scores of antibiotics. Most of these newer antibiotics are synthesized and do not occur naturally. Stuart Levy comments that "these antibiotics can remain intact in the environment unless they are destroyed by high temperatures or other physical damage such as ultraviolet light from the sun. As active antibiotics they continue to kill off susceptible bacteria with which they have contact." To put it another way, we are putting increasingly large numbers of antibacterial substances into the environment without regard to the consequences. Few people understand the quantity of antibiotics being used each year, and even fewer have thought of the potential environmental (not just human) consequences. For instance, the soil fungi that produce tetracycline do so to protect themselves from aggressive bacteria. Those particular soil fungi play a significant part in the health of the Earth's soil. That many bacteria are now resistant to tetracycline has been viewed with alarm because of the potential impact on *our* health. But what about the health of that original soil fungus from which tetracycline came? How about the mold that makes penicillin to protect itself from aggressive bacteria? How about the many other members of the ecosystem that taught us to make many of the antibiotics we use? How are they faring? And how about the health of our entire ecosystem if the balance between bacteria and all other organisms becomes too one-sided?

Many scientists now realize that any attempt to destroy all disease organisms along with which we inhabit this planet was doomed to failure from the start. There is a *reason* for everything in the ecosystem. As Marc Lappé observes, in the race to destroy disease, "an absurd pharmaceutical morality play unfolded: we became soldiers against implacable microscopic enemies with which we actually co-evolved. Only recently have a few scientists pointed out that the survival of bacteria as a group underlies our own." We cannot pick and choose which bacteria we decide to war on and kill off. They are all an inextricable part of a healthy ecosystem. Lappé continues, "The lesson from both our agricultural and medical experience is remarkable for its consistency: Ignoring the evolutionary attributes of biological systems can only be done at the peril of ecological catastrophe." Stuart Levy agrees: "Antibiotic usage has stimulated evolutionary changes that are unparalleled in recorded biologic history." Bacteria, evolving at pretty much a constant pace along with the rest of us, are now changing at an ever faster rate, and they are changing in ways that scientists once insisted were impossible. They are,