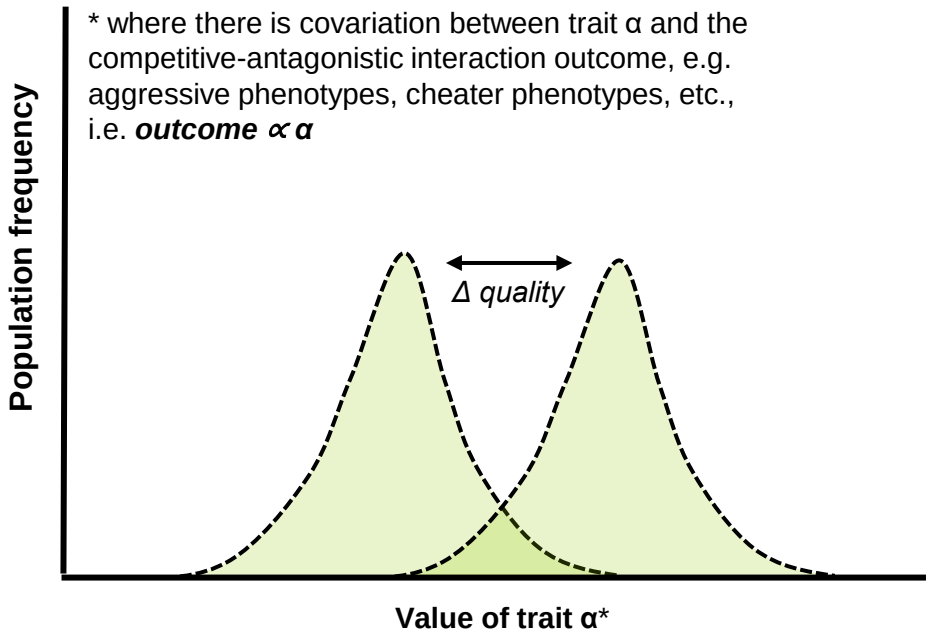
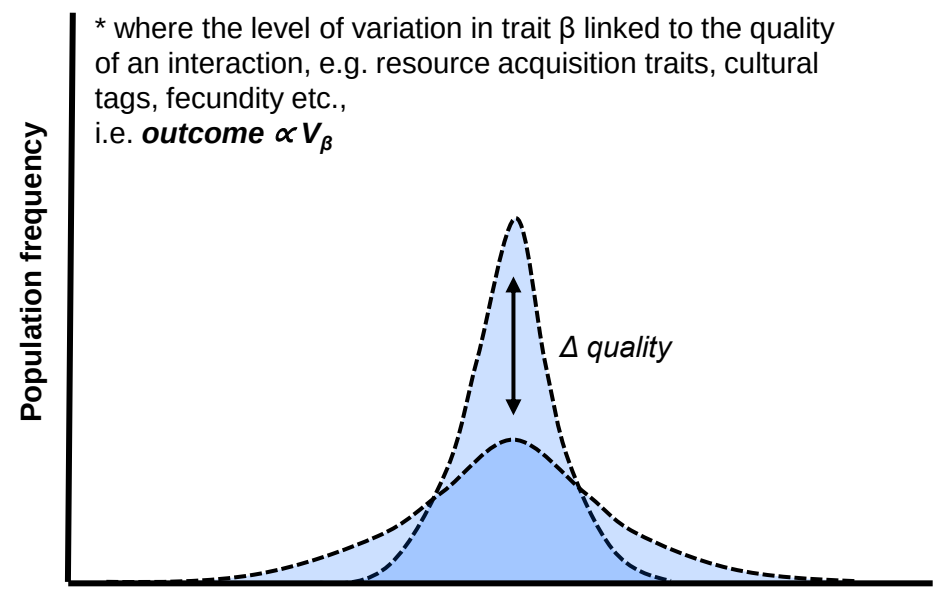
A. *Trait frequency effects*, i.e. within-population changes in the composition of traits linked to cooperation-antagonism, e.g. due to selective or genetic drift effects, or phenotypic plasticity.



B. *Systemic variance effects*, i.e. the level of trait variation within a population is linked to cooperation/antagonism, where greater ITV within a population can be associated with either more cooperative or more antagonistic outcomes.



C. Links between trait frequency and variance effects. Changes in the composition of cooperation-antagonism linked traits can directly lead to outcome variation (i.e. *trait frequency effects*, marked in green). Changes in trait variance can lead to *systemic variance effects* (marked in blue) by **(i)** directly producing outcome variation, e.g. by influencing the identity of interaction partners and altering their fitness payoffs; or, **(ii)** inducing changes in the composition of cooperation-antagonism linked traits, e.g. by inducing behavioural plasticity in those traits.