

Figure 2. Virtual cliff avoidance experiment. (a) Virtual environment for the cliff avoidance test. The board was suspended 13 cm over the arena floor in the center of the arena. One half of the arena emulated a virtual cliff, a virtual floor that appeared to be 1.5 m below the arena's actual floor. (b) Example trajectory and segmentation of the rat' behavior in a single session, with three behaviors indicated by color. (c) Cumulative probability of jumps to safe side as a function of exploration time before the jump. Shorter exploration times were associated with a safe-side preference (see Supplementary Fig. 5). (d) Population jump direction statistics for sessions with jump latencies less than 18 seconds, by location of the virtual cliff. Discrimination index quantifies bias to the left or right side of the arena (see Online Methods); error bars represent a 68% confidence interval of bootstrapped means (n=25, p < .05, Fisher's two-sided exact test).