# 30 Jul 2017 additional trial Analysis Plan (David Reinstein)

Trial title: Charitable giving trials linked to ESSExLab recruiting and omnibus: i. Crowding out (does one contribution/appeal come at the expense of another?) ii. Do people commit more before a win (conditionally on winning) or after a win? iii. Does the opportunity to donate boost reported happiness (and vice/versa)

### Giving and Probability

Our analysis will largely follow our earlier working paper (Kellner et al, 2016); see especially "Table 2: Donations/commitments by experiment: Before versus After". As noted above, we will also present controlled regressions.

We will test for differences in the level and incidence of contributions between:

- 1. (1/2 chance context, Before vs After): 'Before' Donation commitment when asked before learning if won vs. 'After' Donation made when asked after winning
- 2. (Before 1/2 chance context vs Before 1/10 chance context:) Before donation commitment in either case
- 3. (1/10 chance Before context vs 1/2 chance after): 'Before' Donation commitment when asked before learning if won vs. 'After' Donation made when asked after winning

For 1, we will estimate this separately for this experiment, as well as pooling with our previous field experiments, and with all our previous experiments (comparing 'before' and 'after win' treatments only).

We will run controlled regressions following the control strategies and functional form considerations outlined in our previous analysis plan. However, the Prolific data set permits a much richer potential set of control variables (esp questions asked in much earlier 'screener' surveys about charitable giving) which may allow us to reduce "noise" (random OVB from individual heterogeneity) subtantially more.

(As a secondary test, we will measure which of the above treatments had a greater impact on reported happiness.)

#### Differentiation of estimated effects (heterogeneity, interactions)

Additional to previous analysis plan: We are now asking the Happiness question both before and after the donation decision (in each case separated by a buffer of several other questions). We plan to differentiate the impact of the Before/After treatments by *initial* level of happiness, and consider a two sided test of this heterogeneity . The Before treatment may be more effective for those already in a good mood, but the After treatment could be more effective for those in a bad mood. E.g., "Winning may make people happy if they are not already happy, and this may make them donate. On the other hand if they are already happy the signaling and loss aversion effects may make the Before treatment more effective." The other direction of heterogeneity is also plausible: the impact of happiness on donation may be nonlinear and exhibit *increasing* differences.

As in previous analysis plan...

Because giving behavior has been found in many cases to differ by gender and by religious background, we will also bifurcate our estimates by these categories (gender, indicated religious affiliation vs. agnostic/atheist).

Some of our previous field evidence has found that male donations respond more positively to the 'Before' environment (relative to the after environment) than do females' donation. However, this result has not persisted strongly in all trials.

There is also a reasonable argument that religious people will respond more positively to the Before environment, believing that a positive donation will be divinely rewarded with a winning outcome. On the other hand, we might imagine religious people will donate in response to a win, to demonstrate their gratitude.

We will differentiate our estimates by stated risk-aversion; a 'Before' commitment increases the variance of the donation, while reducing the variance of the residual win.

We will conduct two-sided hypothesis tests in all cases.

#### Direction of hypothesized effects

As noted in our paper, there are several theoretical reasons to believe that people will be more generous (or at least commit to donate larger *conditional* amounts) in making commitments from uncertain income than when making commitments after a known win. Our previous evidence points in this direction. However, there are also theoretical justifications for the opposite effect. We will conduct two-sided hypothesis tests in all cases.

## **Happiness**

We will test whether:

• reporting greater happiness is correlated to subsequent donation incidence/amount (non-causal interpretation)