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(b. Paris, France, 1612; d. Brussels, Belgium, 6 August 1694)

mathematics, linguistics.

Arnauld was the youngest of the twenty children of <u>Antoine Arnauld</u>, a lawyer who defended the University of Paris against the Jesuits in 1594. He was ordained a priest and received the doctorate in theology in 1641, and entered the Sorbonne in 1643, after the death of Richelieu. In 1656 he was expelled from the Sorbonne for his Jansenist views, and spent a good part of the rest of his life in more or less violent theological dispute. He died in self-imposed exile.

Although in many of his nontheological writings Arnauld is identified with the Port-Royal school, his voluminous correspondence—with Descartes and Leibniz, among others—bears witness to his own influence and acumen. His philosophical contributions are to be found in his objections to Descartes's *Méditations*, in his dispute with Malebranche, and in the *Port-Royal Logic*, which he wrote with Pierre Nicole. The latter, a text developed from Descartes's *Regulae*, elaborates the theory of "clear and distinct" ideas and gives the first account of Pascal's *Méthode*. It had an enormous influence as a textbook until comparatively recent times.

The profound influence of the *Regulae* is shown in both the *Logic* and the *Port-Royal Grammar*, where it is assumed that linguistic and mental processes are virtually identical, that language is thus to be studied in its "inner" and "outer" aspects. This point of view underlies the project for a universal grammar and the notion of the "transparency" of language: mental processes are common to all human beings, although there are many languages. The *Grammar* and the *Logic* are based on a common analysis of signs that has brought the Port-Royal school to the attention of modern linguistic theorists, who see in it an anticipation of their own point of view.

The *Élémens* (1667) undertakes a reworking and reordering of the Euclidean theorems in the light of the contemporary literature (in which he was widely read) and Pascal's influence. It bases its claim to originality and influence on the new order in which the theorems, many of them adapted from contemporary sources, are arranged. As mathematics, it is characterized by the mastery of the contemporary literature and by its clear and fresh exposition; its virtues are pedagogical. It is interesting to compare Arnauld's order of theorems with such recent ones as that of Hilbert and Forder, whose aims are quite different. If Arnauld's pedagogical concerns are insufficiently appreciated, it may be because the role of what are properly pedagogical concerns in the habits and "methods" of modern science is insufficiently understood: its preoccupation with clarity and procedure, with formal exercises and notation, and the use of these as instruments of research.

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