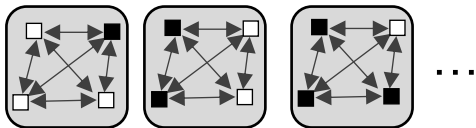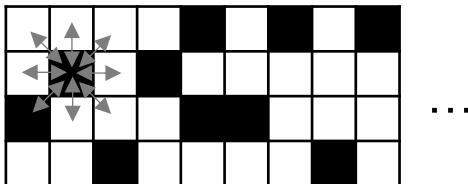**(a) Fitness measurement**

Random interaction in split space

or

Neighbor interaction in continuous space

Fitness w_i and Genotype g_i

(b) Selection analysis

$$w_i = w_0 + s_1 g_i + \frac{s_2 \sum_{j=1}^{N_k} g_i g_j}{N_k}$$

w_i

$s_2 > 0$

$s_2 < 0$

-1.0   Genotype similarity   +1.0

$(\sum g_i g_j)/N_k$