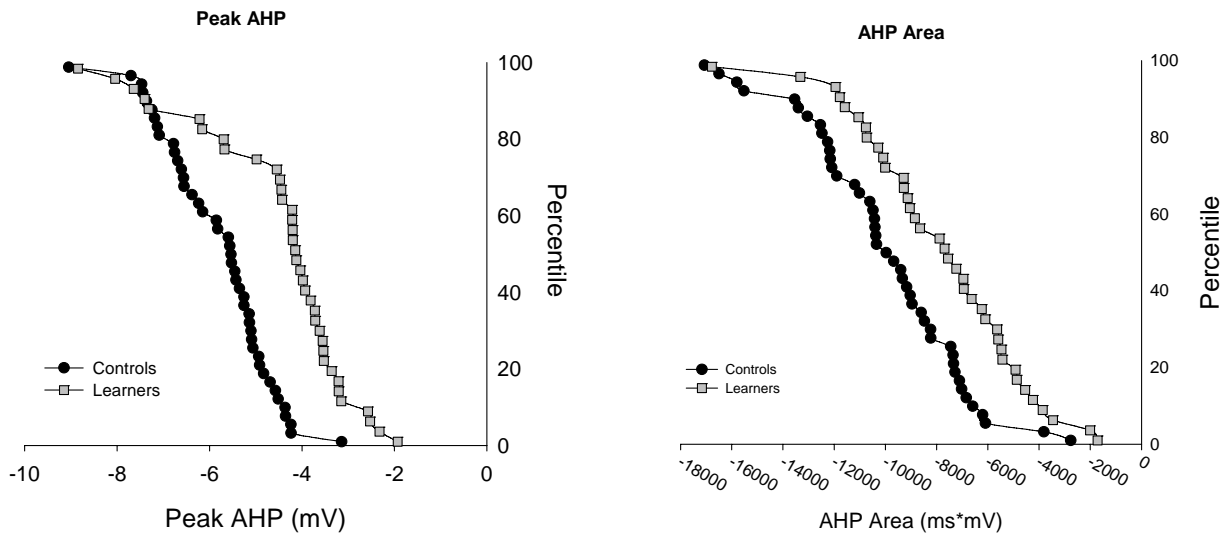


1 **Sup. Figure 1: Cumulative distribution of AHP peaks from Trained Cohort**

2 Not every cell from a trained animal which learned has a small AHP; The
3 learning-related reduction of the AHP represents a population shift. The
4 population of AHPs from animals that learned the fear task (*Paired* and *Shock*
5 combined) shift to smaller peak, area and 1 second measures, as compared to
6 control animals (*Naïve* and *Tone*).

7
8 If there were 2 populations within the cells recorded from animals that learned,
9 AHP values from the Learner group would not have a normal distribution, and
10 would exhibit either a skewed “tail”, or a bi-modal distribution. However, this was
11 not the case. Both the Learner and Control groups have a normal distribution of
12 AHP values, with 68% of the values within 1 standard deviation (SD) of the
13 mean, 95% within 2 SDs, and 100% within 3 SDs. Further, the skewness
14 measure of both the Learner and Controls was quite small (Controls: -0.452,
15 Learners: -0.283). Both these measures indicate that there is only one
16 population of cells within the group of animals that learned, that has shifted to
17 smaller values.



21

