RELIGION & PHILOSOPHY

well enough to repair or improve them." Because a culture is so fragile, Stove believes, the odds against would-be "society repairmen" improving life are "billions-to-one."

Mill's pro-innovation argument is so bad that "it could hardly have deceived a child of ten." Yet Mill's flawed idea swept the world, and has done more "than anything else to bring about the present internal dissolution" of the West. The history of the Columbus argument, the author concludes, refutes the notion that "philosophers, and cheap tricks of argument, do not matter."

The Blame Game

"The Flight From Blame" by Mary Midgley, in *Philosophy* (July 1987), Cambridge Univ. Press, 32 East 57th St., New York, N.Y. 10022.

English philosopher G. E. Moore (1873–1958) was acclaimed by most British intellectuals when his major work, *Principia Ethica*, was published in 1903. But the Fabian socialist Beatrice Webb was an exception. The book, she wrote in a letter, was "a metaphysical justification for doing what you like and what other people disapprove of." Its effect on young men was "to disintegrate their intellects and characters."

Midgley, a philosopher formerly with the University of Newcastle upon Tyne in England, believes Moore's legacy to be darker than even Webb predicted. Moore's influence, she contends, led to the notion that people

Psychologist B. F. Skinner, shown here in a 1933 photograph. In such works as Beyond Freedom and Dignity *(1971) and the novel* Walden Two *(1948), Skinner tried to uncover scientific laws that could predict human behavior and conduct.*

should be neither blamed nor punished for their actions.

Philosophers, Moore argued, should not try to determine what constitutes the good life, because "the good" was a construct that could not be defined. Right and wrong, in Moore's opinion, were not moral absolutes, but simply tools that one could use to predict future behavior. An action was bad not because it was morally wrong, but because it would have unpleasant consequences.

Moore's beliefs, Midgley asserts, provided potent "anti-intellectual weapons" to succeeding generations. Twentieth-century Anglo-American philosophers largely abandoned discussing moral questions, considering them either irrelevant or logically unsolvable. For example, C. L. Stevenson, in *Ethics and Language* (1944), claimed that determining what was right or wrong would "distort a relatively neutral study into a plea for some special code of morals."

But Moore's influence was not limited to intellectuals. Midgley claims that Moore's writings ultimately led to the belief (taught by such psychologists as B. F. Skinner) that "making moral judgments" is a distasteful practice that should be avoided at all costs. Yet proponents of this "self-righteous preoccupation with putting down self-righteousness" have not found a suitable substitute for the moral judgments they condemn.

Philosophers, Midgley concludes, should once again discuss "how we need to think and live." But in resuming philosophy's traditional task, they should reject attitudes that "do not fit our real needs." The formalistic moral relativism of G. E. Moore and his successors, she observes, deflects philosophers from thinking about "large questions."

SCIENCE & TECHNOLOGY

Short Circuits

"Collective Computation in Neuronlike Circuits" by David W. Tank and John J. Hopfield, in *Scientific American* (Dec. 1987), 415 Madison Ave., New York, N.Y. 10017.

Digital computers have existed for only half a century. *Biological* computers—the brain and nervous systems of humans and animals—have evolved over millions of years. For a digital computer, such tasks as reaching for a sandwich and recognizing a face are too complex; for a human brain, they are relatively easy.

How could a digital computer duplicate the capabilities of its organic counterparts? Tank, a physicist at Bell Laboratories, and Hopfield, a chemist and biologist at the California Institute of Technology (C.I.T.), explore the ways that "neuronlike" or "collective-decision" electronic circuits may change the nature and potential of computers.

Computer operations are performed in a chain-like sequence. Each link of the chain passes information on to only one other link. A neuron in the brain, while receiving a signal from one neuron, can simultaneously transmit that signal to as many as a thousand other neurons. To consider how collective-decision circuits work, the authors suggest thinking of a com-