



**Figure S8** In the more complex model, just as in the more simple model, when binding site length  $n$  is short (compared to the stable region), selection to increase  $n$  is strong (top). When binding site length  $n$  is long (compared to the stable region), selection to decrease  $n$  is much weaker (bottom). Points show average of  $10^5$  replicate Monte-Carlo simulations and error bars show  $\pm 2SD$  about the mean. Parameter values are the default values derived from empirical data given in Table 1 with  $\epsilon = 2$  and  $P = 10^2$