

## Review of: "The information continuum model of evolution"

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Evolution has been widely seen as "academic" and "settled science" however a major gerontology question that has remained unresolved for more than a century has potentially very large practical consequences. This question is: *Why do we age?* This issue is progressively more important because of medical and general safety developments that increase the importance of highly age-related diseases like cancer and heart disease.

It further develops that the continuing arguments about the nature of aging are nearly entirely based on disagreements regarding the detailed nature of the evolution process. There is no scientific disagreement with the idea that evolution has happened, i.e. current species are descended from earlier different species, descended ultimately from a single simple (single-cell) species. There is also no scientific disagreement regarding the general idea of natural selection.

The disagreements concern details such as: Can an organism evolve and retain a design feature that benefits the survival (non-extinction) of a population at the expense of some individual members? Aging theories based on these details range from: "We possess a suicide mechanism that purposely limits individual lifespan in order to obtain an evolutionary benefit for a population. We can interfere with the operation of this mechanism." to "There is no treatable common cause of the many different aging manifestations." to "Aging is caused by fundamental limitations such as laws of physics or chemistry." The article should at least mention these developments, which increase the importance of investigations into the mechanics of evolution.

Another issue is that it is apparent that evolution involves transfer of information indigital form between parent(s) and descendants of any organism. It is this digital nature of biological inheritance that enables current species to inherit design information from ancestors that lived billions of years ago. However, the digital nature of inheritance also imposes many other features and constraints that affect the evolution process. This should be at least briefly discussed.

One "digital" issue is that the human genome is generally thought to contain less than 3.4 billion base-pairs of digital information. Since each base corresponds to two bits of digital data, this amounts to 6.8 billion bits or 850 Megabytes of data. This might seem like a lot but is it really enough to completely describe the inherited design of a human including all of the inherited programmed behaviors? The continuum article discusses other paths information transmission might involve such as epigenetics, that could eventually help solve this problem.

For an overview of the aging and digital genetics issues with evolutionary mechanics see:

https://azinet.com/aging/Aging Book.pdf