

Relatório 6

Matching

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1 Matching between samples

There were notable discrepancies in age between our original samples of TD and TEA participants (Table 1). Additionally, there was a significant gender(?) imbalance, with 47% of females in the TD group, and only 6% in amongst TEA participants.

To address this issue, we employed a matching algorithm suggested by Ho, Imai, King & Stuart (2011), which minimized the Euclidean distance based on participants' sex and age. Following the matching process, our final sample consisted of 15 participants from each diagnostic group (refer to Table X for descriptive statistics).

Table 1: Non matched

	tea	meanAge	sdAge	N	minAge	maxAge
1	TD	2.90	1.02	359	231	1700
2	TEA	3.06	0.79	15	759	1716

Table 2: Matched

	tea	sexo	meanAge	sdAge	minAge	maxAge
1	TD	F	2.08		2.08	2.08
2	TD	M	3.13	0.77	2.21	4.66
3	TEA	F	2.08		2.08	2.08
4	TEA	M	3.13	0.77	2.21	4.70

2 ANOVA

Same analysis as report 5, but with matched samples. Main effects and interaction were the same between matched and unmatched samples.

2.1 Alternancias

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
condition	1	3.24	3.24	13.55	0.0003 ***
tea	1	1.18	1.18	4.93	0.0273 *
variable	3	23.48	7.83	32.72	0.0000 ***
condition:tea	1	0.13	0.13	0.55	0.4597
condition:variable	3	5.82	1.94	8.11	0.0000 *
tea:variable	3	0.41	0.14	0.57	0.6364
condition:tea:variable	3	0.56	0.19	0.78	0.5083
Residuals	224	53.58	0.24		

Figure 1: Visualizing TEA effect on alternancias. Mean number of alternancias per tea and trial.

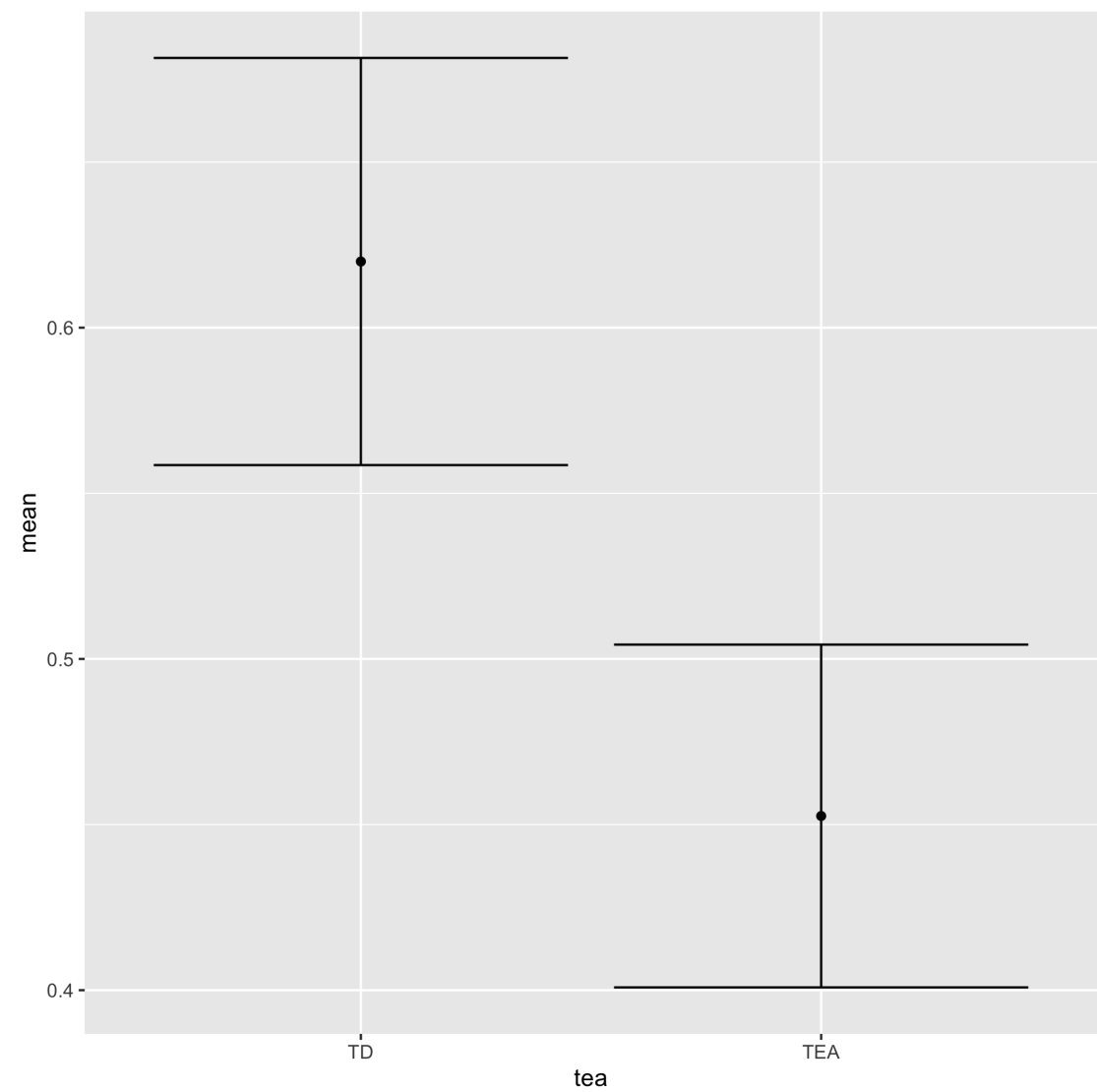


Figure 2: Visualizing effect of variable

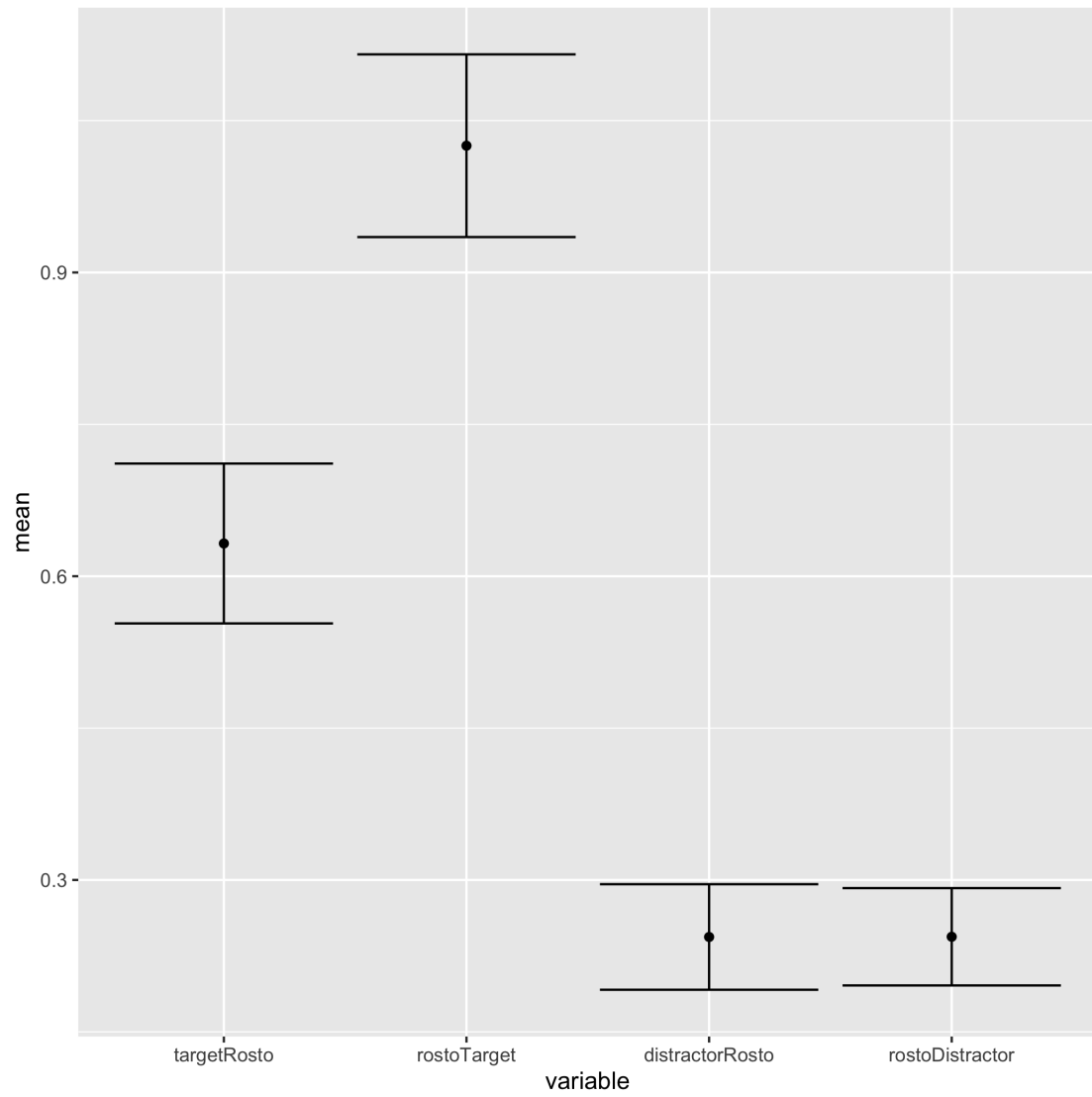


Figure 3: Visualizing effect of condition

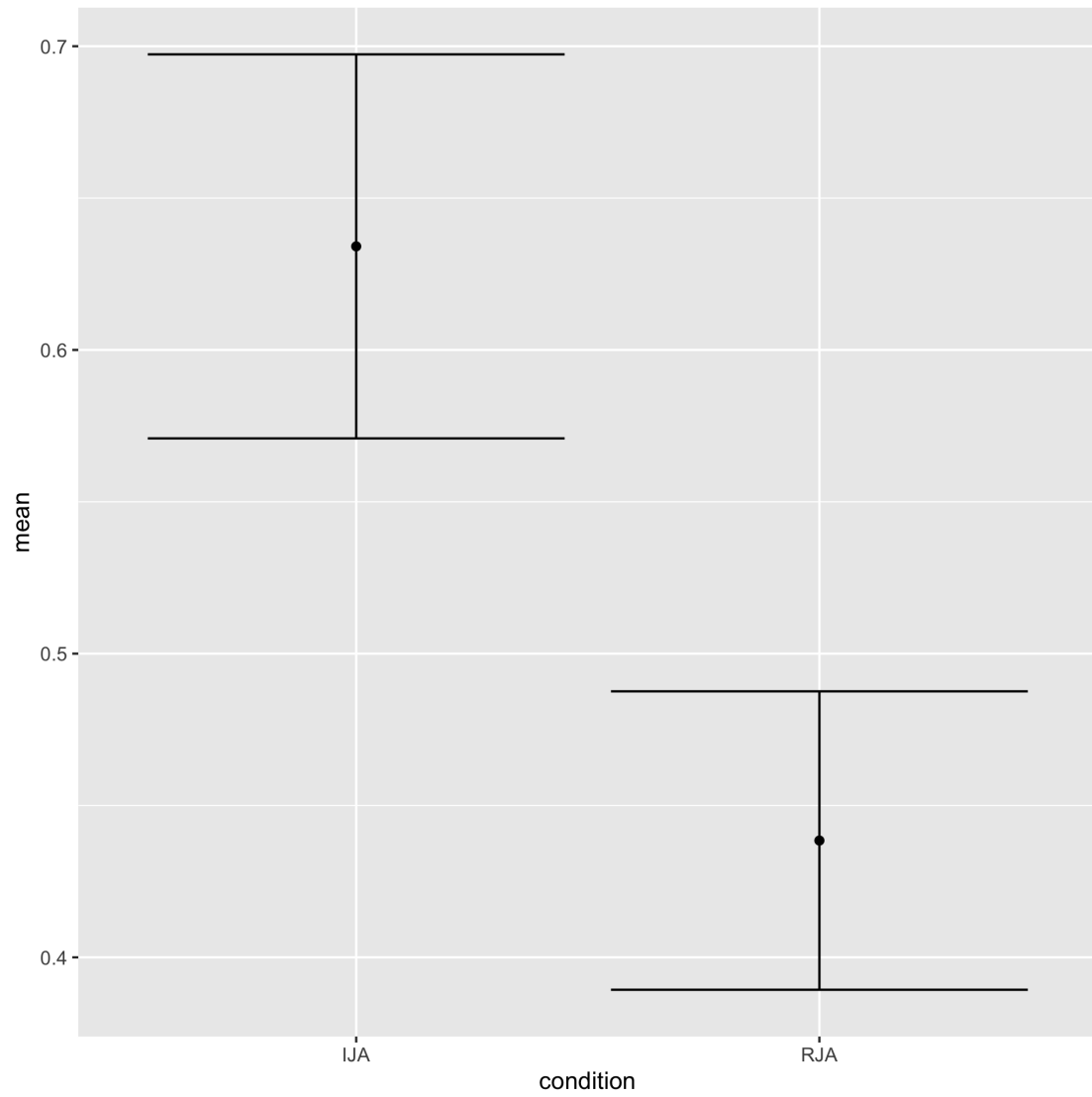


Figure 4: Visualizing interaction of condition and variable

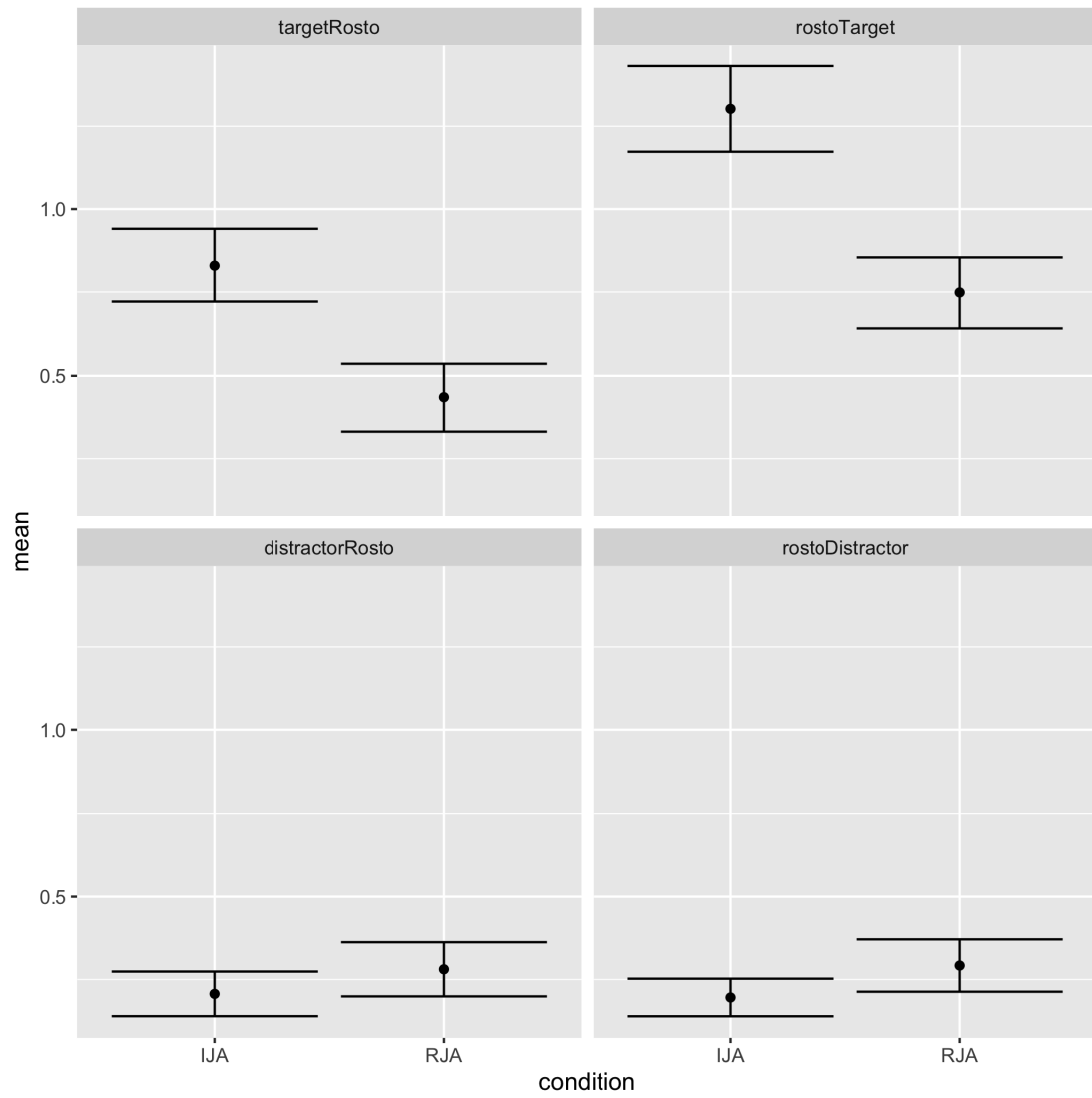
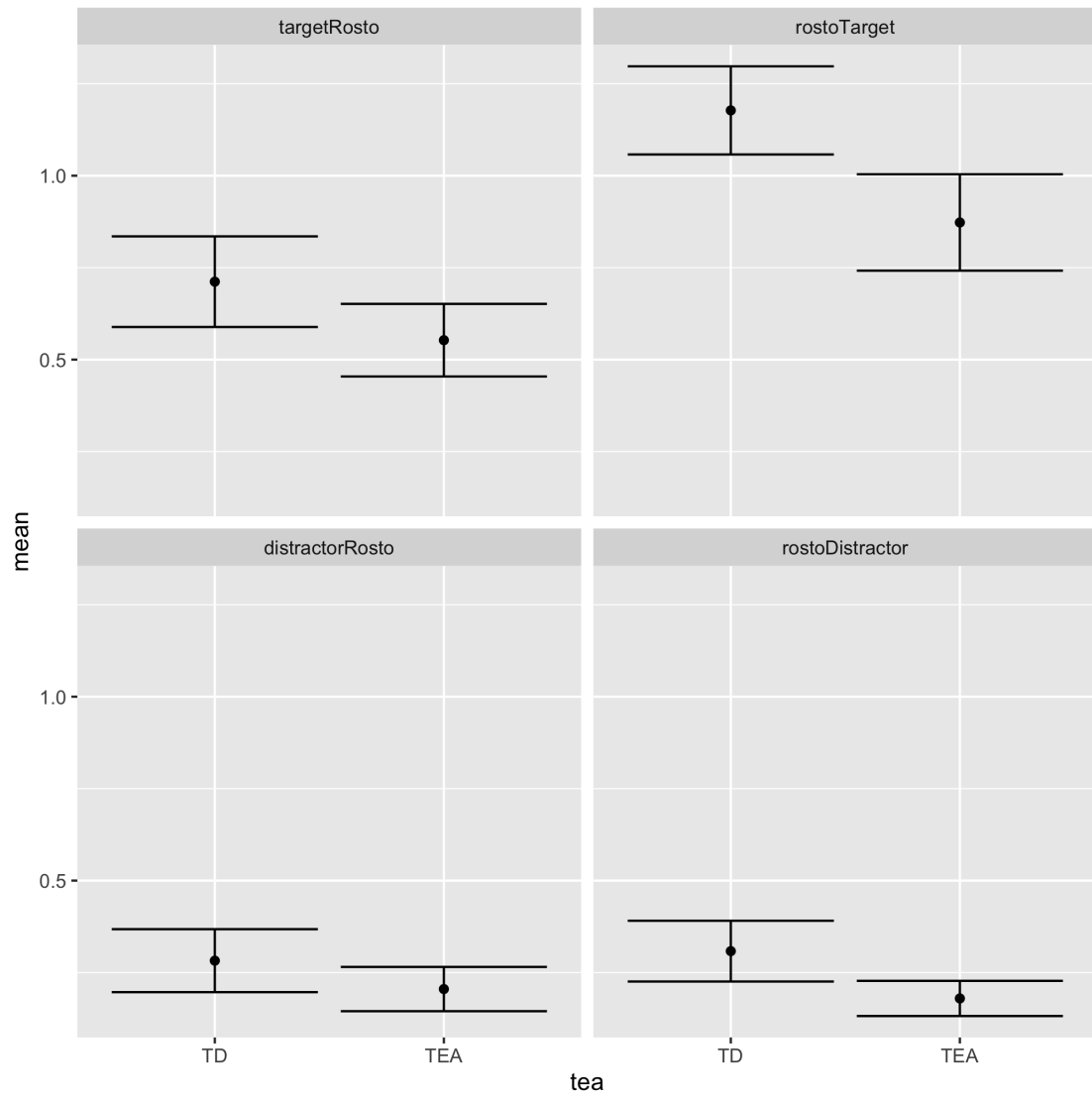


Figure 5: Visualizing interaction between tea and variable



2.2 Proportion fixation

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
condition	1	0.00	0.00	0.00	1.0000
tea	1	0.00	0.00	0.00	1.0000
variable	3	6.17	2.06	64.36	0.0000 ***
condition:tea	1	0.00	0.00	0.00	1.0000
condition:variable	3	1.74	0.58	18.15	0.0000 ***
tea:variable	3	0.55	0.18	5.78	0.0008 ***
condition:tea:variable	3	0.14	0.05	1.45	0.2280
Residuals	224	7.16	0.03		

Figure 6: Visualizing variable effect

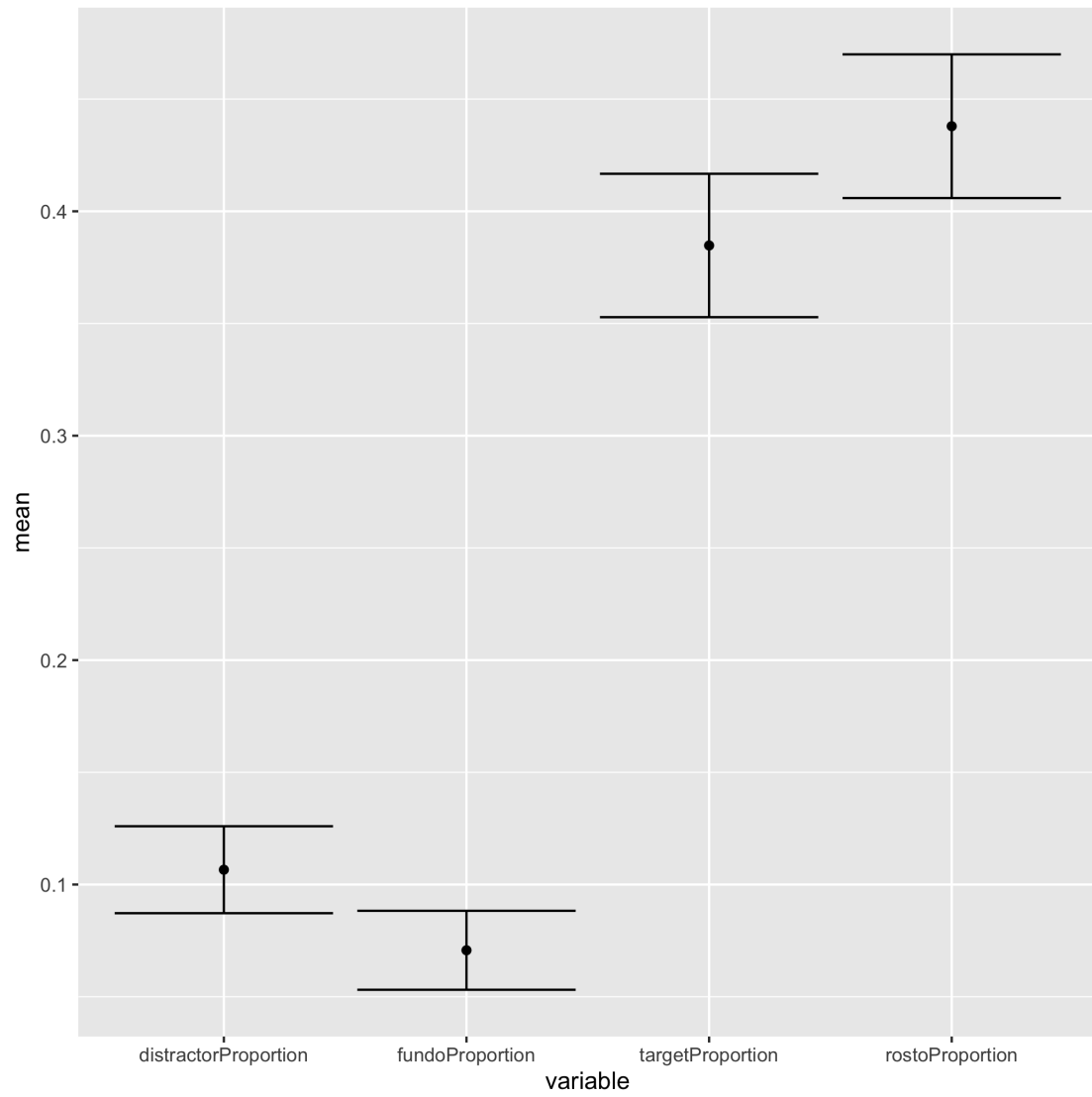


Figure 7: Visualizing interaction condition and variable

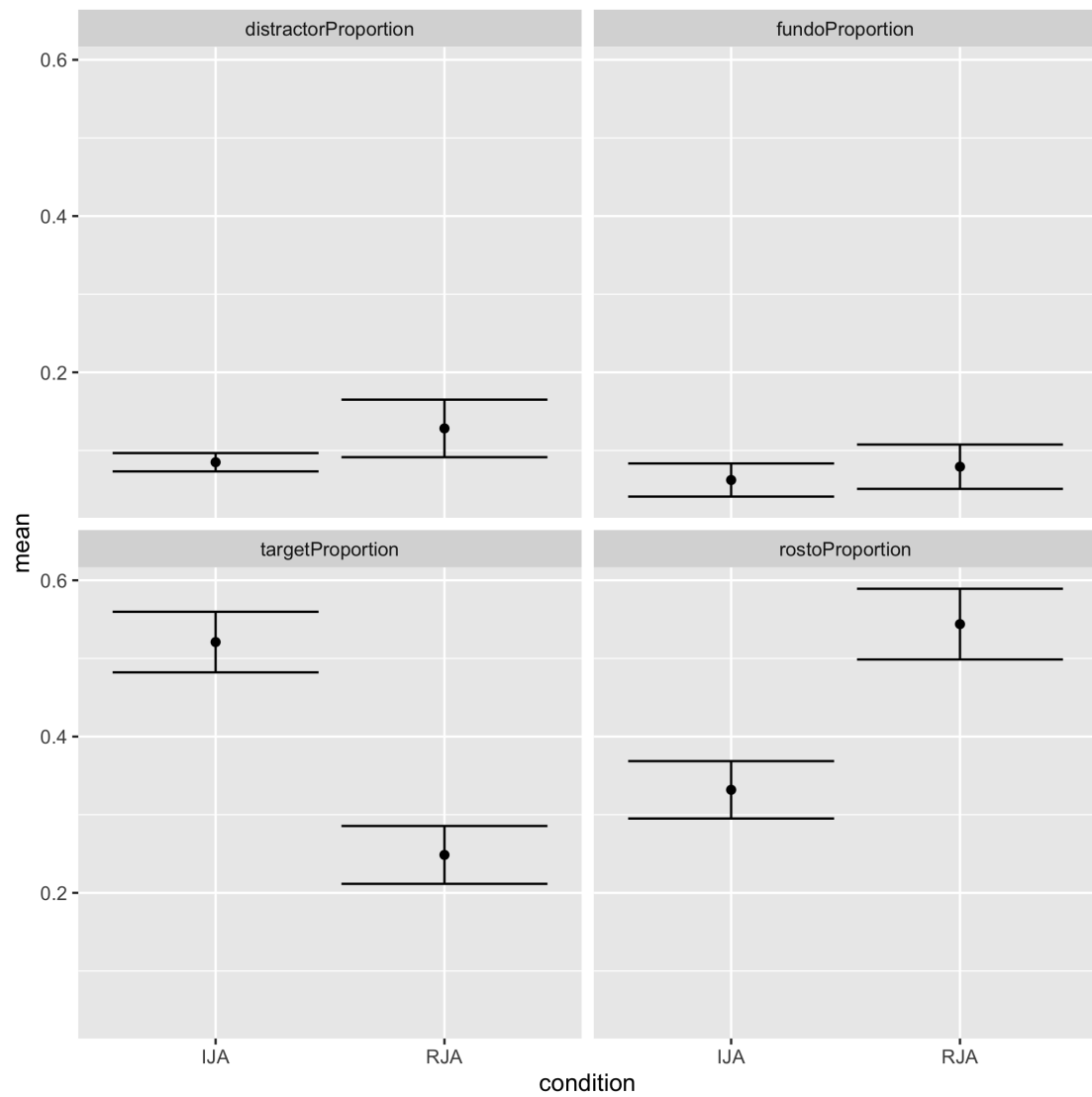
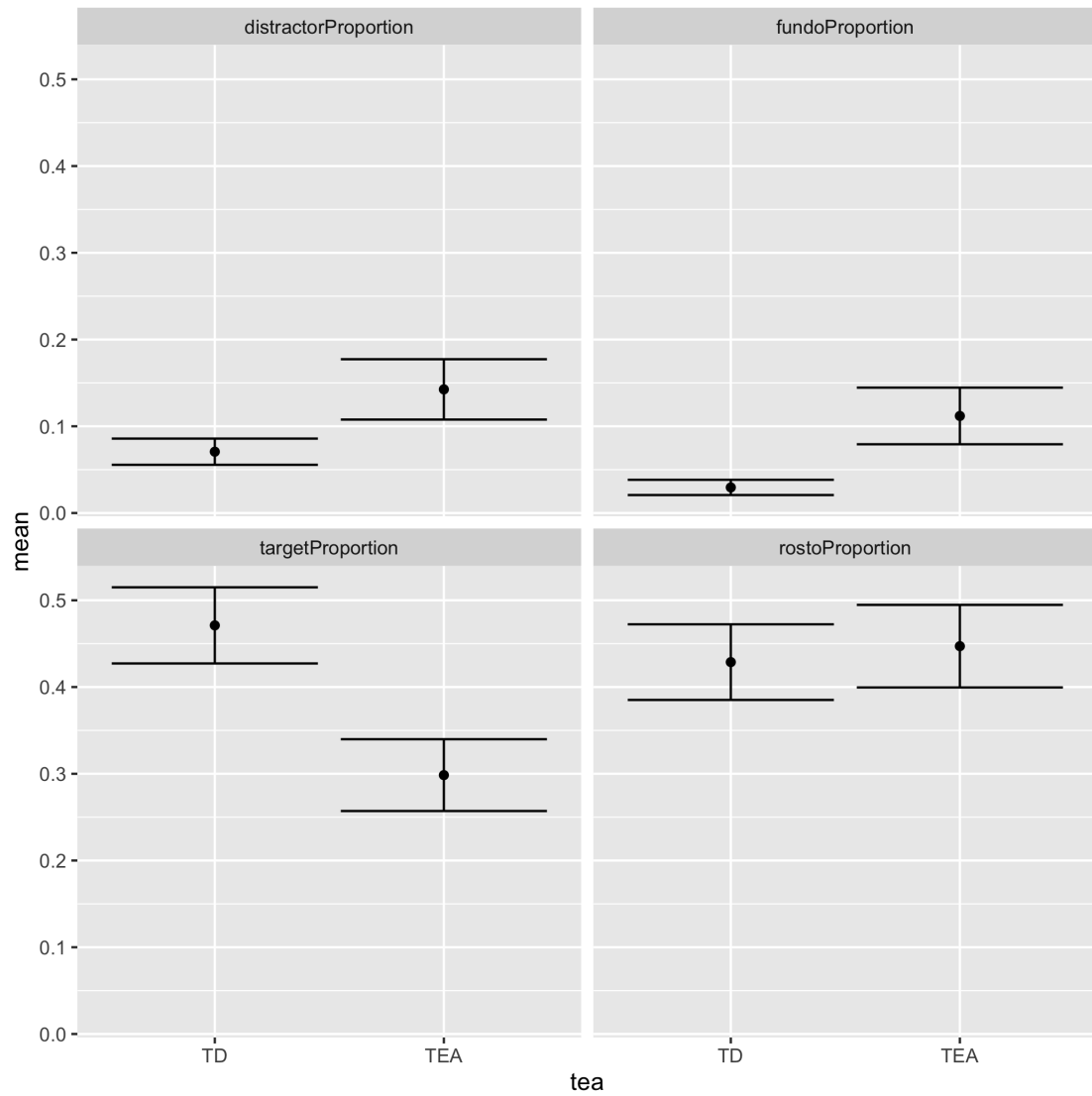


Figure 8: Visualizing interaction tea variable



Ho, D., Imai, K., King, G., & Stuart, E. A. (2011). MatchIt: Nonparametric Preprocessing for Parametric Causal Inference. *Journal of Statistical Software*, 42(8), 1–28. <https://doi.org/10.18637/jss.v042.i08>