



EVOLUTION

EVOLUTION (*takāmol*, *taḥawwol*), a family of ideas embodying the belief that the physical universe and living organisms have developed in a process of continuous change from a lower, simpler to a higher, more complex state. A variety of mythological and speculative ideas of evolution appear in ancient Chinese, Indian, and Iranian cultures, in Greek philosophy, and in Islamic and Persian philosophy and mysticism. However, a scientifically credible theory of evolution of living organisms based on natural selection, the survival and reproduction of those species best adapted to the environment, was first set forth in 1859 by Charles Darwin in his *On the Origin of Species*. The Darwinian theory has been challenged, *inter alia*, by Christian and Muslim theologians believing in the creation theory of the universe. In the present article some of the mystical and philosophical ideas of evolution in Islamic and Persian thought and the dissemination of the modern theory of biological evolution in Persia will be discussed.

PRE-MODERN IDEAS OF EVOLUTION

Mystical ideas of evolution. The doctrine of universal progress was adopted by Persian mystics and philosophers from Platonic and neo-Platonic ideas according to which the universe is a completed hierarchy or chain which evolves from material substances (water, earth, fire, and air) to living organisms, to human beings, and finally to the “perfect man” (*ensān-e kāmel*; q.v.). Mawlānā Jalāl-al-Dīn Rūmī is among the first of the mystics to express this conception of the progressive evolution of the great chain of being (*Maṭnawī* III, pp. 3904, 4115, 4180; *Serr-e nay*, no. 312, 313). This idea appears



also in the works of other Persian mystics, including Ebn Yamīn Faryūmadī (q.v.; Browne, *Lit. Hist. Persia* III, pp. 216-17), Fayẓ Kāšānī (q.v.; word nos. 63, 65), Ṣafī-ʿAlī-Šāh (q.v.; pp. 160-68). Some scholars suggest an untenable view that Mawlānā anticipated the Darwinian conception of organic evolution (Abdol Hakim, chap. 2), and even the Hegelian notion of a dialectical process in the progressive unfolding of spirit in the development of the universe and humanity (Ṭabarī, p. 296).

Philosophical ideas of evolution. Evolutionary ideas appear in the works of a number of Persian and Muslim philosophers. Bīrūnī, for example, alludes to the idea of the evolution of beings in his *Jamāher fī maʿrefat al-jawāher* (p. 80; Naṣr, pp 208-9), but the view that he anticipated the idea of evolution in his *India* (chap. 47; see Raīnov, p. 62) seems untenable (Willenzynski, p. 192). Khalifa Abdul Hakim (chap. 2) suggests that the Muʿtazilite Abū Eshāq Ebrāhīm b. Sayyār Naẓẓām’s idea of *komūn waẓohūr* (“latency and emergence”; see Wolfson, p. 499) is related to the idea of evolution of beings. Apparently, Naẓẓām’s idea was influenced by Empedocles’ notion of love and strife—that the four basic elements (earth, water, air, and fire), which are the roots of all things, interact under the influence of two cosmic forces, love and strife, the forces of attraction and repulsion which are agents in the mixture of the four elements (Diels, p. 17; Šahrastānī, pp. 261-62).

The Eḳwān al-Ṣafā’ (q.v.; in *al-Resāla al-sābeqa*) subscribed to the idea that man developed out of the course of evolution from physical elements to plants and animals in the world of nature and that he has the ability to further evolve to the level of higher spiritual beings in the world of metaphysics. Influenced by the Eḳwān al-Ṣafā’, Abū ʿAlī Meskawayh and Ṣadr-al-Dīn Šīrāzī (qq.v.) developed this idea into a theory of the evolutionary and progressive movement of beings (*al-Fawz*, pp. 78-83; *al-Asfār* VI, p. 6; *Majmūʿa* VII, p. 73; Sajjādī, p. 198). Some scholars suggest that the ideas of the Eḳwān al-Ṣafā’ and Meskawayh had anticipated Darwin’s theory of evolution (Dietrici, pp. 78, 83; cf. Šeblī Noʿmānī, p. 108). Their views, however, were speculative proto-evolutionism, and as such differed from the modern scientific theory of evolution.

MODERN THEORIES OF EVOLUTION IN PERSIA

Darwinian theory. In 1287/1870, Mīrzā Taqī Khan Anṣārī, a physician and instructor at Dār al-fonūn (q.v.), discussed Darwin’s theory in his unpublished work, *Jānevar-nāma*, (Ādamīyat, pp. 24-26). Meanwhile, a vulgarized version of



the theory was disseminated into religious circles through translation of short commentaries published in Arabic journals. From the beginning, the Darwinian theory aroused bitter opposition from the 'olamā' as contradictory to the Qur'ān on two grounds: first, it was considered as a negation of the doctrine of the direct creation of the universe and all beings by God; and second, it expounded the idea that human beings had descended not from an historical Adam created by God but from remote, pre-human, ape-like ancestors. Sayyed Jamāl-al-Dīn Asadābādī's *Resāla-ye radd bar neyčeriya* (Hydarabad, 1881; see AFGĀNĪ) was one of the first attacks on the theory by the 'olamā', and it shows that the author was not familiar with the scientific substance of Darwinian theory. The reception of Darwin's theory during the course of the Constitutional Revolution (q.v.), at the turn of 20th century, was mixed. Mīrzā Na'īm Sedehī, for example, pejoratively, labeled it *hekmat-e kalbī* (cynicism; Browne, *Lit. Hist. Persia* IV, p. 198), but it was well received as a scientific theory by others (Bahar, *Dīvān* I, p. 660). Despite the objection of the 'olamā', Darwinian theory has been incorporated into the curriculum of biology courses and textbooks of modern schools since the early 20th century. The first translation of *On the Origin of Species* (by 'A. Šawqī) appeared in Tehran in 1318 Š./1939; and a commentary on Darwin's theory (*Dārvīn čeh mīgūyad*) by Maḥmūd Behzād was published in Rašt in 1323 Š./1944. Furthermore, a brief critical review of Darwin's evolutionary theory and Spencer's theory of social Darwinism was presented by Shaikh Abu'l-Ḥasan Ša'rānī (pp. 22, 24) and Moḥammad 'Alī Forūgī (II, p. 310-15).

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