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Aristotle's *Generation of Animals* on the Separation of the Sexes

Two contemporary biologists, Laurence D. Hurst and Joel R. Peck, begin their influential old paper published in 1996, “Recent Advances in Understanding of the Evolution and Maintenance of Sex,” with this sentence: “Sex remains an enigma within a mystery.”¹ The authors explored two mainstream theories: (1) “sex enables the spread/creation of advantageous traits” and (2) “sex enables the efficient removal of deleterious genes”. The investigation of the causes of the “prevalence of sexual reproduction in higher plants and animals” is now obviously made in the context of evolutionary theory². But the fact that, whereas the “mixture of sexual and asexual reproduction probably constitutes an optimal strategy, species are, for the most part, either sexual or asexual,”³ is a major theoretical challenge for contemporary biological and genetic research. This “enigma” actually has a long history behind it. In the field of ancient biology, the existence of two separate sexes, male and female, in most animals was a major difficulty for Aristotelian embryology and, generally speaking, Aristotelian philosophy. I am not talking of the *logical distinction* between male and female principles, but of the *real separation* of the two sexes, that is to say the separation of the male and female principles in two truly separate beings with specific functions (δυνάμεις) and distinctive anatomical features (ὄργανα). Aristotle is not of course an evolutionist, but his difficulty is not so different from the contemporary debate: the point is not to understand why two different sexes exist, but why they are separated in two different beings and why most of animals must have sex to reproduce, what is now called “obligate sex.” Thus, for Aristotle, like for other philosophers of Antiquity, as it is still the case for us, the very existence of two sexes is not a self-explanatory phenomenon; given that asexual reproduction exists (for us as for Aristotle), sexual reproduction must be explained in one way or another. First, the *existence* of sexual separation has to be explained and, then, its *conservation* from one generation to the next, during the reproduction of the species: animals breed and, in each generation, there are males and females. As we’ll see, the *existence* of this separation is much more difficult to explain

1 Hurst and Peck (1996), 46.—I thank Sophia M. Connell for her helpful comments on a first draft of this text.

2 Williams (1975), v.

3 Gouyon (1999), 1030.