means, but most cannot be eliminated except by costly chemical processing." While generally correct, this statement is subject to some qualification.

There is no magic wand or "thiomagustic" device that can draw sulfur out of a lump of coal without changing its physical structure. But it is quite possible and practical to destructively desulfurize coal without seriously penalizing total fuel value of the resulting char, condensable liquids, and combustible gas. These low sulfur product fuels can be efficiently burned together in modern powdered fuel steam generator fireboxes with minor modification, or the char alone can be efficiently burned in fluidized bed stream generators.

In most cases, the cost of such chemical processing will be less than 20 percent of the cost of good high sulfur steam coal delivered to consumers' plants. With experience, it should be possible to reduce this cost somewhat. This figure assumes a minimum plant requirement of 2000 tons of coal per day which is not large by modern electric utility standards.

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Reproduction in a Finite World

Szabo asks "Do we hate our own species so much that it is regarded as a crime if people want to have at least three children?" (Letters, 3 Apr.). . . . Those who favor the limitation of population do so because of concern for humanity, not hatred. Granted only that our world is finite, and that mass migration away from it is impossible, then the conclusion that the birthrate must inevitably equal the death rate follows with mathematical certainty. At that point in time each person, on the average, can at most reproduce himself; any excess offspring must die before maturity. Surely then it would be a crime, particularly against the children, for the size of the average family to be as high as three children.

One point should be obvious: The numbers refer to averages. If some couples want large families they may still be able to do so provided others want smaller families or no families. We should be able to keep such options open provided we recognize the overall constraints.

This simple philosophical argument does not tell us *when* the limitation of family size becomes of such vital importance. The answer to that depends on which aspect of the world's finiteness is or should be most important: is it food, space, or something else? Basically it involves human *values*. If we could all address ourselves to the question of human values and desires we might begin to make some headway toward a better life for all.

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Szabo fails to recognize that it is because we love our species that some of us advocate voluntary tubal ligation and vasectomy. In a period when we are plagued with overpopulation and environmental pollution, the assumption that it is permissible, if not desirable, to have more than two children seems to be archaic. At one time this attitude was probably appropriate to the species because it was desirable to increase the population. Now, however, it is inappropriate, and man's attitudes must be altered in order for him to adapt to these conditions: overpopulation and environmental conditions.

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Predicting Ovulation—Precisely

In spite of all the discussion of the medical, mechanical, and social drawbacks of contraceptives which are currently available, I wonder if we are not missing the point. What we really need is not the "ideal" contraceptive, but the "ideal" predictor—of ovulation. Is anyone working on the development of effective means of telling precisely when ovulation is about to occur in a woman? If they had 2 or 3 days accurate warning, women would have a much better chance of avoiding problem pregnancies, with none of the added physiological or psychological strains which attend current contraceptive methods. With a really effective Distant Early Warning system, even the rhythm method ought to work!

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