Book Reviews

George Ellett Coghill: naturalist and philosopher. C. Judson Herrick. Chicago: Univ. Chicago Press, 1949. Pp. xi + 280. $5.00.

In the small book which first made Coghill internationally known, *Anatomy and the problem of behaviour* (Cambridge, Engl.: 1929), Coghill wrote in the preface that in Judson Herrick "I have enjoyed these many years a constant influence of orientation and stimulation in neurological work." The living friendship between the two men lasted almost half a century. In the nature of their special scientific work, and in the breadth of their scientific and philosophical interests, Herrick and Coghill not only were very similar, but helped each other to arrive at this similarity. Nothing, then, could be more appropriate than that Herrick should write the story of Coghill's life and work and its significance.

It may at once be said that this is an extraordinarily good book. It should be read by the whole scientific confraternity, especially by those younger men who are about to enter its not untroubled domain. And if only the lay public could be persuaded to read this book, about the life, work, and vicissitudes of a great representative American man of science, it would be much to the advantage of society in general and to the scientist in particular.

Herrick makes the story of the life of science as lived by Coghill, the development of his science, and the interrelationship of the two themes, the vehicle for a most cogently expressed plea for the humanization of science. "My thesis," writes Herrick in his preface, "is this: The traditional code of science—that is, the objectives sought and the methods of investigation—cannot satisfy the requirements of our critical times, and this is why science has failed to measure up to the opportunities and obligations before it. The generally accepted ideas of what natural science is and what it is for are out of date and need radical revision. We have been taught for centuries that pure science is a system of facts and impersonal abstractions, devoid of human interest and without concern for values. It isn't, and it cannot be. The time has come to recognize the humanistic value of science—so-called pure science, I mean—and to adjust our practice accordingly."

And again, in the epilogue: "Scientific facts are not worth what it costs to discover them unless they can be so interpreted as to lead to value-judgments as guides to more satisfying purposeful action."

This book is one of the best proofs of this thesis.

The book is divided into three parts. The first is devoted to the life of Coghill living his science. Scientists will read this chapter with admiration, and perhaps not altogether with astonishment at the academic disaster which was so unjustly and so cruelly visited upon Coghill. The second part contains the best and most readable account of Coghill's important work and its significance that has thus far appeared. The third part is devoted to an invaluable discussion—in dialogue form—of Coghill's philosophical outlook. Five appendices are devoted to notes, a list of published works and manuscripts, supplementary biographical data, data on the killfish, and acknowledgments. There is a good index.

This is a great book on one great American man of science by another.

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Science at war. J. G. Crowther and R. Whiddington. New York 16: Philosophical Library, 1948. Pp. iv + 185. (Illustrated.) $6.00.

The output of books on the late war has only begun. A large number of purely factual reports have come out, written to give the general public an idea of what went on. But the controversial books, written in an attempt to draw lessons or conclusions from the conflict, are just beginning. Blackett's *Fear, war and the bomb* is one and Fuller's *History of World War II* is another, less disagreed with than the former, though nearly as thought-provoking.

Science at war is one of the factual reports, this time about the contributions of British scientists to the war effort, particularly in radar, operations research, nuclear physics, and undersea warfare. It is a counterpart to the Little, Brown series on *Science in World War II*, which treats of the American contribution; and a comparison of the English book with the American series, particularly with J. P. Baxter's *Scientists against time*, is enlightening.

One notices that the British book is more concerned with the scientific ideas and factual content involved in the developments, whereas the American effort spends more time on questions of organization and personal aspects. Baxter's book is easier to read, but if one is persistent one will gain more understanding of the working principles of radar and of asdic, for instance, from Crowther and Whiddington. In particular, their section on radar, with its many clarifying pictures, is well worth careful reading.

Reading both books produces some confusion at first, for they are, to some extent, mutually exclusive. To read *Science at war* gives one the impression that 90 percent of the contribution was made in England, whereas Baxter's book gives the impression that 75 percent was done over here. This semichauvinism is understandable, of course, for each author's task was to report the contributions of his own country's scientists and he could not do this by spending much time on (to him) foreign developments. One only hopes that, sometime, a complete history will be written, placing all contributions in their proper relation.

Of particular interest is the section on operational research, since this aspect of science's contribution was