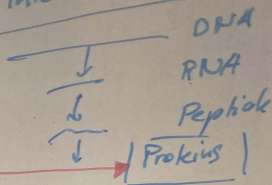


Include phenotypic observations into our Model

- Central Dogma of MB



- Extension of genetic model, such that

$$\textcircled{y} = V + \textcircled{E}$$

phenotypic observation

genotypic value
containing an arbitrary number of loci

non-genetic or environmental component

- Decomposition of V :

$$y = \mu + BV + D + I + E$$

$$= \mu + \boxed{U} + \underbrace{D + I + E}_{\text{grouped together into a single term } e^* \text{ for the purpose of selecting parents from a population.}}$$

important!

$$= \mu + U + e^*$$

grouped together into a single term e^* for the purpose of selecting parents from a population.