Consider cones distributed by a binomial distribution, where the proportion of L and M cones is defined as

Then, in any run of *N* cones, the number of L cones (*N*L) is

The standard deviation of binomial distribution is

Divide by *N* because *p* is a mean and not a total, we find the standard error of *p*:

So, the larger the *N*, the number of cones in the receptive field, the smaller the spread the proportion of *L*.