

The treatment of biological units as agents which pursue interests or goals by means of strategies has enjoyed a long tradition in evolutionary biology. As the concept of agents appears to play an important role in biology, as well as in many other fields, there have been many attempts to clarify it. The present project aims to develop the concept of agents within the field of evolutionary biology. Ideas concerning agency in evolutionary biology are widely employed. However, there is no single universally accepted concept of agents. In the absence of any relevant framework, it is difficult to justify treatment of some units as agents and others as not. The most promising concept of agents in evolutionary biology is that of unity-of-purpose, developed recently by Samir Okasha. However, this concept is plagued by many unresolved issues. In order to develop a concept of agents within evolutionary biology, the project will endeavour to develop the concept of unity of purpose **with the aim of addressing potential problems, consequences, and relationships with other ideas.**

The research grant will be divided into three projects. The first will focus on the very nature of the concept of unity-of-purpose. I will analyse this concept and the views of its critics and attempt to resolve associated problems. Since biologists currently ascribe agency to very different biological units, such as genes, cells, and ecosystems, the second part of the project will focus on implementation of the framework within the context of certain biological units, in order to determine whether they should be considered agents. Interaction between the first and second projects will be reciprocal. The framework will be tested by means of implementing it in the context of certain biological case studies, with the aim of evaluating the agency of certain biological objects. Since agency and units of selection are frequently discussed in tandem, the third project will focus on the relationship between them, which is unclear at present. Is every agent also a unit of selection? This relationship will be studied in depth.

The project will possess an interdisciplinary character, using methods typical for philosophy but implementing them in the context of biological cases. The leading role will be played by conceptual analysis, accompanied by many additional methods: building of arguments, comparative analysis, narrative literature review, and case study analysis. As the project lies at the intersection of biology and philosophy, the PI will endeavour to create a multi-disciplinary, vibrant environment in order to sustain a flow of ideas between biology and philosophy. This will be accomplished through close collaboration with biologists and through the organisation of multidisciplinary workshops and conferences.