Distributional Analyses

Jamie Cummins

18 February, 2019
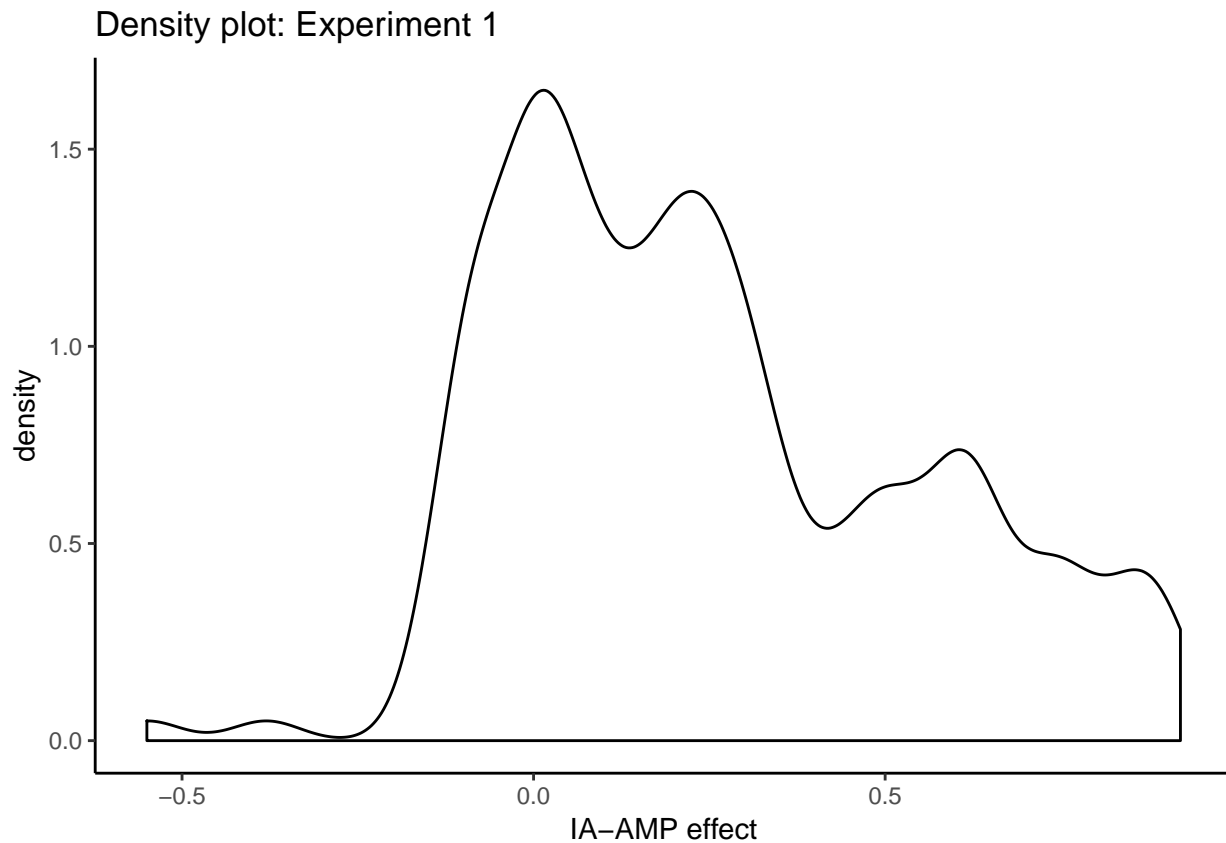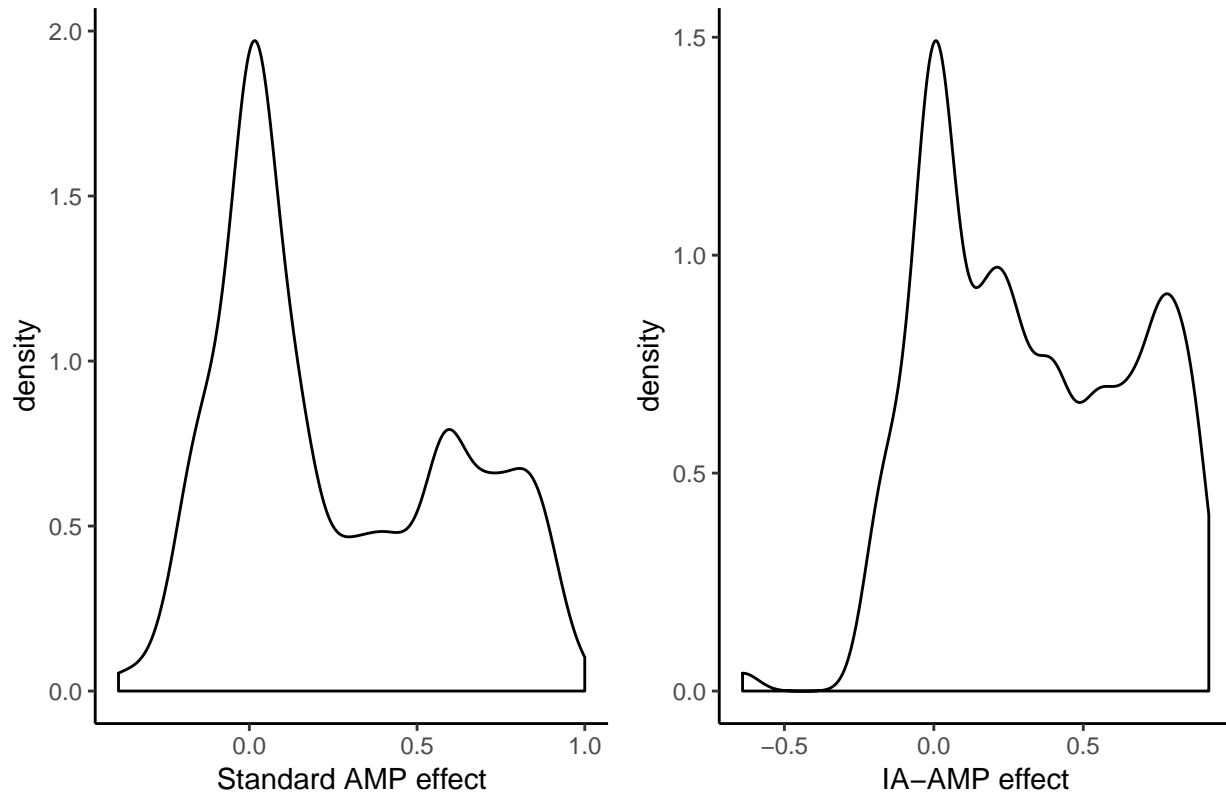
Contents

Density plots

Experiment 1

Distribution of IA-AMP effect in Experiment 1 appears somewhat bimodal. Shape is descriptively similar to that of Mann et al.'s findings.

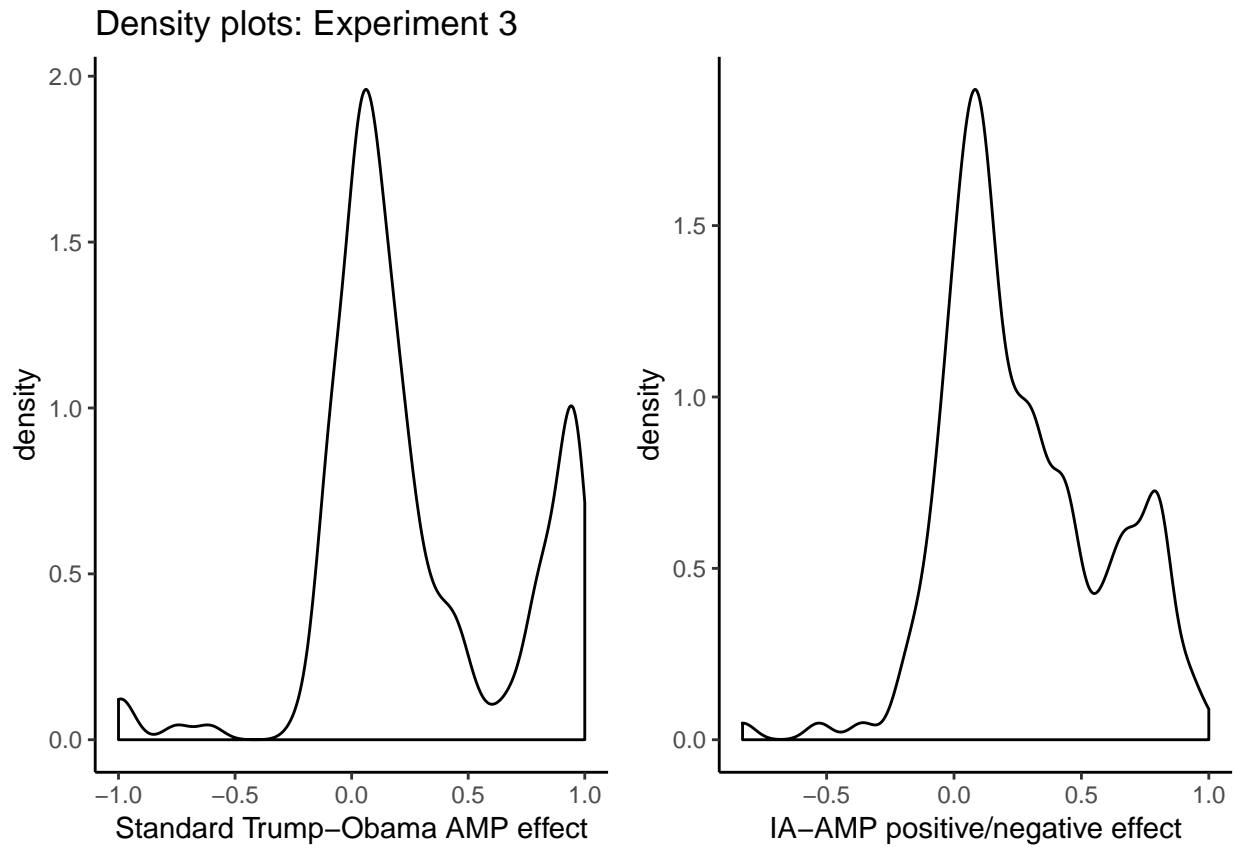Density plot: Experiment 1

Experiment 2

Distribution of both AMP effects in Experiment 2 appear bimodal.

Density plots: Experiment 2

Experiment 3

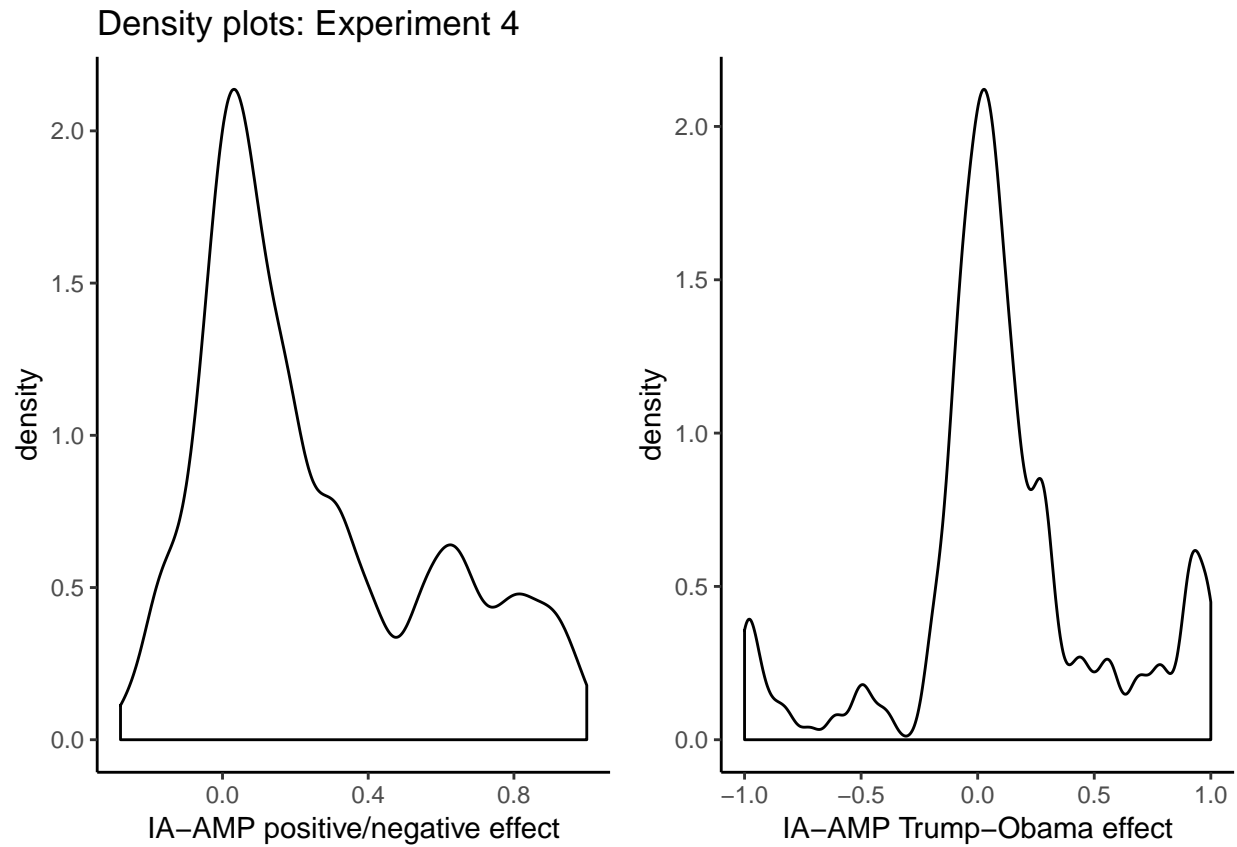Distribution of both AMP effects in Experiment 3 appear bimodal.
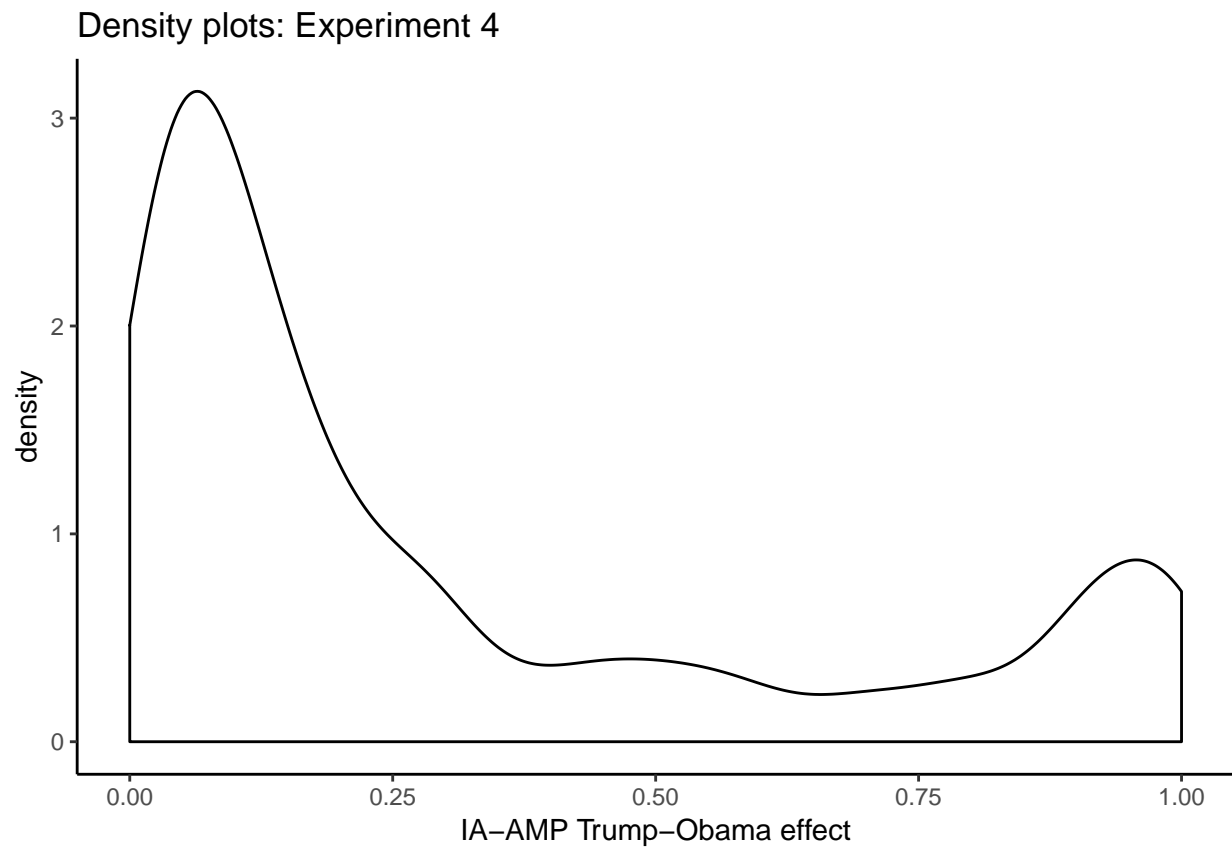
Density plots: Experiment 3

Experiment 4

Distribution of the positive/negative AMP effect in Experiment 4 appears bimodal.

Distribution of the Trump/Obama is trimodal.

Density plots: Experiment 4

Experiment 4: make Trump/Obama IA-AMP absolute

Making scores in the Trump/Obama IA-AMP shows more evidence of bimodality.

Density plots: Experiment 4

Experiment 5

Using the Mann et al. AMPs might descriptively reduce bimodality somewhat, but it does not eliminate it completely.

Density plots: Experiment 5
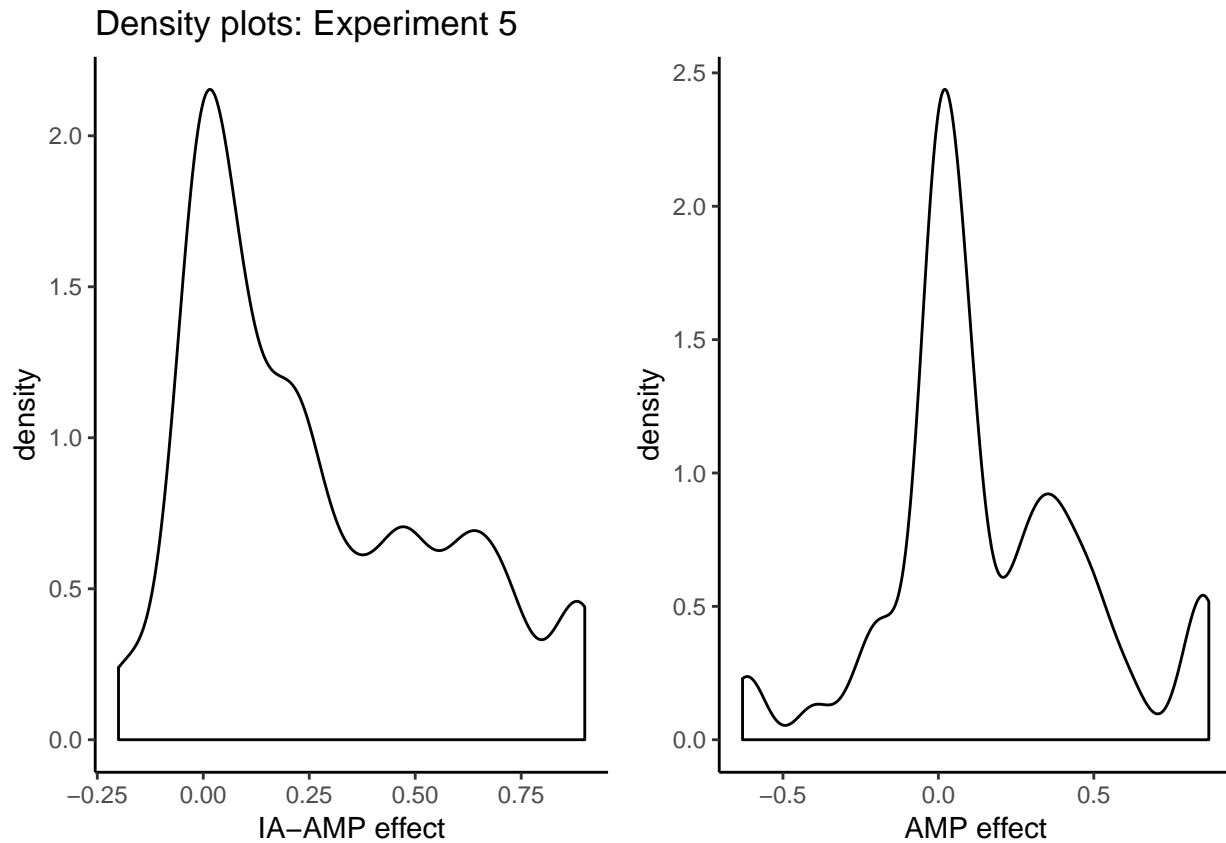
Comparing distributions between Exp 2 and Exp 5

No evidence for differences between the distributions of the original AMP vs. the Mann AMP in the case of either the Standard AMPs, or the IA-AMPs.

```
##
##  Two-sample Kolmogorov-Smirnov test
##
## data:  exp_2_df$AMP_effect_positive_negative and exp_5_df$AMP_effect_positive_negative
## D = 0.16673, p-value = 0.1636
## alternative hypothesis: two-sided

##
##  Two-sample Kolmogorov-Smirnov test
##
## data:  exp_2_df$IA_AMP_effect_positive_negative and exp_5_df$IA_AMP_effect_positive_negative
## D = 0.13897, p-value = 0.3628
## alternative hypothesis: two-sided
```