

of R&D, the Japanese government budget for science and technology remains the lowest of any major developed country. Although most dependent on raw materials of all the industrialized states, its rate of contributing to the technological development of the Third World is the smallest. The Japanese system of education and employment has created a stable, dynamic society of highly trained technocrats, but many observers wonder whether uniformity has been stressed so much as to crush the freedom necessary for real creativity in science and technology.

Finally, in the face of an increasing need for effective dialogue with the world at large, the Japanese often remain embarrassingly isolated and inarticulate. In the words of Harvard's Edwin Reischauer, "They have developed enough skills to handle specific economic and other relations with the outside world, but not to make a contribution to the solving of world problems that is commensurate with their size and skills."

In the faces of commuters at Akasakamitsuke one sees reflected these paradoxes of modern Japan. To them, the oil crisis meant the hiring of 2,000 more pushers to help accommodate the extra people who rode subways rather than driving their cars. Along the train platform, Japan's "economic miracle" is readily apparent in the multitude of fashionable clothes and other accoutrements of prosperity. (Japanese businessmen have now supposedly surpassed the British as the world's best dressed.) But the price of industrial prominence is also visible, for public works and private amenities have often been sadly neglected. Aboard the trains many women hold little handkerchiefs to their noses to ward off the smell of pollution and the crowd, and half of these people reportedly go home to houses without flush toilets.

There are other costs as well. In the name of political expediency some marginally productive activities, particularly farming, have had to be artificially supported by the rest of the booming economy. Thus the whisky company headquartered in Akasakamitsuke has recently prompted protest rallies in Glasgow for its success in imitating scotch at a lower price, but the cost of some fatty hamburger meat to go with a drink runs about \$3 a pound in Tokyo. Meanwhile, Australia and New Zealand beg to export more beef to Japan.

The future of Japan and of its increasing technological challenge to the rest of the world are thus clouded with uncertainties. The West can no longer afford to underestimate Japanese abilities, but to understand the likely impact of recent initiatives will require close examination of several specific projects and also of the society supporting them. Such an analysis will be attempted in the following articles of this series. □

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