

Lamarckism Explained

The Urth list — 2 messages, 2 voices, 20 Jan 1999

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David_Lebling — 20 Jan 1999, 10:27

Those interested in Wolfe's profession of belief in Lamarckism (mentioned in _Castle of the Otter_, among other places) are referred to this month's (February, 1999, I think) issue of _Natural History_. Stephen J. Gould's column is about Lamarck.

Lamarck's theory of evolution is also known as the "two-factor theory." One factor is a push towards increasing complexity. The other (which is the part often caricatured as "giraffes stretching their necks") is a push from the environment which results in variation orthogonal to the level of complexity.

The idea seems to be that the vertical line of increased complexity leads from inanimate to animate to microorganisms to worms to reptiles to mammals (to simplify the progression overmuch). The orthogonal push of environmental pressure (and we don't seem to be talking about "natural selection", but something else) produces variations on the basic theme, so we get bears and hippos and moles and squirrels once we have mammals.

It is possible that what Wolfe is interested in in Lamarck is the "increasing complexity" factor, which to my mind allows the idea of progressive evolution rather than chance mutation and adaptation. This has always been one of the two big problems some believers (including believers in Marx) have with Darwin; the other, of course being the inclusion of humans in the theory. (In the interest of full disclosure, I'm a confirmed Darwinist).

-- Dave Lebling
(aka vizcacha)

Kevin J. Maroney — 21 Jan 1999, 12:18 · follows David_Lebling

At 10:27 AM 1/20/99 -0500, Dave wrote:

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I don't understand Lamarck well; as Gould points out, what is taught in schools as Lamark is actually a cruel caricature, much closer to Lysenko. But I think that what appealed to George Bernard Shaw about Lamarck was the sense that evolution was driven by **striving**, rather than by chance--that evolutionary change occurs in those creatures which move to the limits of their physical capacity and then "discover" that they can move slightly beyond.

As you point out, there is also very clearly a sense of "progress" in Lamarck which Darwin explicitly rejected. In fact, the word "evolution" itself has an implicit sense of progress in it (at

least as it was used in the 19th century), which lead Darwin to avoid it. His term for the process was "modification through descent".

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