

Summary:

	V_{ij}	BV_{ij}	D_{ij}
G_1G_1	a	$2qa$	$-2q^2d$
G_1G_2	d	$(q-p)a$	$2pqd$
G_2G_2	$-a$	$-2pa$	$-2p^2d$

→ Dominance deviation

In general for genotyp G_iG_j , the difference between genotypic value and breeding value can be expressed as:

$$V_{ij} - BV_{ij} = \mu + D_{ij}$$

⇒ Solve for genotypic value V_{ij}

$$\Rightarrow V_{ij} = \mu + BV_{ij} + D_{ij}$$

population mean

additive part, stands for the value due to the number of positive alleles (G_1) in a given genotype

! selection of parents

⊗ Deviation caused by potential dominance effects at a given locus.