Psychology in society, 1990, 14, 74-77

Racism and science education

Book review

Gill, D, & Levidow, L (eds) (1987) **Anti-racist science teaching**. London: Free Association Books, ISBN 0-946960-64-X.

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The appearance of **Anti-racist science teaching** edited by Dawn Gill and Les Levidov is a unique contribution to anti-racist education. It is particularly opportune at this juncture in the South African struggle as educationists begin to grapple with giving content to what is popularly called "People's Education". The book challenges assumptions about science as value- free/objective/neutral knowledge, and then goes on to show that the distinction between science and politics is false and exposes institutionalized racism in schools.

The concept of "race" is placed in perspective and shown to be an artificial construct (supported by scientists and therefore necessary to be exposed as scientifically unjustifiable). Originally devised to justify slavery and colonial politics, the concept of "race" often continues to be used uncritically, even in progressive circles. Multi-culturalism - one aspect of anti- racist practice - often simply disguises Western racism while still pandering to "race" as a concept. At best, multi- culturalism is merely paternalistic. Fortunately, the book goes beyond this. There is an excellent expose of how science, supposedly value-neutral "....serves a racist society in many subtle ways ...and (which)...engages the teacher and learner in maintaining structural racism". It is as well to note the the authors are not speaking about South African science but Western European science generally.

The essays show clearly how science is a practice - the "science that gets done" is the only science, and the political priorities which guide choices made by society (sic) as to what is researched, why and in whose interests clearly intersect with the economic domination of third world and black people. The book provides valuable insights into how science is used by those in power and how imperialism acting particulary through multinationals manipulate the economies of third world countries or the poor (usually third world immigrants) in metropolitan countries. School textbooks are shown usually to reflect only on the results of this exploitation, leaving children and teachers with poor images of third world "need", overpopulation and misery. This is presented without the balancing perspectives on the causes, perpetuated by political choices made elsewhere (and usually validated by scientifically-backed research).

This plus the positive images of a Western world of scientific progress, of help given to ignorant third world countries and people, is racist in the extreme in its effects on both white and black. That the third world produces most of the raw materials crucial to first-world development is conveniently ignored, as is the historical contributions made by countries now considered scientifically backward.

The critiques of racist approaches to Biology were very good and covered a wide range of topics from the Bhopal disaster to sickle cell anaemia. These provide valuable resource material as a means of orienting the manner in which Biology teachers could handle certain topics. Biology has always lent itself more easily to socially-relevant teaching. Student assessment is also critically evaluated in anti-racist terms.

Robert M Young's proposals of a historical study of why in different decades or periods of time particular aspects of research flourished, opened up exciting possibilities for debate around the political choices in science and the construction of knowledge. What constitutes knowledge, who decides what is relevant, and so on, could be asked of any discipline, using this framework. Racism in science teaching, Young asserts, is a deeper view of the deeper issue of where scientists' questions come from, who asks the questions and in whose interests the science "gets done". In the end, debates about the science curriculum can be seen as debates about the kind of society we wish to have.

Certainly the book boldly sets the terms of debate as to the politics of

science education. This debate needs to be taken up vigorously in this country which has epitomized racist ideology and educational practice and as such the book should be compulsory reading for all science (and other) teachers and students. Furthermore, the book underlines the difficulties and limitations of attempting to implement anti-racist teaching, on a purely practical level, by citing the case study of one school. But on a political level it shows how by challenging the "neutrality" of the curriculum immediately brings charges of dragging politics into education - conservatives are well aware of whose interests education promotes at present. Again, we are referring to the bourgeois-democratic state of Britain, not the overtly racist one of South Africa, where attempts to change the curriculum meet with such hysterical resistance.

It is obviously therefore a conflict of **class** interests when the curriculum is challenged as "racist" and shows to what extent "race" and class intersect in maintaining hegemony in present-day education. In the final analysis, the "science that gets done" operates in the interests of the ruling class, which is prejudiced against the working class which is mainly black (or third world) and against whom racism is practised.

A non-exploitative, anti-racist and democratic social system alone will guarantee a school system, and therefore science education, which is non-exploitative, democratic and anti-racist. But this does not necessarily simply happen unless we are aware of how racism permeates the structures, institutions and curricula in subtle ways. This presupposes international anti-racist collaboration, given the interconnectedness of international capital and interests.

Finally, the book challenges all science teachers to make a beginning - to use the classroom and curriculum as a site of struggle - which it has always been to the few teachers who have been prepared to acknowledge (and act upon) the politics of science education. If the book acts as a stimulus for science teachers to get together and address how to implement anti-racist science in the classroom in this country, and to give encouragement to those who have grappled with the problem in relative isolation, it will have served its purpose. International collaboration to some extent has been bedevilled by an unselective (rather short-sighted) cultural boycott - making ILEA multicultural and other anti-racist materials unavailable to us for interaction.

Above all, a welcome addition to the paucity of resources in a generally neglected site of struggle. The book is and should certainly encourage the debate in anti-racist education.