
Economic models in the cell: division of labor in the German Empire and the transition from real- to finance economy in conception and heredity 1870-1900

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Abstract

Ideas of heredity and conception in biology are infused with concepts usually found in political economy. Especially around the foundation of modern biology, models of heredity, genetics, and conception were formed along local economic understandings which were entangled with the problems of the growing markets of the late nations (USA and the German Empire). Most notably the foundation of the German Empire was accompanied by a unique local coupling of needs, which during the 20th century shaped the international conceptions of biological heredity. As the analysis of published and unpublished material originating in the period 1850-1900 shows, through a tight linking of natural law and national law on inheritance and family, these two bodies of law defined how the reproductive household of the citizen worked. Thereby national and natural law coincided in the introduction of an economic (and gendered) division of labor to the household: a separation was drawn between the not to be economized area of reproduction (domestic work/cell plasma) and the economically productive area (profession/nucleus). Accordingly also the study of genetics and the study of conception, especially in developmental biology, segregated. As a prospect into the 20th century the talk describes the rising importance of finance economy (in contrast to real economy) in an interchange with concepts that separate sign and material (counter-)value. This is consistent with early genetics and later with modeling in evolutionary biology since the 1930s, finally advancing the systematic interlacing between the fields of production and reproduction, economizing both, and the rise of epigenetics.

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