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have us see nature through scientific and artistic bifocals, through technical knowledge *and* our imaginations. "If I cherish trees beyond all personal need and liking of them it is because of . . . their natural correspondence to the greener and more mysterious processes of the mind"—a mind that not only records the created but creates. In the end, Fowles concedes, nature often defies artistic expression, which itself has sometimes compartmentalized reality (for example, in classical art, which emphasizes simplicity, harmony, and form). Yet, his is a splendid attempt, and Horvat's 56 color photographs collect the beauty of nature's disorder.

**IVAN PAVLOV**  
by Jeffrey A. Gray  
Viking, 1980  
153 pp. \$12.95

In 1904, Russia's Ivan Pavlov won a Nobel Prize for the discovery that the nervous system controls the secretion of digestive juices in the stomach and pancreas. Five years later, he demonstrated the "conditioned reflex" in a now famous experiment in which a dinner bell stimulated salivation in laboratory dogs. Pavlov (1849–1937) took the puzzling tangle of behavior, mind, and brain out of the philosophers' hands and brought it into the laboratory, says Gray, an Oxford experimental psychologist, in this survey of the experimenter's ideas. Yet, at a time when scientists increasingly called for specialization, the Russian physiologist studied his subjects whole. (Rather than anesthetize his dogs to investigate blood pressure, for example, he trained them to lie perfectly still so he could connect an artery to a pressure gauge.) Followers of Pavlov, notably in the Soviet Union, have long stressed the broad applicability of his findings in animal psychology. Indeed, Pavlov-style conditioning has proved highly effective in treating human phobias. But Pavlov's works were not translated into English on a large scale until the late 1920s. In the West, Gray maintains, many scientists drew sharp distinctions between animal-behavior research and human-personality study, allowing "Freudian and other strange ideas to flourish profusely."