



**Supplemental Figure 1:** Results from 3-chamber social interaction test. (A-E) test time spent in the chamber with either an unfamiliar mouse inside a cup or with an empty cup. (A) **Female** *Cntnap2* homozygote: Data analysis details: Paired T-test did not detect any significant differences. (B) two way ANOVA for **female control-WT versus PS-WT groups**: effect of time spent in chamber:  $F_{(1,16)} = 58$ ,  $P$ -value < 0.001. (C) two way ANOVA for **male control-WT versus PS-WT groups**: effect of time spent in chamber:  $F_{(1,28)} = 22.4$ ,  $P$ -value < 0.001. (D) two way ANOVA for **female control-HET versus PS-HET groups**: interaction between treatment and time spent in chamber:  $F_{(1,24)} = 25$ ,  $P$ -value < 0.001. There was a significant three-way interaction in effect of treatment, time spent in chamber, and genotype  $F_{(1,40)} = 12.5$ ,  $P$ -value = 0.001. (E) two way ANOVA for **male control-HET versus PS-HET groups**: effect of time spent in chamber:  $F_{(1,24)} = 13.1$ ,  $P$ -value = 0.001. (F-J) Time spent interacting with either an unfamiliar mouse inside a cup or with an inanimate object. (F) **Female** *Cntnap2* homozygote: Data analysis details: Paired T-test did not detect any significant differences. (G) two way ANOVA for **female control-WT versus PS-WT groups**: effect of time spent interacting:  $F_{(1,16)} = 12.3$ ,  $P$ -value = 0.003. (H) two way ANOVA for **male control-WT versus PS-WT groups**: effect of time spent in chamber:  $F_{(1,28)} = 18.5$ ,  $P$ -value < 0.001. (I) two way ANOVA for **female control-HET versus PS-HET groups**: effect of time spent interacting  $F_{(1,24)} = 4.7$ ,  $P$ -value = 0.004 and interaction between treatment and time spent interacting  $F_{(1,24)} = 6.5$ ,  $P$ -value = 0.01. (J) two way ANOVA for **male control-HET versus PS-HET groups**: effect of time spent in chamber:  $F_{(1,24)} = 10.7$ ,  $P$ -value = 0.003. The asterisk (\*) denotes significance of  $P$ -value < 0.05. The “s.d.” denotes *not* significant.