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).

Table 1: (
Age distribution, in months, between sex and tea participants)

	sexo	tea	sdAgeJA	meanAgeJA	N
1	F	TD	1.00	2.89	188
2	F	TEA		2.00	1
3	M	TD	1.04	2.78	203
4	M	TEA	0.85	2.88	22

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 2: Non matched

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

Table 3: Matched

	tea	sexo	meanAge	sdAge	N	minAge	maxAge
1	TD	F	2.00		1	2.00	2.00
2	TD	M	2.86	0.84	22	1.08	4.58
3	TEA	F	2.00		1	2.00	2.00
4	TEA	M	2.88	0.85	22	1.08	4.67

Table 4: 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

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.

2.1 Alternancias

Figure 1: ANOVA table for alternancias

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> aovResult
ANOVA Table (type II tests)

                      Effect  DFn    DFd       F         p p<.05    ges
1                        tea 1.00  44.00   5.481 2.40e-02     * 0.034
2                  condition 1.00  44.00  11.049 2.00e-03     * 0.040
3                   variable 1.80  79.22  64.230 2.24e-16     * 0.328
4              tea:condition 1.00  44.00   1.057 3.10e-01       0.004
5               tea:variable 1.80  79.22   2.459 9.80e-02       0.018
6         condition:variable 1.92  84.29  19.091 2.21e-07     * 0.086
7 tea:condition:variable 1.92  84.29   1.172 3.13e-01       0.006
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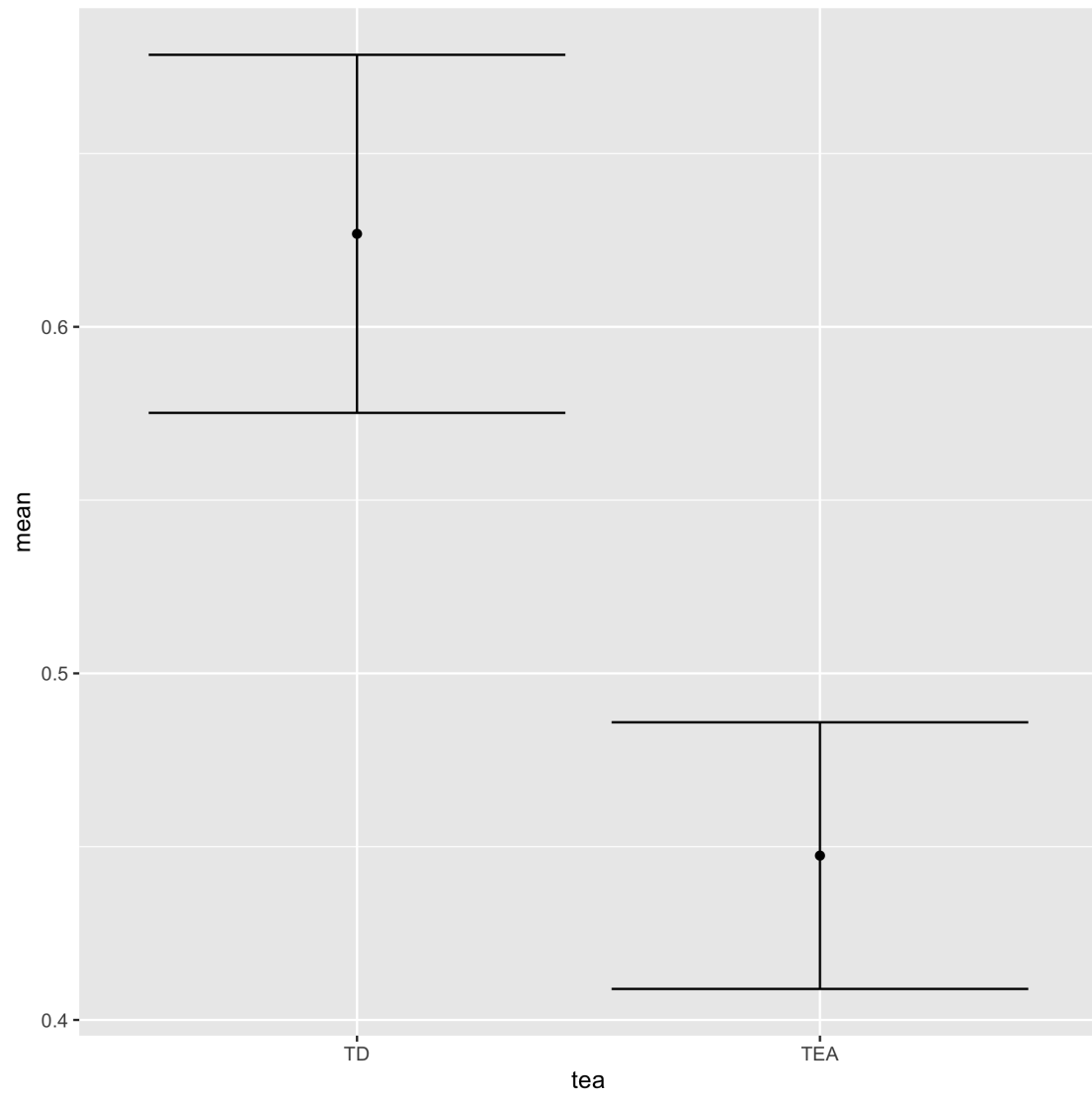
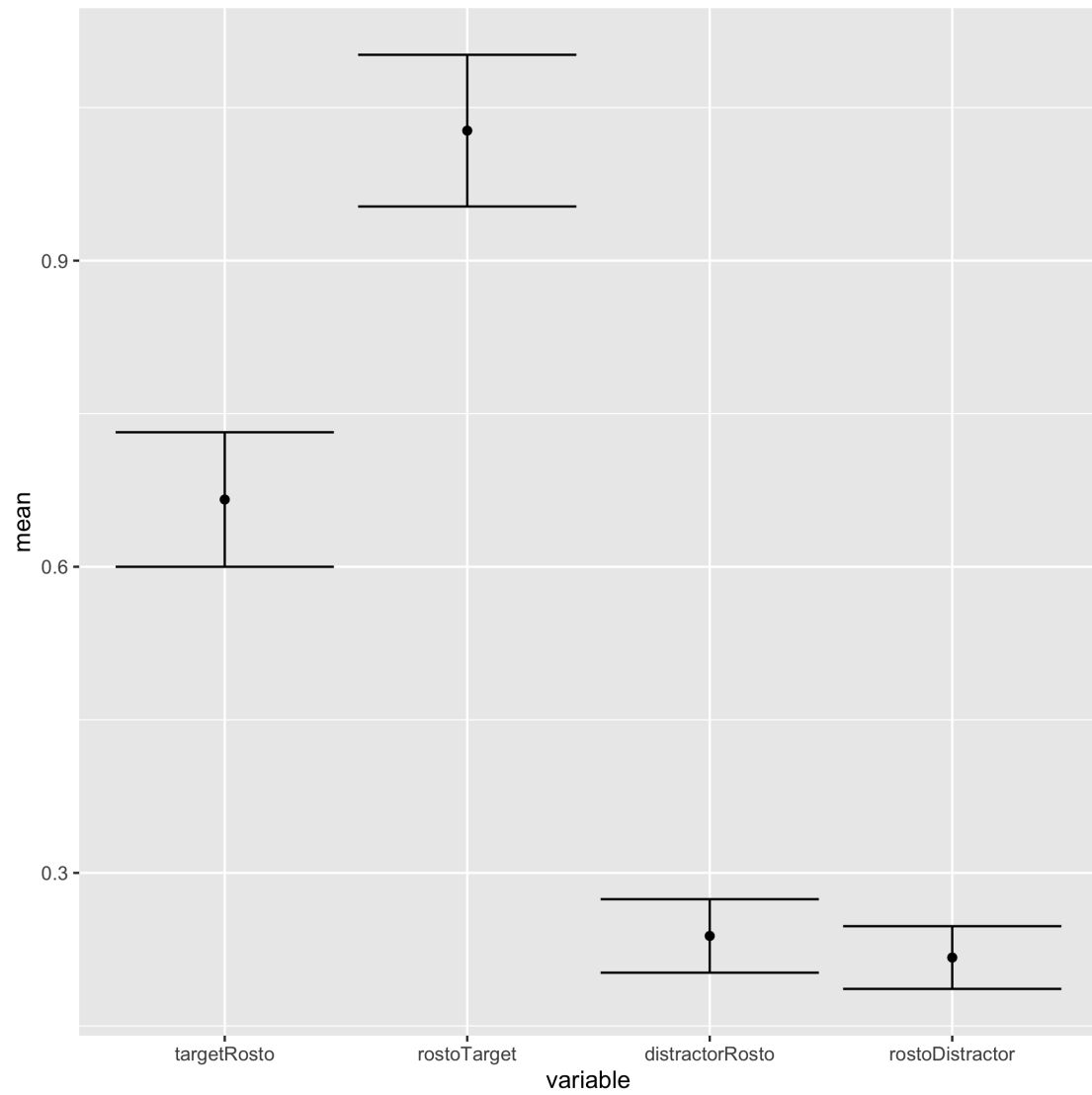Figure 2: Main effect tea

Figure 3: Visualizing effect of variable

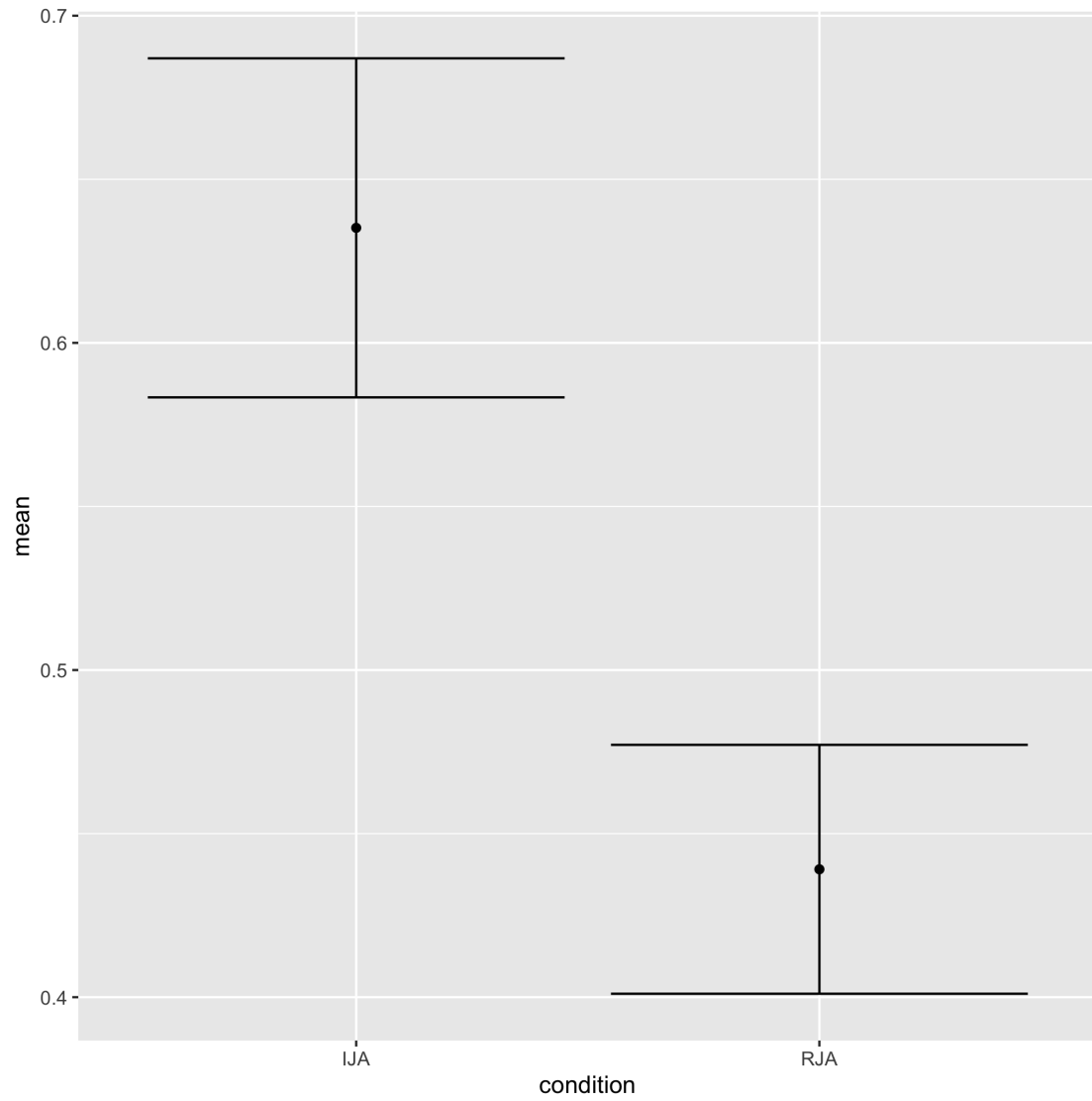Figure 4: Visualizing effect of condition

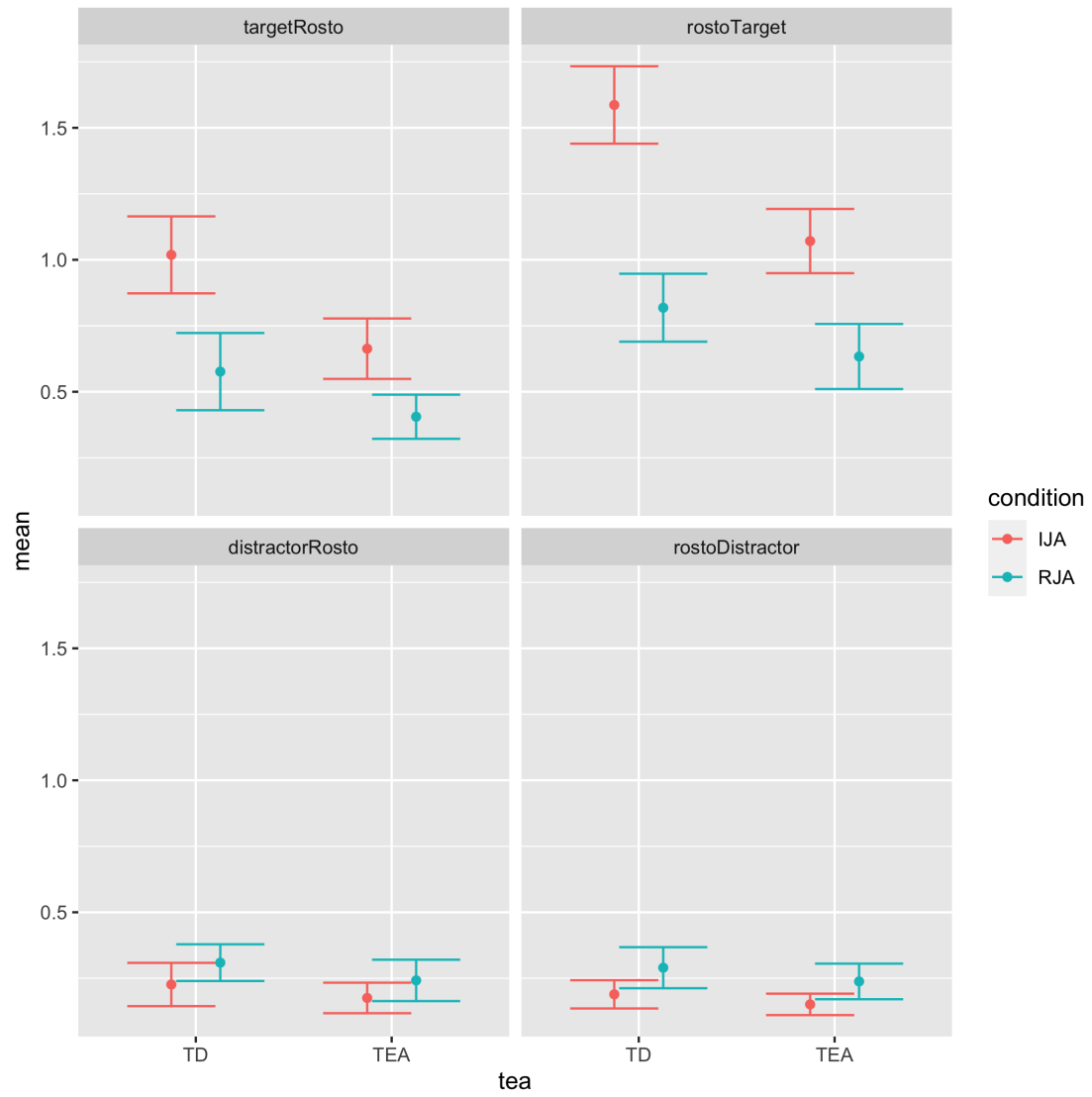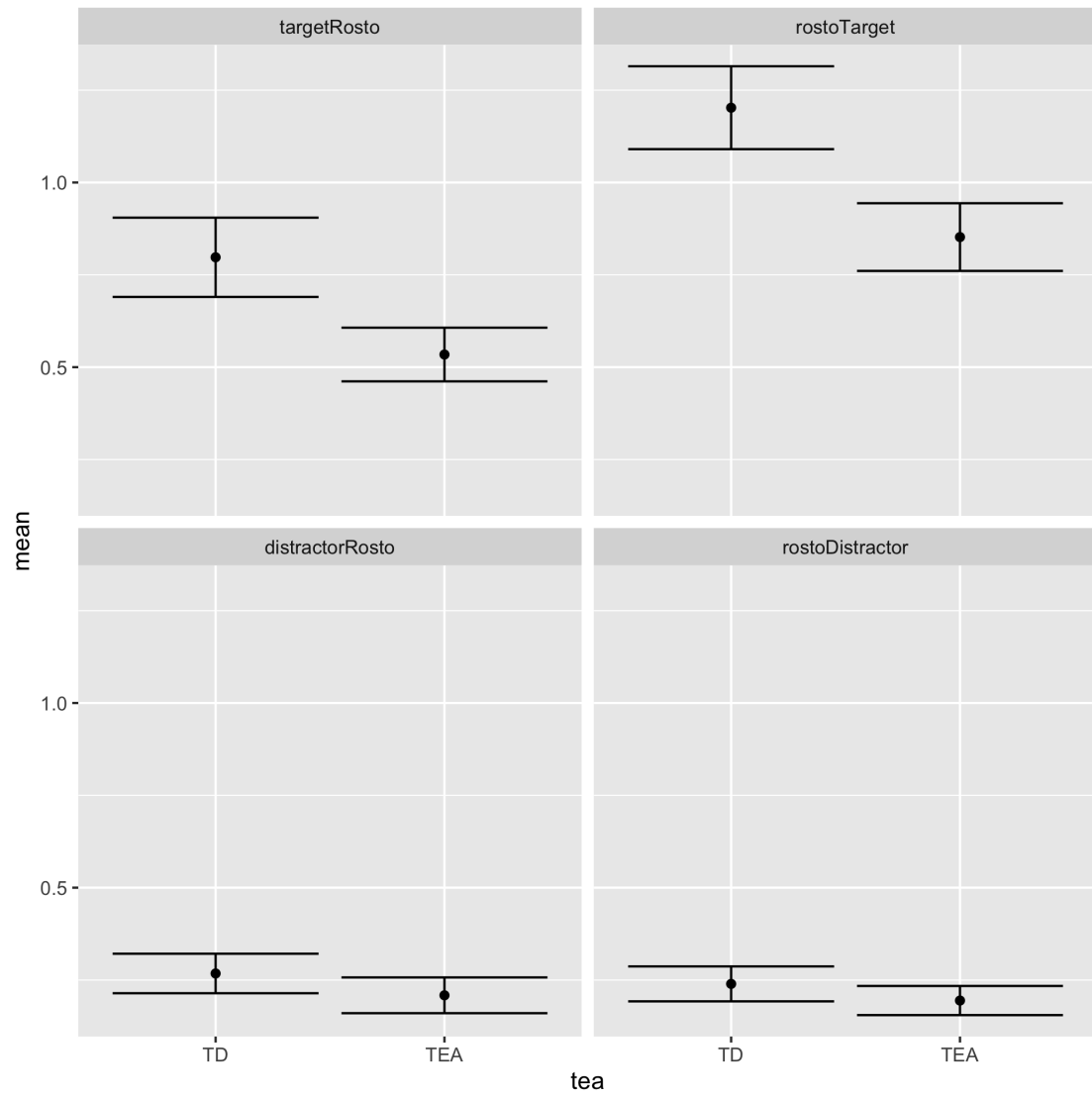Figure 5: Visualizing interaction of condition and variable

Figure 6: Visualizing interaction between tea and variable

2.2 Proportion fixation

Figure 7: Anova table for proportion fixation

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ANOVA Table (type II tests)

                   Effect  DFn    DFd           F          p p<.05        ges
1                     tea 1.00  44.00 1.5300e-14 1.00e+00           2.90e-33
2               condition 1.00  44.00 6.2000e-14 1.00e+00           2.97e-32
3                variable 2.12  93.12 6.9580e+01 8.37e-20        * 5.14e-01
4           tea:condition 1.00  44.00 1.1900e-14 1.00e+00           5.68e-33
5            tea:variable 2.12  93.12 1.6590e+00 1.94e-01           2.50e-02
6      condition:variable 2.14  94.32 3.6456e+01 5.65e-13        * 2.15e-01
7 tea:condition:variable 2.14  94.32 5.5000e-01 5.91e-01           4.00e-03
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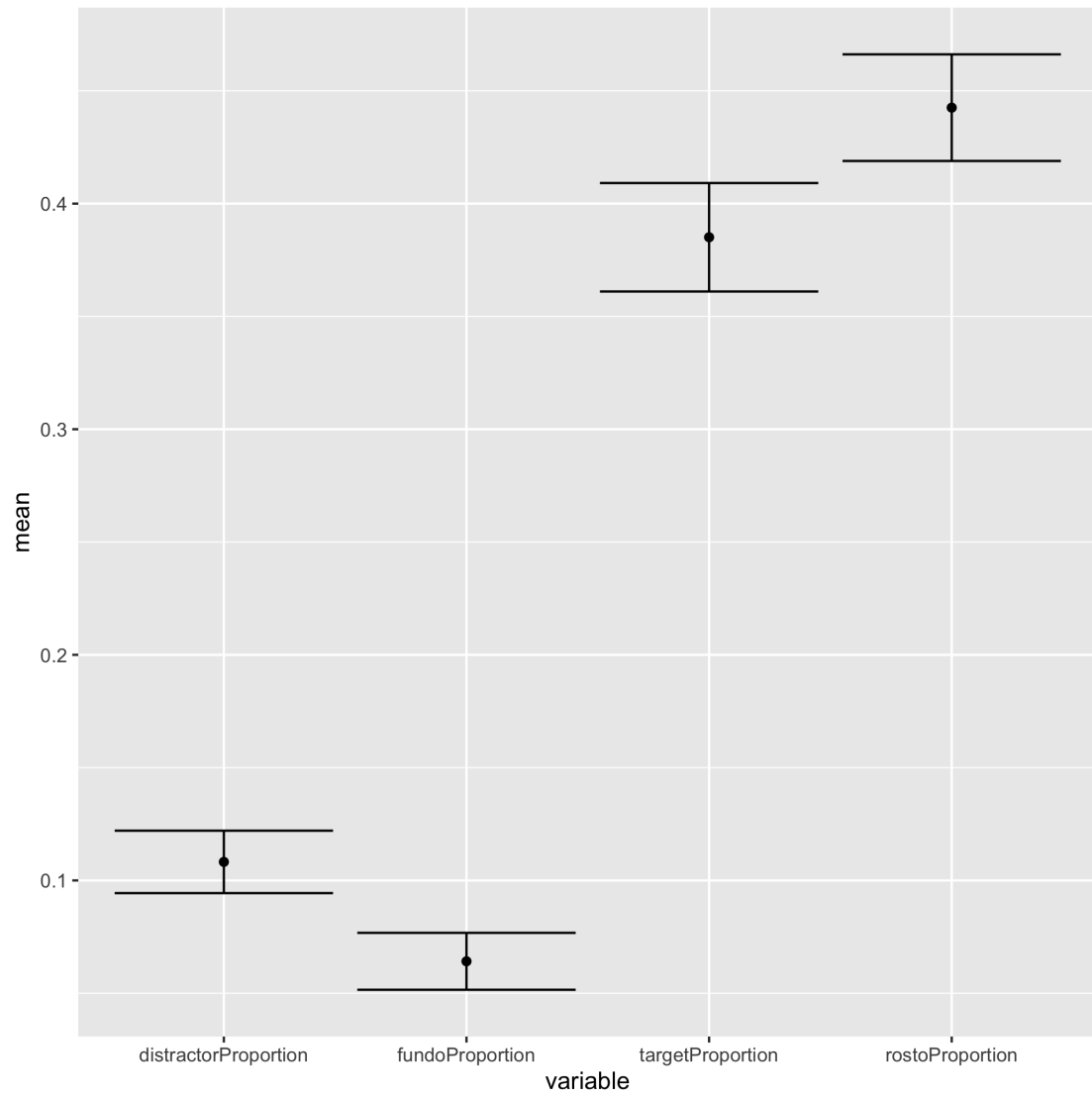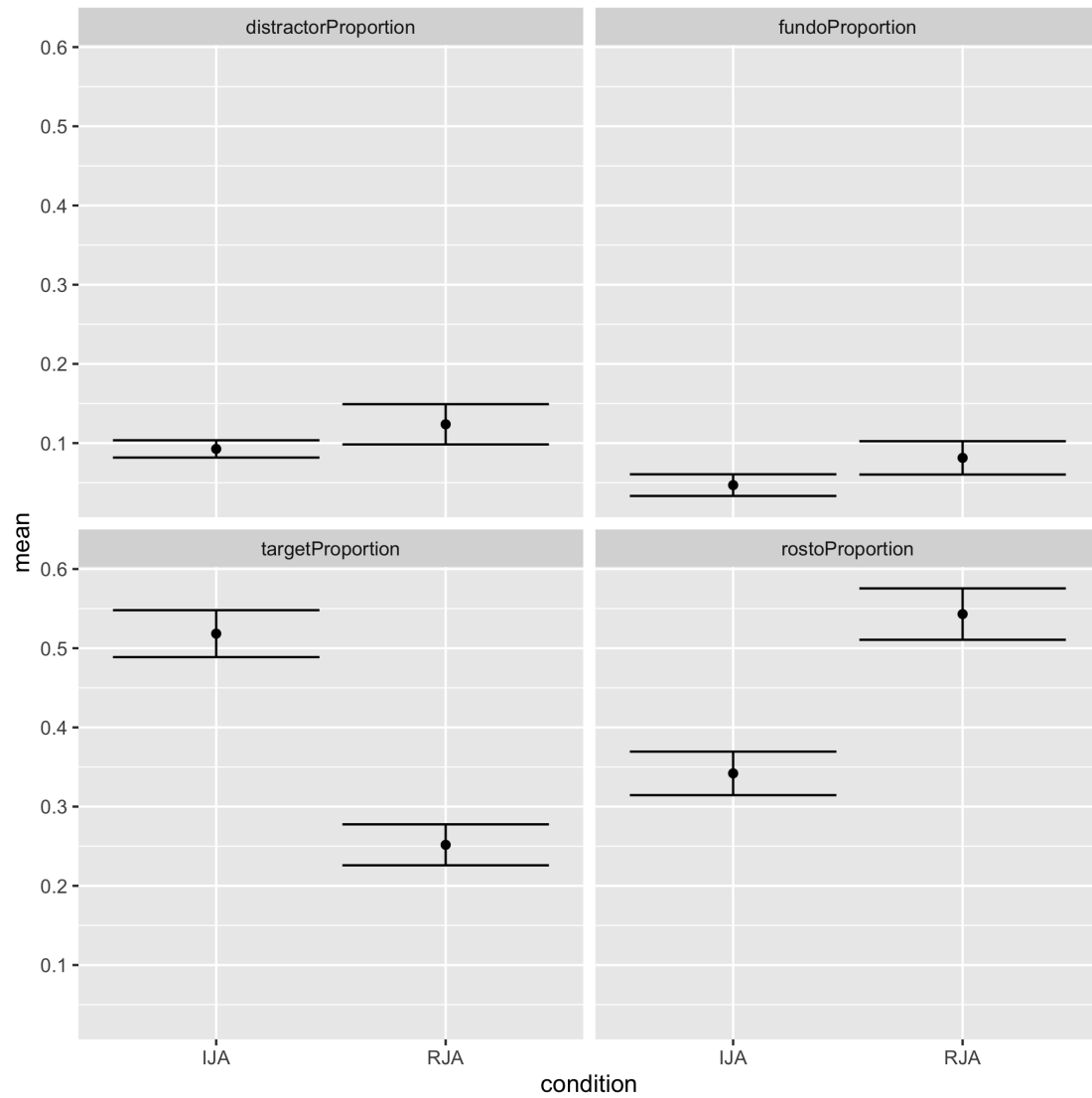
Figure 8: Visualizing variable effect

Figure 9: Visualizing interaction condition and 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