Summary

	V_{ij}	BV_{ij}	D_{ij}
G_1G_1	$V_{11} = a$	$2qa$	$-2q^2d$
G_1G_2	$V_{12} = d$	$(q-p)a$	$2pqd$
G_2G_2	$V_{22} = -a$	$-2pa$	$-2p^2d$

→ Dominance deviation

Decomposition of Genotypic Values

$$\Delta_{11} = V_{11} - BV_{11} = \mu + D_{11}$$
$$\Delta_{12} = V_{12} - BV_{12} = \mu + D_{12}$$
$$\Delta_{22} = V_{22} - BV_{22} = \mu + D_{22}$$

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

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

- μ: Intercept
- BV_{ij}: Predictor
- D_{ij}: Residual
- V_{ij}: Response

Interpreted as Regression Model