Biological markets and interdisciplinarity

Uskali Mäki

This is an exercise that has two goals, the general one of examining issues of interdisciplinarity, and the specific one of examining the uses of the notion of market in two disciplines, economics and biology. In their attempts to model and explain phenomena of the animal world, biologists have employed the concept of the market and associated notions such as supply and demand, trading, commodity, price, competition, investment, and so on. The very notion of 'biological markets' suggests that there must be some interesting relationship between the disciplines of biology and economics. The task is to explore the specifics of this relationship. It seems obvious it is not a matter of multi-disciplinarity or trans-disciplinarity, so the focus will be on varieties of inter-disciplinarity and cross-disciplinarity. In comparative terms, conceptual affinities between the two disciplines in their treatment of the market will be considered at different levels of abstraction. Unsurprisingly, the similarities are greater at higher levels of abstraction. In terms of actual interaction between the two disciplines, the options include varieties of economics imperialism. This has to meet challenges such as that of accommodating the lack of interaction between the literatures on costly signalling in biology and economics.