

Center for Philosophy of Science of the University of Lisbon

Abū Bakr al-Rāzī's intromission theory of vision:
between the Greek antecedents and Ibn al-Haytham

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Abstract : Abū Bakr al-Rāzī on Vision

Arabo-Islamic medieval physicians and philosophers shared a common interest in optics. In this field, considerable contributions were authored by both physicians and philosophers, starting with the reception of Greek works on the subject in the ninth century. Ibn al-Hayṭam (d. 1040) ranks as the most well-known contributor to optics in Arabic science, for he created the first systematic alternative to Greek optical theories. Before Ibn al-Hayṭam, Ḥunain ibn Iṣḥāq and al-Kindī devoted important works to the visual faculty, and their theories came to dominate this period. Ḥunain ibn Iṣḥāq argued in favor of the extramission theory of Galen, while al-Kindī appropriated and transformed the geometrical approach to optics advocated by Euclid and Ptolemy.

The visual theories put forward by Ḥunain ibn Iṣḥāq, al-Kindī, and, of course, Ibn al-Hayṭam have been the object of study of several specialists of Arabic philosophy, medicine and optics, who have enriched our knowledge of these thinkers' ideas about vision. However, Abū Bakr al-Rāzī's thoughts on optics have received little scholarly attention.

In this paper, I aim to assess how al-Rāzī's critic of the Galenic theory of vision in the Doubts About Galen allows us to understand better al-Rāzī's own thought on optics. Indeed, as I hope to demonstrate, al-Rāzī's theory of vision represents the first act of the intromission-extramission debate that will structure the field of optics in Islam. While al-Kindī and Ḥunain both defended extramission theories, al-Rāzī takes the opposite view and supports - for the first time in Islam as far as I know - an intromission theory that combines the projection of an immaterial image on the eye with Galenic physiological and anatomical discoveries.



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