but the methodology used by Turner and White does not seem to consider culture and human motivation.

Peter Y. Bullock
Office of Archaeological Studies,
Museum of New Mexico,
228 East Palace Avenue,
Santa Fe, NM 87503, USA

Anyone who can't believe that our tender and delicate species could possibly resort to cannibalism should read of the fate of Giovanni Verrazzano, the discoverer of New York Bay (*1*). In 1528 he anchored his vessel off shore of an island in the Caribbean Sea and landed from a skiff to meet a crowd of natives, as did many captains who landed along the North American coast from Florida to Labrador. His audience immediately murdered him, then cut him up and ate him on the spot, while his brother watched helplessly from beyond the surf line.

Margaret H. Jones
6561 East Saddleback Street,
Mesa, AZ 85215, USA

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World Population and Food Supplies

The subtitle of the article by Charles Mann, "Reseeding the Green Revolution" (Special News Report: World Food Prospects, 22 Aug., p. 1038) reads, "High-yielding varieties of wheat, rice, and maize helped double world grain production. A repeat performance is now needed [because of continuing world population growth], and that will require a new commitment to agricultural research." It seems important to repeat the question that Garrett Hardin (*1*) often asked: "Do we have a shortage of food or a longage of people?"

Is it responsible for scientists to hold out the hope that endless population growth can be matched by endless doublings of world food production? At some point, probably sooner rather than later, we are going to run into the limits set by the law of conservation of stuff. The people of the world would be better served if we scientists gave our primary attention to the achievement of zero or negative population growth, first in the United States and then worldwide, so that further increases in agricultural production could be devoted to substantially improving diets worldwide.

Albert A. Bartlett
Professor Emeritus of Physics,
University of Colorado,
Boulder, CO 80309–0390, USA
E-mail: bartleta@stripe.colorado.edu

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Maximizing U.S. Population?

With regard to the special section on "Human-dominated ecosystems" (25 July, pp. 485–525), who will be brave enough to echo the 25-year-old call of the President's Commission on Population Growth and the American Future to stabilize this country's population, which was about 205 million in 1972 (*1*)? Congressional disregard of the commission's admonition that immigration -policy would have to respect demographic goals means that, instead of leveling off at 240 million people by the year 2030 and then slowly declining (*2*), the U.S. population will probably reach 500 million by mid-21st century (*3*). It has become "politically incorrect" to present the data showing that immigrant women now contribute nearly 18% of all births nationally (making the difference be-

tween well-below replacement fertility and well-above) and nearly 50% of births in California (4). (The year 2000 census will likely not measure this source of population growth because there is no question asking for the birthplace of parents.) These data portend a substantial increase in childbearing-age population by 2010. By choosing to maximize rather than optimize population, our political leaders have sealed our ecological fate.

B. Meredith Burke
Visiting Scholar, Hoover Institution, Stanford University, Stanford, CA 94305, USA

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Defining "Microbiology"

Should the term "microbiology" and its derivatives be limited to situations when all microorganisms (bacteria, viruses, and mycoplasmas) are implied? I propose that, when bacteria alone are meant, the term "bacteriology" should be used. The profound differences between bacteria and viruses have been recognized for at least 100 years. While bacteria are of a cellular nature, viruses are acellular; they replicate only as parasites of host cells, and they are metabolically inert outside host cells. "Microbiology" may have been synonymous with "bacteriology" until the turn of the century, but virology is now an important branch of microbiology. The scientific output of virologists in the last decades has undoubtedly equaled if not exceeded that of bacteriologists. Why is it then that "microbiology" is still used when bacteria are exclusively discussed (E. J. Strauss and S. Falkow, "Microbial pathogenesis: Genomics and beyond," Articles, Frontiers in microbial biology, 2 May, p. 707)?

The same holds true when advertisements are placed for employment opportunities, pharmaceutical products, and so forth. An opening for a microbiologist might be advertised, when, in fact, a bacteriologist is sought. This results in a waste of time and money while inquiries about the exact nature of the position are made. Is it unreasonable to ask that we recognize that bacteria are not the only form of microorganisms?

Arnost Cepica
Department of Pathology and Microbiology, Atlantic Veterinary College, University of Prince Edward Island, Charlottetown, Prince Edward Island, Canada, C1A 4P3
E-mail: acepica@upei.ca

Response: We agree with Cepica, for the most part, and apologize for any confusion our title may have caused. Indeed, viruses and bacteria are distinct entities and should be treated as such. Along the same lines, language associated with them should reflect the differences. Of course, there is probably some blurring of the biology at the edges; for example, many bacteria (for example, species of Rickettsia and Chlamydia), as well as many bacterial endosymbionts, are obligately intracellular, replicating "only as parasites of host cells, and . . . are metabolically inert outside host cells."

Occasionally it makes sense to take some liberties with language to avoid excessively clumsy prose. Everyone probably has his or her own sense of where these lines should be drawn.

With regard to our title, we did carefully consider these issues and opted for "Microbial pathogenesis" as opposed to "Bacterial pathogenesis" because we in-