

# Philosophy of Biology: Essay Two

## Requirements

You are to submit one 8–10 page research paper on Monday 15 December, addressing one and only one of the questions listed below. An electronic copy of the paper must be submitted by email to [brad.weslake@nyu.edu](mailto:brad.weslake@nyu.edu).

## Guidelines

Essay guidelines are available here: <http://goo.gl/jrx25>

## Questions

- Explain the model for the evolution of altruism presented by Sober and Wilson (1998), and address at least one of the following questions:
  - Sober and Wilson (1998) claim that many arguments against this model commit what they call *the averaging fallacy*. What is the fallacy, and why is it fallacious? (Okasha 2004).
  - According to Godfrey-Smith (2009, §6.2), the formation of groups is not necessary for the evolution of altruism. Explain and evaluate his argument for this claim.
  - Damuth and Heisler (1988) distinguish between two ways of assigning fitnesses to groups, which they call MLS1 and MLS2. Godfrey-Smith (2009, §6.2) in effect argues that real group selection must involve MLS2, while Okasha (2006, §2.2.4) argues that it may involve MLS1. Explain and evaluate these arguments, with reference to the model presented by Sober and Wilson.
- According to Sober (1988), there is a distinction between the question of how much a cause *contributed* to an effect, and the question of how much a cause *made a difference* to an effect. In the case of genetic and environmental causes of a trait, Sober argues that there is no answer to the question of how much each contributed, but that in some cases there is an answer to the question of how much each made a difference. Explain and evaluate his arguments for these claims.

## References

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- Peter Godfrey-Smith. 2009. *Darwinian Populations and Natural Selection*, Oxford: Oxford University Press.
- Samir Okasha. 2004. "The "Averaging Fallacy" and the Levels of Selection", in *Biology and Philosophy*, Vol. 19, No. 2, Mar. 2004, pp. 167–184. URL: <http://dx.doi.org/10.1023/B:BIPH.0000024406.61340.6c>.
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