education.

Education, said Fantham, had an important but limited role

to play in preventing racial degeneration because while education could develop talent and instil some knowledge, it could not instil those talents into people. Thus the modern faith in universal education was a "misunderstanding".

His objections to modern philanthropy certainly encompased modern education. "Modernism" claimed that by placing people in favourable surroundings and giving them a good education, they would "improve in modern development" and their children would be likely to inherit this tendency. "Unfortunately," Fantham said, "the results do not attain expectations" and time and money had been wasted pursuing this unattainable end (1924, p. 524). Again, his pessimism was based upon the fact that there were natural, inborn and finite limitations to human potentialities:

All are not born equal in physical condition or in the capacity for mental requirements, and this being the case, no matter what artificial system of equality be enforced at any one period, the balance is upset the next moment, and inequality once more is established (1918, p. 304).

These sentiments were typical of the conservative discourse of the day.

Malherbe (1929) was appointed by the Carnegie Commission to investigate education and the poor White. Education had

proved insufficient prophylaxis against the degredation of rural people in the change from the old patriarchal system to the new commercial regime. Malherbe found that only 8% of White children were matriculated, and that no poor White children went further than standard six. Schools, he said, were geared to university entrance and it was unjust that 92% of those starting school fell by the wayside. The education system had failed poor Whites because it was historically static, irrelevant, passive and wasteful. Education would only uplift poor Whites if it was limited to the able, and when it became more relevant, i.e. vocational.

Fick (1929) calculated that 15,3% of poor White children were intellectually incapable of completing primary school. He felt that compulsory education was discriminatory as sub-normal Black children could leave school for work. Poor White children often struggled futilely at school and then only had "blind alley" jobs available to them as they had not passed standard six. What is striking about Fick's work is both his lack of faith in schooling, and his belief that certain work was unfit for Whites.

Wilcocks (1931) completed the psychological analysis of poor Whites for the Carnegie Commission. For him this meant establishing the abilities and potentials of this group. Typical of the psychology of the day, Wilcocks' study was

experimental and applied rather than theoretical (Louw, 1986). He found after testing the intelligence of 3 281 poor White children between the ages of 10 and 13 years, that their intelligence scores fell an average 4,6 points in those three years. He argued, however, that a changed environment affected intelligence scores "<u>at most</u>, to only a small extent" (his emphasis) (p. 71).

In the first quarter century after 1900 a varied, but distinctive, racial scientific discourse became hegemonic. According to this view, human differences were mainly the result of inherited capabilities. Racial science was, then, generally pessimistic about the ability of people to be improved. As a world-view it had an implied, yet unambiguous, belief that education paid only very small dividends at a very high price.

Fantham, too, believed that only the willing and able should progress onto secondary and tertiary education. For one who found philanthropy abhorrent, he urged with surprising eagerness that the cost of education of the children of parents of good stock should be subsidised for fear of such parents having smaller families because of financial burdens (1926a, p. 634):

All who might be of great use to the State should get scholarships if necessary, but these grants should not be distributed broadcast or as a matter of course.

Seeing that the number of people capable of benefitting from secondary, and especially tertiary, education was small, Fantham was appalled by the "stupendous and deplorable" cost of education. He cited the case of the Transvaal where £3 000 000 was "squandered" on a White population of 600 000 in 1932, of which 130 000 attended primary and secondary schools. Over 10 shillings per scholar was spent on administration and inspection alone: "Yet those of us who deal with the educated products of this system must, in honesty, be ashamed of the results" (1932, p. 535).

He did not blame the teachers, he blamed the system of schooling imposed on them (1932, p. 535).

6.2 Schooling

Fantham did not see schooling as simply a natural right that would inevitably improve mankind:

One of the main objects of education should be to equip all individuals in such a way that they, in adult life, can carry out their highest aspirations, engage in work suited to their capacity and adequately meet and fulfil the responsibilities of a good citizen (1926, p. 595).

This sentence, repeated verbatim in 1929 (p. 866), is a

carefully constructed and illuminating synthesis of Fantham's views on schooling. Schooling could, he believed, contribute to making a happy and good citizenry, but only if certain crucial factors were taken into account. Essentially, the social world was hierarchically structured roughly corresponding to the levels of ability destributed through the population. A good citizen was one who understood and accepted his or her place in this hierarchy. Such a citizen should therefore aspire only to structurally attainable heights, engage in work he or she is capable of, and fulfil his or her responsibilities. Schooling was only justified to the extent that it promoted these aims. Ironically, although motivated by extremely elitist and conservative ideals, Fantham advocated some views of the educative process which might be thought of as enlightened today.

Time and time again he argued that examinations were over-emphasised in South African education. What passed for education was:

...the undue desire of parents and pupils for the mere passing of examinations, which has produced cramming or memorising of information, without correct assimilation or perspective and without correlation and application (1927, p. 3).

Instead of cramming he appealed for "some real thinking" (1932, p. 535). The study and memorising of books led, he

said, to the "...cramping of the other natural avenues of learning" (1926, p. 595). "In other words, the informative function has overwhelmed the truly educative function". Because of this trend "...matriculation has become a fetish, and, in consequence, a disappointment" (1927, p. 3). Many university students, because they had been "spoon-fed" were ill-prepared and their personal initiative was by then "rusty or dead". Normal colleges and universities had become utilitarian and materialistic, focusing on paying careers (1927, p. 3).

While he was in favour of vocational training, he felt that it should have a cultural content, and should not be started too early (1927, p.3). However, emphasising the dignity of labour, he advocated scholarships for some youths to become trained as skilled craftsmen. Thereby "...a solution would be obtained, at least in part, of both unemployment and dissatisfied workers" (1926a, p. 634).

Schooling, Fantham said, should be manipulated to help maintain the intellectual hierarchy. While primary education should be free to all, secondary education was not to be wasted on the ineducable - "the unwilling and the incapable" - and parents were to make a contribution so that they would value education (1926a, p. 634). Instead of philanthropy for the poor, there should be, as has been

mentioned, fewer, but more valuable, scholarships for the offspring of the more fit of the population. Primary education, on the other hand, should be compusory, free to all, and of a high standard (1926a, p.634).

Fantham noted that the "best types of students" did not want to enter the teaching profession, and the many teachers themselves taught only because of "secure salaries and good holidays", instead of "inclination, love of teaching or love of children" (1927, p.4). The "noble profession of teaching" (p. 4) needed:

...a body of men and women, sympathetic, keen of brain and enthusiastic, who will make teaching their lifelong, primary occupation or profession, not merely a stopgap en route to some other position (1927, p. 5).

As far as the actual practice of teaching was concerned, Fantham was not short of ideas. For example, on the question of expense, a real problem in Depression years, he had the following to say:

In the form of animal study that I should like to see in use in schools, the expense would be very little indeed, and most of the equipment could be home-made. A natural or cement pond or a small tank or paraffin tin for an aquarium, a small vivarium of wood, glass and mosquito netting, some small boxes, such as chalk or cigar boxes, a few 'pickle' bottles, a few packing cases for animal hutches, and, the most costly item, a few hand lenses, would probably satisfy the equipment 'bogey'. A school museum could gradually be built up, commencing with a cupboard, failing which empty petrol cases nailed together as in a sectional bookcase, can be effectively used. The animal life of the locality provides the most essential equipment and can be collected and observed free of charge (1926, p. 598).

On the subject of the education of Blacks, Fantham's ideas were clear. Blacks were inferior to Whites and therefore needed different schooling:

It may be agreed that the blacks are the brethren of the white men, but that should not indicate - and biologically does not indicate - that they be educated as whites. Such a view makes the great biological mistake of overlooking heredity and variation, which imply innate differences between black and white (1927, p. 12).

Blacks, instead of having schooling which encouraged them to imitate Whites, should rather be prepared for their place in South Africa, that is, in the countryside: ...trained in practical agriculture, in proper methods of feeding himself and of conserving his food-supply,

in hygiene and sanitation (1927, p. 13).

Schooling, then, had the dominant function of preparing people for their respective places in society, thereby ensuring a contented population. One of the main mechanisms for achieving this was the school subject Biology.

6.3 The Subject Biology

The call by Fantham for the compulsory inclusion of Biology in the syllabus was an incessant one.

Childhood is the period during which the strongest impressions are created and it is confidently claimed that the study of animal biology by the incoming generation is calculated to promote racial good. Animal biology has definite cultural, ethical and moral values, as well as purely educational ones (1927, pp.13-14).

Among the educational values were training in observation, making deductions, ignoring superstitions, dealing only with facts or truths, and the power of "logical judgement and appreciation of evidence". But, perhaps even more importantly:

Under sympathetic teachers, there is no doubt of the benefit that accrues to children from the study, and the necessary cultivation of observant mental alertness, of restraint and discipline, of obedience to the natural law of order and sequence, cannot fail to have an effect in producing a more responsible, thoughtful, logical and self-disciplined body of citizens in the course of time (1926, p. 602).

What then was the field of study that Fantham was prepared to countenance as beneficial, given his reluctance to consider the possibility of development in people? Not surprisingly, perhaps, that discipline was his own biology. Fantham campaigned vigourously, and with some success, for the study of biology in schools and universities throughout the period covered by this research project. After the reading of a paper to the SAAAS Sections D and F on 9th July 1926, the council of the Association was requested to call for the teaching of elementary general biology (including animal biology) in high schools throughout South Africa, and to bring this to the attention of the relevant education departments and authorities. This resolution was accepted by the council the following day (1926, p. 602).

Already in 1918 Fantham argued strongly for the teaching of science. "In the past", he said,

...our rulers have been trained on a casual and disjointed scheme of education, the centre of which was the classics, to the study of which an undue proportion of time was given....They have no idea of relative proportions in Nature, for they know little of science

with its wide outlook and forward view (1918. pp. 302-303).

Science, of a broad and generous type, was to be the vitalising agent in education (p. 303). Even quarrels between religion and science could be eradicated by the teaching of animal biology in schools and the compulsory study of evolutionary biology in every university curriculum (1921, p. 96).

Fantham left no doubt as to the importance of biological study:

I consider that <u>the principles of animal (including</u> <u>human) biology, put forward in simple, interesting</u> <u>language and illustrated by living examples, should</u> <u>form an essential short course in the curriculum of</u> <u>every University student</u> as well of every school child. It is especially necessary in the Universities, where we are training the future leaders and teachers of the people (1924, p. 526, his emphasis).

6.3.1 The High School Biology Syllabus

In 1929 he read a paper to the SAAAS on 'The Teaching of Biology in the High School'. This paper, largely repetition of an earlier paper (1926) amounted to a justification for, and a report of, the new Transvaal High School General Science and Biology Syllabusses drawn up by a Transvaal Education Department committee - the "result of much propaganda", including, as we have seen, his own. Fantham sat on this committee.

The Transvaal Education Department was considering the following syllabus - it having already been approved by the Joint Matriculation Board.

# Form I or Standard VI

The land surface is considered in relation to soils and soil formation which, in turn, are correlated with plant food and animal life. In biology, the relation between the animals and plants of the neighbourhood to their physical surroundings and their adaptations thereto, local domestic animals and crops and animal communities are studied. Some physiological activities, such as respiration and feeding of plants and animals are indicated (1929, p. 870).

# Form II or Standard VII

Here the physical science side includes some knowledge of the chemistry of air and water and their elements, and the study of the atmosphere physically. Time, seasons, tide and climate are considered and the commoner types of soils are discussed. Correlated with these are biological topics such as the influence of light, moisture and gravity on plant life, and simple ideas on fertilisers treated experimentally, while the animal side is represented by life-histories of some useful and harmful insects in relation to season and vegetation - both cultivated crops and natural vegetation. The coverings of animals in relation to season and environment are also discussed, leading to a consideration of the necessity for avoiding such skin parasites of man and beast as blowflies, warble flies, lice, fleas, scab mites and ticks. Simple human hygiene and prevention of disease in cattle by dipping are very important in a climate like that of South Africa and pests, such as those mentioned, should be studied (1929, p. 871).

# Form III or Standard VIII

...85 per cent. of the pupils leave school in this year and, consequently, the biological teaching is highly important. Much may seem to be attempted, but there is an appreciable revision element in the syllabus.

Heat is considered in relation to climate and correlated with such physical phenomena as winds and currents and movements of the earth's surface. The properties of light are considered, and their effects on plant and animal life should be indicated. Certain chemical elements are to be studied and their importance as constituents in plant fertilisers, in soils, in food and in materials used in industry should be pointed out. The food stored in plants, its method of utlisation by them and their relation to animal nutrition should be dealt with as a whole. Native and cultivated plants are also considered in relation to soil and their interrelations with local animal life. These lead to the consideration of the feeding of animals and modifications of the alimentary systems of animals for various types of diet, with discussion of the digestive processes and application to diets. Respiration of plants and animals is correlated and other systems of organs, e.g. skeleletal, excretory and respiratory, are studied and compared. Opinions differ as to the inclusion of the study of the nervous system. The author considers that it is so important that it should be retained but treated in an elementary manner. The principles of light are applied to the study of the eye, and those of sound to hearing and voice. The action of bacteria in soil, water and food, and their effects on plants and animals are considered an relation to the effects of light and heat upon them and the prevention of bacterial diseases. Very important and practical are the general accounts of the causes and prevention of some diseases of man and domestic animals, as illustrated by malaria, plaque, bilharzia, liverfluke, tapeworm and ticks. There may be difference of opinion as to the wisdom of introducing the last-

mentioned topics, but, as already stated, children are intensely utilitarian and greatly appreciate such subjects, which are of immense importance in public health. It is often only in school and at the impressionable, receptive period of life that such information is ever likely to reach a large number of our future citizens (1929, pp. 872 - 873).

### Forms IV and V

In these Forms there is a divergence into either biological or physical science groups. The work in biology consists partly of revision and partly of additional work and includes the subject matter for the Matriculation examination in General Biology, for the Matriculation examination or its equivalent will be taken at the end of this period of study. Stress is laid upon personal, practical and observational work. On the botanical side, study of certain flowerless plants is introduced and systematic and ecological features stressed. Parasitic and economic plants also receive attention and their special features are considered in relation to plant physiology. On the animal side, various vertebrates are considered with special reference to the correlation of their anatomy and physiology. Barthworms are dealt with in relation to soil. The life-histories of some of the commoner animal parasites of man are further discussed, together with

recognition of their commoner transmitters in connection with public health. The study of inter-relationships, e.g, of plant and animal, of life in ponds, of parasites and their hosts, and of animal ecology is stressed. An elementary practical study of heredity - always of importance to an agricultural community - is made, and simple ideas of eugenics inculcated. Types of climate as influencing plant and animal distribution are considered, also human activities and the relation to environment. The work of certain biologists is introduced by careful selections from their works to aid in inculcating the literary and cultural aspects of natural science (1929, p. 875).

The fact that eugenics received such a minor insertion is evidence of Fantham's belief that its notions would be imbibed naturally with the rest of animal biology, and of a growing hesitation in learned circles about eugenics and its measures.

To summarise, then, the unifying center of educability, eugenics and schooling was Fantham's idea of the ideal society. Using examples in nature as social metaphors, he defended a world of stability, harmony and structure. Increasingly, however, this world ceased to exist; Fantham's urgency increased in proportion to the decline of his 'natural' civilisation. He was a true conservative -

harking back to a time that could never return. Fantham spent much of his professional life struggling, under the guise of scientific endeavour, for a particular kind of political dispensation, a hierarchical intellectual meritocracy (1918, p. 304).

There was a special place in Fantham's model for certain kinds of experts: "It is earnestly hoped", he said: ...that government will realise that they need the guidance of biological experts in [the] fundamental matter of racial betterment and racial progress (1925, p. 412).

It was, then, the duty of the state to facillitate the dominance of the intellectual minority and their successors.

6.4 Biology - A Total Theory

It has been shown that Fantham believed biology, and specifically eugenics, to be the primary sources for answers to human problems. It was more basic than sociology, psychology or political theory. This was a discourse which was to set the boundaries of social theory - even of theology. Quarrels between religion and science could be eradicated by the teaching of animal biology and the compulsory study of evolutionary biology in every curriculum (1921, p. 96). Because this study was "fundamental to living beings", it led:

...unconsciously and gradually to the idea of a First Cause. There is then no longer antagonism between science and true religion (1924, p. 526).

Sin he explained scientifically as disease (1921, p. 97).

By the end of his career Fantham could, and did, give a biological explanation for practically any social phenomenon - from philanthropy to sloganeering, from sport to feeble-mindedness. Indeed, his philosophy centered on the concept 'the natural society'. Being a precise writer Fantham meant by this very specifically that human society should, and when healthy did, operate according to rules of nature. 'Biology and civilisation' (1932) provided a full exposition of Fantham's ideas about nature. He provided a list of practices that should or should not be permitted depending on whether they were 'natural' or not. Sterilisation of the feeble-minded, for example should be applied because:

In Africa, among many native tribes feeble-minded offspring are not permitted to survive, while among wild animals, especially among carnivores, weaklings are invariably destroyed (1932, p. 538).

Surprisingly, two 'natural' acts, war and breeding, were to be controlled (1932, p. 537).

So Fantham literally transposed selected examples from the

natural world onto the social. The most revealing example of this is surely the mental model of a civilised, 'natural' society alluded to in the following quotation:

Animals are much nearer to man. The study of an ant colony with its division of labour, its subordination of the individual to the good of the community, its great care of the young, its systematic work for every individual, its habits of industry, its evidence of foresight and the value thereof, to name only a few points, would make more appeal without any forcing on the part of the teacher, than would be possible by, say, lessons on a plant community such as wood (1929, p. 867).

These exact words had been used in 1926, but, on that occasion, with an eye-opening complement:

The study of animal life is a better aid to character forming than the study of plants....with a view not merely of producing better future citizens, who from early life have been trained to deal with facts as they are, not as others make them out to be, and from the world around them have learned individual and communal responsibility. A knowledge of animal biology is a necessary part of a liberal education (1926, pp. 595-6).

Only subjects which had "cultural and practical importance" were to be taught; in other words, those of "...practical
significance or use in making the average citizen happier and more useful the the State" (1926, p. 596).

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## **CHAPTER 7**

## INTERPRETING PANTHAM

We must conclude that there is no scientific basis for arranging the living races of mankind in a series from the more ape-like to the more god-like.

Recently it has become somewhat unfashionable and vulgar to use this sort of argument. In South Africa, a new formula has been found. <u>Cultural differences</u> have become the new justification for discriminatory practices. Yet even now, despite the sophisticated turn in argument, there is the underlying thought that those cultural differences are unchangeable, are part of a man's nature, his heredity (his emphasis) (Tobias, 1972, p. 25).

Individual psychology, racial science, and their educational manifestations existed on two different yet inseperable levels. Arguments, explanations and polemic in books, articles and speeches had a complex relationship with the technologies of testing, diagnosis and treatment. The theoreticians and public figures, in this case, were often also the professionals, state officials, test developers, teachers and researchers of the day. The influence on and of the intellectuals are always, while not equal, intimately and intricately fused. This research project has taken a detailed look at one of the characters in the history of ideas about human potential. Steering away from psychological biography, it places Harold Benjamin Fantham in the social and intellectual context in which he worked. His dispersed ideas have been collected and reconstructed to demonstrate his theories about race, class and educability, and their relation to schooling.

Fantham, it is clear, was not simply 'his own man', but rather a product of his times. Like all social actors he was the subject of many discourses. Or as Laclau (1983) would have it, Fantham's subjectivity had many "facets": The irreducible nature of difference is posed inside of social agents, and they do not have an essential identity constituted around privileged interests and positions either of a class nature or of any other kind; rather they have only a precarious identity which is dependant upon hegemonic articulation or upon power relations existing in society (my emphasis) (p. 116). A member of the dominant class, Fantham lived in a particular social environment and had a particular development. A combination of these features made it possible for him to say and do what he did. Born in a colonial empire and spending much of his life in South Africa, he was embedded in a racist social arrangement. His

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education had been in Zoology at a time when the theory of evolution influenced all of science. Social Darwinism, the crude relation of animal and plant biology to human beings was fast becoming established as common-sense. Also, related to elitist heredity ideas and to the class structure of society, was Fantham's own moral world. This was a world in which the dignity of work, of respect for one's betters, of cleanliness, thrift and moderation, of sexual and political restraint were vitues. Arising from the demise of the British Empire and the international rise of democracy, was a middle-class fear that their 'civilisation' was in danger of being swamped by the dirty, slothful and dangerous classes. For a person with a high regard for intellectual clarity, eugenics must have provided Fantham with an admirable solution to what seemed like an impending disaster. While this socio-cultural climate does not explain why Fantham said exactly what he did - some with a similar background, like Hogben (1939), actively opposed racial science - it does show how it was possible and quite logical to hold such views.

Let us briefly summarise the logic of Fantham's ideas. Civilisation was degenerating, and for two principle reasons: (1) the over-whelming reproduction rates of the inferior races, and (2) the increase of the unfit within the dominant class. The solutions to these problems were: (a) racial segregation, and (b) the controlling of

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breeding. This had four implications for education. (i) A certain limited (primary) education was necessary for the future citizenry and should therefore be compusory for all. (ii) Only some people were educable beyond primary school. (iii) High school education should be provided and subsidised for the fit. And because animal biology had important intellectual, moral and political lessons to offer, (iv) Biology should be a compulsory subject for all school and university students.

Indeed, this project shows how Fantham became convinced that the principles of heredity could explain all things. Eugenics provided the total theory that Fantham's academic bent required.

A materialist consideration of knowledge, says MacDonell (1986), must:

...set out the politics of knowledge and study how knowledges, in their relation to each other at a given moment, in their links with institutions and in their historical conditions, in the last instance have been informed by class struggles. So it would study the

struggles for and between knowledges (p. 88). Fantham has been set out here in the political, institutional and historical context of South Africa in the 1920s and 1930s. What relation, though, do his ideas and his work have with class struggles? This author would want to avoid the economic reductionism of which some Marxists are accused. The primary conflict between capital and labour cannot serve as a causal explanation for what Fantham thought. It should not be seen as providing anything more than the canvas upon which the events of the day were painted. What, then, are the links between the actions and thoughts of people in class struggle as they apply to Fantham?

People, said Althusser (1971), live in ideology - a representation which depends on their relation to their condition of existence. So, people live within an image of the relations of production and of class relations (pp. 166 - 167). This is not a deterministic or causal relationship: For if it is true that the ISAs represent the <u>form</u> in which the ideology of the ruling class must <u>necessarily</u> be realised, and the form in which the ideology of the ruled class must <u>necessarily</u> be measured and confronted, ideologies are not 'born' in the ISAs but from the social classes at grips in the class struggle: from their conditions of existence, their practices, their experiences of the struggle, etc. (his emphases) (pp. 185 - 186).

The practices of Fantham and his fellow intellectuals in the SAAAS represent struggles within the ruling classes both for their own power as experts determining social policy, and for the continued power of the dominant group over the working class. Although often expressed as though the middle-class grip on power was a tenuous one, the conflicting theories of these thinkers were manifestations of struggles within the ruling class.

Poulantzas (1978) has shown that the ruling class is not a homogenous, solid entity, but an amalgam of contending fractions. Or as Gramsci (1971) put it - the ruling group is a hegemonic bloc of shifting alliances, even across class (pp. 57 - 58). Fantham represented an old colonial and intellectual fraction of the ruling group which was essentially backward-looking. Among their opposition was a growing Afrikaner Nationalist movement intent on forging different alliances, but still within the capitalist mode of production. Fantham's work, then, was not an intervention on behalf of the ruling classes at a high point of class struggle, but rather one of a group of traditional intellectuals making a bid for power in a larger context of struggles that was soon to render them irrelevant.

How is Fantham's work to be evaluated? Evaluating the novels of Sarah Gertrude Millin, J.M. Coetzee (1988) has this to say:

Any view of Millin as a woman imbued with the racial prejudices of white South African society and using her novels as a means of propogating and justifying those prejudices must...be tempered by a view of her as a practicing novelist adapting whatever models and

theories lie to hand to make writing possible (p. 162). Similarly, when judging Fantham's work, we must remember that his writing was unavoidably hemmed in by the "models and theories lying to hand". Returning to the four questions posed in the introduction, we have clearly seen who Fantham was and what he said. We have some understanding of why he said this and of how it was possible to see things this way. In addressing the last question - what has been the influence of Fantham's work? we know what he achieved in real terms and what struggles he was engaged in.

But 'archeological' study should lead on to the 'genealogical' question of the:

...political relevance [that] enquiries into our past have in making intelligible the 'objective conditions' of our social present, not only its visible crises and fissures but also the solidity of its unquestioned rationales (Gordon, 1979, p. 26).

This research project has not attempted to measure any lasting effects of the eugenic ideas which Fantham promoted so vigourously. Suffice is to suggest that a serious and deep study of racial, class and even gender discourses in present day South Africa will reveal that racial scientific notions form a part of the cultural pre-conscious. While these ideas are seldom articulated in the media, when people are at a loss, they still find themselves regurgitating large, partially digested chunks of eugenics.

## NOTES

1. Johan Louw's Ph.D. (1986) provides a huge step towards this history. His thesis, which was invaluable for this research project, has as its focus Industrial Psychology.

2. Thanks to Joe Muller for this insight.

3. For a synthesis see Rose S., Kamin L.J., and Lewontin R.C. (1984) Not in our Genes: Biology, Ideology and Human Nature, Penguin, Harmondsworth.

4. I have used the generic term Blacks to refer to all the disenfranchised people of South Africa, and the terms African, 'coloured', Asian and Chinese when Fantham dealt with with particular social groups seperately.

5. Much of this information was gleaned from Professor J.W. Bews' presentation speech when awarding Fantham the 21st South Africa Medal and Grant in 1931, and from an anonymous obituary to Fantham which appeared in the SAJS in 1938.

6. Norman also said:

I wish that on every man's income tax paper there could be printed in large clear type 'Income Tax 1/- in the £ of which ? is for the maintainance of the diseased, and unfit and inefficient, paupers, prostitutes, criminals and their children' (1926, p. 1064 - 1065).

7. In the mid-nineteenth century 'race' was a fuzzy and contradictory concept.

With the rise to poularity of Darwin's theory of evolution, biologists soon began to use the concept of 'race' in a quite different but no more ultimately consistent way. It simply came to mean 'kind', an identifiably different form of organism within a species. So there were light-bellied and dark-bellied 'races' of mice, or banded- or unbanded-shell 'races' of snails. But defining 'races' simply as observable kinds produced two curious contradictions. First, members of different 'races' often existed side by side within a population. There might be twenty-five different 'races' of beetles, all members of the same species, living side by side in the local population. Second, brothers and sisters might be members of two different races, since the characteristics that differentiated races were sometimes influenced by alternative forms of a single gene. So a female mouse of the light-bellied 'race' could produce offspring of both light-bellied and dark-bellied races, depending on her mate. Obviously there was no limit to the number of 'races' that could be described within a species, depending on the whim of the observer (Rose, Kamin and Lewontin, 1984, p. 119.

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