

## Re: pre-tuning to baldwin effect

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- *From:* "bob the builder" <brulsmurf@xxxxxxxxxxxxx>
  - *Date:* Sun, 2 Apr 2006 13:39:38 -0400 (EDT)
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Perplexed in Peoria wrote:

Does this  
mean that the fitness level of an organism is hardly determined by the  
number of offspring it produces (or how good it can do its current task)  
but more on its 'somatic adaption'- range?

You seem to want 'fitness' to mean 'ability to evolve progressively'.  
It doesn't mean that. It means ability to survive and outcompete your  
conspesifics here and now. So the number of offspring in this generation  
is a good metric for fitness as it should be defined. If you want a  
term for ability to have still descendents millions of years from now,  
come up with a different word.

Iam sorry i mix up fenotype-fitness and genotype-fitness ( there's my  
different word ;)

i think i mean that the nonexpressed capeilities of an organism, like  
the ability to cope with different types of environment  
(somatic-flexibility), can be of epic importance. When the environment  
changes, a great part of a population may die. Only the ones with the  
higher genotype-fitness (that suddenly also becomes important in the  
fenotype) can make it.

However, I will agree that having a broad somatic adaptation range is  
one possible component of fitness, even in the here-and-now. Assume  
that the permanent 5 degree rise in temperature of your scenario was a  
rare event, but that even before this the organisms encountered common  
fluctuations in temperature of 2 degrees and occasional fluctuations  
of 3-4 degrees. In such a fluctuating, unpredictable environment, the  
somatically adaptable organisms may do quite well in producing offspring.

And the selection that matters occurs when the environment changes?

## Re: pre-tuning to baldwin effect

Matters for what? You still seem to be assuming that the purpose of natural selection is to produce progressive evolution, and that if the environment doesn't change and there isn't much evolution, then Someone has fouled up somewhere.

Arg, i am more from the artificial evolution side of town. i would be the one that "fouled up somewhere" i know evolution isnt trying to accomplish something.

Does this also mean that if an environment is too stable the organisms in it are doomed? (like koala bears)

Well, if the environment is very stable, then some kinds of evolution will be slow. But this is not a death sentence. Sharks, horseshoe crabs, and coelcanths are doing quite well, thank you.

But if evolution doesnt favor the ones that have the better somatic-adaptebility-range the the clock has already started for them. 1 reasonble change in there environment and all may die. bye bye horseshoe crabs.

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