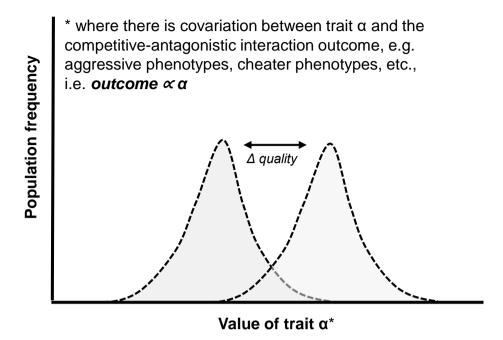
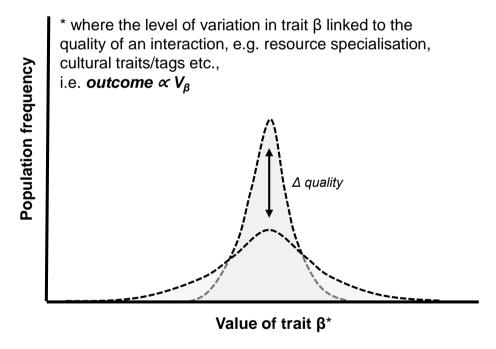
**A.** *Trait frequency effects*, i.e. within-population changes in the composition of traits linked to cooperation-antagonism, e.g. due to selective or genetic drift effects, or state-dependent phenotypic plasticity.



**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.** Shifts along a general continuum, where the ' $\Delta$  quality' in panel A and B represents variation from cooperative to antagonistic outcomes (or visa versa) at the individual or population level

