involuntary measures could be less repressive or discriminatory, in fact, than some of the socioeconomic measures suggested.

In the 1960s it was proposed to vasectomize all fathers of three or more children in India. The proposal was defeated then not only on moral grounds but on practical ones as well; there simply were not enough medical personnel available even to start on the eligible candidates, let alone to deal with the new recruits added each day! Massive assistance from the developed world in the form of medical and paramedical personnel and/or a training program for local people nevertheless might have put the policy within the realm of possibility. India in the mid-1970s not only entertained the idea of compulsory sterilization, but moved toward implementing it, perhaps fearing that famine, war, or disease might otherwise take the problem out of its hands. This decision was greeted with dismay abroad, but Indira Gandhi's government felt it had little other choice. There is too little time left to experiment further with educational programs and hope that social change will generate a spontaneous fertility decline, and most of the Indian population is too poor for direct economic pressures (especially penalties) to be effective.

A program of sterilizing women after their second or third child, despite the relatively greater difficulty of the operation than vasectomy, might be easier to implement than trying to sterilize men. This of course would be feasible only in countries where the majority of births are medically assisted. Unfortunately, such a program therefore is not practical for most less developed countries (although in China mothers of three children are commonly "expected" to undergo sterilization).

The development of a long-term sterilizing capsule that could be implanted under the skin and removed when pregnancy is desired opens additional possibilities for coercive fertility control. The capsule could be implanted at puberty and might be removable, with official permission, for a limited number of births. No capsule that would last that long (30 years or more) has yet been developed, but it is technically within the realm of possibility.

Various approaches to administering such a system have been offered, including one by economist Kenneth Boulding.[105] His proposal was to issue to each woman at maturity a marketable license that would entitle her to a given number of children—say, 2.2 in order to have an NRR = 1. Under such a system the number could be two if the society desired to reduce the population size slowly. To maintain a steady size, some couples might be allowed to have a third child if they purchased "deci-child" units from the government or from other women who had decided not to have their full allotments of children or who found they had a greater need for the money. Others have elaborated on Boulding's idea, discussing possible ways of regulating the license scheme and alternative ways of alloting the third children.[106] One such idea is that permission to have a third child might be granted to a limited number of couples by lottery. This system would allow governments to regulate more or less exactly the number of births over a given period of time.

Social scientist David Heer has compared the social effects of marketable license schemes with some of the more repressive economic incentives that have been proposed and with straightforward quota systems.[107] His conclusions are shown in Table 13-5.

Of course, a government might require only implantation of the contraceptive capsule, leaving its removal to the individual's discretion but requiring reimplantation after childbirth. Since having a child would require positive action (removal of the capsule), many more births would be prevented than in the reverse situation. Certainly unwanted births and the problem of abortion would both be entirely avoided. The disadvantages (apart from the obvious moral objections) include the questionable desirability of keeping the entire female population on a continuous steroid dosage with the contingent health risks, and the logistics of implanting capsules in 50 percent of the population between the ages of 15 and 50.

Adding a sterilant to drinking water or staple foods is a suggestion that seems to horrify people more than most proposals for involuntary fertility control. Indeed, this

[105] *The meaning of the 20th century*, pp. 135–136.

[106] Bruce M. Russett, Licensing: for cars and babies; David M. Heer, Marketing licenses for babies; Boulding's proposal revisited.

[107] Ibid.