Boycott of South Africa

SIR-We are white South African scientists working quite openly for the removal of the present government, but we do not welcome the scientific boycott, as J.G. Wilson (Nature 328, 288; 1987) presumes we should. Wilson also presumably includes us amongst the whites "who choose to enjoy the advantages of living comfortably in South Africa, at the expense of the black population". We can assure him that we, and many of our colleagues, would be more comfortable, and more fulfilled as scientists, if we were living at the expense of the population in Europe, North America or Australia. It is far from comfortable being a scientist in South Africa today, being perceived as largely irrelevant by most of those engaged more directly in the current political turmoil, and pariahs by many fellow scientists abroad. Those of us who could move would be elsewhere, if we were motivated by comfort or short-term personal gain.

We agree with Wilson that the scientific boycott would encourage native white South African scientists to leave the country, not "for the duration", as he glibly remarks, but forever. The best scientists would be most likely to find employment elsewhere. Such emigration, which is occurring already, and other effects of the boycott, would damage science and technology immeasurably in South Africa. We suspect that the least damage would be inflicted in the military area, both because the country is probably more self-sufficient in military science and technology than in any branch other than mining, and because military hardware is always available, at a price. What will suffer most is the science and technology that seems least critical in the short-term: medical science, agriculture, ecology and conservation, and especially science education. Despite Wilson's contention to the contrary, science education and scientific careers in South Africa are not the preserve of whites, and to claim that they are is derogatory to black South African scientists. However, science education still depends largely on white lecturing and teaching staff. If they were to be depleted, many South African blacks would continue to be deprived of the opportunities in science and technology from which they have been excluded in the past by the structures and philosophy of apartheid. Wilson seems to favour such an outcome, but we doubt whether he would receive the support of the majority of black students in our classes.

We hope that readers of *Nature* will agree that no country is likely to attain a quality of life acceptable to the majority of its people without a commitment to and competence in science and technology,

whatever the country's political persuasion. Wilson's clairvovance does not appear to extend to plans for providing such competence in a future South Africa, from which the scientists he has encouraged to leave have departed. Examination of other developing countries in Africa shows how hard it is for such countries to bootstrap themselves into first-world science, and also that they cannot rely on first-world immigrant scientists to help them do so. It seems that many qualified scientists find it more comfortable to be on the dole in the United Kingdom and elsewhere than to be contributing to science and science education in developing countries. We believe that the future South Africa will have scientific and technological competence only if South African scientists of all colours stay here and work for it; that is why many good scientists have chosen to stay, in spite of the personal cost.

Wilson appears to like his dilemmas posed in simplistic terms. Our simplistic version of the dilemma facing those having to take sides on a scientific boycott of South Africa is this: do you wish all South Africans to have access to the firstworld quality of life now enjoyed by only a minority, or do you wish none to do so?

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SIR—J.G. Wilson outlined "... some arguments for the scientific boycott of South Africa" (*Nature* 328, 288; 1987). Apart from containing factual inaccuracies, Wilson's letter reflects a simplistic view.

The motivation for being nasty to white South African scientists appears to be the notion that this will somehow help blacks in South Africa. Will it? White South African scientists do not run the country. It is the South African government that does so. The former show a great interest in matters such as scientific boycotts whereas the latter, in the short term at any rate, has little reason to take any notice whatsoever of any scientific boycott. The government is trying to sort out issues it would consider to be more important than the relegation to the dog-box of the comparatively small community of South African scientists. Consequently, a scientific boycott is unlikely to hasten any ". . . overthrow of the present system".

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Should white South African scientists find that they are unable to publish in journals of their choice, many will simply leave the country (and many have already done so). Few will return. The future black scientists and academics of South Africa will then inevitably be third-rate, and will be employed at what will have become fourth-rate institutions.

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Creationism lives

SIR—The National Center for Science Education is pleased with the Supreme Court creationism decision (see Nature 327, 645; 1987). Now teachers in the state of Louisiana will not be forced to present biblical literalism as science. Reports of the death of "scientific creationism", however, are premature. The Supreme Court decision says only that the Louisiana law violates the constitutional separation of church and state; it does not say that noone can teach scientific creationism - and unfortunately many individual teachers do. Some school districts even require 'equal time' for creation and evolution. A number of organizations exist to encourage teachers to introduce 'scientific' creationism, and they are not deterred by the failure of the Louisiana legislation. The strength of the creationist movement has always been at the grassroots level, and this is where it will continue to thrive. Those supporting science education also need to focus their efforts at the grassroots level, by becoming involved in textbook selection, supporting improved teacher training and being aware of what actually is taught in the classroom.

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Not so bad

SIR—No doubt NASA (National Aerorautics and Space Administration)'s latest mishap at the Wallops Island Flight Facility may leave us wondering if 'mother Nature' has decided to take part in the plot against the space agency also (see *Nature* **327**, 543: 1987).

But look at it this way: three launches at once, two of them successfully taking their prescribed course and the third one 'launched' even without a launching pad, may be considered quite a strike, lightning notwithstanding.

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