POLICY-MAKING

Cybernetic Birth Control

Erik A. Mueggler

China's 1979 decision to allow only one child per couple was among the most consequential policy decisions in a century chock-full of state projects to transform populations. The one-child policy replaced a project called "later, longer, fewer," which encouraged couples to have fewer children spaced more widely apart. Relatively flexible, "later, longer, fewer" took into account the needs and values of peasants, about 80% of the population, and it cut the crude birthrate in half between 1971 and 1978. In contrast, the one-child policy was uncompromising. China's leaders employed coercive methods to achieve rapid and universal fertility reduction. Blind to the social and political realities of rural areas, the policy met immediate resistance there, countered with ruinous fines, mass sterilizations, and forced abortions. Rural cadres found the policy increasingly difficult to carry out as land use, economy, and governance were restructured in the early 1980s. It was slowly relaxed and liberalized, and by 1984–1985 it became, in many areas, a de facto two-child policy. But through the 1980s and 1990s, there were further cycles of renewed commitment to fertility reduction and slow liberalization. Today, though the goals of the policy are deemed to have been largely met, China's government continues to promote a one-child rule. Whatever the benefits of the policy in reducing fertility more quickly than socioeconomic development alone might have done, its costs have been huge: enormous human trauma, a rapidly aging population with inadequate social security, and a severely distorted sex structure (120 boys to 100 girls in 1999).

Anthropologist Susan Greenhalgh (University of California, Irvine) is our most surefooted guide to China's adventure in mass birth planning. She has pursued the topic for more than 20 years, with both detailed field studies of peasant experience and wide-ranging investigations of policy-making. In *Just One Child*, Greenhalgh focuses on the conception and birthing of the one-child policy. What was the science that convinced China's leaders that the nation was experiencing a potentially disastrous crisis in population? How was this science created, how did it gain the trust of the leaders, and how did it win out over alternative narratives about China's population? How were the goals of one child per couple and an optimal population (initially) of 700 million arrived at? How were these goals transformed into policy? Why did China's leaders decide to ignore the social and political realities of the rural areas in pursuit of these goals?

Just One Child
Science and Policy in Deng's China

by Susan Greenhalgh

University of California Press, Berkeley, 2008. 425 pp. $55, £32.95. ISBN 9780520253384. Paper, $21.95, £12.95. ISBN 9780520253391.

Greenhalgh engages these questions with a microhistory of relationships between science and policy. At the center of the book is the remarkable story of how a cybernetic science of population, employing methods developed for missile guidance systems, came to occupy the center of population policy-making. In 1978, Song Jian was a control theorist, working on missile systems. He and his fellow defense scientists were the most protected and privileged of China's scientific elite, during a time when most social and natural sciences had been decimated by the Cultural Revolution. In 1978, Song and his team, inspired by the work of an international network of population scientists known as the Club of Rome, began to apply control theory to the study of China's population. The team's projections—employing mathematics far beyond the grasp of China's policy-makers, founded on shaky and incomplete data, and completely free of any consideration of social life—presented a clear and alarming narrative. Left to grow at 1978 rates, China's population would top six billion by the year 2000. Given ideal levels of economic development, China's resource base could optimally support a population of between 650 and 700 million (the 1978 population was 980 million). Were China to rapidly adopt a universal one-child policy, it could limit the population to a manageable peak of 1.05 billion in 2004 and decrease it to optimal levels by 2080. A blanket one-child rule was, Song came to insist, the only way to ensure that China would not be crippled by unsustainable population growth in the future.

Greenhalgh draws on the field of science and technology studies (particularly as framed by Bruno Latour) to describe the development of this cybernetic science of population. She shows how Song and his team promoted their science, erected boundaries between it and older economic and social-science approaches to population, and created networks of allies that brought it to the attention of the upper echelons of the policy-making elite. China's chief policy-makers,

Promoting the one-child policy. Posters, such as this 1986 example, were widely used in the campaign to curb the projected problematic growth in China's population.

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alarmed and inspired by Song's projections, ended up adopting his assumptions and proposals wholesale. Eventually, as the limitations of Song's approach began to emerge, the science behind the one-child policy was "black boxed"—made off-limits to investigation and discussion—even as the policy itself remained foundational to Chinese governance. Greenhalgh pries open this box with persistence and analytical sophistication, revealing the social mechanisms through which the science was produced and transformed into policy.

Just One Child is based on 20 years of interviews with decision-makers at many levels and the close study of Party documents and scientific articles. The book is resolutely interdisciplinary, adopting methods from anthropology, science studies, political science, and population studies. Greenhalgh does not deny that China has a "real" population problem. But she insists that this reality is co-constituted by nature, science, and politics and that any approach to understanding it must involve close investigation of these three arenas in their interaction. As a study of scientific policymaking in China, *Just One Child* is without peer. Many readers might also find it to be a useful model for investigating the relationships between science and policy in other regimes.

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DEMOGRAPHY

A Polemic Against Control

John C. Caldwell

Interesting and well written, *Fatal Misconception* is also deeply flawed and in essence a polemic. Matthew Connelly's account derives much of its force from the selective use of adjectives, adverbs, and nouns that make efforts to limit population growth sound at all times like a conspiracy. In the preface, the reader is disarmed by being told that the author was an eighth child who would not be alive if his parents had used contraception to constrain the size of their family. Connelly (a historian at Columbia University) also relates that his view of the population control movement changed radically as a result of an intense study of the relevant documents. His main sources are the archives of foundations, governments, and other institutions. He tells us that "This is a history of how some people systematically devalued *both* the sanctity of life *and* the autonomy of the individual."

My qualifications for commenting on the book are half a century spent largely watching the development of the population control movement, much of the time in the field examining the movement's impact on families. I was wary of being too tightly linked with efforts to limit population growth, and everywhere insisted on having a university appointment (which I managed except for one year, 1968, with the Population Council in New York). Pat Caldwell and I were apprehensive of such population programs getting out of hand, and we were acquainted at its early stages with the monstrous program (which pushed compulsory sterilization) carried out in India's Emergency of 1975–77. We rushed to Delhi to tell scholars and diplomats what was happening; the latter replied that we should not interfere with Indians doing things in their own way. I also wrote a number of papers and a book (*1*) explaining why most Africans were unlikely at that time (the late 1970s) to benefit from a smaller family.

Fatal Misconception
The Struggle to Control World Population
by Matthew Connelly
Belknap (Harvard University Press), Cambridge, MA, 2008. 537 pp. $35, £22.95, €24.50. ISBN 9780674024236.

In his attack on the family planning programs, Connelly makes several points that require brief responses. The first is that there is an intellectual thread linking eugenics groups, anti-immigration activists, racists, and the population control movement. From my experience, the leaders—and, even more so, the expatriate coordinators in developing countries—were not motivated by eugenics but by a desire to improve family life and fortunes as well as national development.

More important, the great majority of "acceptors" (who tried birth control), even those who complained of side effects, wished to continue contraception. Many of them stopped for periods of time or changed methods (*2*), but no more than we found to be the case in a study of a Western city, Melbourne, Australia (*3*). In addition, the children of acceptors almost all believed that their parents had been right to limit family size (*2*).

Connelly's charge that proof was lacking for the proposition that reduced natural increase would foster economic growth is more difficult to evaluate. The evidence is ambiguous. The more salient argument is that the early start of family planning programs may have lowered the eventual global population by one or two billion people, a margin that could prove critical in terms of pressure on food, petroleum, water, and other resources. Without that reduction, our carbon footprint would certainly be greater.

The author clearly feels that fertility decline would have begun spontaneously as death rates of children fell and incomes and educational levels rose. The delay in restricting population growth would probably have been greater than Connelly believes. Throughout our work in rural south Asia and sub-Saharan Africa, couples almost invariably explained that their parents could not have controlled fertility because contraception had not been explained to them and they had no access to contraceptives. The couples attested that they would have been in the same situation if family planning programs had not arrived.

The book implies that the West was ruthlessly applying its own experience to non-Western countries. In fact, family planners were merely following the only path known to them for inducing an industrial revolution and higher living standards by replicating the characteristics of industrialized countries. Small families were not as strongly advocated or assisted as changes in agriculture, education, and such public health programs as immunization.

The fatal misconceptions Connelly stresses were such undesirable programs as the vasectomy camps in Kerala, the Indian Emergency, the one-child family of China, and the Dalkon Shield. None of these events was guided by the mainline family planning movement, and most can be understood as a product of political authoritarianism. Even the small assistance given to China can be seen as an attempt to keep in touch with what was happening, in the hope that a kinder program might result.

Fatal Misconception is the result of an awesomely sustained research effort. But it remains a lawyer's argument, with a far greater effort given to making Connelly's case than to presenting a balanced treatment. Sexual activity and reproduction are matters that seem to excite much frenzy. That said, it should be added that the book is eminently readable and informative.

References

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