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## Science and Art

The *Bulletin of the Atomic Scientists* drops its customary business in the February issue to search for common ground between science and art. Essays by scientists, artists, and critics examine some of the misconceptions that scientists entertain about art, and that artists entertain about science. Although the problems raised in the exchange are not altogether new, they are worth a fresh airing. With science flourishing as never before, we are glad to report that a journal, usually devoted to science and its implications, stops to consider how the other half lives.

In one essay, H. W. Janson, professor of fine arts at New York University, undertakes to answer a common criticism of modern art, a criticism, moreover, that recently took on some scientific authority. Facing an example of Abstract Expressionism in a gallery, the museum-goer insists that a child or an ape could paint a picture as good as that. Scientific support for this contention comes from the Baltimore Zoo. Several years ago, Betsy, an obliging chimpanzee, produced some paintings that even art critics found practically indistinguishable from examples of nonrepresentational art.

By way of answer to Betsy and her champions, Janson suspects that if the chimp's paintings have esthetic merit, the keeper, not Betsy, deserves the credit. True, Betsy applied the paint to the canvas, and probably to other nearby objects as well, but the keeper remained at her elbow. When she produced a pattern that seemed to be a passable abstraction, he simply relieved her of the canvas. If the keeper had been interested in a portrait of himself, he might have had to wait a long time, but even in the task of matching nonrepresentational art, the keeper had to wait for what was essentially a source of random patterns to produce what he had in mind.

In another essay, Marston Morse, professor of mathematics at the Institute for Advanced Study in Princeton, examines the claim that science and art are as different in their concerns as mind and heart. If products of these two enterprises are different, the claim runs, then so must be the qualities that go into their making.

As part of his answer to this claim, Morse argues that esthetic judgment plays an important role in the construction of scientific theories, and he offers some examples from recent work in mathematics and physics. He finds that the mathematical representation of observation and experiment is not uniquely determined by observation and experiment. Scientists have a choice among a multiplicity of mathematical forms, and the forms they select depend significantly upon intuitions of simplicity and balance. Perhaps that is why scientists, as well as artists, are unable to explain the causes of their inspiration.

All told, the special issue of the *Bulletin* contains ten essays. Collectively, they serve to develop some of the qualities and values that science and art share. But the search for common ground does strike an ironic note. The irony is that science may now be enjoying greater public esteem than art because of properties that it alone possesses. Public support of research continues to grow not because people are learning that science begins in wonder, but because they are learning that science can end in dollars. Possibly the general attitude is: I may not know anything about science, but I do know what I like.—J.T.

