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 x% of females in the TD group, and only x% in amongst TEA participants (see table 1).

	sexo	tea	sdAgeJA	meanAgeJA	N
1	F	TD	1.00	2.89	188
2	F	TEA		2.00	1
3	F	nonTD	0.83	3.03	5
4	F	other	1.59	2.54	2
5	F		1.06	3.38	4
6	M	TD	1.04	2.78	203
7	M	TEA	0.84	2.93	22
8	M	nonTD	0.69	3.48	8
9	M	other	0.74	3.15	4
10	M		0.83	3.05	7
11	nan				3

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 2 and 3 for descriptive statistics before and after matching algorithm).

Table 1: Non matched

	tea	meanAge	sdAge	N	minAge	maxAge
1	TD	0.09	0.03	378	6	55
2	TEA	0.10	0.03	23	13	56

2 ANOVA

Mixed designs anova with diagnostic (TEA vs TD) as between subjects factor, condition (IJA vs RJA), AOI pair (alternancias), AOI (Proportion fixations) as within subjects factor.

Table 2: Matched

	tea	sexo	meanAge	sdAge	N	minAge	maxAge
1	TD	F	2.00		1	2.00	2.00
2	TD	M	2.91	0.84	22	1.08	4.58
3	TEA	F	2.00		1	2.00	2.00
4	TEA	M	2.93	0.84	22	1.08	4.67

2.1 Alternancias

Figure 1: ANOVA table for alternancias

	Effect	DFn	DFd	F	p	p<.05	ges
1	tea	1.00	44.00	5.082	2.90e-02	*	0.031
2	condition	1.00	44.00	10.624	2.00e-03	*	0.038
3	variable	1.82	79.94	67.913	4.37e-17	*	0.348
4	tea:condition	1.00	44.00	1.128	2.94e-01		0.004
5	tea:variable	1.82	79.94	1.480	2.34e-01		0.012
6	condition:variable	1.92	84.41	21.667	4.00e-08	*	0.095
7	tea:condition:variable	1.92	84.41	0.701	4.93e-01		0.003

Figure 2: Main effect tea

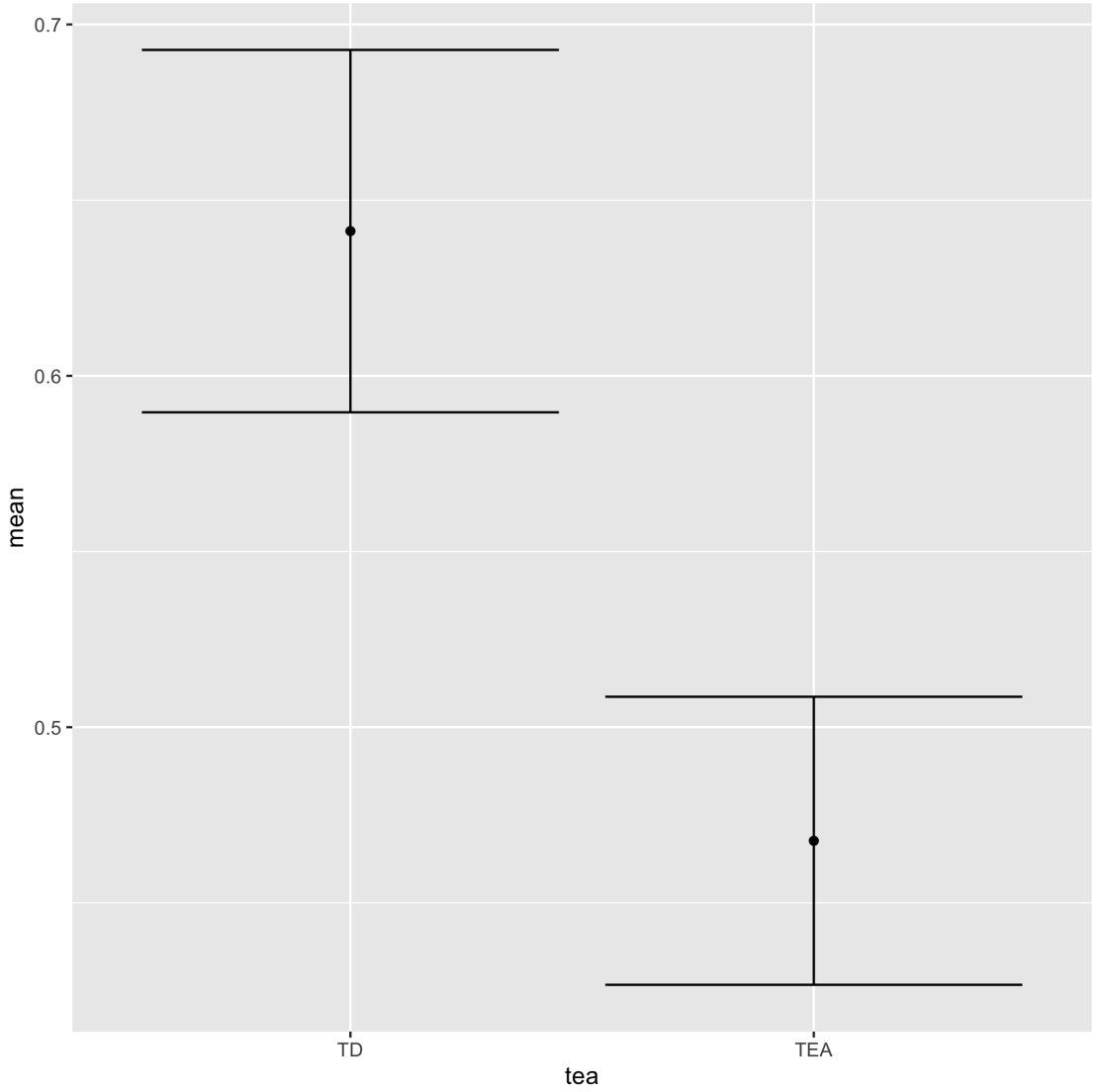


Figure 3: Visualizing effect of variable

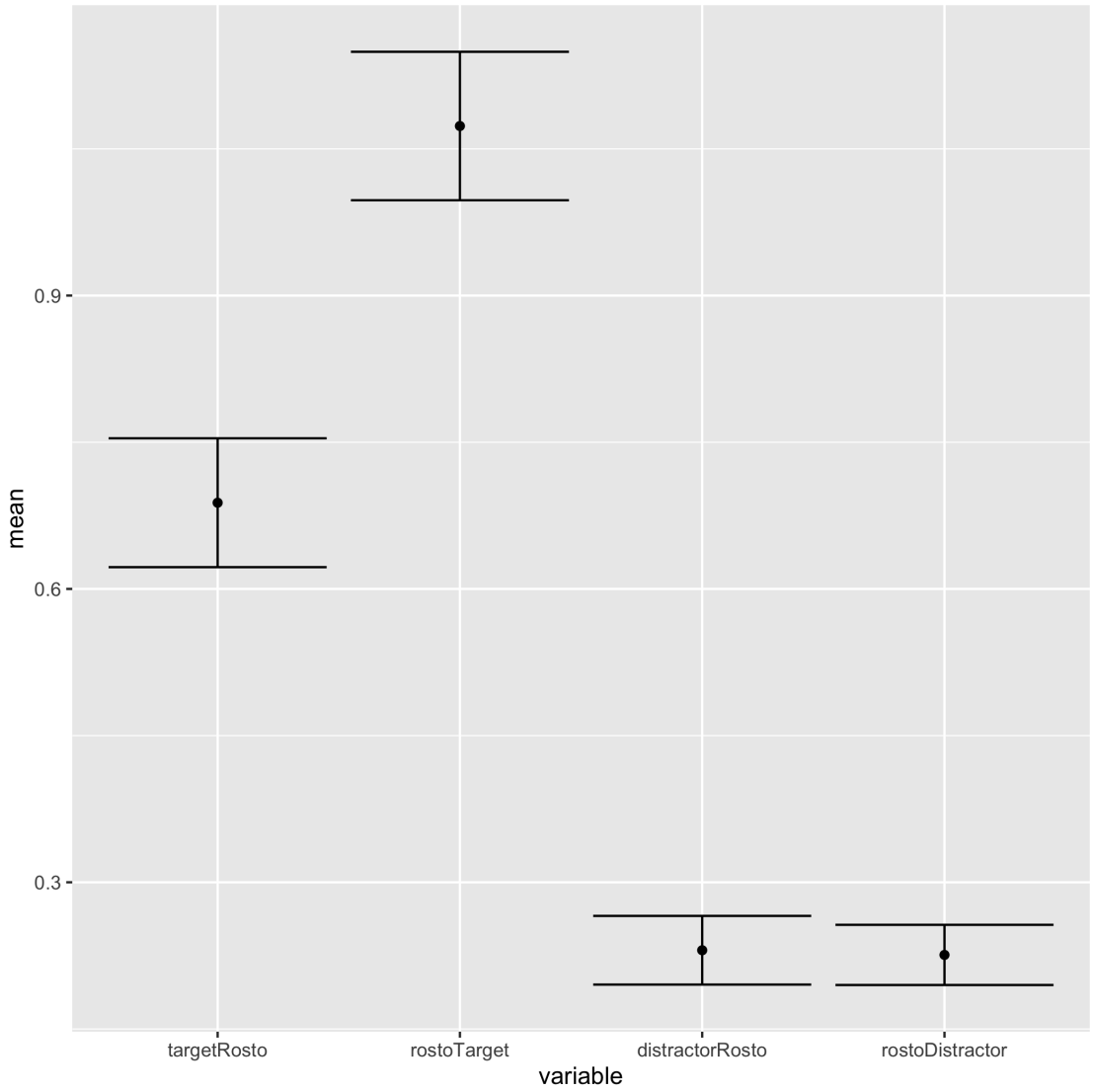


Figure 4: Visualizing effect of condition

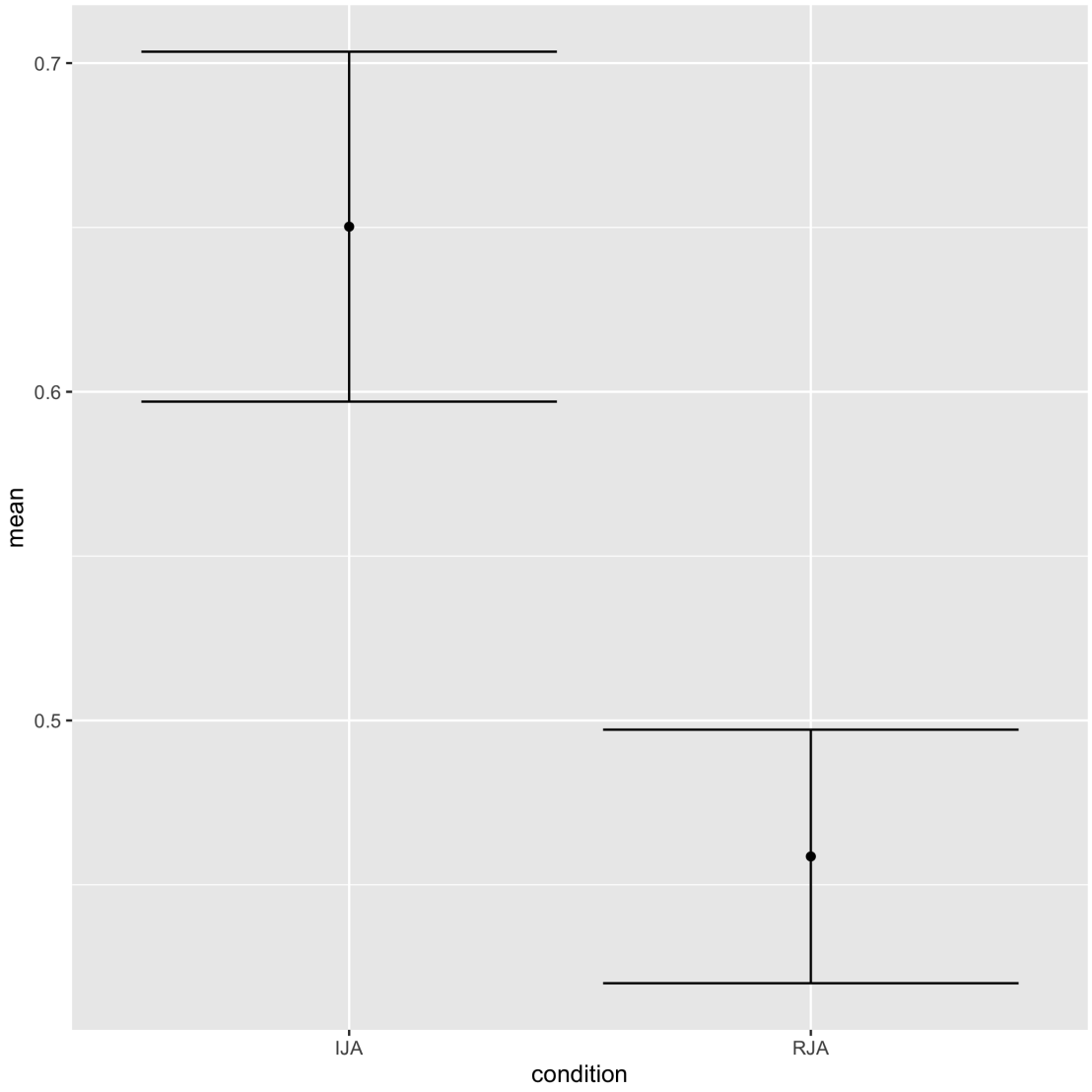


Figure 5: Visualizing interaction of condition, variable and tea. *non significant

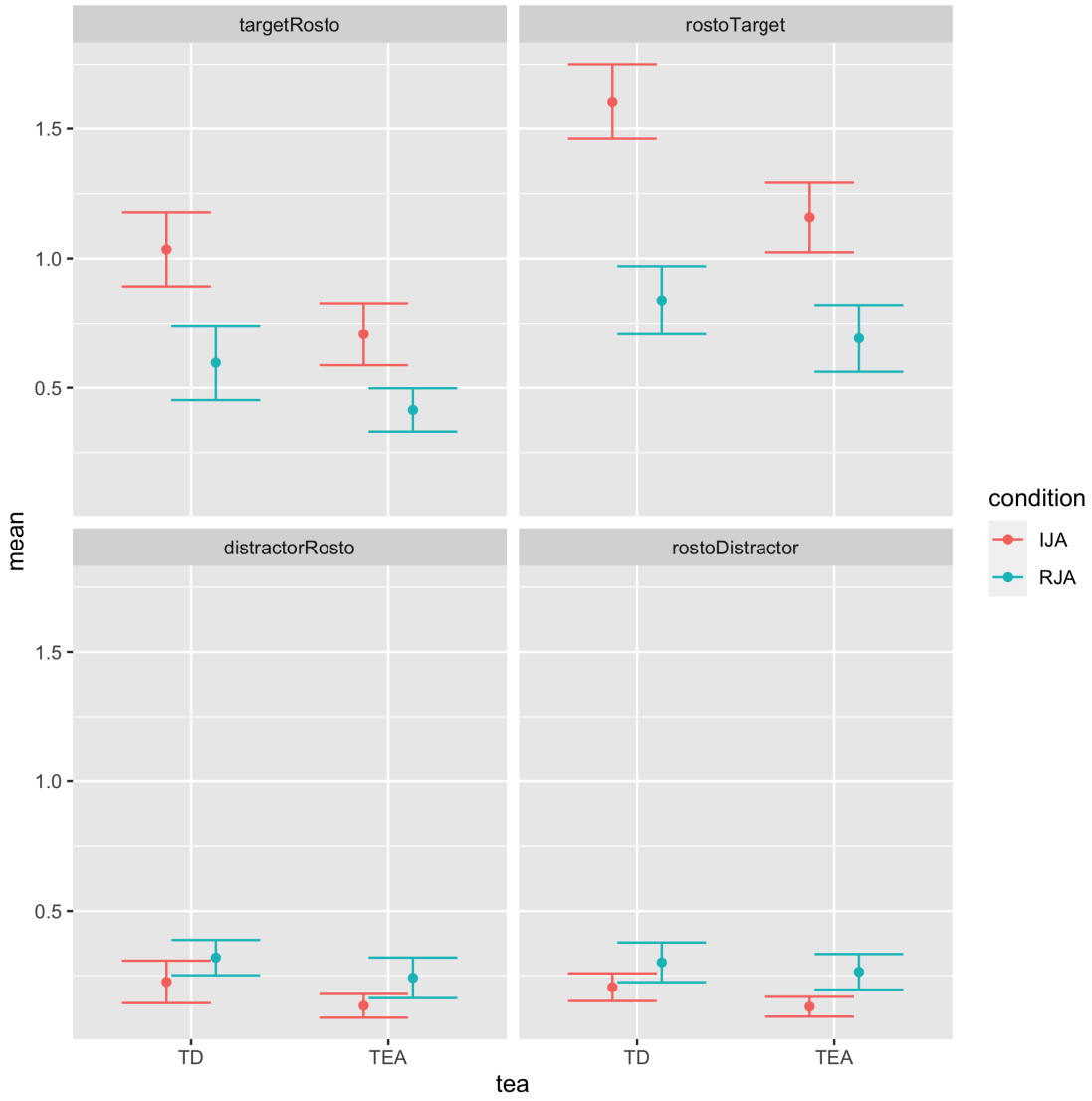
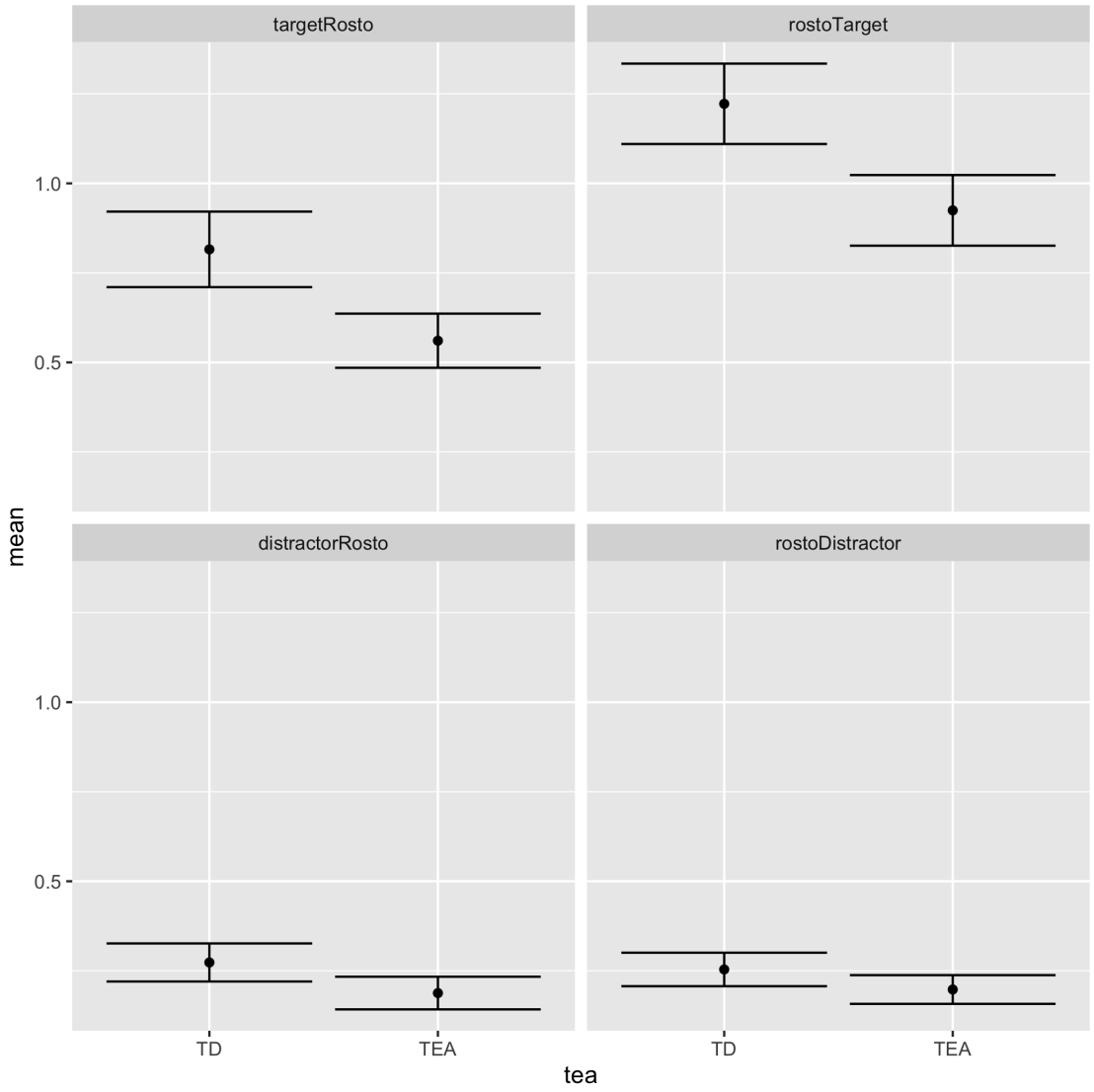


Figure 6: Visualizing interaction between tea and variable. *Non significant



2.2 Proportion fixation

Figure 7: Anova table for proportion fixation

	Effect	DFn	DFd	F	p	p<.05	ges
1	tea	1.00	44.00	-2.8400e-17	1.00e+00		2.99e-35
2	condition	1.00	44.00	-4.0100e-15	1.00e+00		1.91e-33
3	variable	2.16	94.96	7.0323e+01	2.78e-20	*	5.16e-01
4	tea:condition	1.00	44.00	-5.6400e-16	1.00e+00		2.69e-34
5	tea:variable	2.16	94.96	1.6110e+00	2.03e-01		2.40e-02
6	condition:variable	2.17	95.29	3.8480e+01	1.35e-13	*	2.25e-01
7	tea:condition:variable	2.17	95.29	6.5600e-01	5.33e-01		5.00e-03

Figure 8: Visualizing interaction of tea and variable

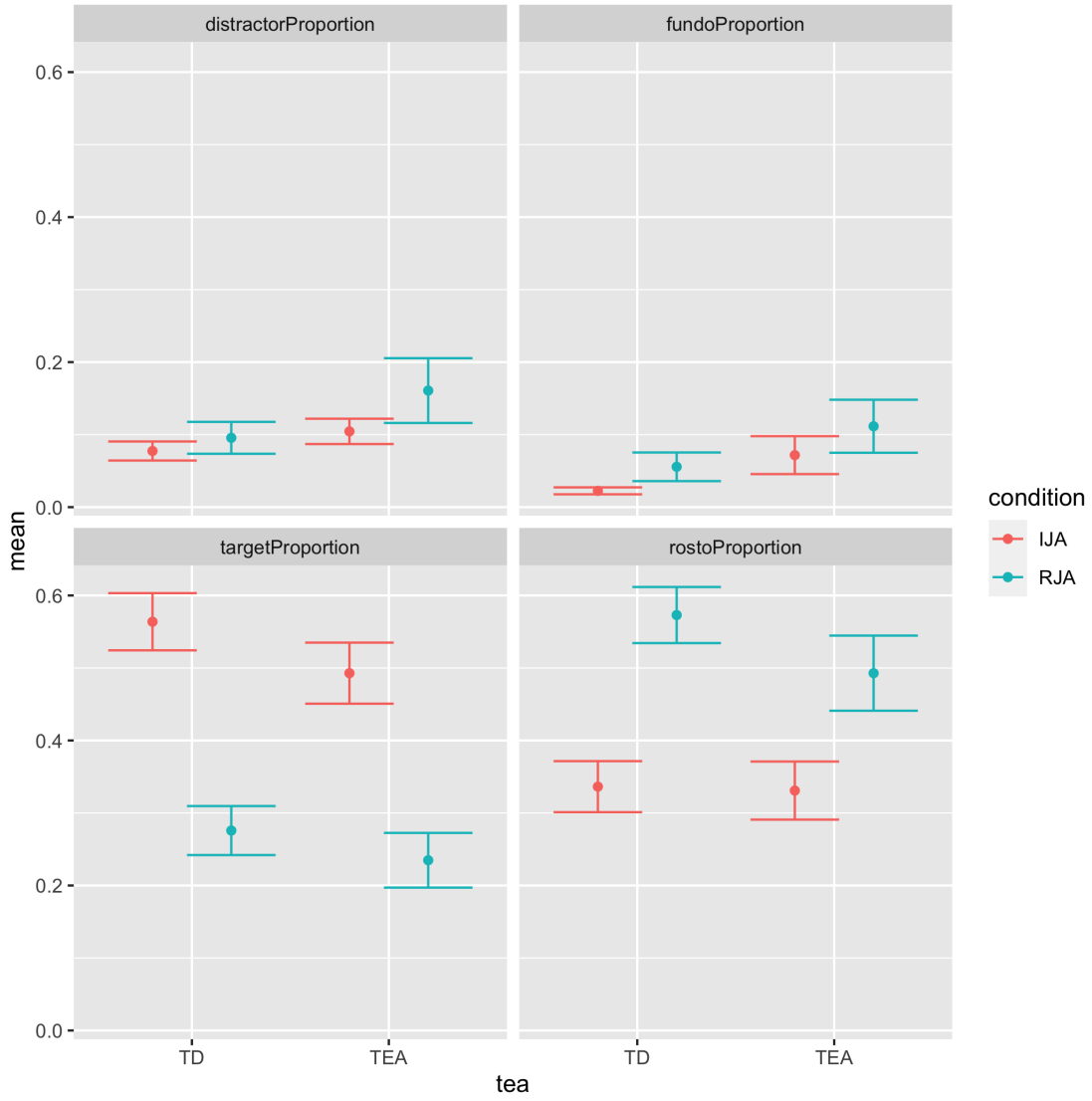


Figure 9: Visualizing main effect of variable

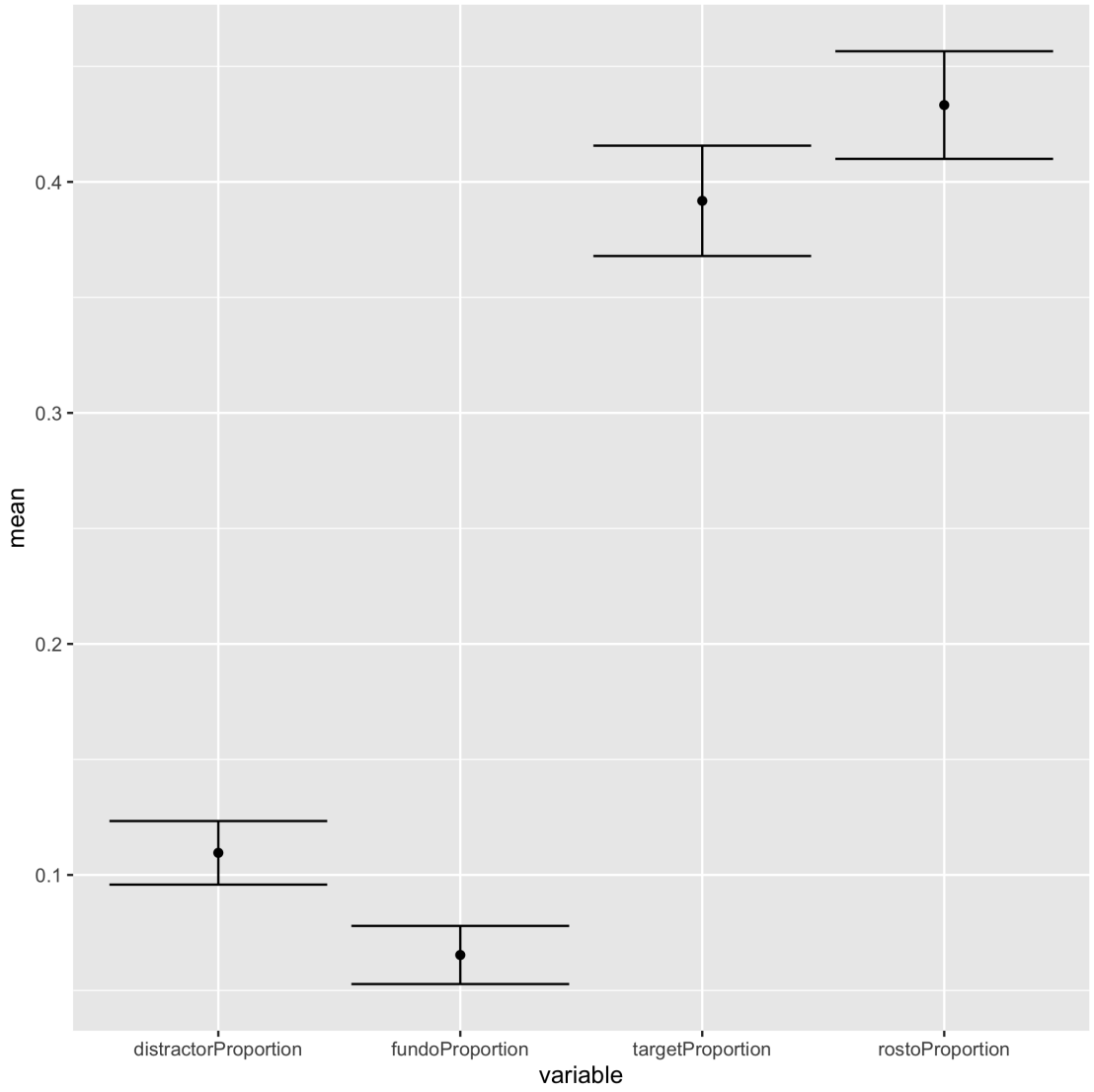


Figure 10: Visualizing interaction of condition and variable
`./condidionVariableProportion.png`

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