products, whereas with SD, the recoveries are grossly disparate. This can be interpreted to mean that the same condition which leads to a preferential recovery of the SD chromosome also provides the basis for the preferential recovery of the translocation components. As in other experiments involving the B^S translocation, males are exceedingly infertile; non-function or dysfunction of the mature sperm seems a distinct possibility.

del Solar, E. Universidad de Chile, Santiago, Chile. Behavior in selected gregarious lines in D. pseudoobscura.

The manner in which Drosophila females distribute their eggs among the available sites for oviposition has been denominated aggregation. Two lines from a CH/CH population of D. pseudoobscura selected for high and low aggregation over twenty generations, were significantly different according to three statistics: a) the number of vials containing one or more eggs, b) the percentage of eggs in the vials with the largest number of eggs, and c) an aggregation index = $100\sqrt{s^2-\bar{x}}/\bar{x}$. These results suggested that this gregarious behavior is under genetic control.

In the aforementioned experiments the females from the line selected for low aggregation showed an increase in fecundity, which, measured in groups of 15 females in population cages containing 15 food cups over a ten day period, was of 1.7 to 1 eggs in the High respecting the low line.

The present experiments were designed to compare the fecundity of both lines under two conditions: a) 15 females in a population cage with 15 food cups, and b) 15 females in a 15 x 2.9 cm. vial containing a paper spoon with food medium. The food containers were renewed daily over 10 days in both cases.

The results summarized in Table 1 show that the females from the line selected for High

Table 1. Fecundity among flies selected for high and low aggregation in population cages and in vials.

Number of females	System	Number of replicates	Number of eggs per day High line	Low line	"t"	P
15	cages	3	323.2±62.3	543.8±46.5	2.107	0.05-0.02
15	vials	10	221.3± 7.9	187.6± 8.1	2.105	0.05-0.02
3	vials	10	77.2± 3.7	61.2± 3.1	2.352	0.02-0.01

aggregation lay more eggs under crowded conditions than the females from the Low line. This suggests that their fecundity is influenced by the space available for oviposition.

The behavior of females from the Low line maintained in cages for 12 or 24 hours was com-

Table 2. Average number of cups, eggs, and aggregation indices in lines selected for high and low aggregation.

Direction of selection	Time in hours	Number of replicates	Cups with eggs $\bar{x}$ ± S.E.	Eggs $\bar{x}$ ± S.E.	Index $\bar{x}$ ± S.E.
Low	12	6	8.2±1.0	196.1±29.2	153.8± 9.6
High	24	6	5.0±0.6	379.5±57.5	206.8±17.3
Low	24	6	13.8±0.4	517.0±58.0	111.8± 6.2
High	48	6	9.2±0.9	817.3±94.8	129.3±12.7

pared to that of females from the High line kept in other cages for 24 or 48 hours. The results summarized in Table 2 indicate that both lines behave independently of time, in the expected direction, i.e., while the average number of cups used, and the average total of eggs laid is always greater in the Low line, the aggregation index is lower than in the High line.