Sup. Figure 1: Cumulative distribution of AHP peaks from Trained Cohort
Not every cell from a trained animal which learned has a small AHP; The learning-related reduction of the AHP represents a population shift. The population of AHPs from animals that learned the fear task (*Paired* and *Shock* combined) shift to smaller peak, area and 1 second measures, as compared to control animals (*Naïve* and *Tone*).

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