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(*b.* Iraq, *ca.* 1080; *d.* Baghdad, Iraq after 1164/1165, aged eighty or ninety)

physics, psychology, philosophy.

Abu'l-Barakāt was physician to the caliph of Baghdad. Of Jewish origin, he was converted to Islam late in life—according to one report, in reaction to a social slight inflicted upon him because of his Judaism; according to another, in order to counter a threat to his life. His writings include *Kitāb al-Mu'tabar*, his main work (the title may be translated as “The Book of What Has Been Established by Personal Reflection”); a philosophical commentary on the Ecclesiastes, written in Arabic in Hebrew characters; and the treatise “On the Reason Why the Stars Are Visible at Night and Hidden in Daytime.”

According to Abu'l-Barakāt's own account, which is on the whole quite plausible, *Kitāb al-Mu'tabar* consists in the main of critical remarks jotted down by him over the years while reading philosophical text and published, at the insistence of his friends, in the form of a philosophical work. From the formal point of view, its composition closely follows that of the *Logic*, *Naturalia*, and *Metaphysics* of Avicenna's voluminous *Kitāb al-Shifā'* (the *Sufficientia* of the Latins), which seems to have been the principal philosophical text studied in Abu'l-Barakāt's time in the Islamic East. The genesis of *Kitāb al-Mu'tabar* as an accumulation of notes may account for various doctrinal inconsistencies in the work; Abu'l-Barakāt's many bold deviations from Avicenna's physics and metaphysics appear to be at variance with his complete acceptance of considerable portions of his predecessor's views.

In his psychology as well as in his physics, Abu'l-Barakāt bases his views on what he regards as immediate certainties rather than on an assessment, made by discursive reasoning, of empirical data. The use of this method clearly renders both the Aristotelian approach and many Aristotelian theories unacceptable to him, and Abu'l-Barakāt is not chary of proclaiming his disagreement with the then dominant philosophical tradition, which he declares to be a corruption of the true doctrines of ancient philosophers. Nonetheless, the starting point of his psychology is identical with that of Avicenna and is obviously taken over from the latter. Like Avicenna, Abu'l-Barakāt considers that immediate self-awareness, the awareness of one's own existence and of one's own actions, constitutes an unchallengeable proof of the existence and activity of the soul (identified with the ego). But unlike Avicenna, he does not try to fit this insight into the categories of Peripatetic psychology.

According to Abu'l-Barakāt, man is aware that his intellectual, imaginative, sensory, and motor activities, and any other psychic activities he may have, are due to one and the same agent: namely the soul. This awareness, accompanied as it is by a sense of certainty, may be relied upon to provide the truth. Abu'l-Barakāt uses this intuition in order to deny the existence of a variety of psychic faculties. He goes even further; he rejects the distinction (fundamental to Aristotelianism) between the intellect and the soul. There is no place in his doctrine for the speculations of the Peripatetics concerning the active, the passive, and the other intellects.

Abu'l-Barakāt regards the soul as an incorporeal entity, linked with the body but not located in it or anywhere else. Not being restricted by position in space, it is able to perceive anything that exists or occurs anywhere in the universe—but only one thing at a time. Thus, according to a conception that is reminiscent of Bergson, it has to choose among the multitudinous external impressions liable to impinge upon it; this choice, the sifting of these potential impressions, is done by the body—more precisely, by the sense organs, which circumscribe the perceptive activities of the soul.

The primordial role played by consciousness and self-awareness in Abu'l-Barakāt's conception of the soul impels him to try to explain the existence of unconscious psychic activities, *inter alia*, the organic ones (for instance, digestion) and latent memories (which, contrary to the Aristotelians, he does not regard as preserved in a part of the brain in the form of corporeal impressions, but as being incorporeal). One of these explanations is centered upon the notion of attention; some of the unconscious activities of the soul are considered as those to which the soul pays no attention.

Abu'l-Barakāt's conception of God seems to be modeled to a considerable extent upon his view of the soul. His God, unlike the Aristotelian one, is not a pure intellect but an entity that, like the human ego but with much greater powers, is engaged in many different activities and has knowledge of particulars (but not of an infinity of particulars at the same time, because the notion is self-contradictory). When His attention is engaged, He may intervene in the course of events. In other cases, this course may be regarded as causally determined, if one envisages only one chain of causes and effects. In fact, however, a large proportion of events is determined by chance, the latter notion being defined by Abu'l-Barakāt as an encounter of two mutually independent chains of causes and effects. He gives as an example the encounter of a scorpion and a man crossing a street; the direction and the speed of both are strictly determined; yet their meeting, which may lead to the man killing the scorpion or to the scorpion stinging the man, is due to chance. A similar theory of chance is set forth by Boethius (see, e.g., *De consolazione*

philosophiae V, 1), who could not have influenced Abul'l-Barakāt, and is hinted at by Plotinus (see *Enneads* VI, 8, 10, where coming-about-by-chance appears to be explained as coming-about-through-encounter). These seem to be the only known precursors of Abu'l-Barakāt, on this point.

In his physics Abu'l-Barakāt employs a method similar to the one he utilized in his psychology. Like his tenth-century predecessor Abū Bakr al-Rāzī (by whom he may have been influenced, although there is no evidence either way) and in contrast with the Aristotelians, he relies in his physical theories, just as he does in his doctrine of the soul, on what he regards as self-evident, i.e., immediately perceived truths that are not dependent upon empirical data. Applying this method, he rejects the Aristotelian contention that time is the measure of movement. According to him, the notion of time is ontologically prior to the notion of movement. Nor does he regard time as being merely a subjective phenomenon. It is in fact the measure of Being, and as such it should not be regarded as external to Being. Comparisons between the lengths of two or more durations are, however, due to a mental comparison between the two.

The fundamental connection that Abu'l-Barakāt establishes between time and Being leads to his denying the existence of the two other higher modes of temporality postulated in Avicenna's philosophy: according to him there is no eternity (*sarmad*) and no aevum (*dahr*). Time is real even with regard to God.

Abu'l-Barakāt's theory of space, or of place—in the medieval philosophical vocabulary the two notions are designated by one and the same term—resembles his doctrine of time in its rejection of the Aristotelian conception, which was based on empirical data. For the Aristotelian view, according to which place (or space) is the inner surface of the surrounding body (and consequently bidimensional), Abu'l-Barakāt substitutes the conception that there exists a tridimensional space that in itself is empty; in physical reality it is generally (although, according to some passages, which assert in certain cases the existence of vacuums, not always) occupied by bodies. In the mind, however, the conception of a tridimensional empty Space is prior to the conception of a plenum. Abu'l-Barakāt also refutes the arguments used by the Aristotelians to prove that infinite space is impossible. According to him, space is infinite because it is impossible for man to conceive a space that has limit.

In his explanation of the movement of projectiles, Abu'l-Barakāt like Avicenna, subscribes to the doctrine positing a "violent inclination" (*mayl qasrī*; the notion is similar to, or identical with, the *impetus* of the Schoolmen). "Violent inclination"—opposed to the "natural inclination" in virtue of which bodies removed from their natural place tend to return—is regarded as having been imparted by the mover to a body in a state of violent motion (for instance, to a stone thrown upward or to an arrow shot from a bow). The notion of violent inclination is used to account for the continuation of violent motion after the separation of the projectile from the mover. Contrary to Avicenna, Abu'l-Barakāt regards "violent inclination" as self-expending; it is used up in the very process of violent motion.

The acceleration of the motion of falling bodies is attributed by Abu'l-Barakāt to two causes:

(1) He holds that a violent and a natural inclination can simultaneously coexist in a projectile. Thus, when a body begins to fall, a residue of violent inclination still subsists in it and opposes the natural inclination that causes the body to descend, slowing down its fall. The acceleration of the fall is due to the gradual weakening of the violent inclination.

(2) The second cause of the acceleration of the motion of falling bodies is that the force (i.e. gravity) generating natural inclination resides in the falling body and produces a succession of natural inclinations in such a way that the strength of the inclination increases throughout the fall.

Abu'l-Barakāt's conception of the second cause seems to anticipate in a vague way the fundamental law of classical mechanics, according to which a continually applied force produces acceleration. According to Aristotelian mechanics such a force produces a uniform motion.

While there is no concrete evidence to show that Abu'l-Barakāt exercised a significant influence on Jewish philosophers, Fakhr al-Dīn al-Rāzī (*d.* 1210), a celebrated Muslim author, was his professed disciple. His influence appears to have extended also to other Muslim philosophers.

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Shlomo Pines