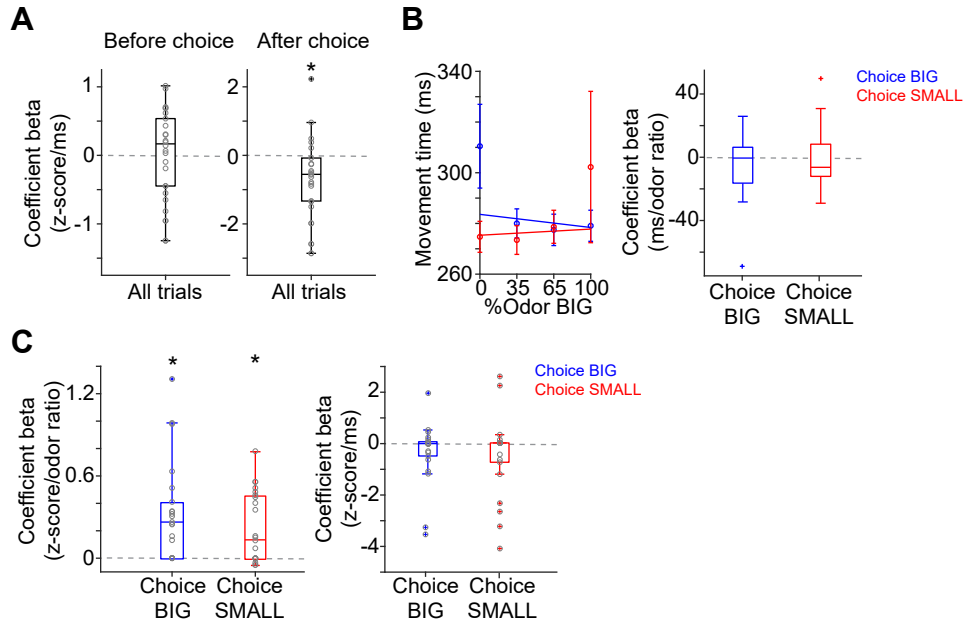


**Figure 7-figure supplement 4**



**Figure 7-figure supplement 4. Correlation between dopamine axon signals and movement time** (A) Linear regression of dopamine axon signals with movement time. There is weak negative correlation between movement time and dopamine axon signals after choice ( $t(21) = 0.4$ ,  $p=0.66$  before choice;  $t(21) = -2.4$ ,  $p=0.022$  after choice, one-sample t-test). (B) Linear regression of movement time with sensory evidence in trials separated by choice BIG and SMALL.  $t(21) = -1.1$ ,  $p=0.24$  for choice BIG;  $t(21) = 0.5$ ,  $p=0.56$  for choice SMALL, one sample t-test. (C) Linear regression of dopamine axon signals after choice with sensory evidence and movement time with elastic net regularization ( $\alpha=0.1$ ) with 5-fold cross validation. Dopamine axon signals are correlated with sensory evidence ( $t(21) = 4.2$ ,  $p=3.4 \times 10^{-4}$  for choice BIG;  $t(21) = -3.8$ ,  $p=9.0 \times 10^{-4}$  for choice SMALL, one sample t-test) even after normalizing with movement time. Movement time is not significantly correlated any more ( $t(21) = -1.6$ ,  $p=0.10$  for choice BIG;  $t(21) = -1.3$ ,  $p=0.20$  for choice SMALL, one sample t-test).  $n = 22$  animals.