Coding notes for Motyl et al "Status of our Science" Relevant for blogpost http://DataColada.org/60

## **Coding Notes**

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- THINGS YOU ARE UNSURE OF 99!!
  - o Report 99!! for open ended items you are unsure of
  - Report 99!! in the comments if it was a close-ended
- Article citation: copy and paste APA style citation from Google Scholar (OK if it's not perfect)
- Do not include information from supplemental materials
- Sample Size (primary analysis only): only p's who participated in the survey count toward N (e.g., x number were invited, but 84 participated, original sample size would be 84)
- Type of statistical test (primary analysis only):
  - If you selected 'other', skip the study
  - Do NOT try to code meta-analyses, factor analyses, principal components analyses, anything Bayesian, or simulation studies (e.g., agent-based models).
  - For multilevel / hierarchical linear models, code N, count p-values reported, p-values that are < .05; don't try to interpret effect sizes.
  - This should be the test for the test statistic you report below
- Test statistic (primary analysis only): report the test statistic only for the hypothesized effect
  - If they are hypothesizing an interaction, then report the F from the omnibus effect that is key to testing their hypothesis
  - o If there is more than 1 dependent variable, select the **first** one that the authors refer to as the most important/critical to their hypothesis. If they do not differentiate between the DVs, input the result from the first one that is reported. If the study includes multiple DVs, some the are replicating previous hypotheses in that same paper and some new hypotheses, report the first new hypothesis test.
  - Mediation will not be our focal test
  - For regression, if a t is not reported t =B(unstandardized)/SE
- Number of predictors (primary analysis only): The number of predictors for the primary analysis you report.
  - So if the overall design is a 2(experimental v control) X 2(gender) but the primary analysis you are reporting is just looking at the main effect of experimental v control then there is only one predictor
  - If you are reporting the simple effect of experimental v control for females (follow up to the interaction) then there would be 2 predictors.
- Number of conditions (primary analysis only): decide based on the statistical analysis the
  authors used (e.g., If one of the predictor variables was continuous, but then the authors
  dichotomized the variable, then this variable would be counted toward the number of conditions. If
  the predictor is continuous and is kept continuous in the analyses, then this should not be counted
  toward the number of conditions)
  - Any categorical between subjects variable counts towards conditions
  - o Only report the number of conditions for the **primary analysis** you report.
    - IE the above 2(experimental v control) X 2(gender) but the primary analysis you are reporting is just looking at the main effect of experimental v control. You would report 2 conditions.(this lets us divide the N/2 to get the right n per cell)
    - If you are reporting the simple effect of experimental v control for females (follow up to the interaction) then there would be 4 conditions. (this lets us divide the N/4 to get the right n per cell)
- Effect size (primary analysis only):

- Only copy and paste their reported effect size
- Fill out necessary info for us to calculate the effect size later

# • Number of dependent variables (overall):

- Mediators are counted as DVs
- Number of significance tests (overall): count all, including main effects and interactions across all DVs
  - o Count *ns* (non-significant) as a *p*-value
  - Look out for statements like "all p's > .05"; count each p individually
  - Only count tests that contribute to hypotheses
    - If authors report correlation matrix for descriptive purposes, these tests would not be included in the number of significance tests
    - Manipulation checks should not be counted
    - Alternative explanations do count towards # of tests
  - Analyses in footnotes should not be included
  - Analyses that should be there but are not do not count. I.e. they report an interaction but do
    not mention anything about main effects. Do not count the phantom main effects.
  - Tip: Read through the results section and tally the amount:
    - Significance tests
    - significant significance tests
    - dv's
    - ...at the same time to be more efficient

#### Footnotes

- o footnotes only count if they refer to additional analyses
- o count appendices as footnotes if they refer to additional analyses for that particular study

## Supplemental materials

- Do not code supplemental materials, i.e. count them toward number of significance tests, dvs. etc.
- However do indicate there are supplemental materials if they include analyses

#### Comments:

- If they are missing lower order effects, mention it in the comments
  - E.g. they report an interaction between political orientation and gender but don't main effects for political orientation and gender.
- If the study makes corrections for multiple comparisons, make a comment about what corrections they made

## fMRI Studies

- Do code fMRI studies
- Do make a note in the comments if it is fMRI or similar.