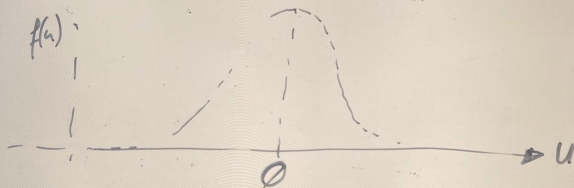


$\Rightarrow$   $u_i$  is a quantity that is a sum of very many small effects. Due to this property the Central Limit Theorem (*Zentraler Grenzwertsatz*) any random variable that is composed of a sum of very small components converges in distribution to a ~~multi~~ Normal distribution.

$\Rightarrow$  Breeding values ( $u_i$ ) are assumed to follow a normal distribution.



- Diagram: Left histogram:

$$u_i = BV_{i1} + BV_{i2} + \dots + BV_{i,n}$$

Middle

$$u_i = BV_{i1} + BV_{i2} + \dots + BV_{i,1000}$$

Right

$$u_i = BV_{i1} + BV_{i2} + \dots + BV_{i,1000}$$