

Paramount leadership that failed to deliver freedom

China's economic growth and scientific development bear witness to the towering achievements of Deng Xiaoping. But his death highlights grievous shortcomings that his successor should avoid.

Deng Xiaoping, who died last week, evidently made a great impression on the 1.2 billion citizens over whom he ruled, some of whom will have seen him on his many flesh-pressing walkabouts. To people who met him he was power personified. For China as a whole, he will be remembered fondly as the one who decreed that prosperity is not incompatible with serfdom. It is a short step from there to the belief that serfdom is essential for a booming gross national product.

Since his death, Deng has been widely described as a "pragmatist", meaning that he had the wit to see that China would not hold together unless the lot of its people was improved — and that he was prepared, at least for the time being, to overlook the danger that prosperity might itself engender rebellion. That tolerance vanished when Deng sent in the tanks to Tiananmen Square.

In truth, the misfortune for China and the rest of us is that Deng was too pragmatic by half. He had the courage to endure the Long March as well as the indignities of the Cultural Revolution, but seemingly not the ambition to articulate a role for his new China in the century ahead. If a "paramount leader" has any responsibility at all, it is surely "the vision thing", as US President George Bush once called it.

Deng's successors will be painfully conscious of his failure to leave them a blueprint for the future. They need one now, if only to understand where the past twenty years of breathtaking economic growth are heading. Giving China's private sector access to capital from overseas has predictably stimulated production, a booming export trade and a healthy balance of payments. Deng's formula has also turned hundreds of Chinese into millionaires and whole rural communities into crowds sleeping rough at the city-centre railway stations. The former are congratulated as economic patriots, but in this get-rich-

quick society there is not yet a policy on the growing armies of the impoverished. Compassion is not a Chinese strength.

China's place in the wider world is another conundrum. From the outside it is perceived as an awkward customer, forever raising tension over issues such as Taiwan, arms sales to Pakistan and the like. From the inside, it seems that China is hemmed in by the military might of the United States and what used to be the Soviet Union. If only Deng had thought of a way through this maze, we should all be safer. The best hope is that Deng's successors will be willing to talk about international security more willingly than in the past. The danger lies in China's distinctive blend of chauvinism and timidity.

Modernist and modernizer as he was, Deng's influence on science was good. The old research institutes and, even more notably, the universities have embraced the new competitiveness; the successful among them are on the way to being research conglomerates, with one foot in industry and the other in blue sky. Yet China is not yet making the mark on the international pattern of research that its people's talents, and its declared ambitions, would sustain. That disappointment is one part of the price that China pays for the stultifying political correctness and cronyism of its civic life. Another is the reluctance of thousands of Chinese expatriates to bring scientific skills and experience back home.

Deng was not a modernizer in that regard: personal liberty (of which there is now a lot more in China than there used to be) is fine if it means freedom to move from one place to another or even to buy a ticket for a package tour abroad, but nothing can be allowed to undermine the government's supremacy. If, as seems probable, Deng's successors follow suit, they will have to wait a long time before the harvest of discovery for which they yearn becomes a reality. □

Caught napping by clones

Pleas for ethical advice on mammalian cloning reveal a lack of foresight.

Shortly before this issue of *Nature* went to press, we received an e-mail pleading that a paper, "Viable offspring derived from fetal and adult mammalian cells" (page 810), be removed from it. The paper does what the writer of the e-mail feared: spells out the way in which researchers in Edinburgh extracted the genome of a sheep from a tissue cell, and inserted it into an egg from another sheep, reimplanting it so as to produce a lamb genetically identical to the genome's donor.

The immediate scientific value of this work relates to understanding of the effects of cell differentiation on genomes (see page 769). In the public discussion that followed the premature disclosure of this work by a newspaper last Sunday, researchers were understandably quick to emphasize the technical and legal obstacles to the cloning of humans. But to leave it at that would smack of a psychology of denial under stress. Today's results were a likely consequence of last year's report of cloned sheep from embryos, "as sure as eggs is eggs" as an Eng-

lish cliché so aptly puts it. Cloning humans from adults' tissues is likely to be achievable any time from one to ten years from now. Ethical constraints aside, there are even some rare genetic and medical disorders for which it would be a desirable way for a couple to produce offspring.

The writer of the e-mail urged that the paper be withdrawn from publication pending more thought being given to bioethical issues and access of information. "As the procedure becomes more and more commonplace, its abuse by extralegal or foreign groups is almost inevitable", wrote the Harvard academic. Although publication of this week's paper still leaves substantial technical barriers to be overcome for anyone wishing to adapt it to other mammals, the writer is correct to imply that discussion has been grossly inadequate. At a time when the science policy world is replete with technology foresight exercises, for a US president and other politicians only now to be requesting guidance about what appears in today's *Nature* is shaming. □