Avicenna on Time

by
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The third recipient of Foundation for Iranian Studies' annual award for the best Ph.D. dissertation in the field of Iranian Studies was Yegane Shayegan. She received the 1986 prize for her work entitled "Avicenna on Time," submitted to the Department of Near Eastern Languages and Civilizations at Harvard University in Cambridge, Massachusetts. The following is an abstract of the dissertation prepared by the author.

Avicenna on Time is a comparative study between Avicenna's theory of time and that of Aristotle. It focuses on two main issues: Aristotelian temporal theory as the background and Avicennian interpretation and transformation of Aristotelian physical concepts as well as his original contribution to the theory of time. It includes an introduction, the translation of Avicenna's treatise on time in the physics, Book II, Chapters 10-13 of the Healing, notes on the four chapters and a select bibliography. The introduction deals with two questions: Avicenna's interpretation of Aristotle's definition of time and Avicenna's own theory of time. This latter is analyzed according to four topics: ontology, epistemology, motion and dynamics. Each section of the notes first treats the Aristotelian background and then analyzes the manner in which the Aristotelian physical concepts are transformed by Avicenna. It is in their transformed states that these concepts constituted the background for debate and speculation for a great number of Latin scholastic philosophers. Avicenna's treatment of time is not restricted to one single field, it covers a vast range of fields such as mathematics, logic, physics, metaphysics, epistemology. I have attempted to analyze these within the framework of Avicennian temporal theory. For Avicenna mathematical objects exist in physical things, but they are also posited in the thought of the mathematician, independently of the physical world. His theory of number is related to his ontology. Numbers come into existence by the mathematician's
thinking of them, just as being and time come into existence by the
metaphysican's thinking of them. In logic Avicenna adds a most elaborate
system of propositional logic to the Aristotelian logic of concepts.
Propositional logic serves more adequately his purpose since it is more
appropriate for analyzing dynamic temporal existence. In physics Avicenna
breaks away from the static Greek geometrical methods of analyzing motion
and lays down the basis for mathematical physics. In Avicennian physics the
Aristotelian qualitative differences are reduced to differences of quantity. The
result of this method is Avicenna's theory of *intensio et remissio* of forms in
motion and quantification of force in his dynamics. In Avicenna's
metaphysics I have emphasized his claim concerning the priority of
unconditional temporal existence. This is an unorthodox interpretation and
moves further away from the usual thesis of Avicennian 'essentialism'. In
epistemology Avicenna introduces the judgment of cognitional and real
existence. I have also discussed his methodology which is multidirectional.
Avicenna's metaphysics has already been the object of research undertaken
by many scholars but his physics has been insufficiently studied, and no study
has been carried out regarding his theory of time.