

SCIENCE AND DEMOCRACY

With China under international scrutiny, an old question has reemerged: Can science and democracy exist without each other?

FROM THE ULTRA-STRONG STEEL in Beijing's "Bird's Nest" National Stadium to the Nest's system for recycling rainwater, China is capitalizing on the Olympics to highlight its scientific innovation. But an undemocratic political system paints the backdrop for the Games, with concerns about media censorship and human rights issues making international headlines. Something about this mix of strong science and undemocratic politics doesn't sit right. Both science and democracy are about freely exchanging ideas, challenging accepted theories, and judging propositions on merit; ideals the Party's tight rule would seem to preclude. China in 2008 prompts the question: Can innovation thrive without democratic governance?

This relationship between science and democracy has long been debated in China. In 1919, intellectuals participating in the anti-Confucian May 4th Movement called for the introduction of "Mr. Science" and "Mr. Democracy," two Western "gentlemen," who could bring China out of the

dark. Tiananmen Square protesters opposing Communist Party rule reclaimed the slogan "science and democracy" in 1989, suggesting that science could never flourish in a non-democratic state. And today, as China's economy grows and scientific innovation becomes a top national priority, it is natural to ask whether the political system can truly foster science.

Certainly the rhetoric points in the right direction: In his October speech to the 17th Party Congress, President Hu Jintao said, "We must always put people first...to ensure that development is for the people, by the people, and with the people sharing in its fruits." Last year, China appointed its first two non-Communist party ministers since the 1970s: science and technology minister Wan Gang and health minister Chen Zhu. Within the party, members and factions are putting checks on each other's power.

China's emphasis on economic development has given scientists more freedom with their research—providing, if not more democracy, at least less constraint. More Chinese scientists are entering into international collaborations, and economic diversification has allowed researchers to receive funding from foundations outside the government.

"One of the most interesting developments that's happening to Chinese science is the return of some of the Chinese-American scientists. I think these people will bring the sense of a conceptual change that's needed for Chinese science to fully develop to its potential," says historian Zuoyue Wang. He



China is using the Olympics to promote its image as a dominant world power and center of innovation.

compares these researchers to the Americans who, during the first half of the 20th Century, studied in Europe and later helped the US overtake Europe as a global scientific leader.

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But Wang adds that while government science funding has been growing nearly 25 percent annually, grants are often awarded based on bureaucratic connections, not scientific merit. Political scientist Richard Suttmeier says that some scientists who have adjusted to the old system may be ambivalent about gaining complete autonomy from the government. And China is still ruled by a single party.

"It seems to me that until you really come to grips with what the fundamental principles of democracy are—for me that would include competitive elections—I don't think there's anything new," Suttmeier says. "What you're seeing with Hu Jintao's leadership is an attempt to further expand this discourse of science and democracy, but emphasizing the science more than the democracy."

Xu Liangying, a distinguished physicist, historian, and activist, agrees and goes further, stating China "has no democracy today." He says that only together can science and democracy lead to modernization. "China is likely to achieve some technological and scientific advances," Xu says. "But the lack of scientific spirit will become a bottleneck, as a scientific spirit—encouraging us to pursue truths, challenge authorities, be skeptical, and have independently critical thinking—is the prerequisite to major scientific progress."

As the world eyes Beijing in 2008, China may feel pressure to democratize. But it is unlikely China will cave to external demands. If the Party chooses to relinquish power, it may be to achieve its own goals of innovation and growth. —Maggie Wittlin