The decomposition as a mixture of three distributions provides a partition of the variance into three components:

$$VarX = \frac{ak}{\rho - 1} + \frac{ak\,(k+1)}{(\rho - 1)\,(\rho - 2)} + \frac{a^2 k\,(\rho + k - 1)}{(\rho - 1)^2\,(\rho - 2)}. \tag{5}$$

The first of these is related to random factors, the second to the variability due to external factors that affect the population (liability), and the third to the differences in the internal conditions of the individuals (proneness).