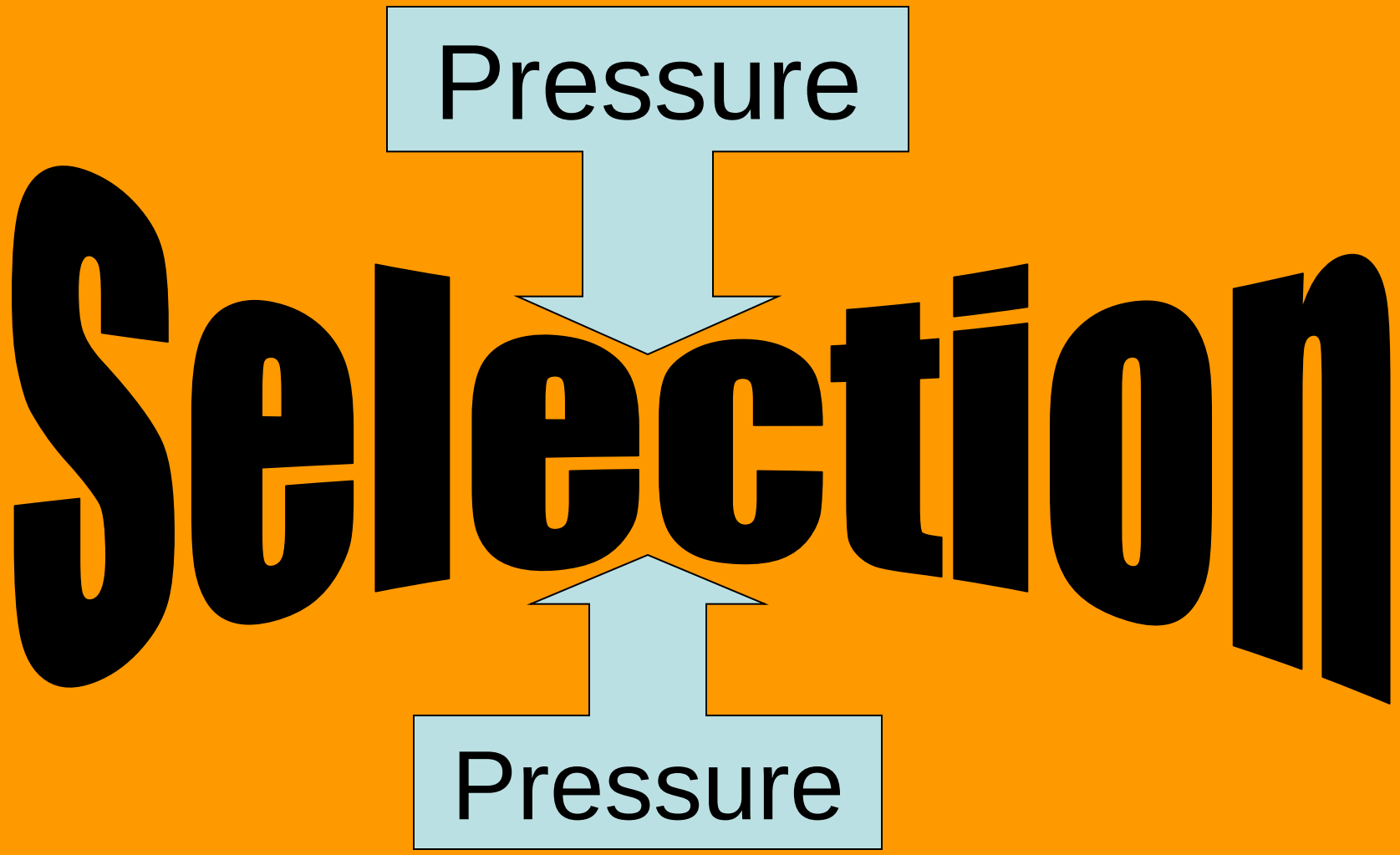
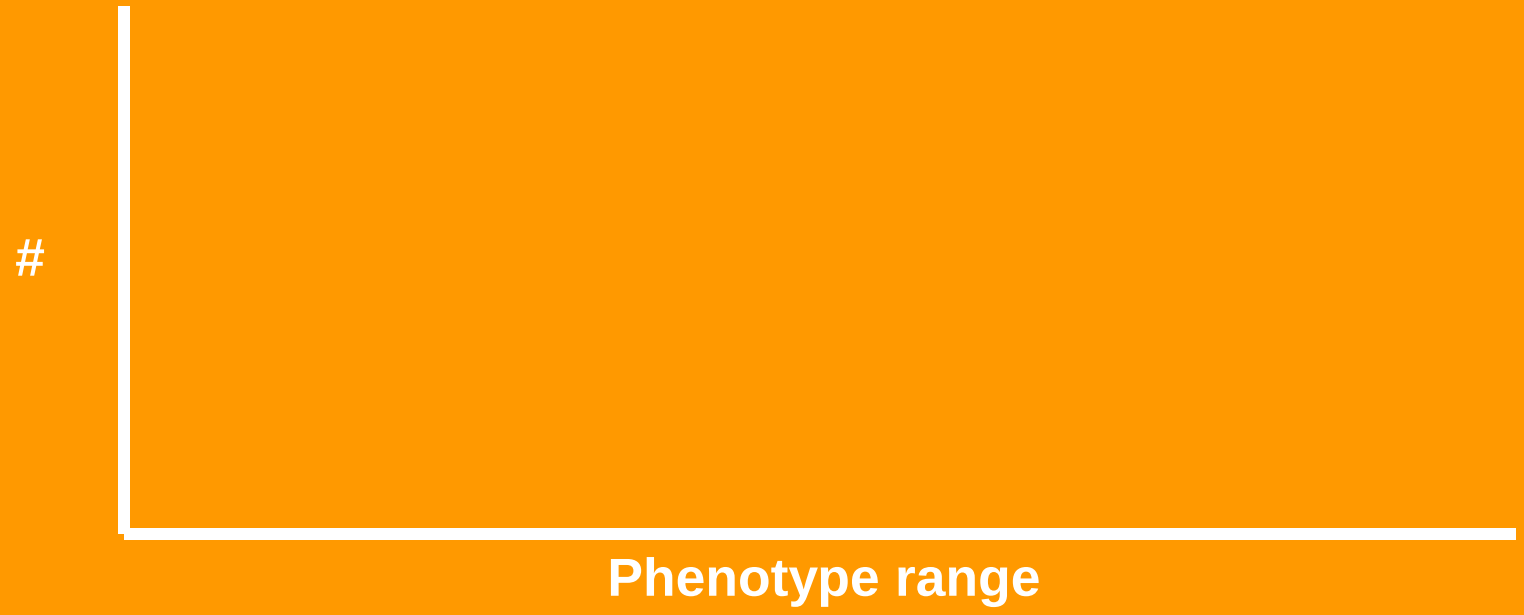
Natural Selection & Allele Frequencies



“Types” of Natural Selection

If we were to measure and plot the distribution of any genetic based phenotype, the graph would be a typical bell shaped curve:



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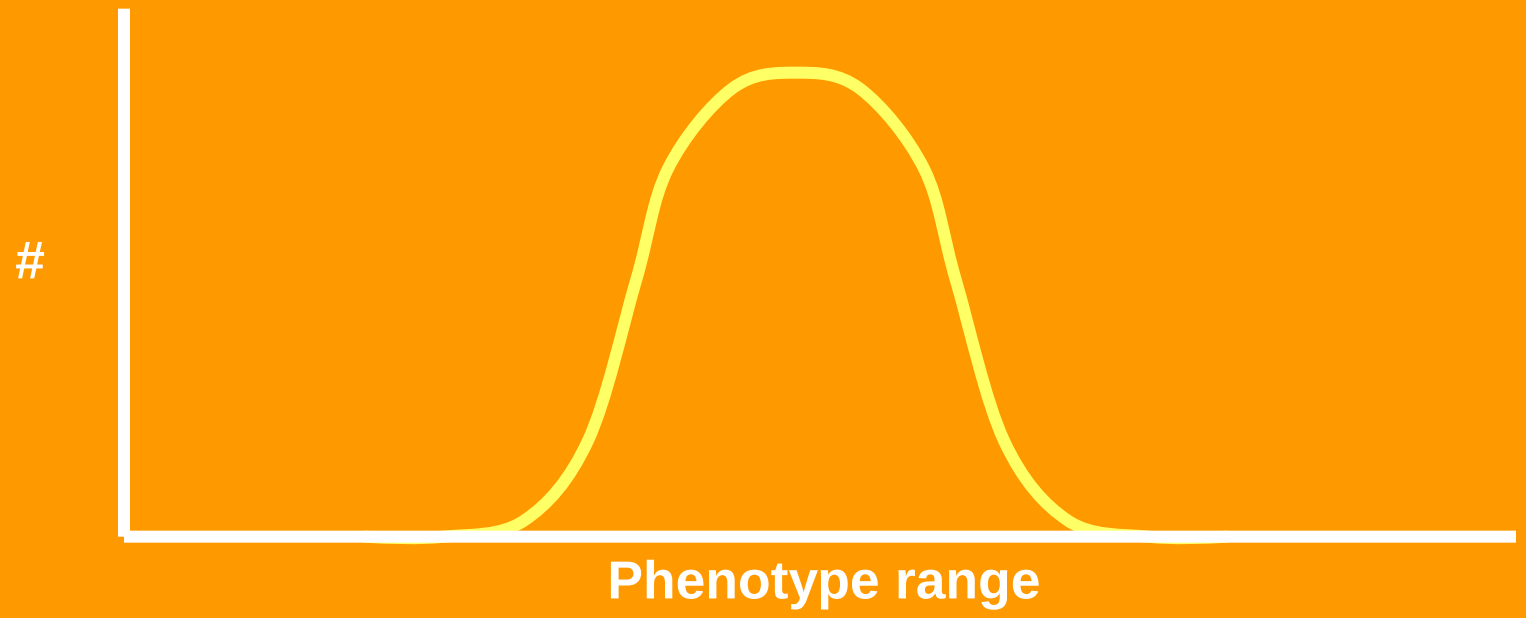
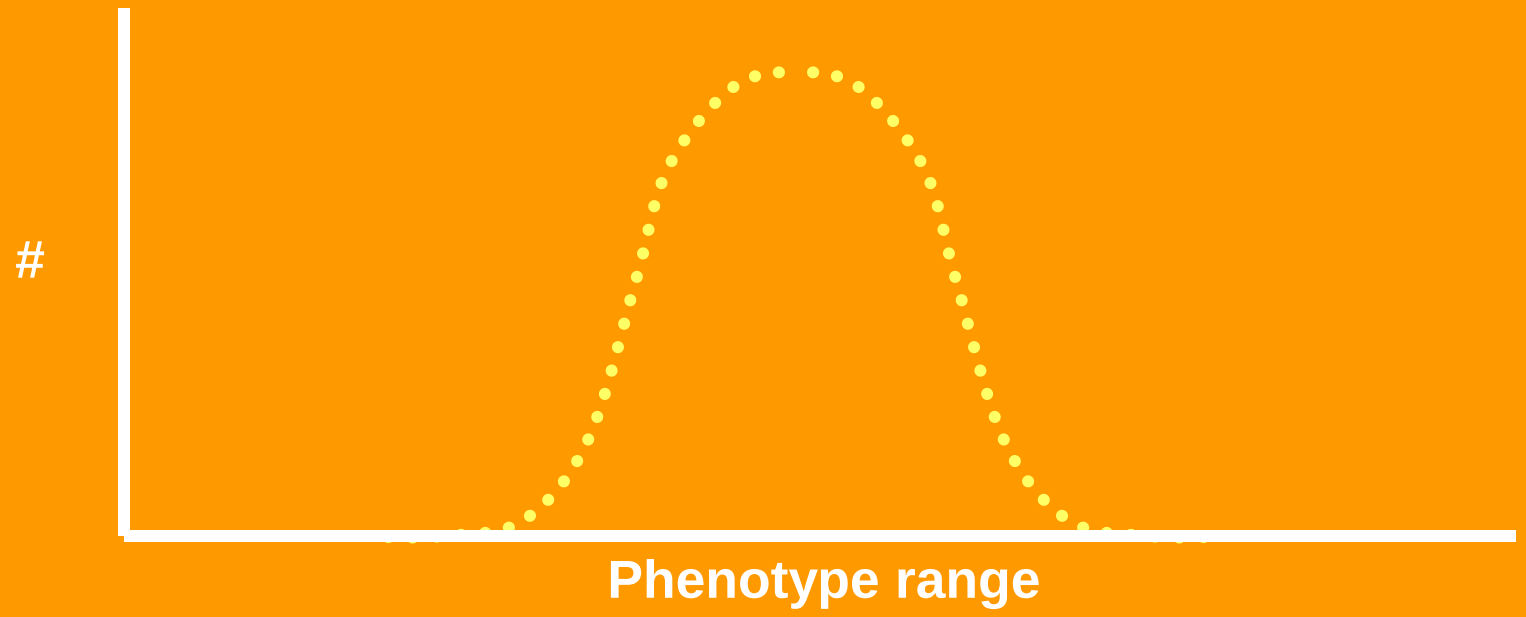


Natural Selection can alter this distribution in different ways:

1. Directional Selection:

- Selection against one phenotypic extreme



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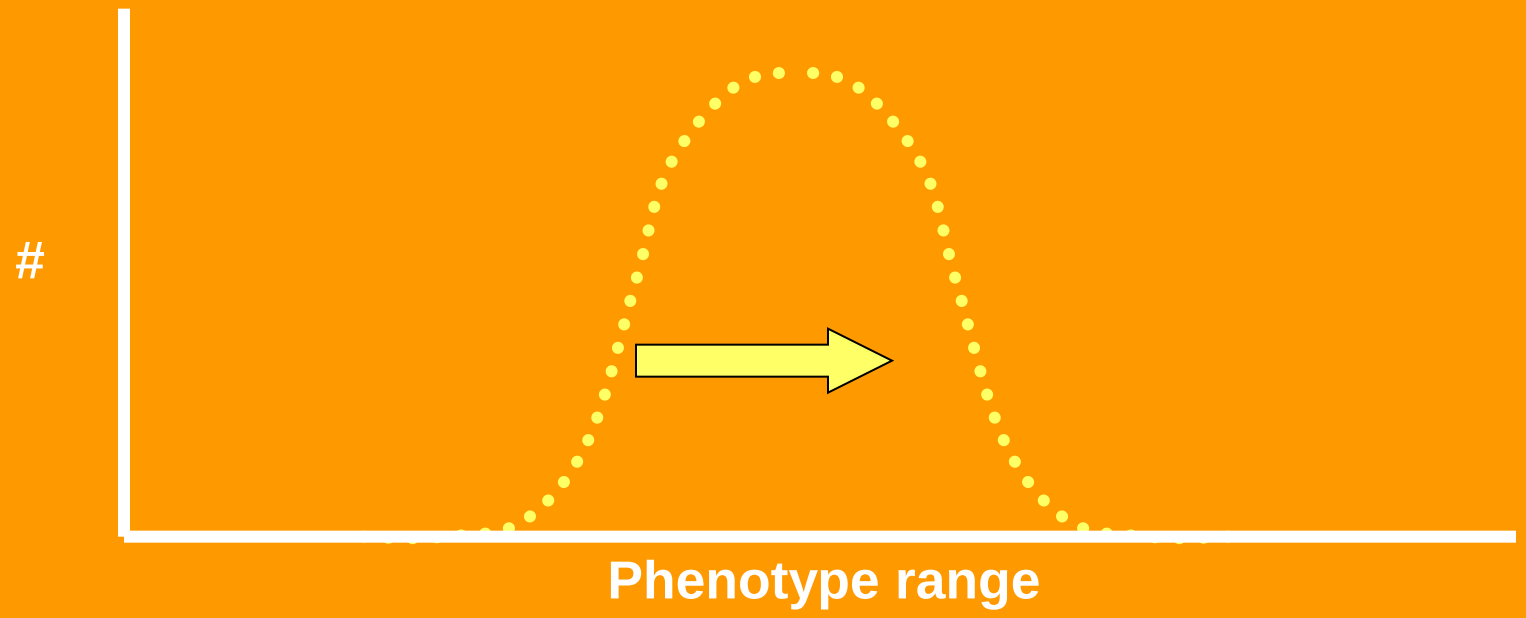

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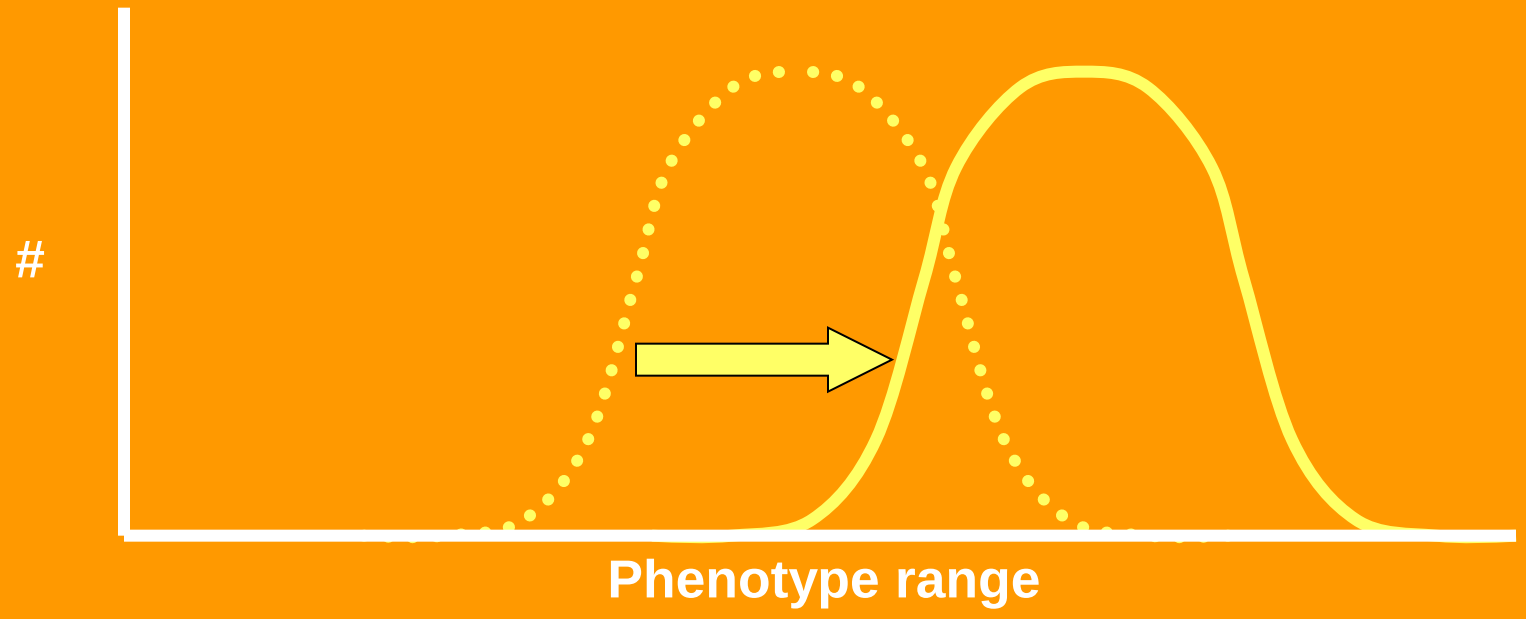

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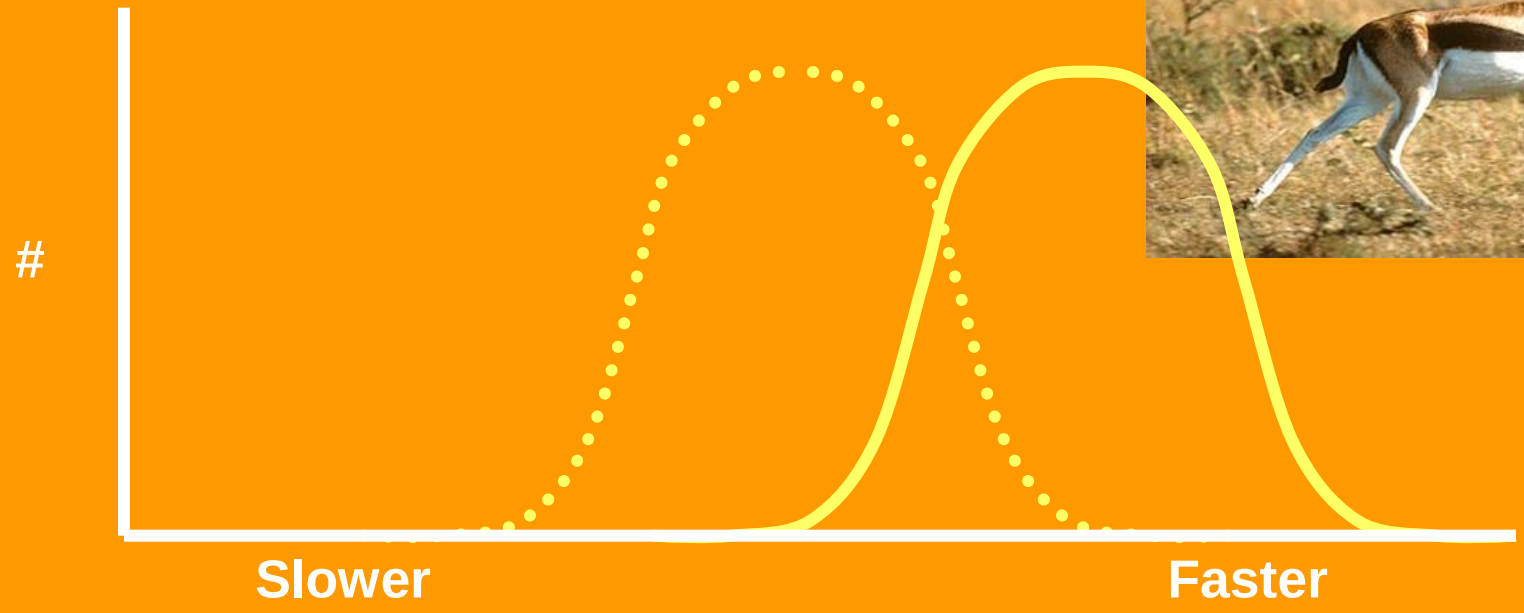
Example: The speed of gazelles



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2. Stabilizing Selection:

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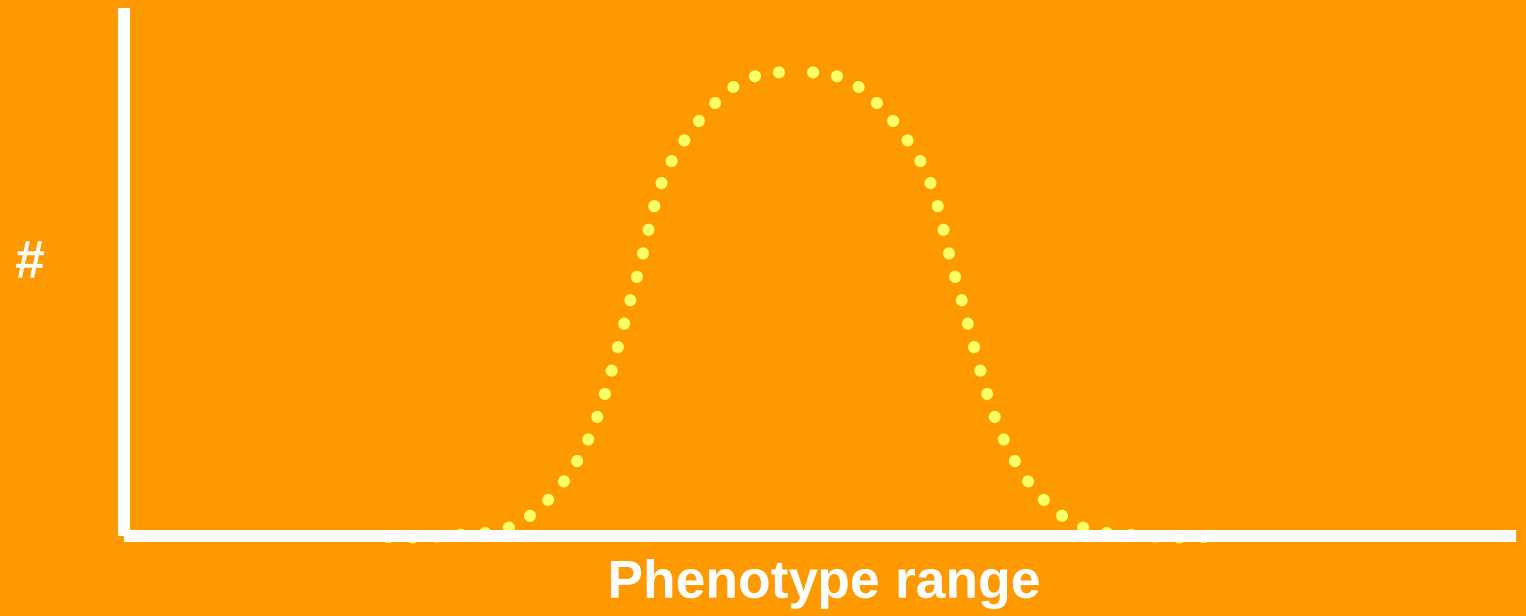

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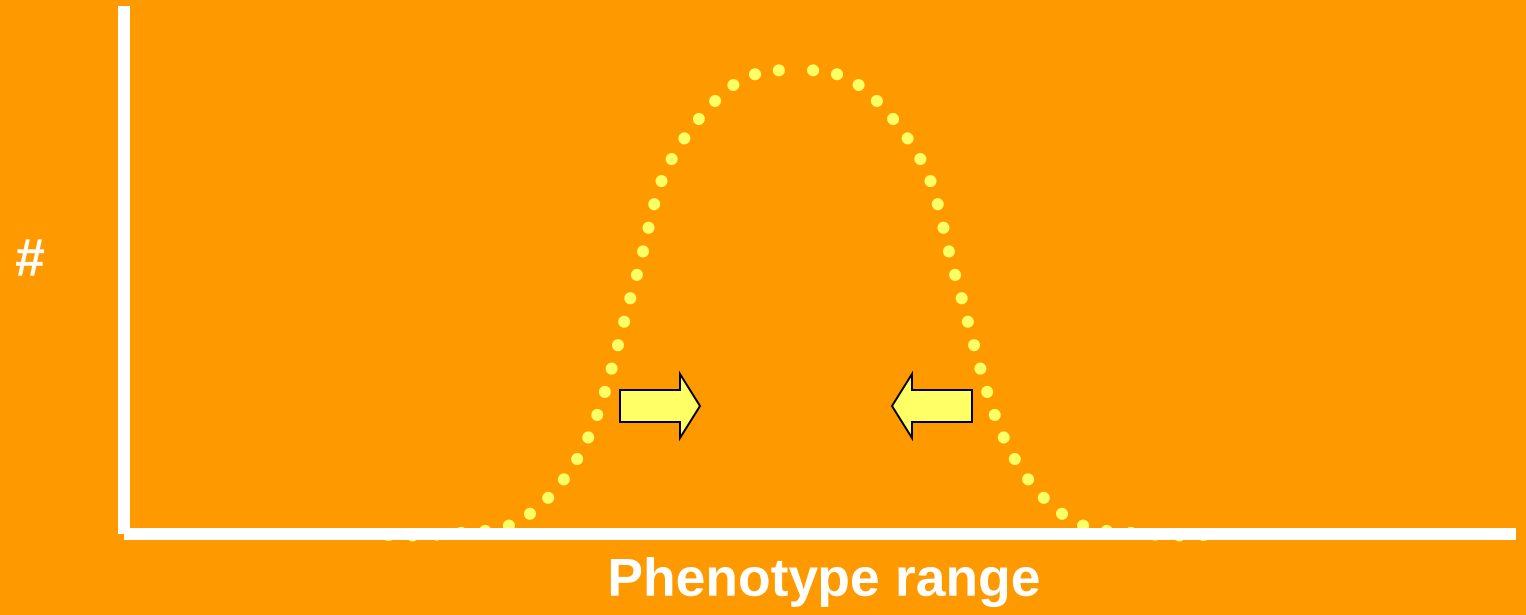

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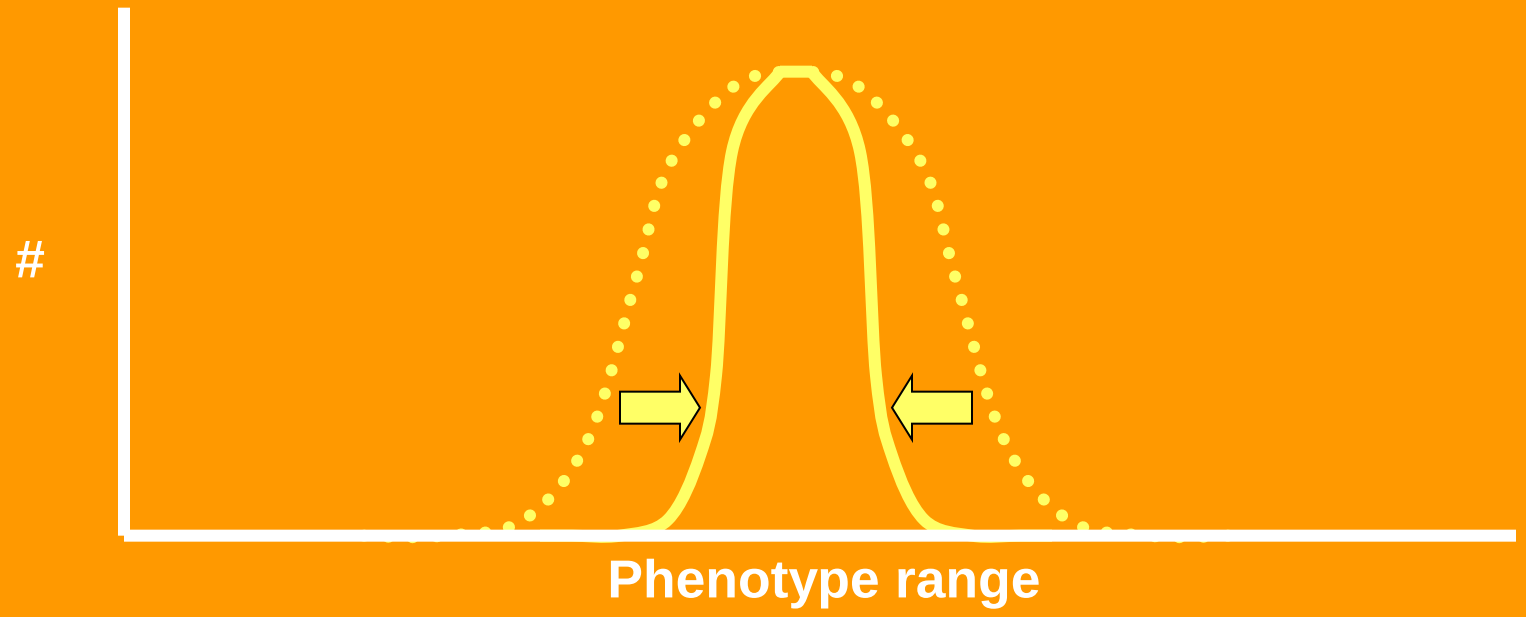

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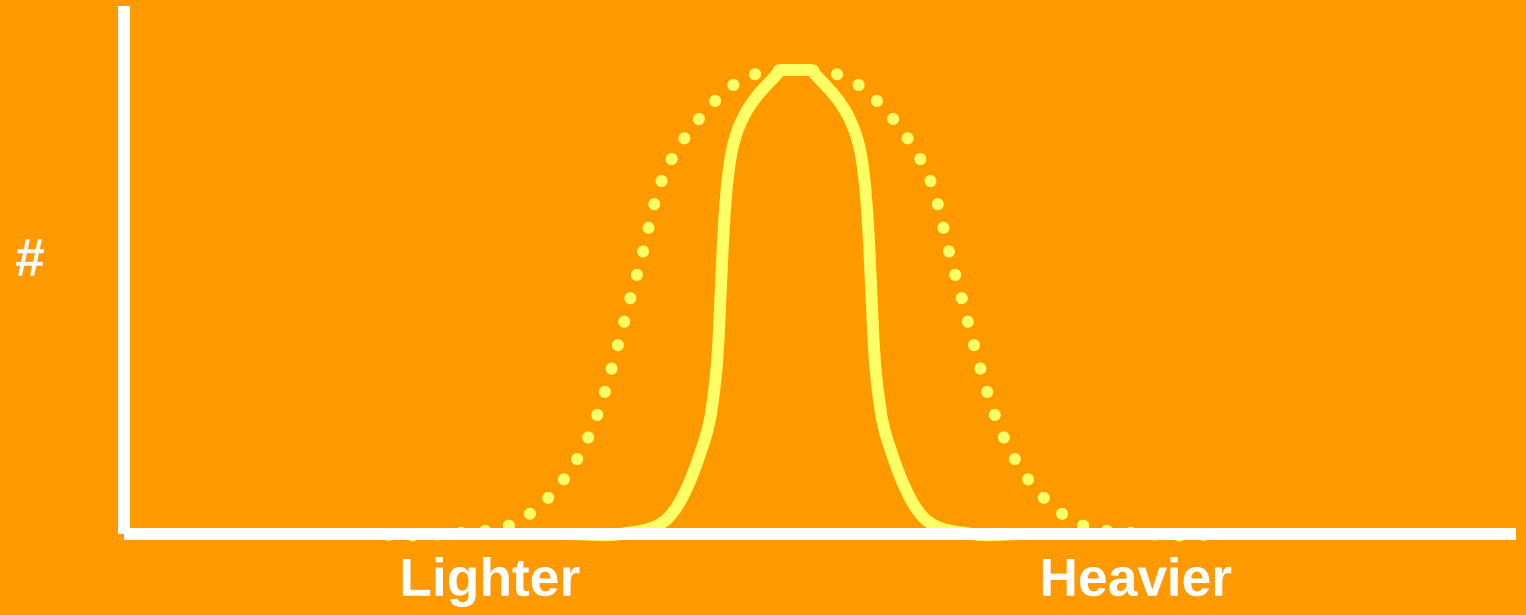

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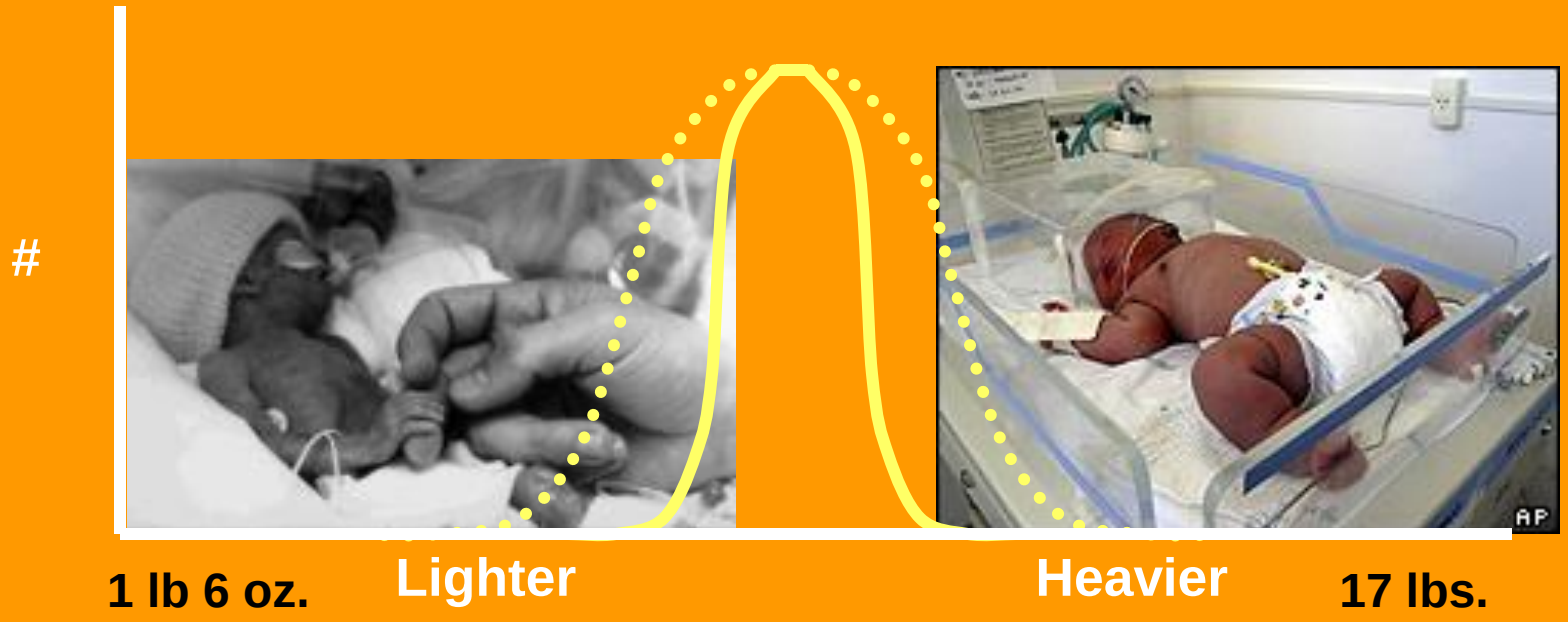

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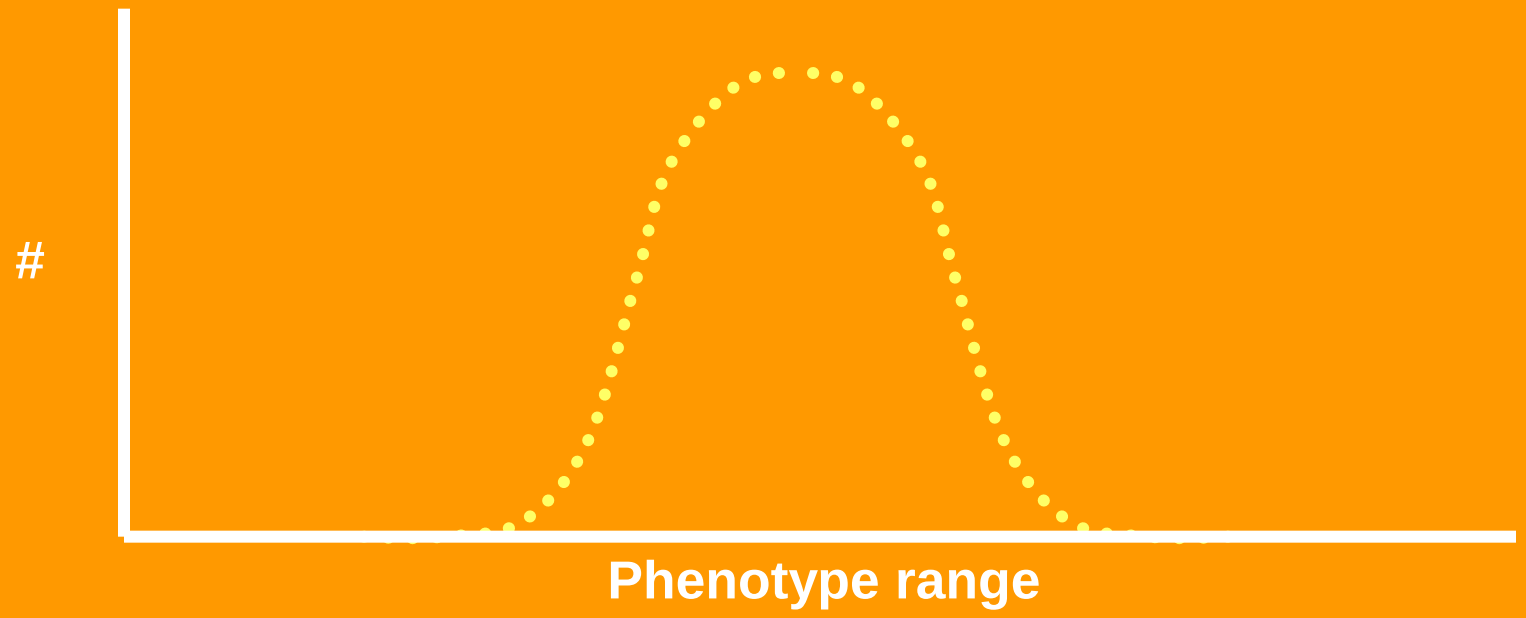

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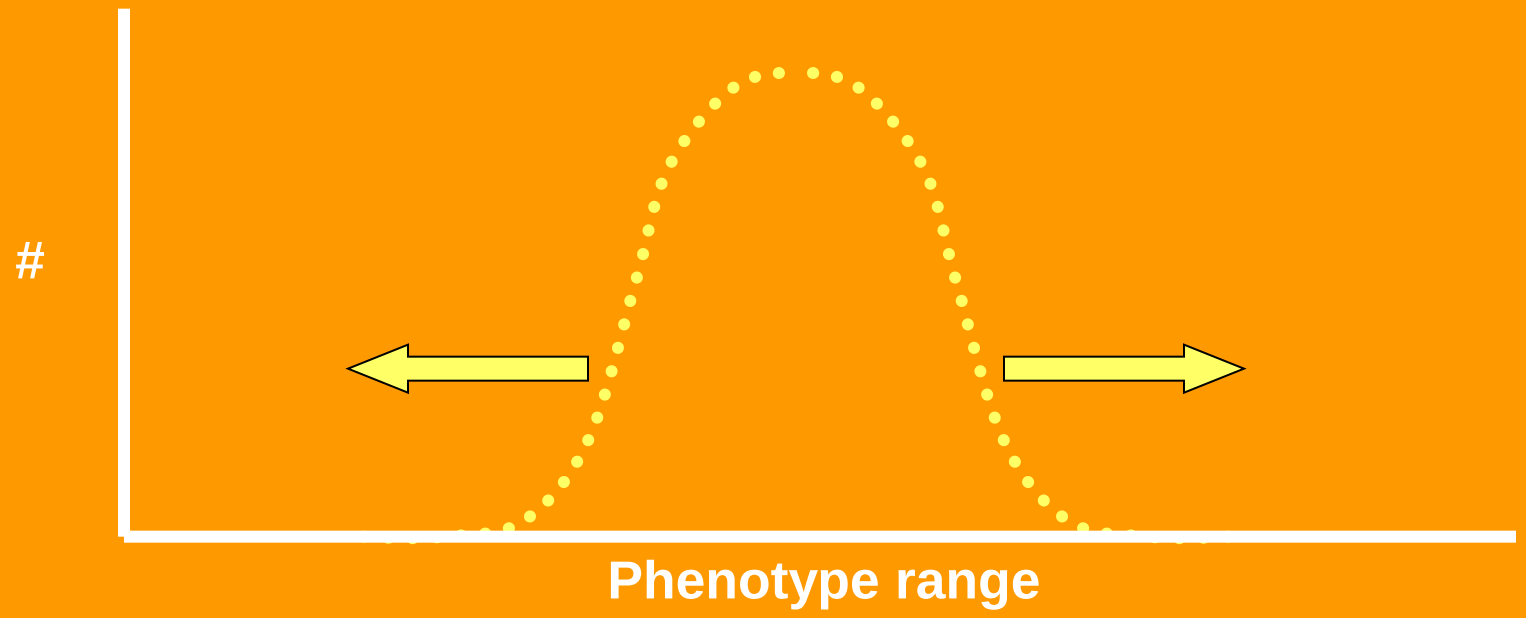

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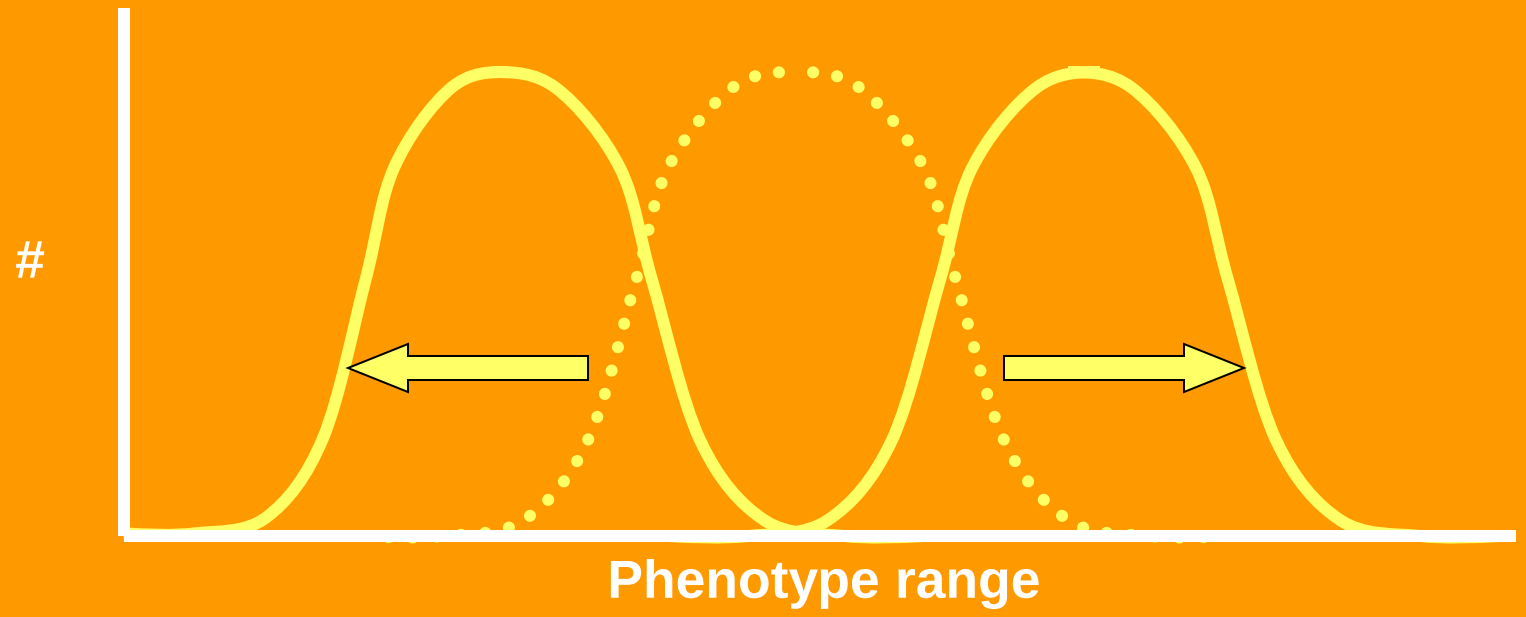

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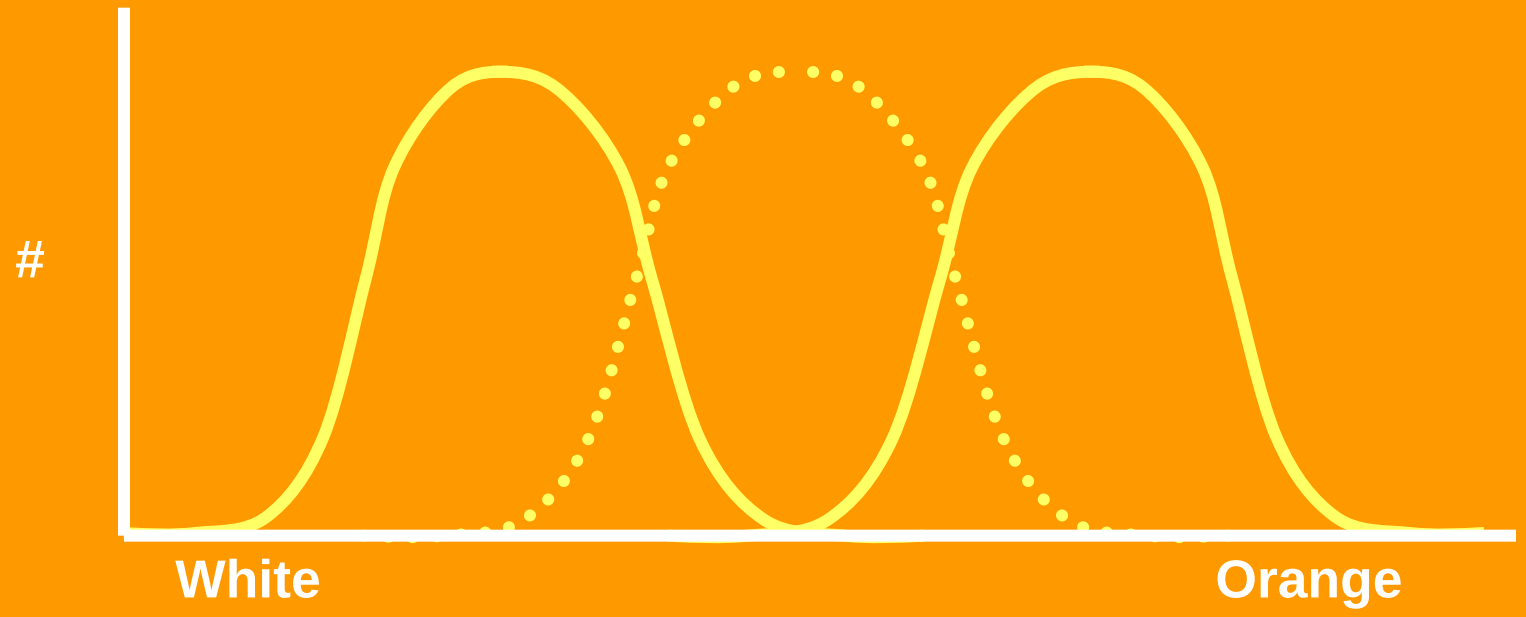
Example: Mocker swallowtail butterflies color



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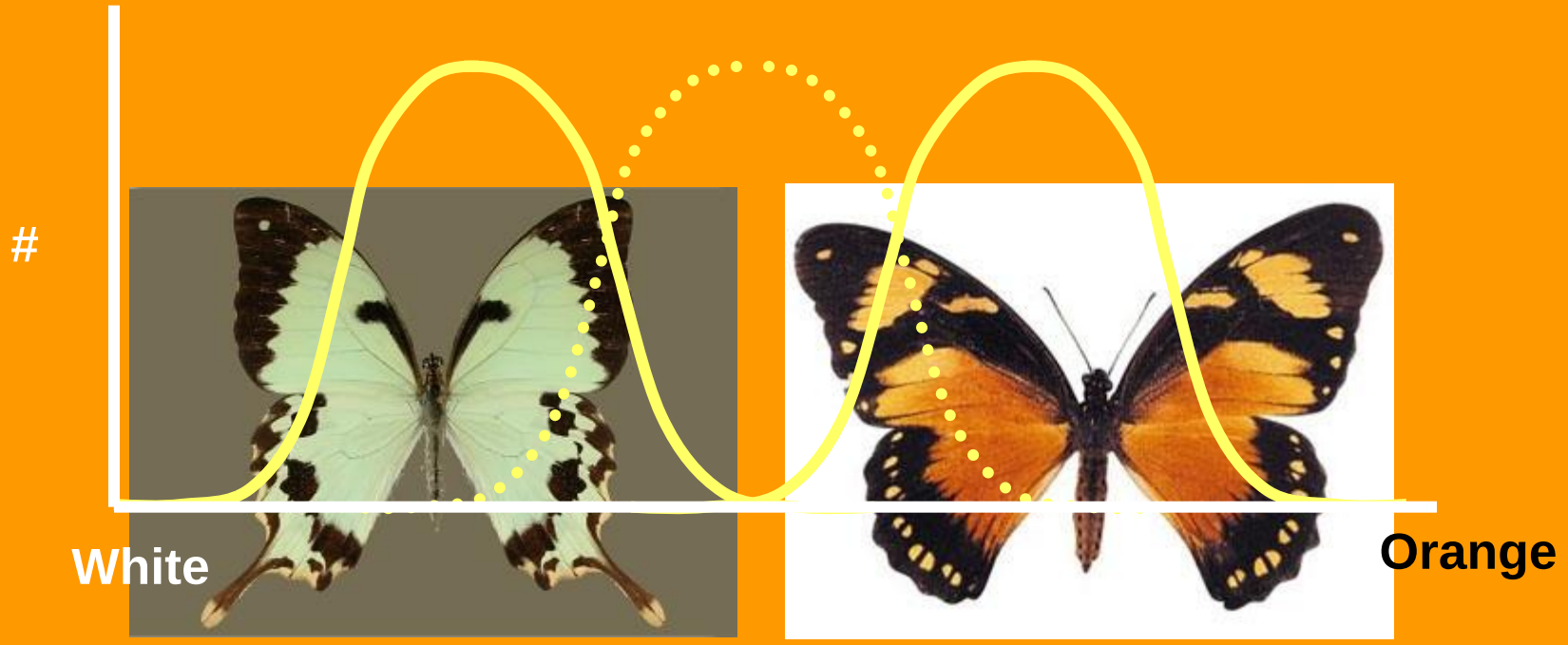

Question to consider in your teams….

Which of these types of selection do you think may be most responsible for divergent evolution, leading to the development of new species over time?

#

Evo Review

Adaptations INCREASE fitness to survive and reproduce.

1. Camouflage – Species blending in with their environment
2. Mimicry – One species evolves to resemble another