EJPA New Data

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Updating EJPA data revisions with new Montclair data - collection to be closed 12/13/19 (we already have 300 self-respondents, just waiting on twice-removed stragglers - reminders were sent 12/5/19)

$\rightarrow$ There were 303 self raters, 148 once-removed raters, and 40 "twice-removed" raters. After data cleaning (ensuring that the target of the rating was indeed the researcher-intended *first* person), we conservatively retained 27 fully matched individuals (across all three rating sources).

Total number of missing responses for the newly gatehered data were 17 for selves, 26 for once-removed raters, and 44 for twice-removed raters.

Self	Missing Values	Once	Missing Values	Twice	Missing Values
Self 1	3	Once 1	3	Twice 1	12
Self 2	4	Once 2	4	Twice 2	3
Self 3	1	Once 3	5	Twice 3	8
Self 4	5	Once 4	4	Twice 4	8
Self 5	2	Once 5	7	Twice 5	6
Self 6	1	Once 6	0	Twice 6	4
Self 7	0	Once 7	1	Twice 7	3
Self 8	1	Once 8	2	Twice 8	0

Looking at all 102 combined raters:

Self	Missing Values	Once	Missing Values	Twice	Missing Values
Self 1	5	Once 1	3	Twice 1	17
Self 2	6	Once 2	5	Twice 2	8
Self 3	3	Once 3	7	Twice 3	15
Self 4	5	Once 4	4	Twice 4	10
Self 5	4	Once 5	9	Twice 5	12
Self 6	3	Once 6	1	Twice 6	9
Self 7	2	Once 7	2	Twice 7	5
Self 8	2	Once 8	4	Twice 8	7

SDs look different across groups - might be interesting to look at but running out of time - 12/30/19
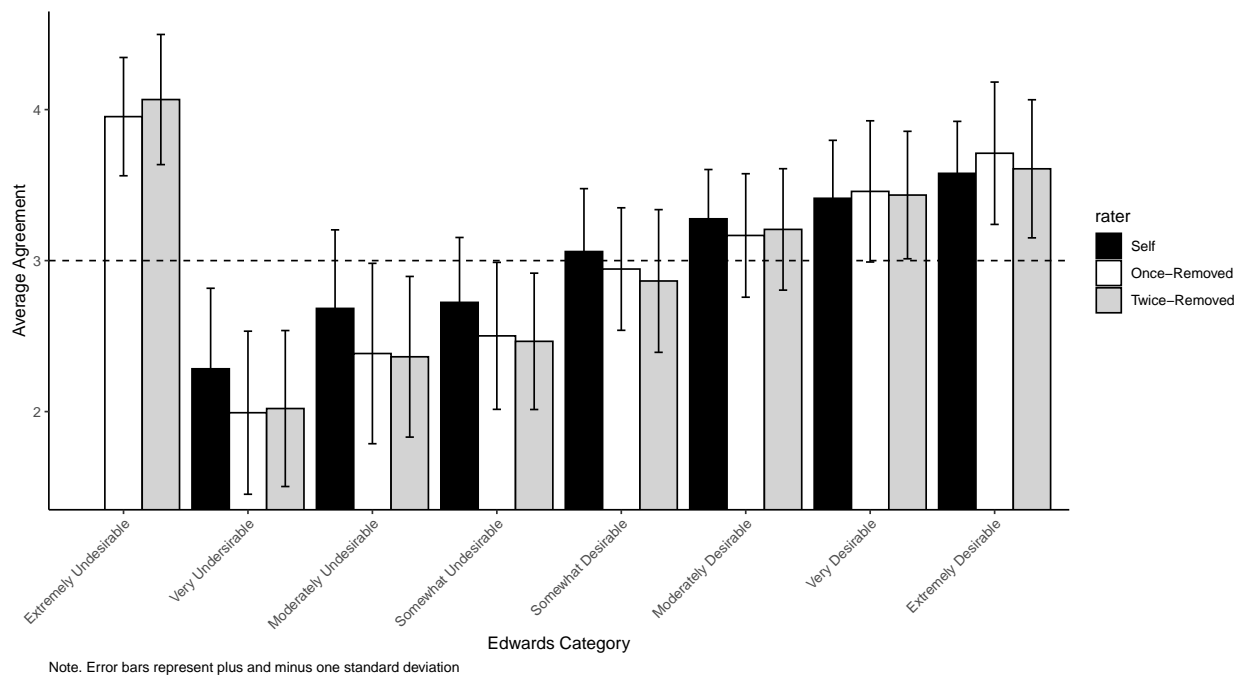
Possibly easier to visualize? (same as Figure 3):

Note. Error bars represent plus and minus one standard deviation

Figure 1: *Figure 1.* Average response (1=Strongly Disagree; 5=Strongly Agree) by item desirability and rater type ($n = 306$ [102 each rater group]).
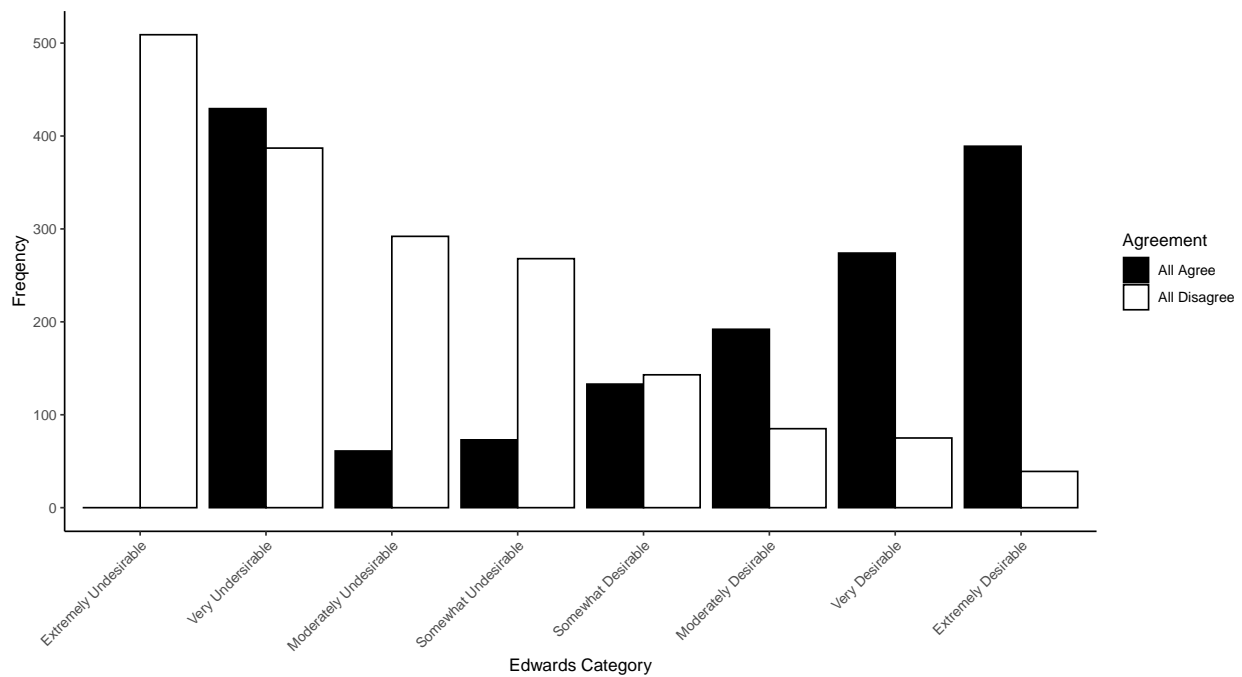

Figure 2: *Figure 2.* Rater consistency of agreement across socially desirable item groupings (all 3 agree or all 3 disagree).
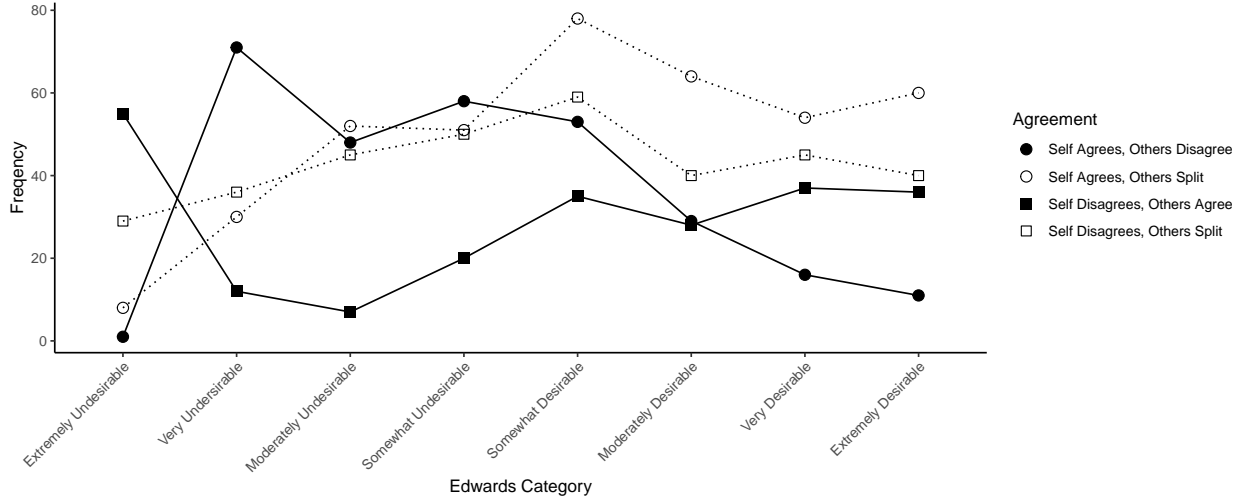
Figure 3: *Figure 3.* Patterns of divergence from self ratings.

Paper analyses below:

All once- and twice-removed raters were asked how well they knew the rated person, as well as how frequently they interacted with the target. There were slight differences on responses to these questions across groups (χ^2 "well-known" $= 10.031$, $p = 0.018$; χ^2 "frequently" $= 16.907$, $p = 0.001$), but the differences were not sufficiently meaningful to justify inclusion of these variables into our analyses (87% of twice-removed and 95% of once-removed indicated they knew the rated person either "very well" or "extremely well", although 14% of twice-removed respondents indicated they only interacted with the target once a month or less frequently compared to 2% of once-removed respondents.

The data were also screened for "not applicable" AND MISSING RESPONSE **NOTE THAT "AND MISSING RESPONSE" WAS ADDED IN THIS REVISION** patterns across the eight socially desirable item sets and three rater types ($\chi^2_{(14)} = 20.375$, $p = 0.119$).

Standardized residual analysis (e.g., the cells with the largest standardized residuals being the strongest contributors to the omnibus chi-square [see, for example, Sharpe, 2015]) identified once-removed ratings with somewhat desirable (std res = 2.32), self ratings of moderately desirable (std res = -1.95), and twice-removed ratings of somewhat desirable (std res = -1.82) item sets as being the strongest omnibus chi-square contributors. In other words, there were relatively more omissions with somewhat desirable item sets for once-removed raters relative to the other two rater groups. There are however patterns of missingness that were not captured via chi-square analysis.

Chi-squares are not capturing difference - gonna do regression (perhaps questionable - 1/1/20)

```
## 
## Call:
## lm(formula = missing ~ sd)
## 
## Residuals:
##     Min     1Q  Median     3Q     Max
## -10.472  -6.484  -3.218   8.079  16.528
## 
## Coefficients:
##             Estimate Std. Error t value Pr(>|t|)
## (Intercept)  24.5357     4.0054   6.126 3.64e-06 ***
## sd           -2.0635     0.7932  -2.602   0.0163 *
```

3

```
## ---
## Signif. codes:  0 ’***’ 0.001 ’**’ 0.01 ’*’ 0.05 ’.’ 0.1 ’ ’ 1
##
## Residual standard error: 8.904 on 22 degrees of freedom
## Multiple R-squared:  0.2353, Adjusted R-squared:  0.2005
## F-statistic: 6.768 on 1 and 22 DF,  p-value: 0.01629
```

Because this chi-square does not adequately capture patterns of missingness, a rater type x social desirability stratum regression was also applied to missing values ($R^2 = 0.24$, $F = 6.77$, 1, 22). Figure 4 presents these results visually, with similar patterns of missingness progressing along the social desirability continuum, but greater *numbers* of missing responses at extremely undesirable locations for twice-removed raters. Collectively, this suggests that others are less likely to endorse undesirable items for a target than are self-raters (and perhaps implicates the "self"-protective motive to be in fact stronger in others than in selves).

The undifferentiated $R^2 = 0.24$, $F = 6.77$, 1, 22

> Actually scrap this - elevated regression line simply means less knowledge of person - interesting pattern is elevation for socially undesirable for all 3 rater types <- this should be acknowledged somewhere. . .
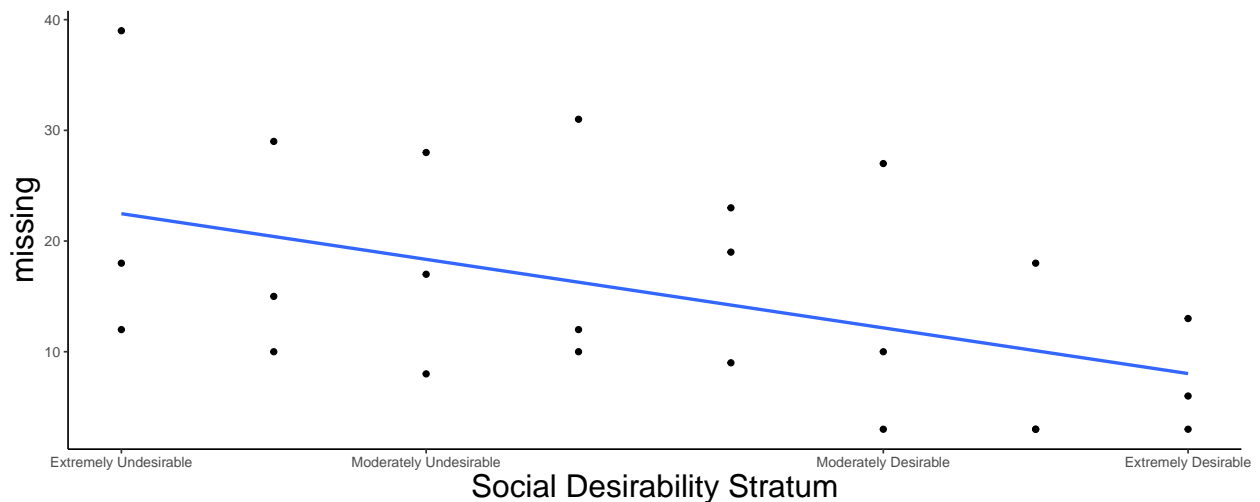

Figure 4: Smoothed (regression-predicted) missing value estimates across social desirability strata.

We want to expand this figure by including `quanteda` text analyses (or careless responses). Plan is: 1) transpose raw data files 2) apply `quanteda` analyses 3) compute NA's (add up number of missing)
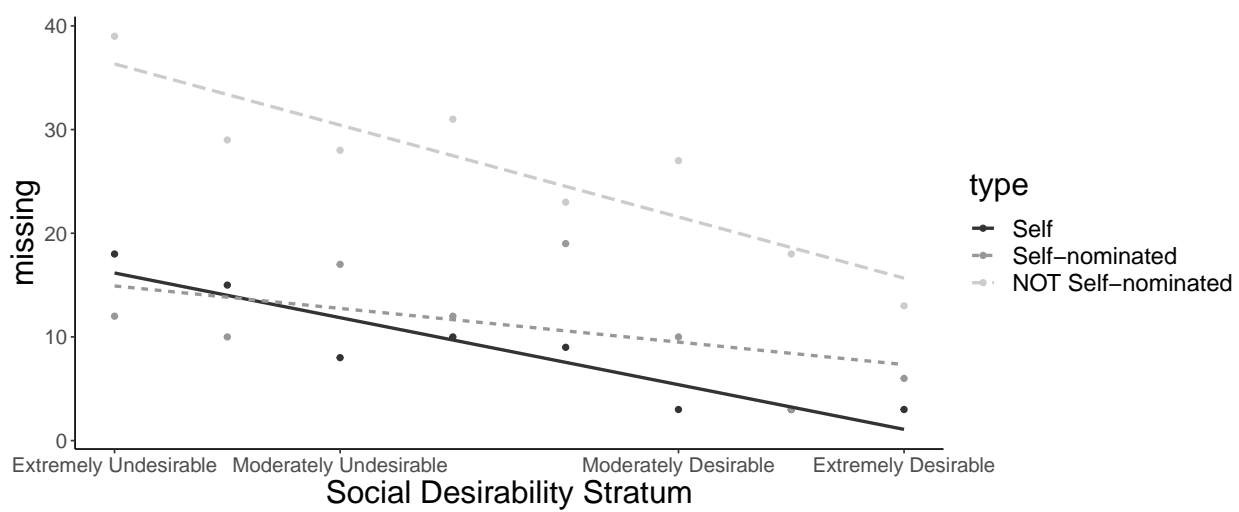
Figure 5: Smoothed (regression-predicted) missing value estimates across social desirability strata and rater type.