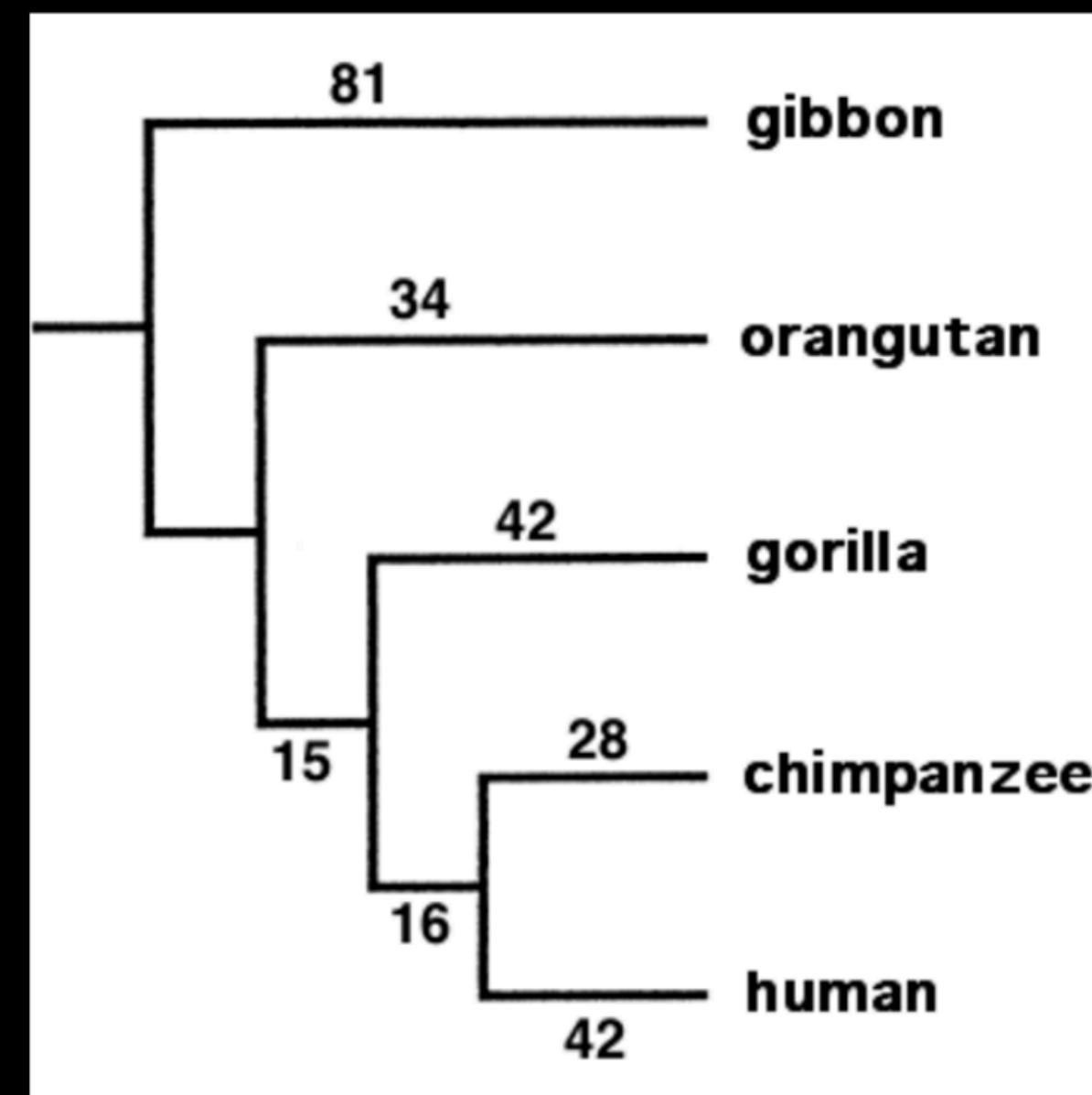
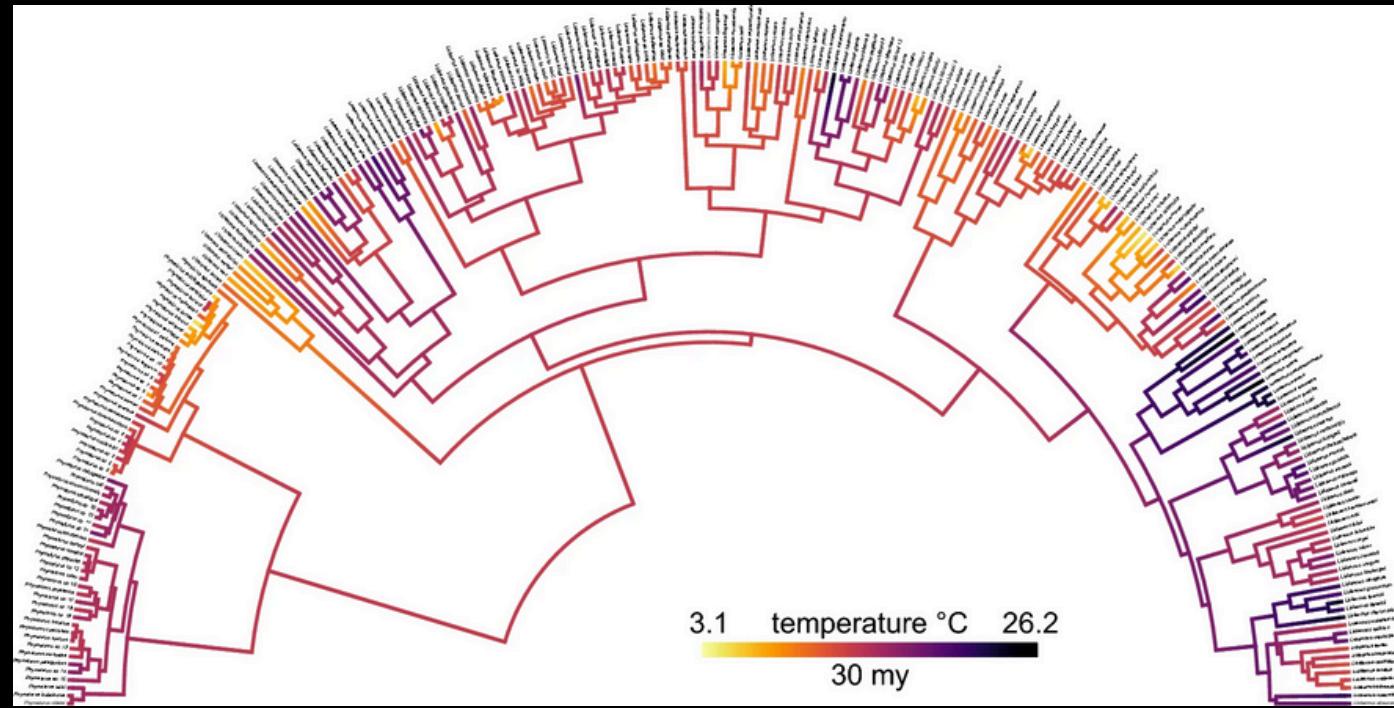


Gene Trees

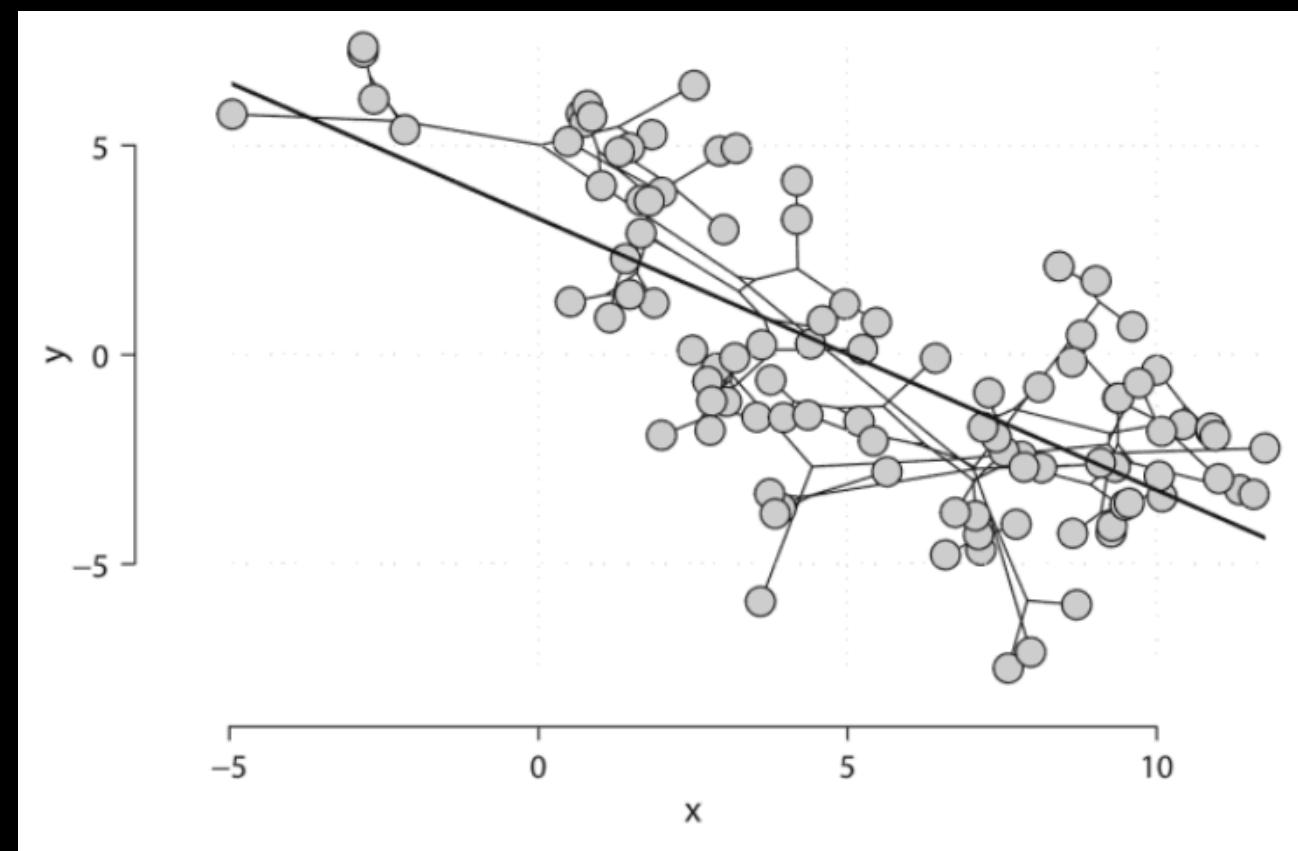
Raphaël Scherrer



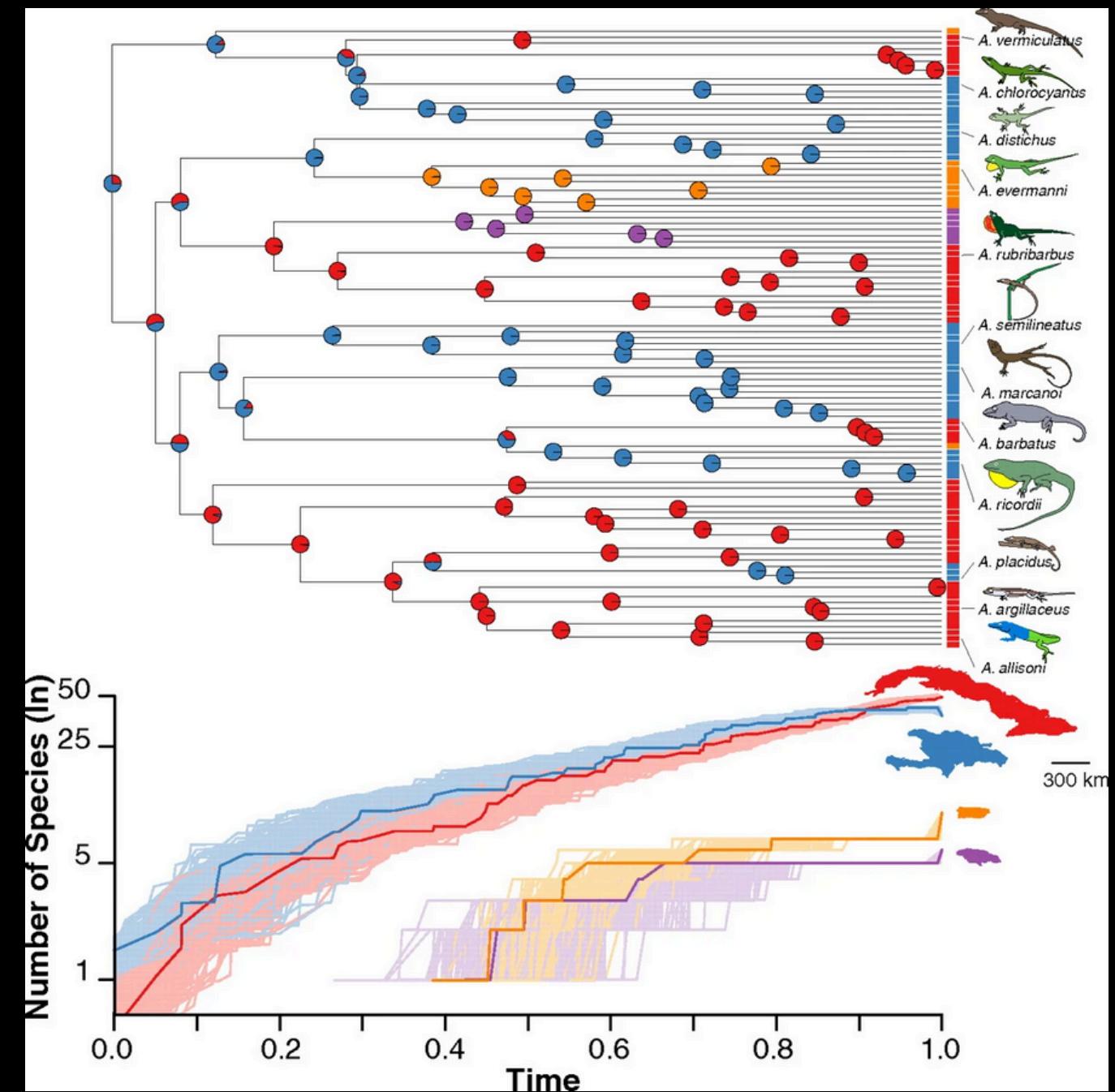
Goldman et al. (1987)



Revell (2025)



Revell and Harmon (2022)

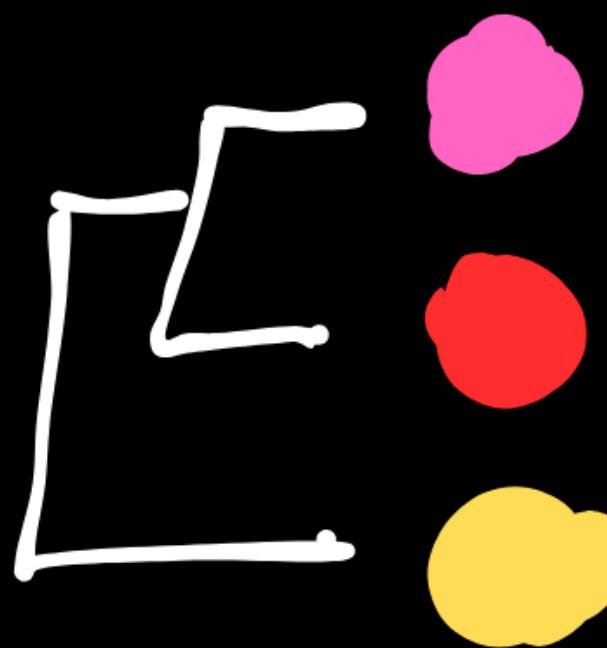


Rabosky and Glor (2010)

molecular phylogeny

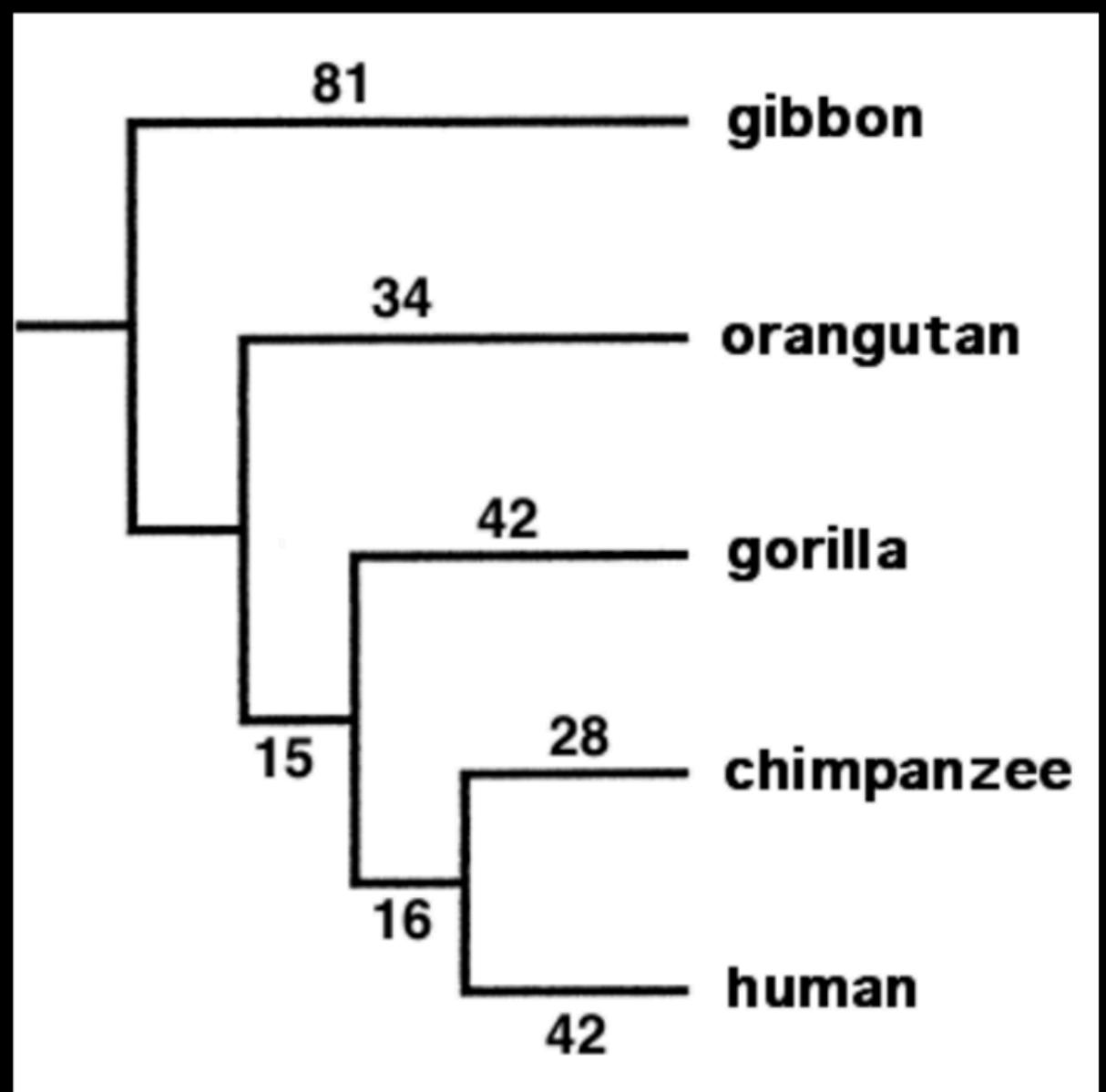
sequence alignment

- ATT...TCCGA...GGAA
- ATAC...TCCGA...GCAA
- ATAC...TCAGA...GCAA



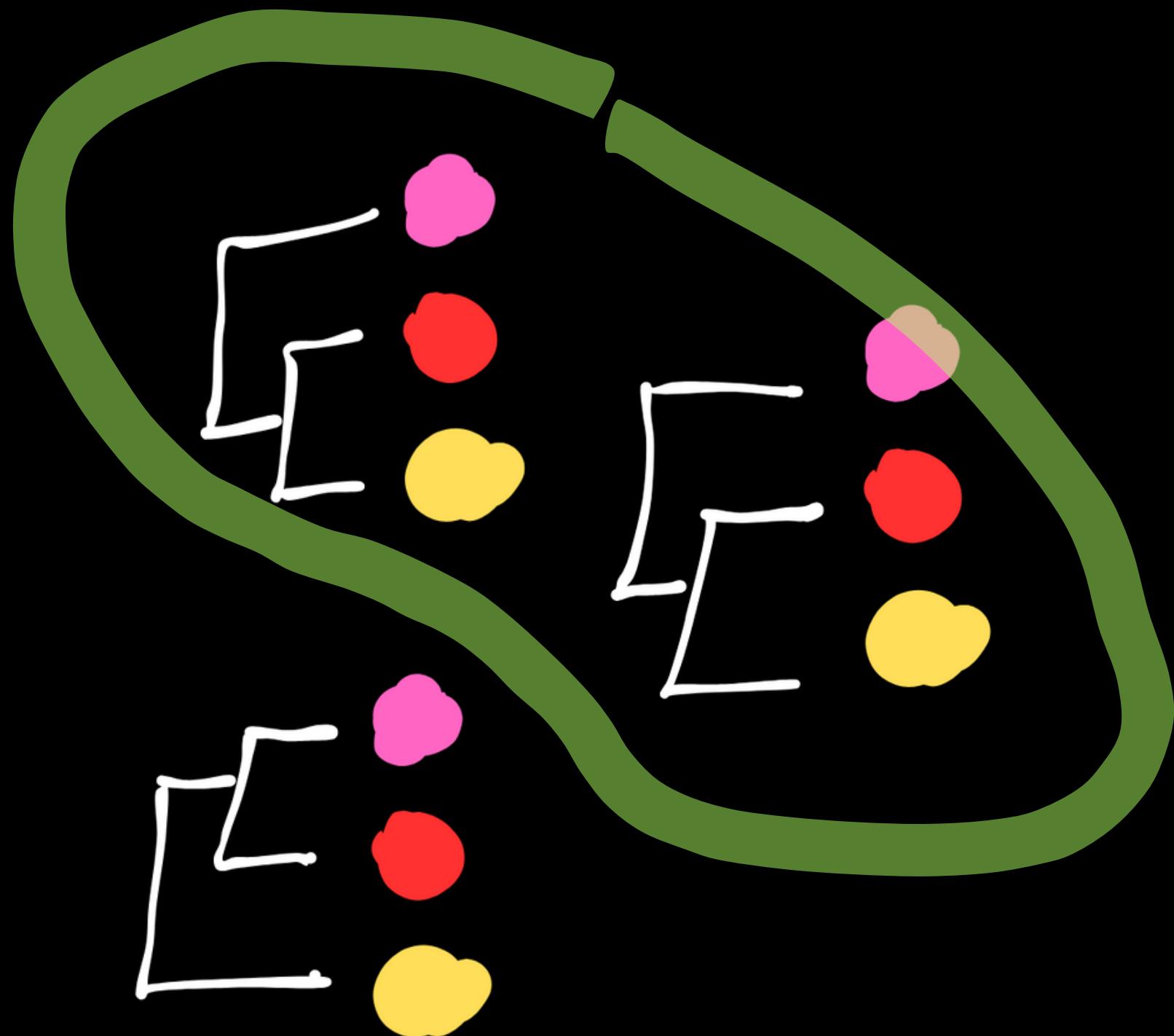


species tree

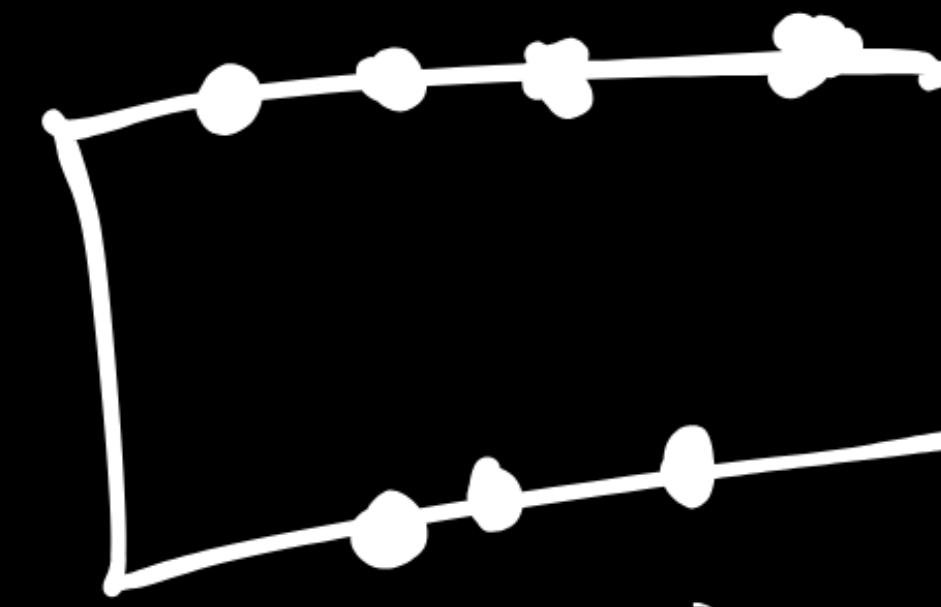


Goldman et al. (1987)

majority rule

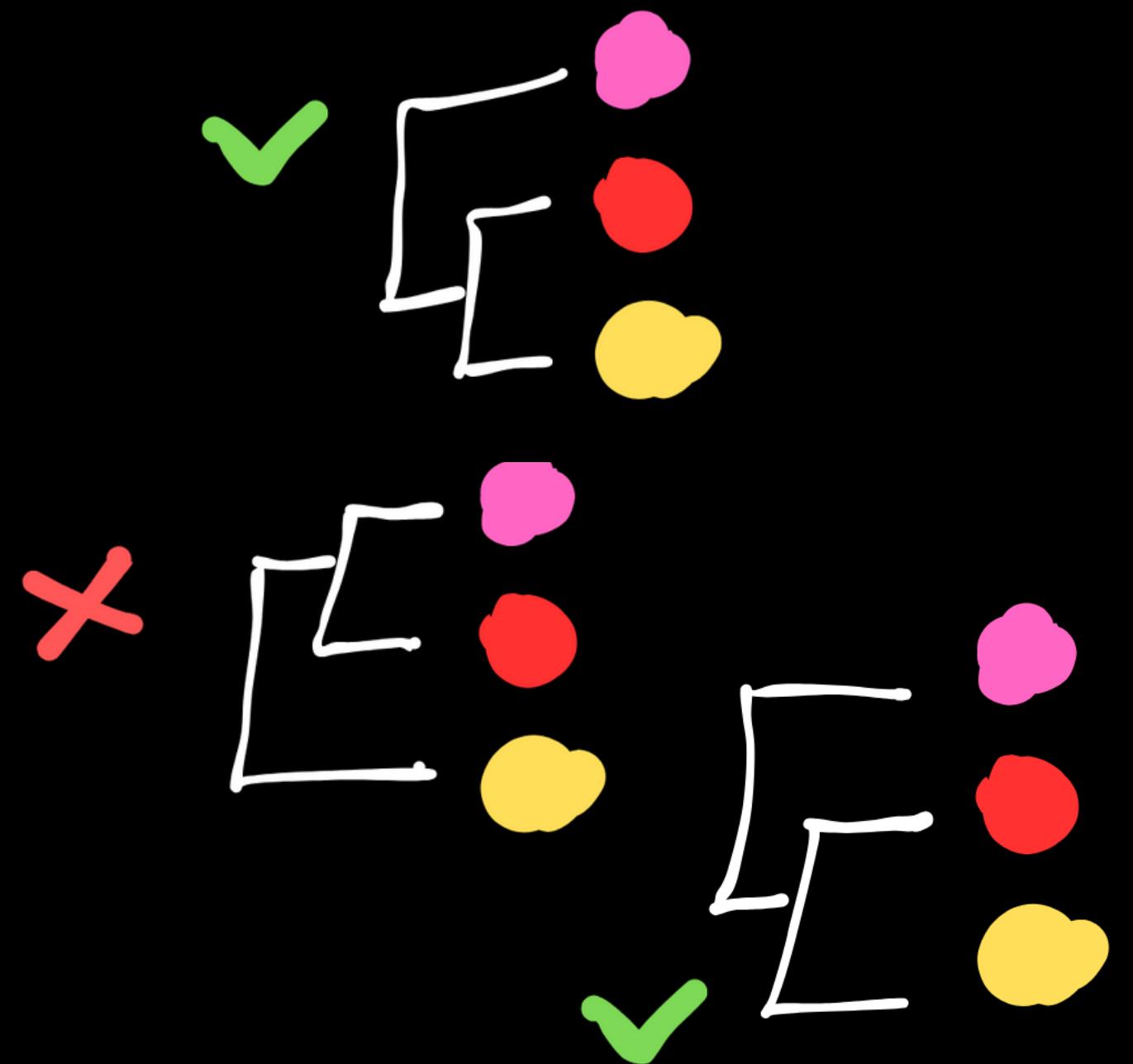


minimizing substitutions



consensus species tree

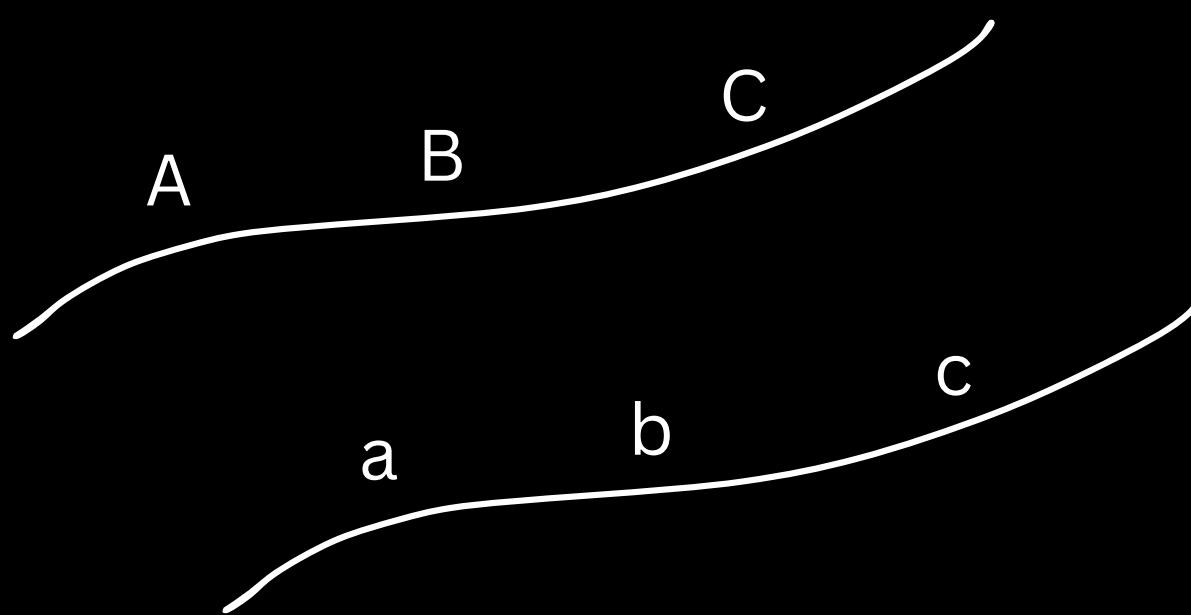
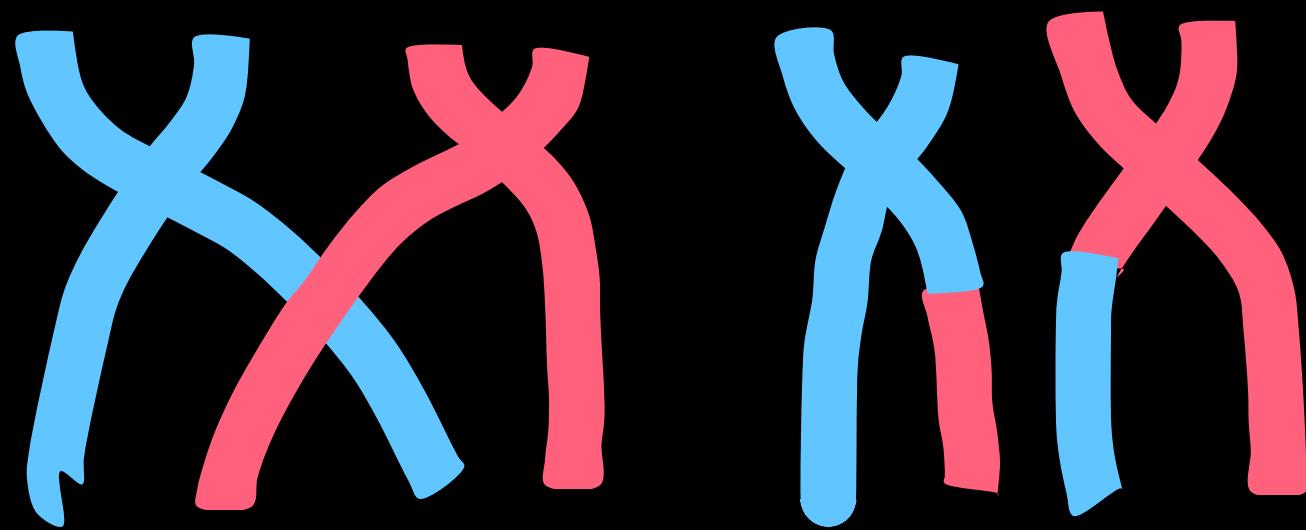
gene trees



species tree



recombination



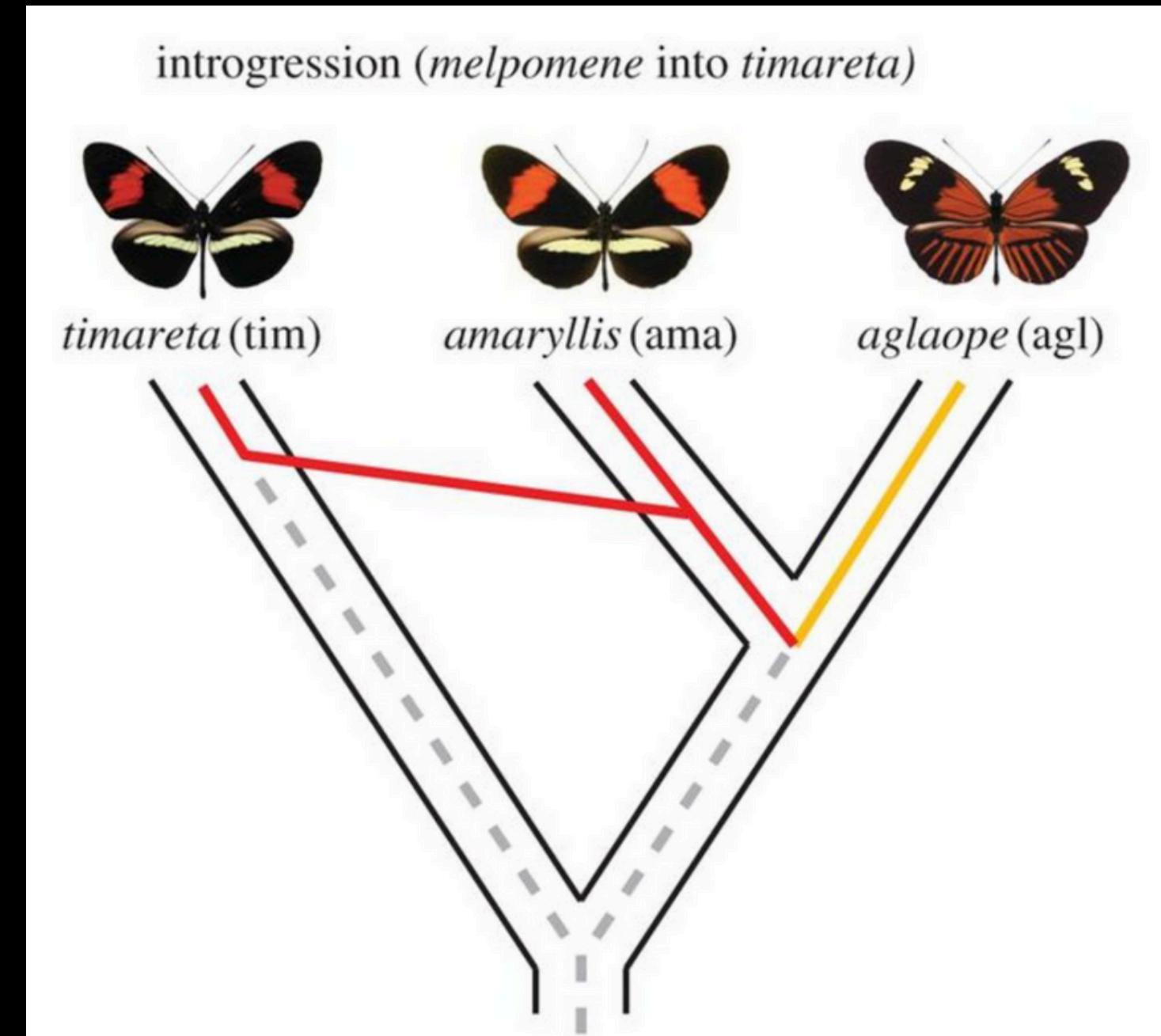
haplotypes

hybridization



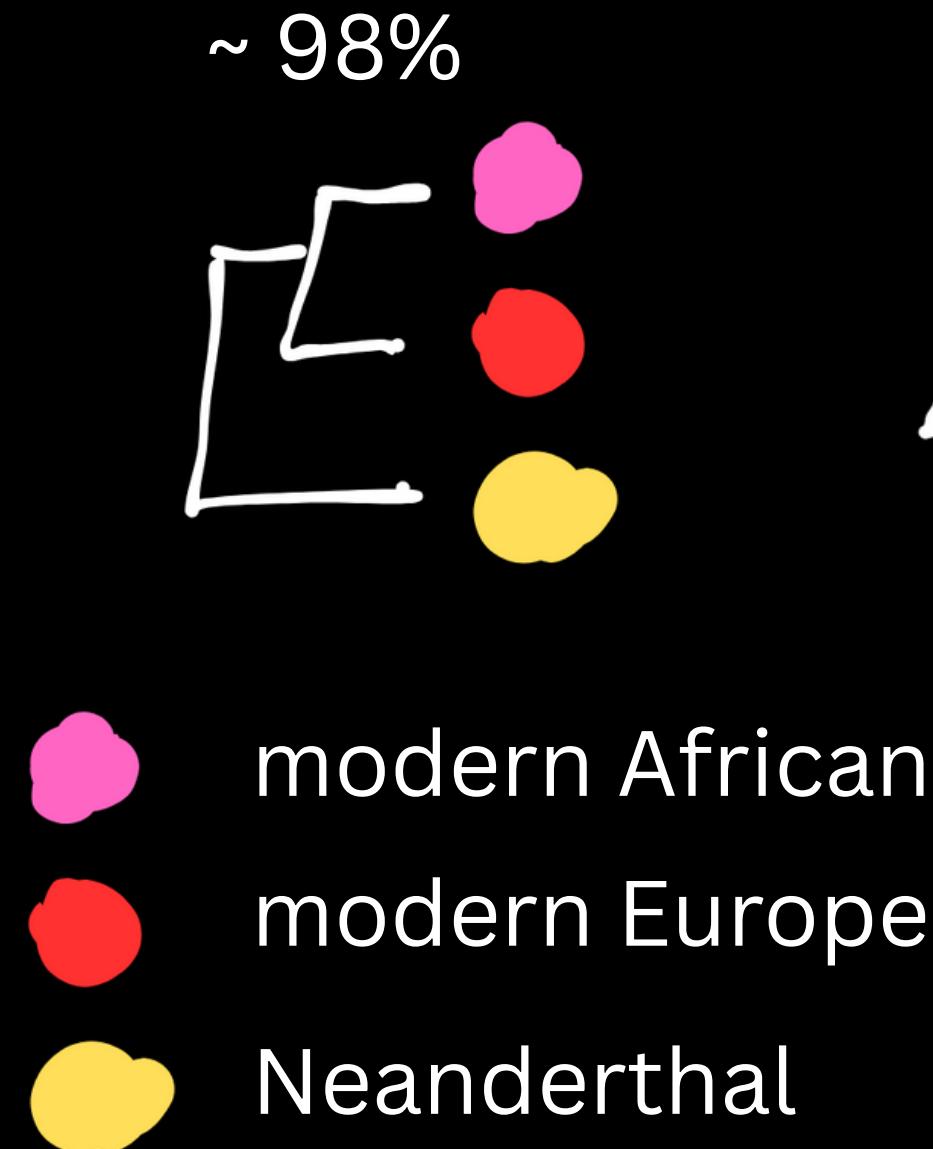
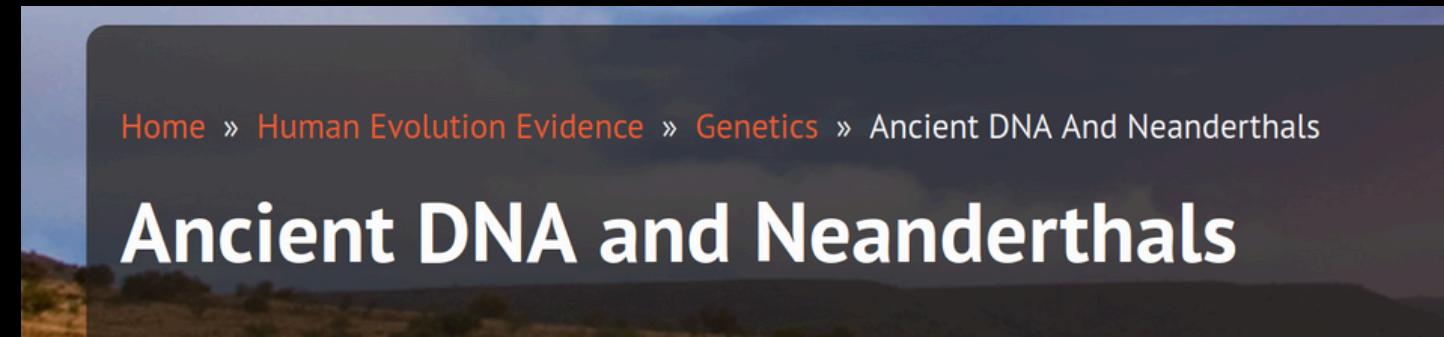
Grant and Grant (1992)

(adaptive)
introgession

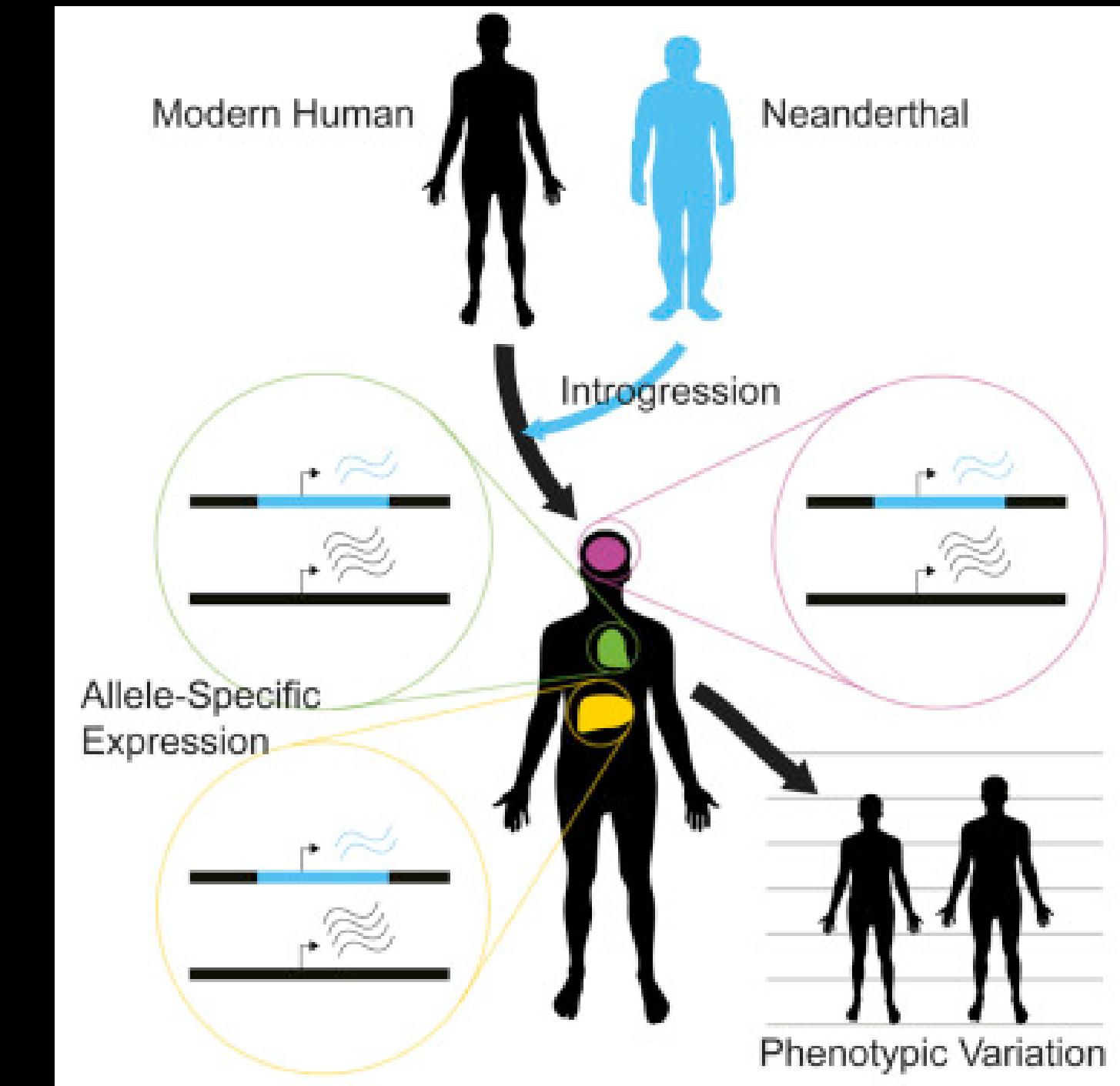


Smith and Kronforst (2013)

<https://humanorigins.si.edu/evidence/genetics/ancient-dna-and-neanderthals>

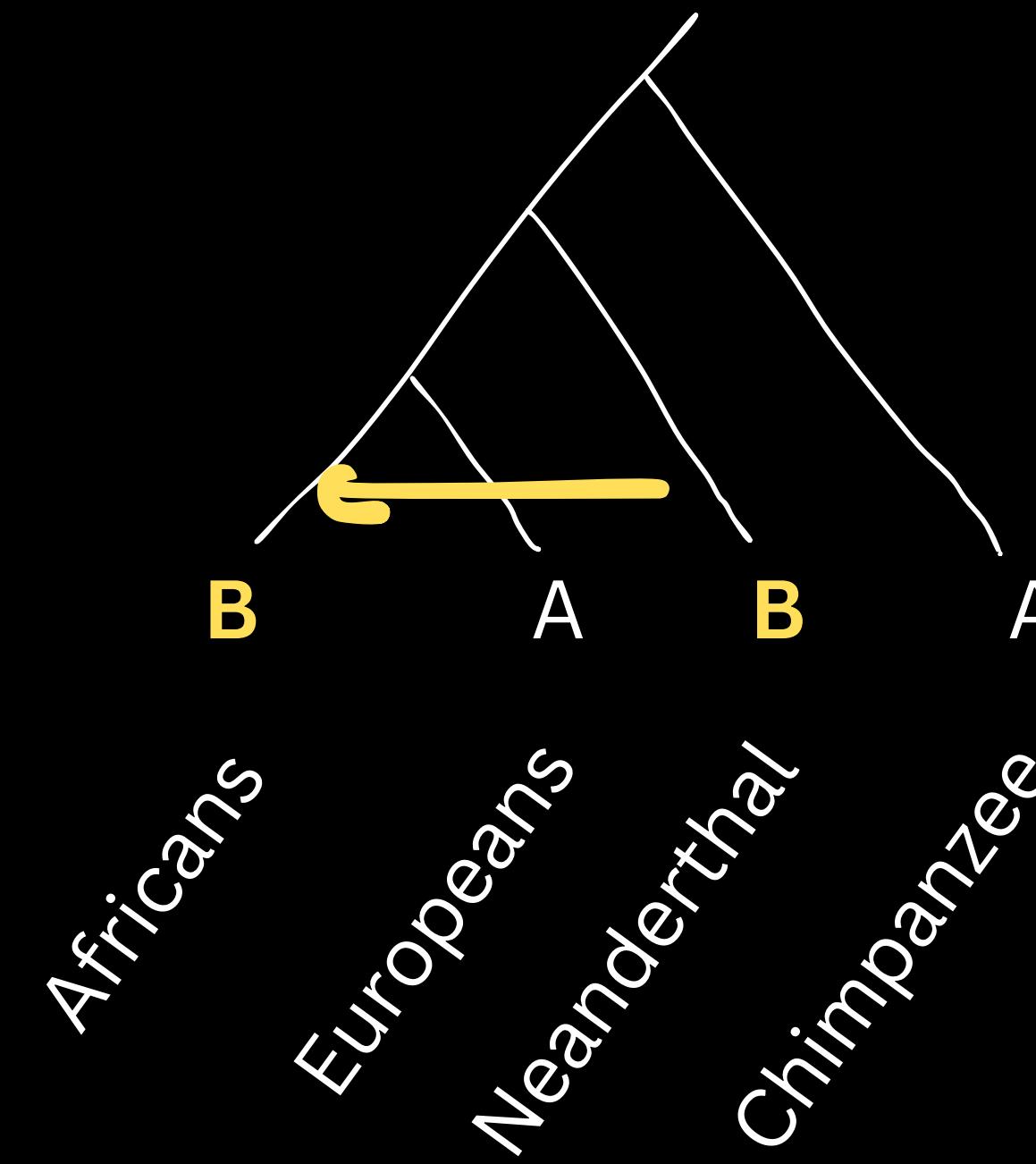
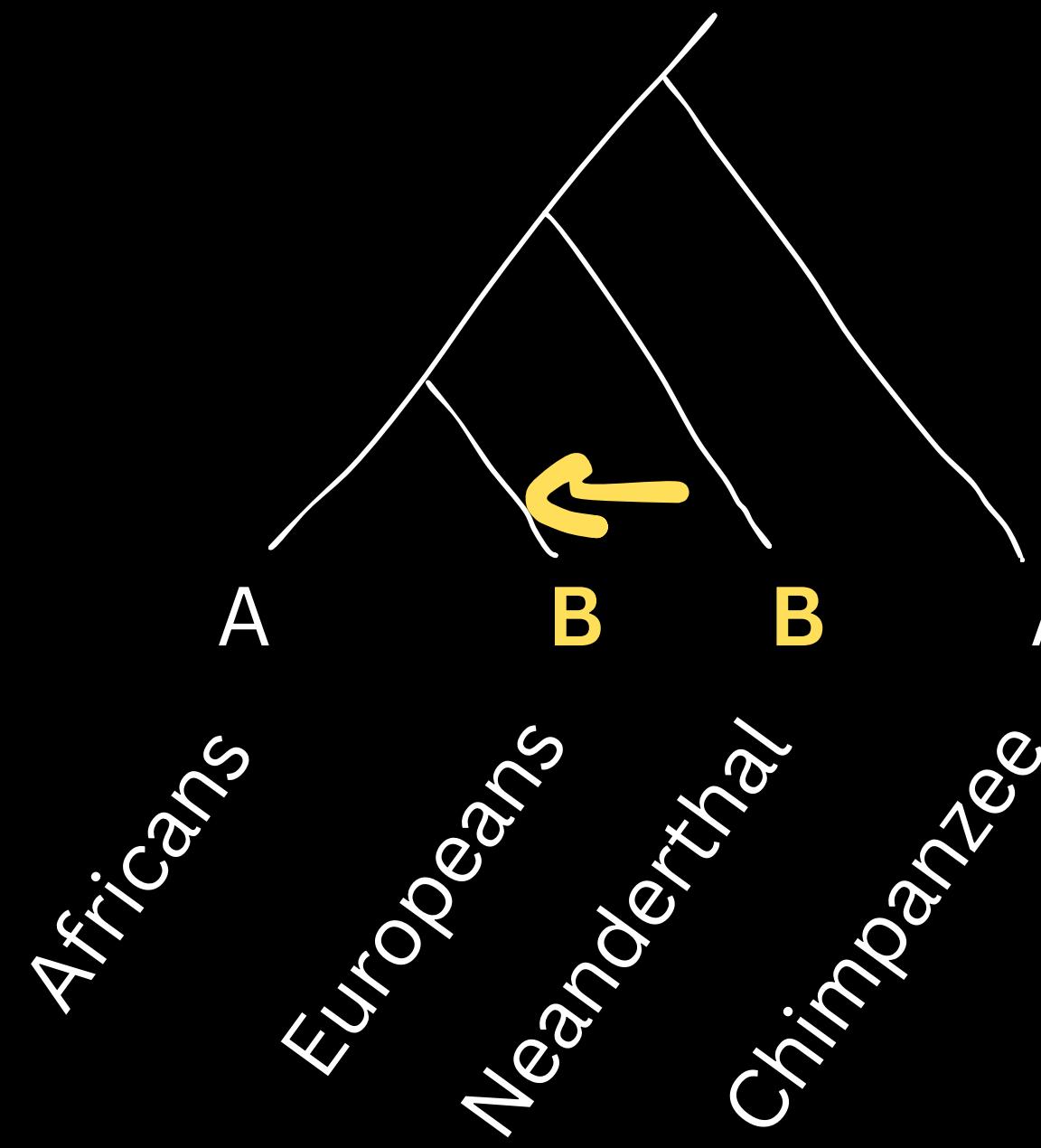


Reilly et al. (2022)

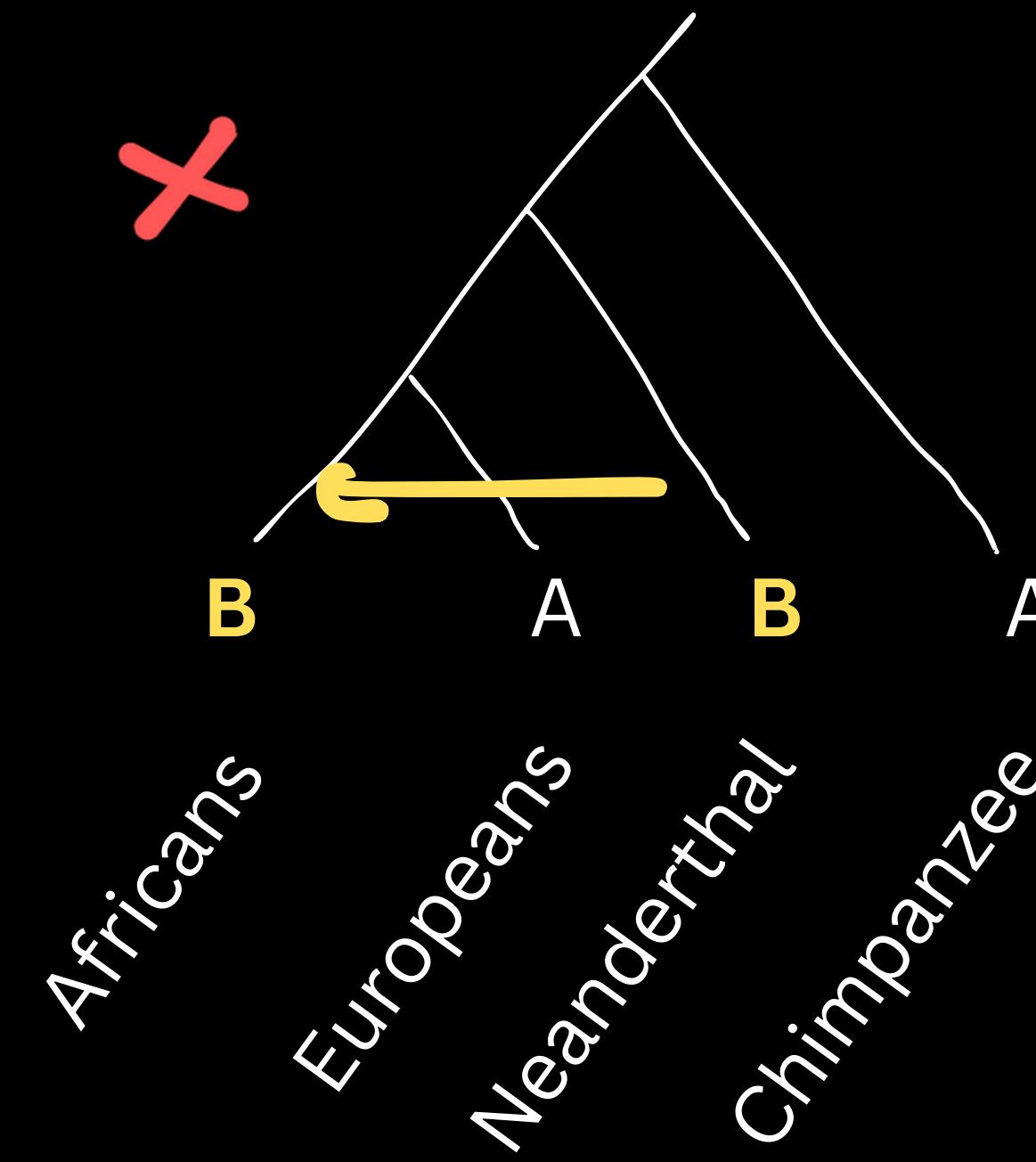
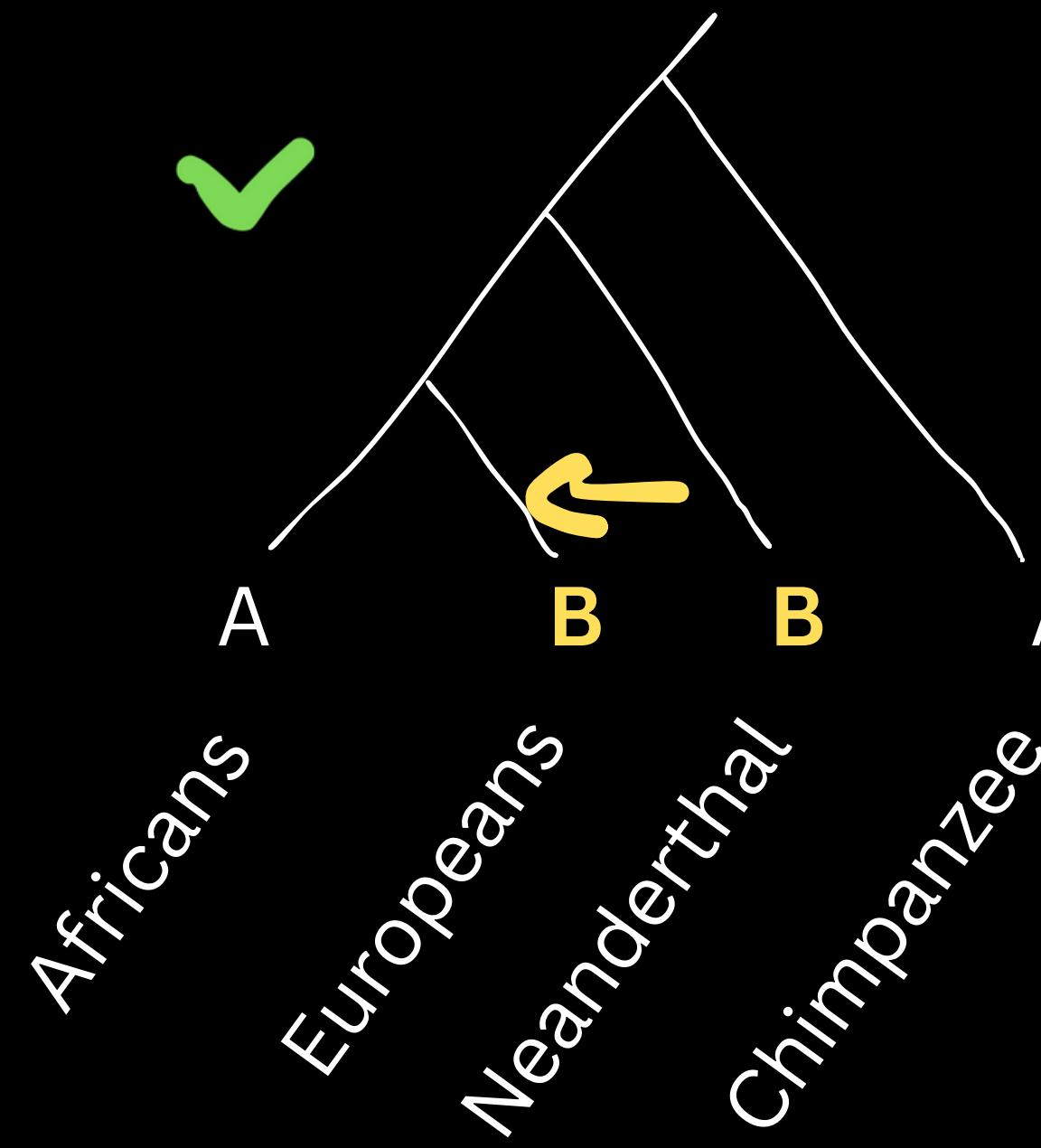


McCoy et al. (2017)

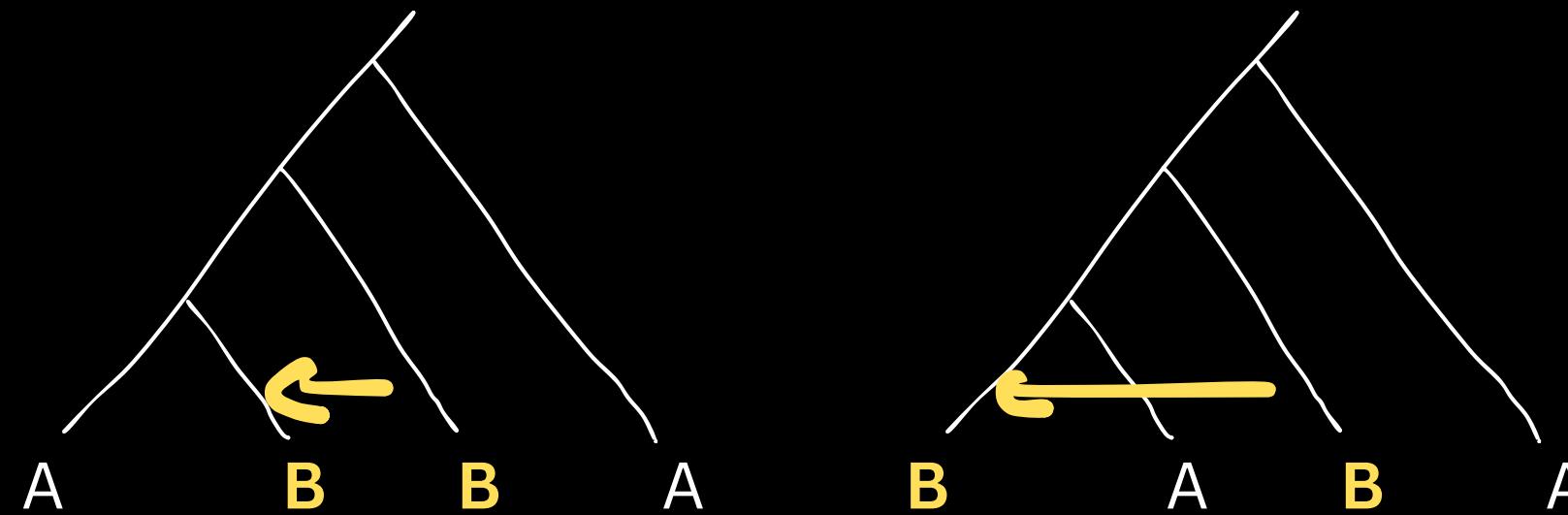
ABBA-BABA test



ABBA-BABA test

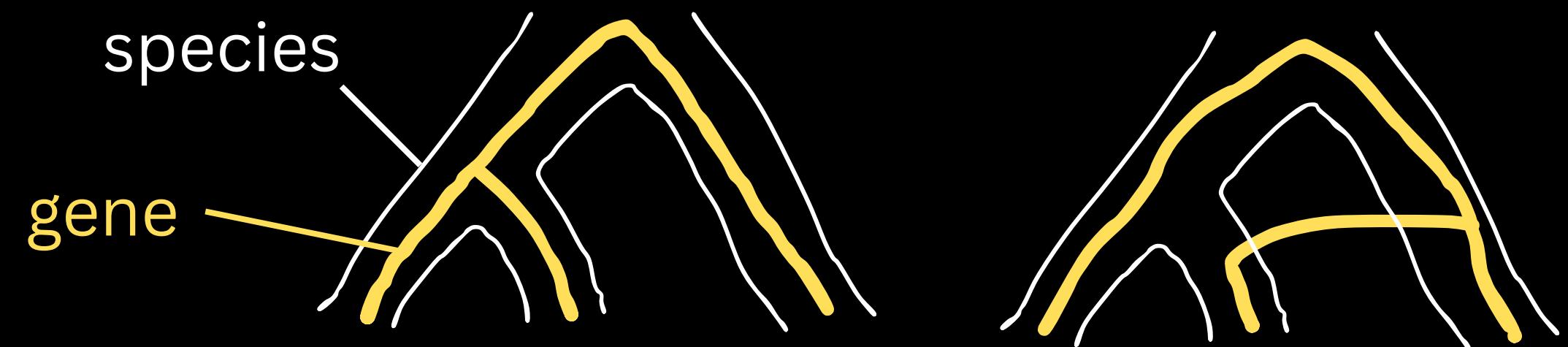


Patterson's D



Green et al. (2010)

Three-sample D3 statistic



Hahn and Hibbins (2019)



congruent

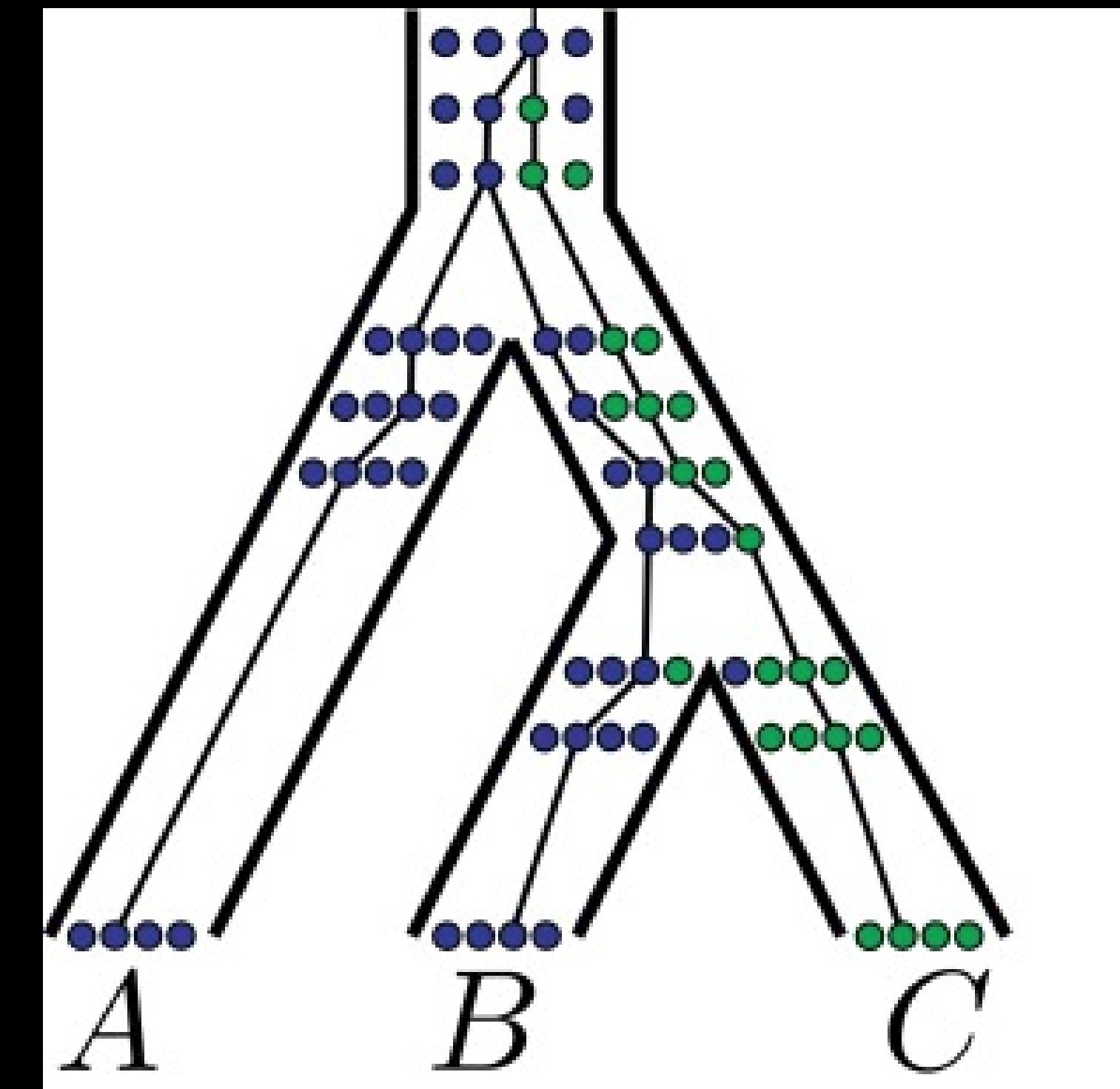
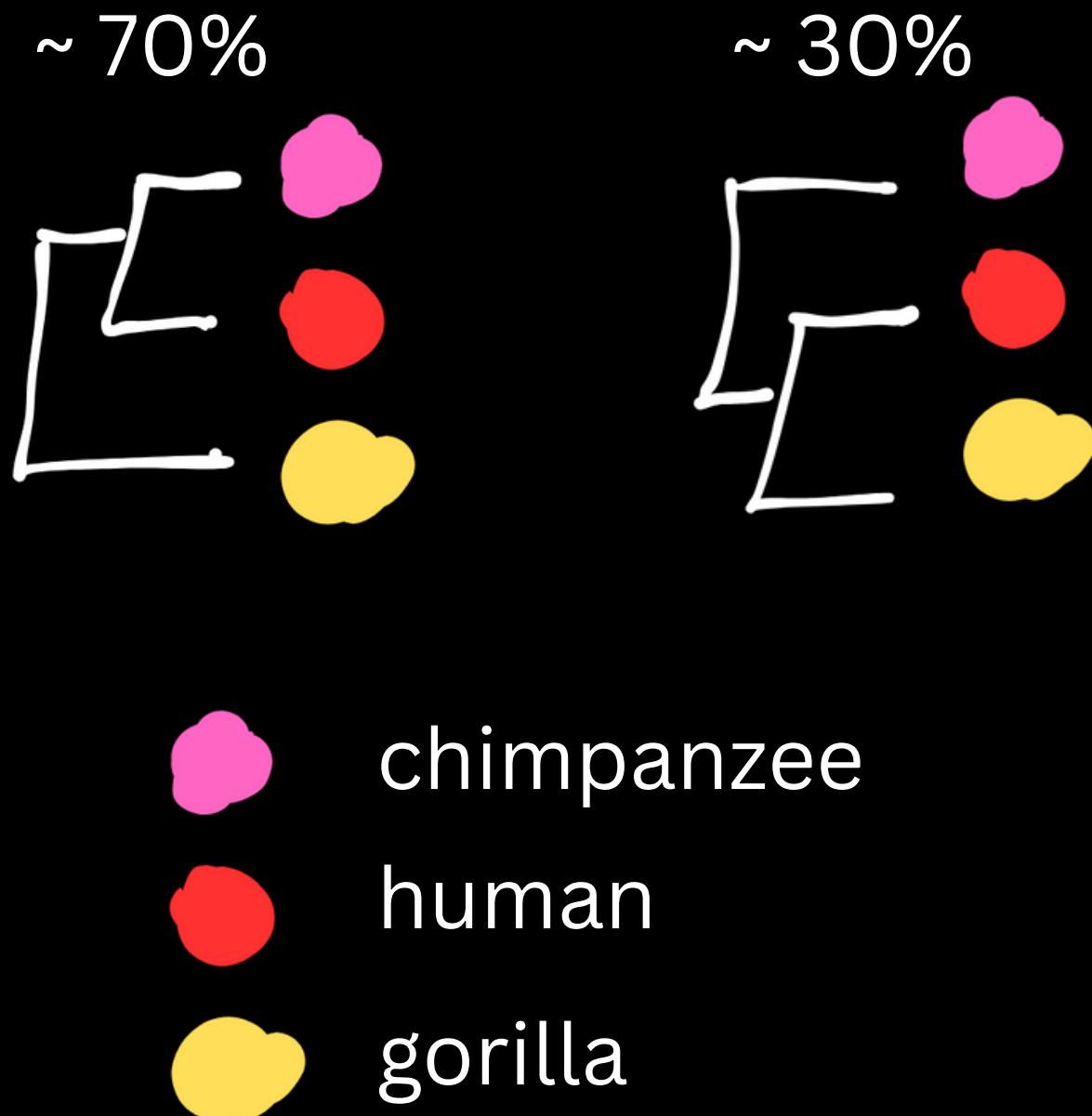


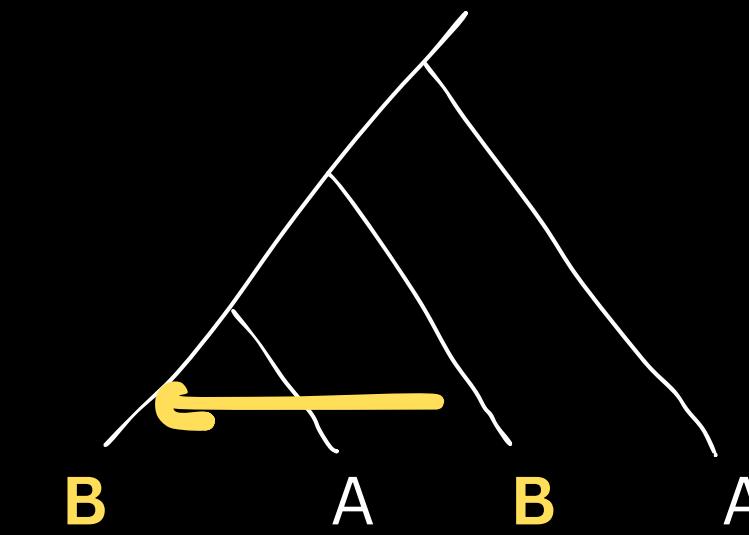
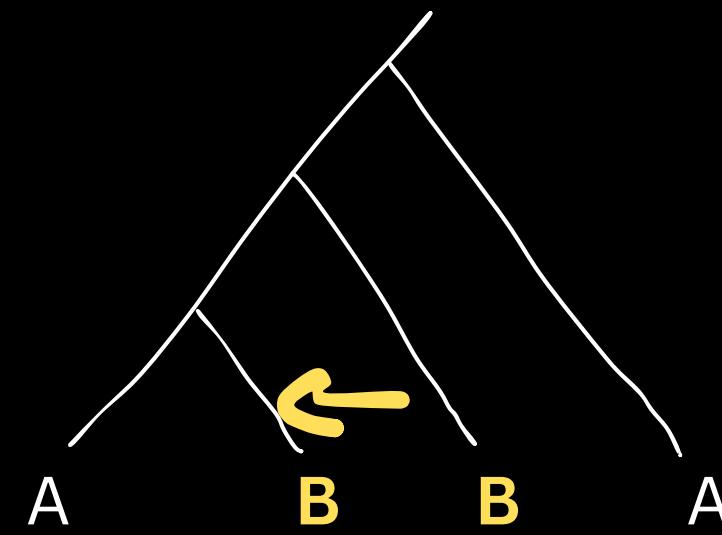
introgression



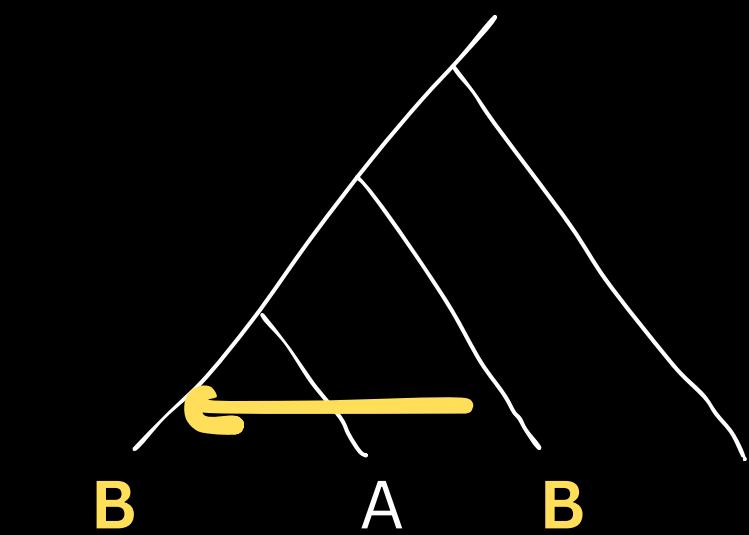
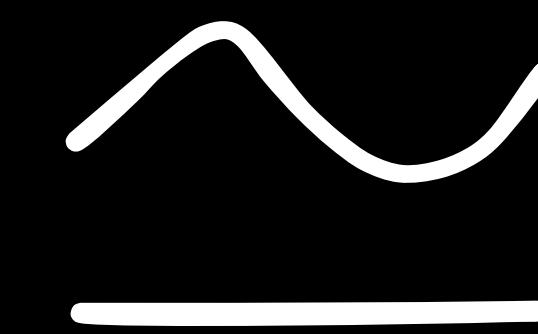
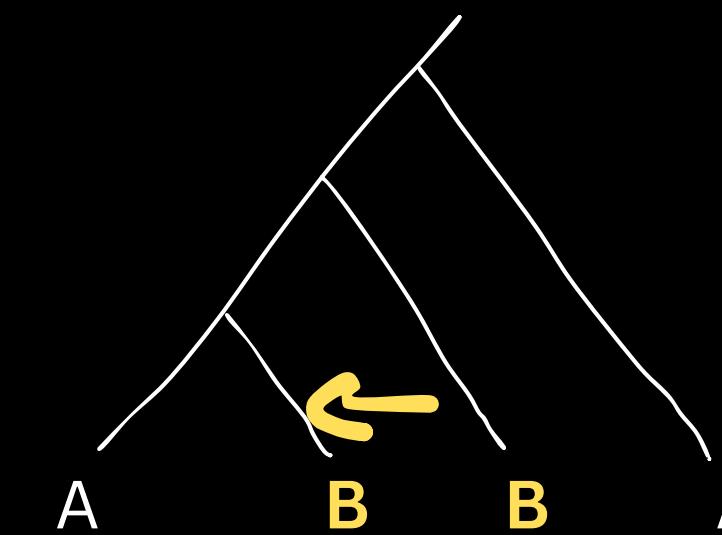
incomplete lineage sorting

incomplete lineage sorting



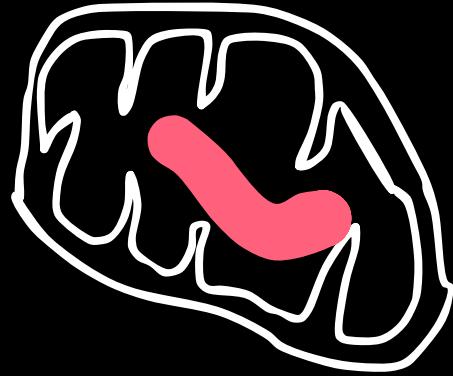


introgression

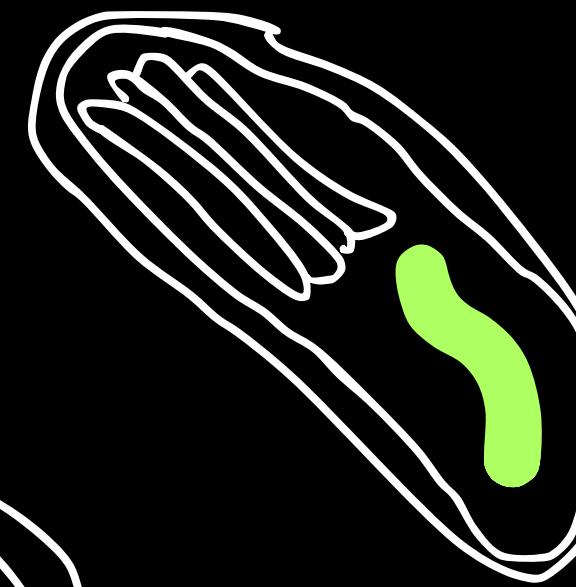


incomplete
lineage
sorting

mitochondria



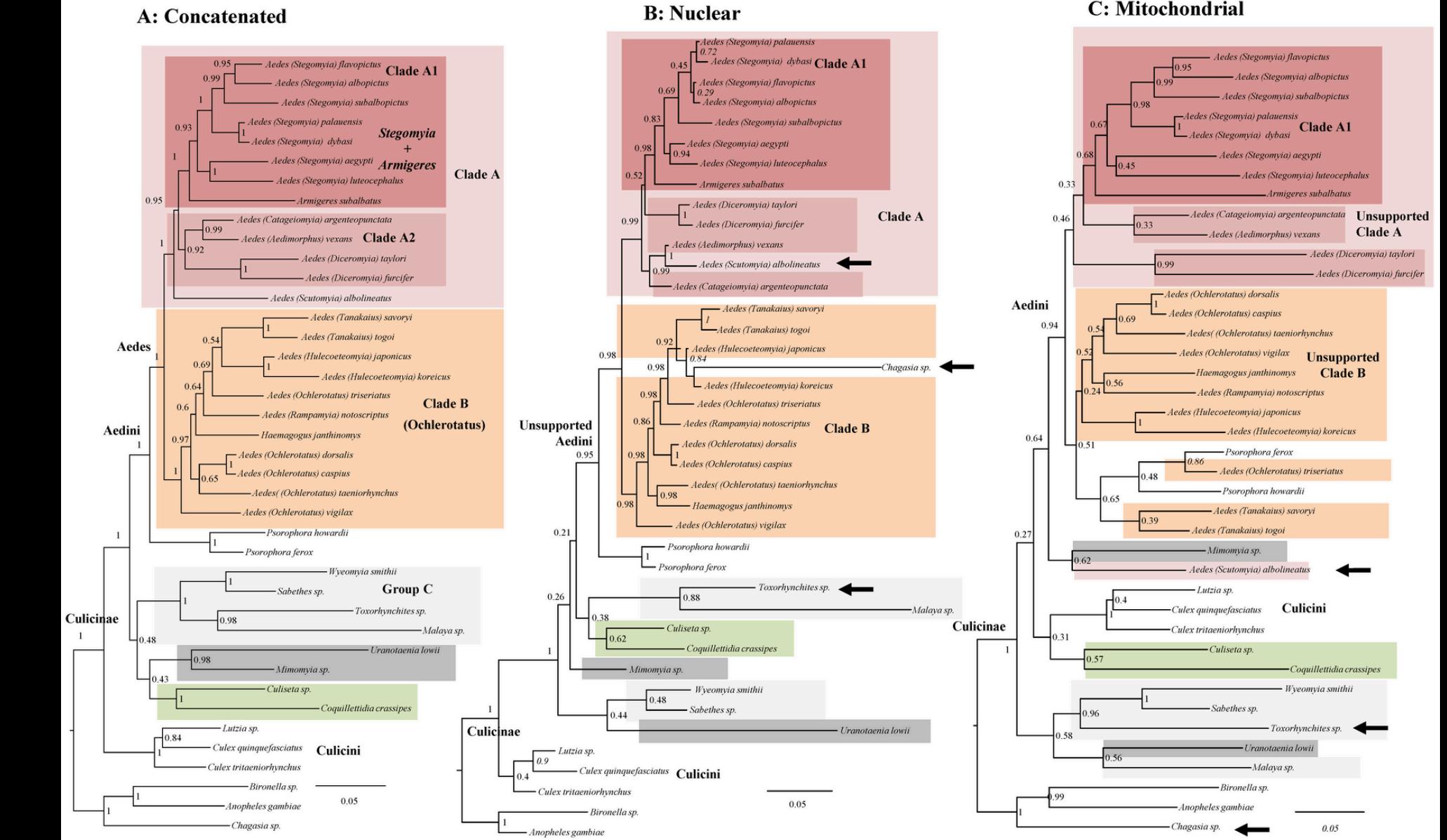
chloroplasts



nuclear DNA



Y chromosome

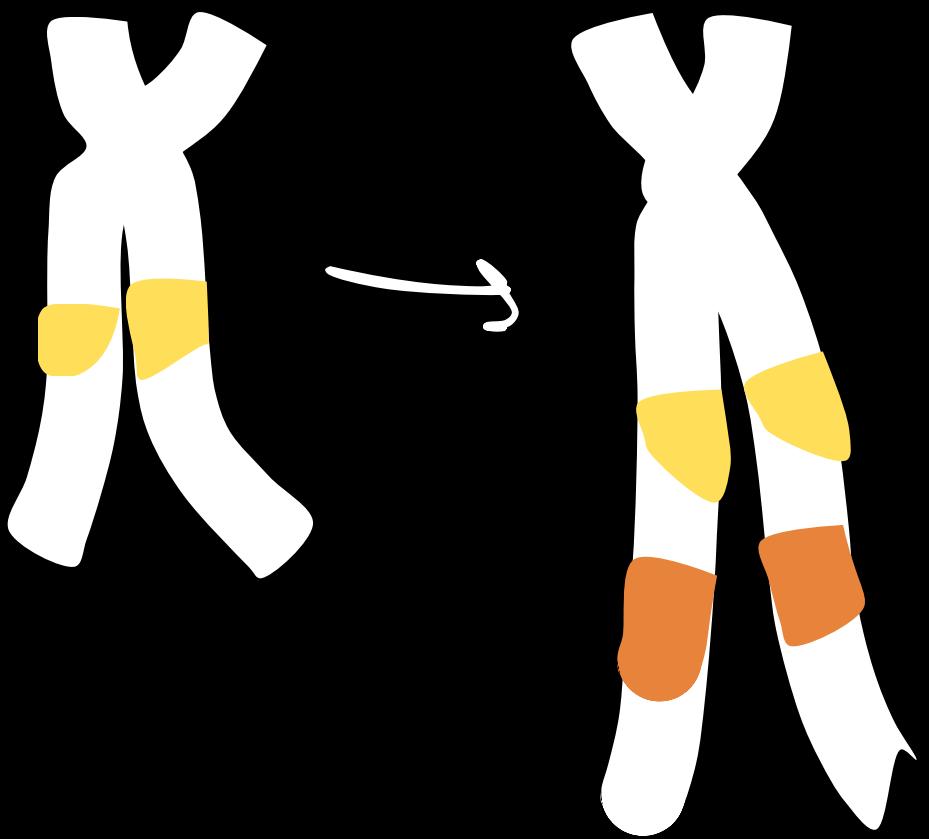


Zadra et al. (2021)

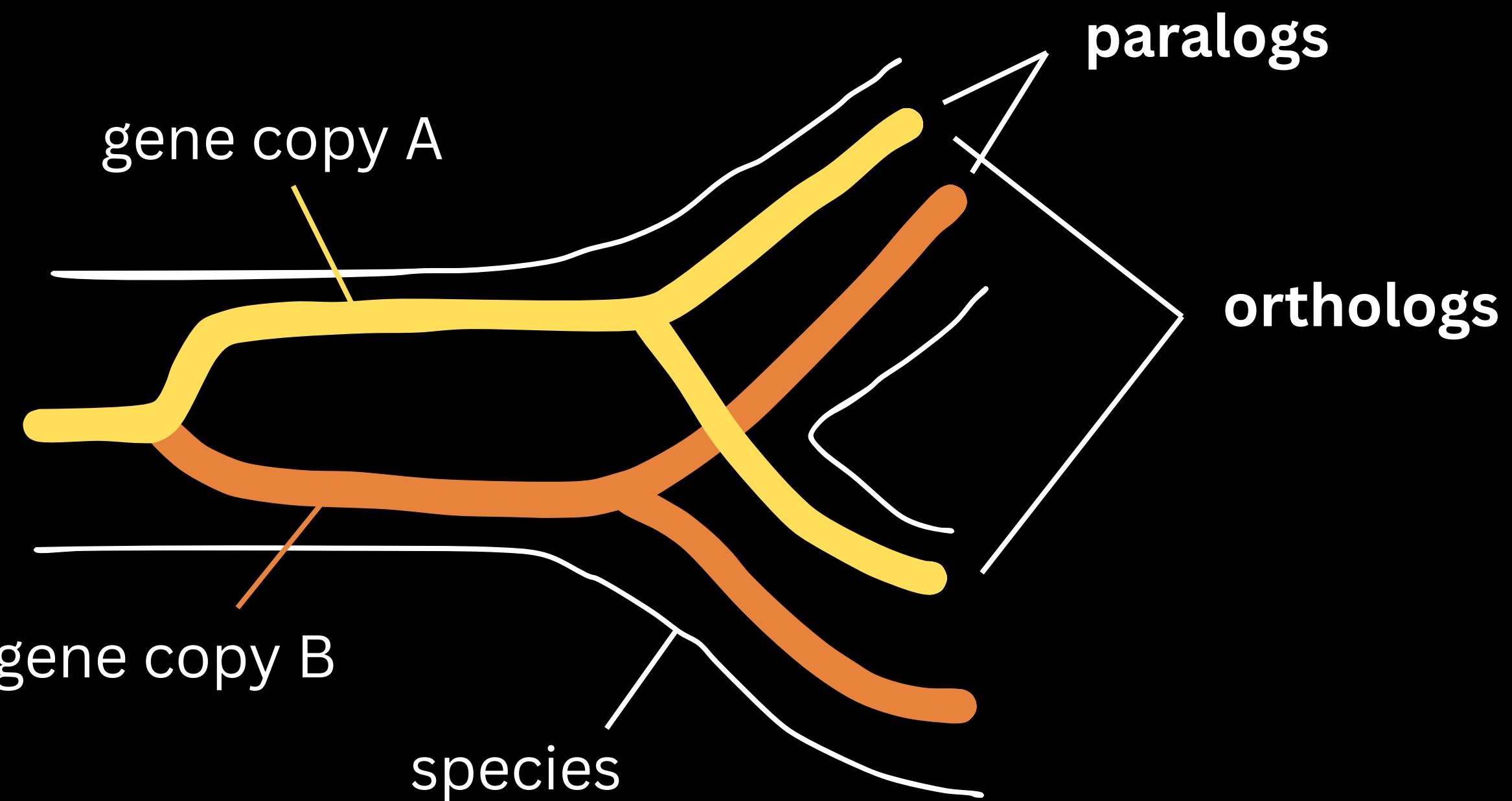
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Genetic insights into the social organization of Neanderthals

Skov et al. (2022)

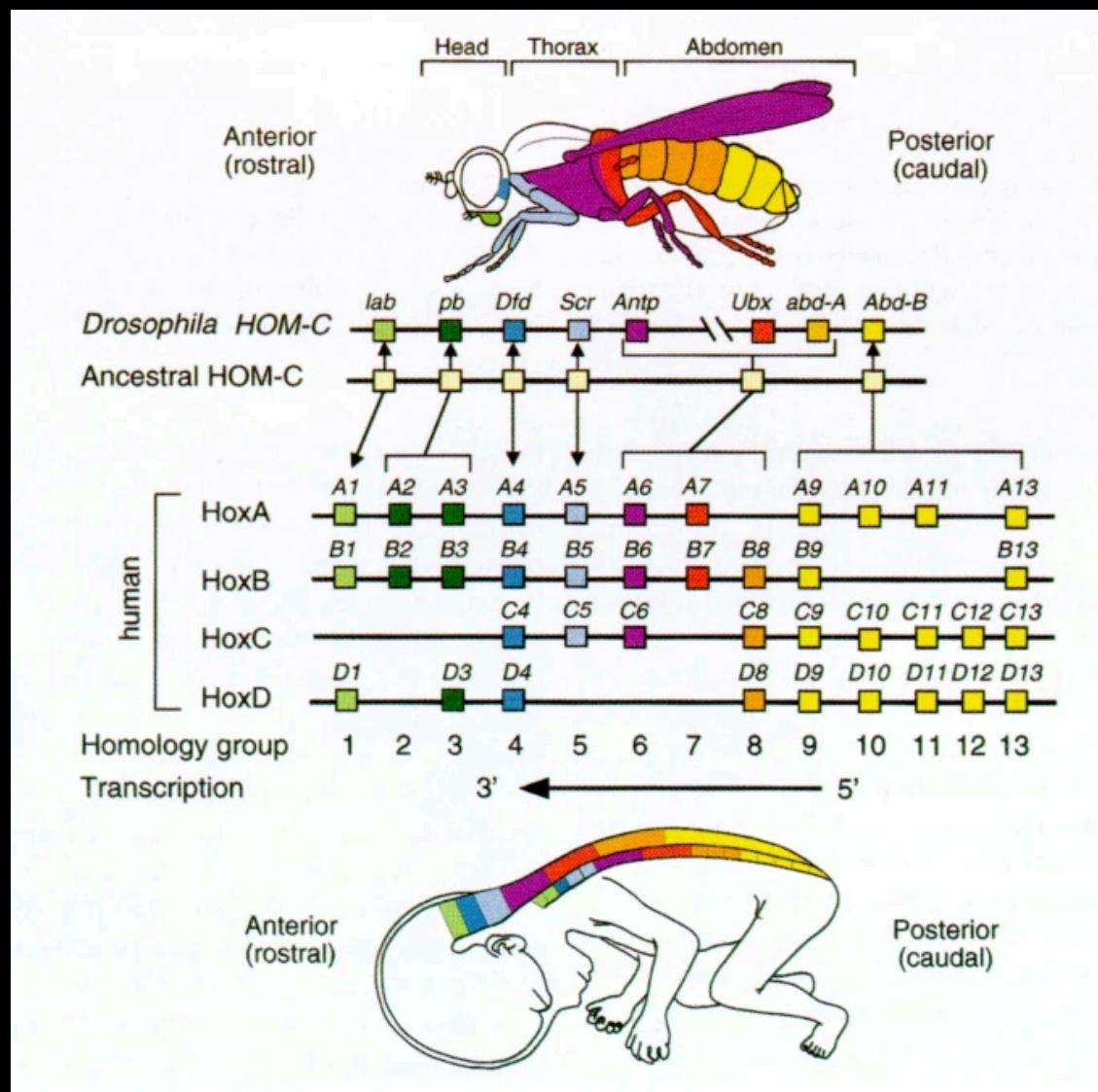


gene duplication



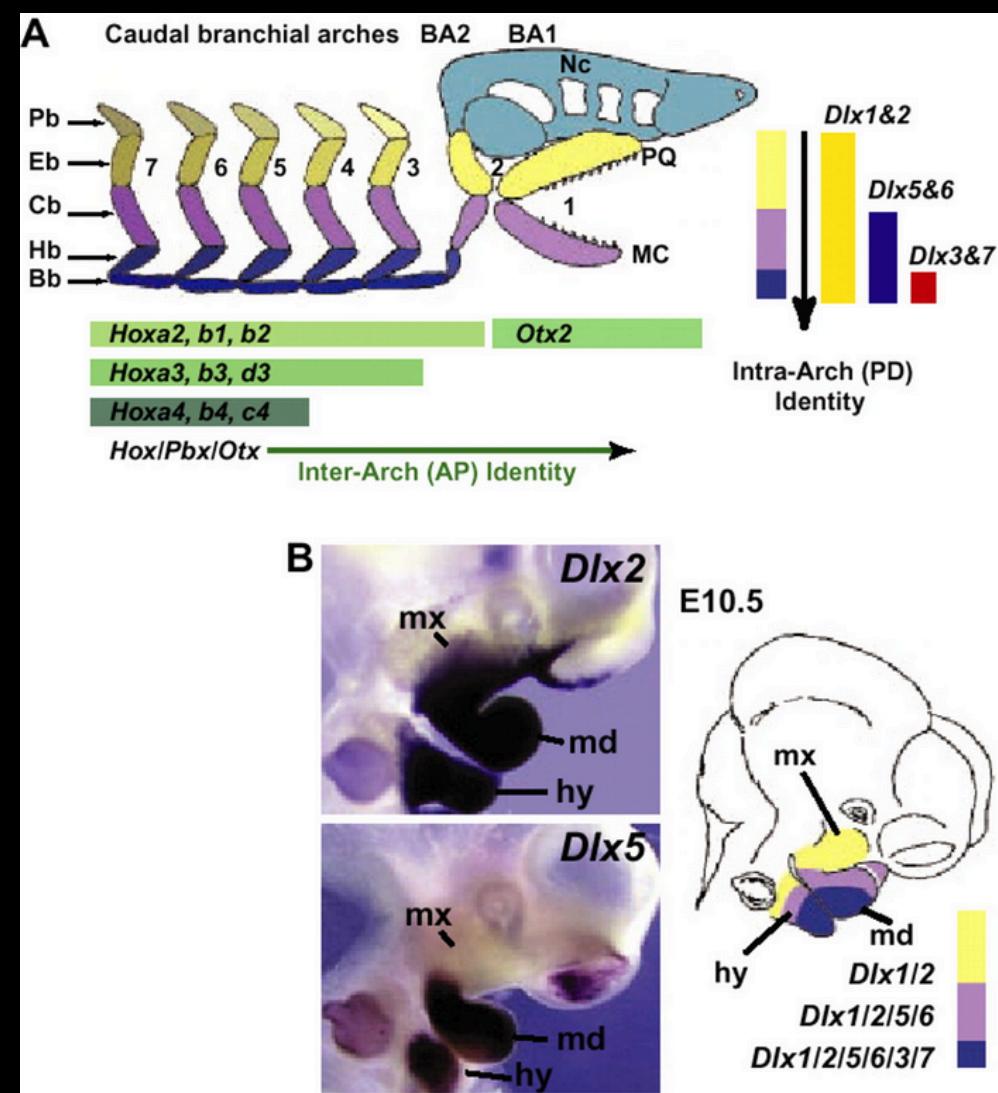
gene duplication

Hox genes



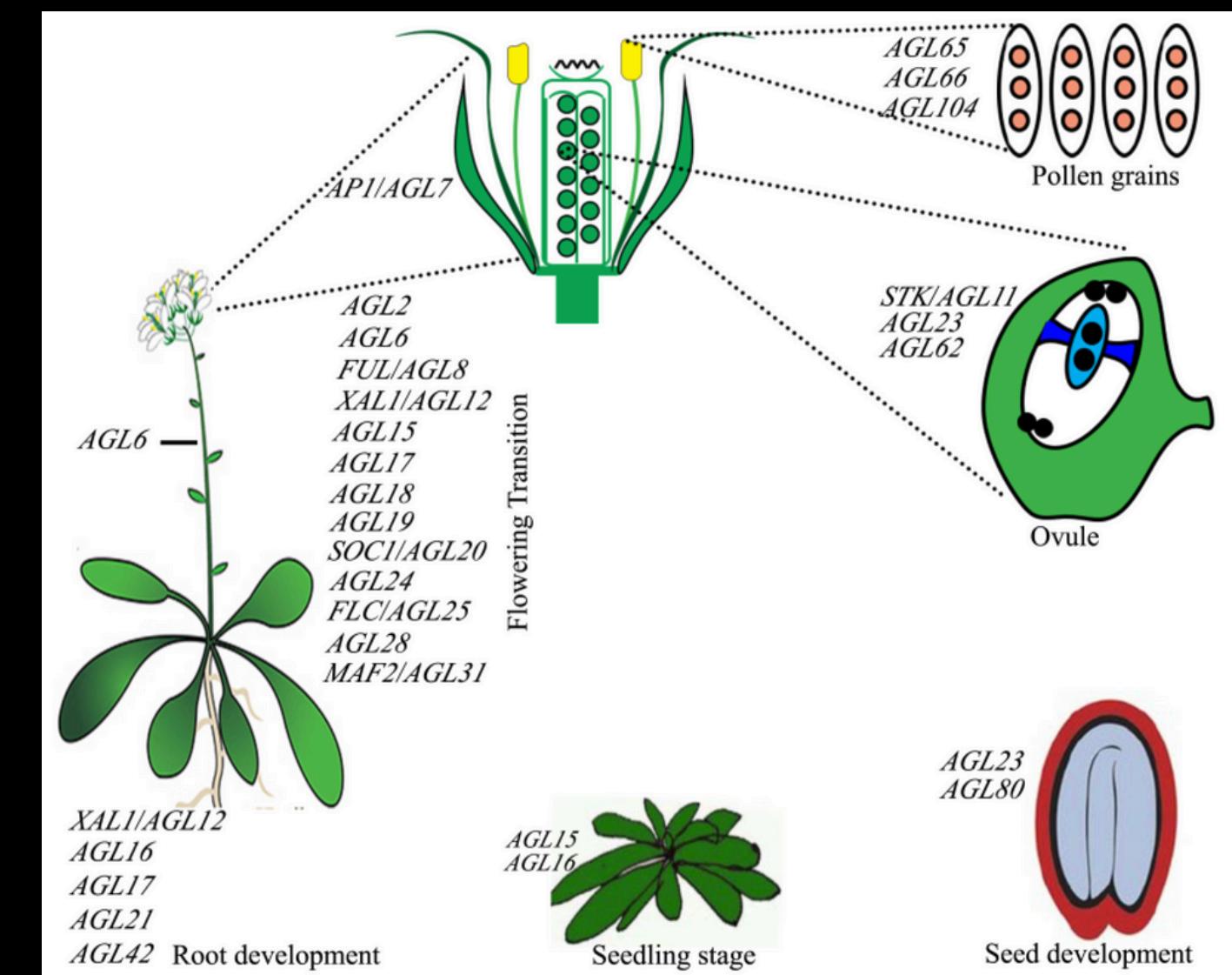
Mark et al. (1997)

Dlx genes



Depew et al. (2002)

MADS-Box genes



Shah et al. (2022)

whole genome duplication

