

Dr. Anshul Rayan  
Dept. of Zoology  
Raja Rishi College,  
Durgam, T.P.U.  
Chaps

B.Sc. (Subs). Zoology  
Sem - I (Only)  
Date - 1st  
dt - 30/7/20

## Objections to Lamarck's theory:

Lamarck's theory seems to be effective but has not been accepted after Weismann, who was the main opponent of Lamarckism. August Weismann (Weickmann) (1885) proposed Coenoplasm theory and contended that acquired characters were somatic or phenotypic. They could not be transmitted, while only genotypic characters which are deep seated could be inherited from one generation to next generation. He did his experiments on white rats by cutting their tails (Mutilation expt.), but did not find any reduction in tail even after 22 generations. If 90% young ones, other examples opposing Lamarckism are:

- The muscles of Athletics are never inherited from the parents to offsprings.
- Callosities on the palm of black-Smiths farmers & Hockey players are never passed on from generation to generations.
- Boxing of nose & ears has been in practice & prevalent to many countries since early civilisations, but never a child is born with pierced nose or ears.
- females in china wear iron shoes, so as to reduce the size of the feet, a sign of beauty, but young ones are born with normal feet.
- Many breeds of dogs have their tails cut regularly, but there is no reduction in size of the tail of young ones.

In spite of objections, the presence of the vestigial organs in the body provides a very good support to Lamarckism. Lamarck's doctrine has also been supported by many workers such as Lindsey, F. B. Sumner, M. Dougal, Lanto, and others it has been studied under the heading of neo-Lamarckism. Some factors such as moisture, temperature, x-rays, chemicals, etc. can produce change in the chromosomes and thus cause genotypic changes.