

The Development of Relational Autonomy

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In this talk I shall examine some of the challenges posed by ecological developmental biology to the concept of relational or interactive autonomy. The notion of relational autonomy implies that the constitutive relationship of biological individuals with their environment—mediated by a self-created boundary—is modulated by the organism itself. However, development involves interactions, not only with external environmental factors, but also with other organisms which regulate essential developmental processes.

My presentation will examine three cases in which the activities of the developing organism cannot be easily described as autonomously directed: (1) the interaction of developmental processes with chemical signals coming from organisms belonging to different species; (2) the coupling of developing organisms with the mother, particularly in the case of mammals; (3) the role of symbiotic bacteria in development.

In considering this interactive view of development, two lines of argument will be presented. Firstly, I shall argue that none of these cases should lead to an abandonment but rather to a reformulation of the concept of individuality. In my view, autonomy allows to conceive individuals as genetically heterogeneous entities insofar as 'exogenous' components are functionally integrated in the organismal whole. Secondly, I will claim that the way in which the relationship of the embryo with the organic environment changes during development illustrates that relational autonomy does not exist from the very beginning of ontogeny, but it is an emergent property that is progressively acquired throughout development.