In this lecture Sarah Coakley is concerned, critically, with the way that evolution has been purveyed in the last generation as ‘selfishly’-oriented genetically, yet devoid of either positive meaning or discernible structure. The evolutionary phenomenon of ‘cooperation’, she argues, suggests otherwise; and indeed it may, by a series of steps, lead inexorably to the question of a ‘natural’ basis for ethics and thence to the God question. Coakley first reviews the biological evidences for cooperation and explains the mathematical calculus which has been utilized of late to clarify the conditions under which cooperation is favoured in evolutionary populations. She then turns to the disputed question of what such cooperation (‘altruism’ in its intentional, motivated form) might mean in both ethical and metaphysical terms, arguing that philosophical contestation is here unavoidable for both empirical and mathematical biology. Her own view is that a narrow utilitarian explanation of evolutionary ethics (focusing solely on the immediate genetic advantage of individual entities in a population) is less convincing overall than a richer ‘multi-level’ account which is able to encompass ‘natural law’ or ‘categorical imperative’ renditions of ethical demand. By the same token, the pervasive phenomena of cooperation and altruism also press metaphysical questions about the overall structure of evolution: is the evolutionary narrative one of pure randomness and essential meaninglessness, or do the patterns of ‘cooperation’/‘defection’ (alongside mutation and selection) suggest a picture in which ‘teleology’ still holds some meaning? In the last section of the lecture Coakley turns more ambitiously to a re-interpretation of the genre of ‘natural theology’ within the contours of this contemporary debate. Arguing that what is distinctive about ‘natural theology’ is the pressure meaningfully to perceive the natural world as-a-whole, she turns back to a late antique form of contemplative endeavour (termed physikē) for inspiration. On this view, ‘natural theology’ represents the perennial tug to gain a complete vision of the natural world’s meaning, a task which involves a process of creative integration for the knowing subject itself, finally aligning intellectual, moral and affective dimensions. The contemporary debates about evolutionary cooperation therefore represent a fork in the road between different unitary readings of evolution’s meaning: does evolution bespeak nothing but competitive genetic ‘selfishness’, or is there some alternative that might itself enhance the expansion of human altruism to face pressing contemporary political, ethical and ecological crises?

**Introduction**

I: *Why Evolutionary Cooperation Matters*

II: *Why Evolutionary Cooperation Raises (Meta-) Ethical and Teleological Questions*

III: *The Question of God: Recasting ‘Natural Theology’ According to ‘Spiritual Sense’*

**Conclusions**

*Definitions of ‘cooperation’ and ‘altruism’*

‘*Cooperation*’ is the phenomenon (encountered right across the evolutionary spectrum, from microorganisms to humans), in which one entity within an evolutionary population suffers loss of ‘fitness’, and another correlatively gains ‘fitness’.

‘*Altruism*’ is a subset of cooperation, in which there is an intentional surrendering of fitness by one individual or set of individuals in an evolutionary population for the sake of, or out of love or regard for, another or others.
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