

Concluding reflections from the Dies lecture “Match of mismatch? The human life cycle in a rapidly changing environment” by professor Rudi Westendorp (*translated*)

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The human life cycle is an interaction between genetic predisposition, early and late experiences, by which not everything has been synchronized. In the search for solutions too often only parts of the problem have been formulated, while the human course of life cannot be divided into pieces.

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Until a few decades ago physiology was the leading principle in the life sciences. It was based upon fundamental insights like the description of the circulation by William Harvey and the experiments of Claude Bernard. The physiology as the leading principle did not survive the fierce developments in the fundamental sciences. There is an explosion of knowledge about the mechanistic detail, but the meaning for the large picture is lingering. At present people have large expectations of ‘system analyses’ which should gather the insights from the molecular biology, but the definition of the ‘system’ that is being analyzed is not clear.

150 years after the publication of ‘The origin of species’ the Darwinian idea is still alive. In an unexpected way the bridge builder and evolutionary biologist Bas Zwaan, knows how to order innumerable biological processes underlying the function of body and mind in a logical manner. It would be a plus if the life sciences and the medical sciences become embedded within an evolutionary framework. The evolutionary framework makes the population genetics understandable and provides explanations why people at high age become prone to disease. It replaces the dominant view of organs as individual machines loosing their function as a result of specific biological processes.