Castes of Priests and Nuns," "Altruism Among Thieves," and "Kindness Among Strangers." The book's large type will be appreciated by the visually challenged.

Some of the many intriguing questions addressed by Barber are: why do people donate blood; why did Christians help Jews during the holocaust; why do people adopt; why are worker bees, termites, queen bees, bats, organ donors, priests, and others altruistic. Answers given to these questions by researchers and theorists are among the most interesting parts of the book. For instance, Darwin, baffled by nonreproductive worker bees, imagined altruism resulted from the bee colony making up a superorganism. A better explanation rendered by William Hamilton was based on gene selection (p. 34).

Interesting items abound in this book. Sated bats regurgitate food to sustain their famished friends (p. 10). Almost half of people in England consider their dogs family members (p. 101). (Dogs fit into human societies by treating their owners as top dog.) Pet owners are four times less likely to die in the year after cardiac surgery than patients without pets (p. 190). Children younger than 18 months are not self-aware (p. 103). Chimpanzees show self-awareness, monkeys and gorillas do not (p. 105). Rats are not capable of high moral behavior (p. 111). Children in non-industrialized societies are more altruistic than children in industrialized ones (p. 129).

There is little difference in altruism between men and women (p. 182). For all fifteen of the leading causes of death, men have higher death rates (p. 185). Some Americans have paid no tax for ten years despite being taken to court by the IRS (p. 231). Adoptees have a higher incidence of alcohol and drug use, delinquency, crime, and depression which sometimes leads to attempted suicide (p. 227). Youngsters in poorer countries, compared with those in wealthier ones, are usually more altruistic (p. 14). In-group altruism can translate into out-group aggression (p. 12). The most spectacular failure of altruism relates to violent criminals (p. 13), but mothers who kill their offspring also are examples (p. 14).

Some readers may find Barber's definition of altruism confusing. On page 9, he defines altruism as actions helping another person at some cost to the altruist. ("Some cost" is vague and needs to be operationally defined. Is "some cost" determined by the altruist, the receiver, or society?) On page 10, he adds the qualifier that altruistic acts have no ulterior motive, "except whatever pleasure is derived from the act itself, and no delayed benefit of any kind." (Would not the altruistic acts of Mother Teresa be influenced by her anticipated delayed reward in heaven? Furthermore, how does "reciprocal altruism" qualify as altruism since "a benefit is returned at a future time," p. 43). Then on page 19 an altruist is defined as someone who puts the survival or reproduction of another individual before his own. (Certainly most altruistic acts are performed without the altruist intending to elevate the recipients' survival above his own.)

Religious people may find some of the reported research disconcerting and questionable. For instance, some research shows little scientific support for religion improving health (p. 327). Some scholars think fundamentalist religion undermines moral reasoning (p. 329). A reliable difference between religious people and others is religious people are more intolerant of ethnic minorities (p. 330). A study found atheists less likely to cheat than religious students (p. 328). There is little evidence that religious people are more ethical or live better lives than non-religious people (p. 329).

Quibbling aside, this is a fun book to read. It will hold your interest throughout. It is full of interesting facts, anecdotes, explanations, observations, and questions. The topic of altruism is certainly an important one in a world so full of meanness, brutality, aggression, and hostility.

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Letters

Why Tie ID to Endosymbiosis?

Michael Buratovich, "The Serial Endosymbiosis Theory: Cellular Origins and Intelligent Design Theory" (*PSCF* 57, no. 2 [June 2005] 98-113) is impressed by the possibility that ID may explain the transfer of genes from mitochondria to nuclei better than neo-Darwinian evolution. I cannot share his expectations. For a simple analysis, consider *a, b, c* to be aboriginal mitochondrial genes; *A, B, C,* the corresponding nuclear genes. Those who must emphasize the diploid nucleus may think of these as *AA*, etc. The latter are more stable (p. 106). If *a* is vital to cellular development, then a mutation, *am*, will almost certainly be deleterious or lethal. If the likelihood of *am* and its damage is >n%, the corresponding nuclear mutation, *Am*, with repair options, will be <n%—grist for the selectivity mill. ID is irrelevant.

As to the order of transfer (pp. 106*f*), if *a* is essential to the function of *c*, *C* transferred before *A* will likely be eliminated quickly, whereas *C* following *A* will be positively selected. The explanation is strictly neo-Darwinian.

Imagine that *b* only functions within mitochondria. Then a non-functional *B* will either be negatively selected or, possibly, be mutated to a different function, as other duplicated genes have been. The original *b* will have to be maintained if it continues to be relevant.

Someone may argue that this does not explain the deletion of mitochondrial genes. All I can say is that there are numerous examples of apparently simplified genomes in parasitic and symbiotic creatures (an example is given, pp. 104-6). This indicates the presence of a natural mechanism. Again, ID does not seem to have anything to offer. Consequently, I must conclude that the invocation of ID is otiose, perhaps even silly. I regret that so excellent a presentation is vitiated by irrelevant advocacy.

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