# Supplement

Miller & Ratner 1998 replications and extensions project

## Open Science Disclosures

### Data, Code, and Pre-registrations

<https://osf.io/57mdc/>

### Procedure and Data Disclosures

**Data Collection.** Data collection was completed before analysis.

**Conditions Reporting.** All collected conditions are reported.

**Data Exclusions.** All exclusions are reported.

**Variables Reporting.** All measurements are reported and included.

**Deviations from pre-registration**

1. The .qsf (Qualtrics questionnaire export) was accidentally blank in the original pre-registration for the Prolific sample, and the correct file was re-uploaded before the final submission.
2. Policy support was numerically coded *no* (0), *no opinion* (.5), and *yes* (1): this was not pre-registered. Another option would have been to excluded the no opinion responses. It was not specified in Miller and Ratner (1998) how "no opinion" was coded.
3. There are numerous analytic mistakes in the original pre-registrations, and much of the simulation and analysis code is not verifiable due to the reliance on manually entered numbers rather than functions with variables. In the final manuscript, the raw data was processed anew (see cleaning script) and all analyses were re-written. Because of this, the flow and content differ between the pre-registration and the final code. However, the fixity of the original hypotheses from the 1998 article ensured a tight set of research questions. All of the logic is consistent with the pre-registrations and all directional tests have the same direction and same basic method (most often *t*-tests).
4. An example of the issues with the original pre-registrations is that the original Results sections focused on self-other, paid-unpaid, and smoker-nonsmoker comparisons and tests. Some of this content was preserved in the current text and the Supplement, but none of these are the main theoretical point of the original article or its key hypotheses (H1A & H4B), which is the overestimation of self-interest. Quantifying overestimation was somehow absent from the previous write-ups, perhaps because of the analytic challenge of computing it. This required some complex work in the R tidyverse such as multiple gather/spreads.
5. The pre-registrations from the two samples were independent and so all combined tests are new to this manuscript (not pre-registered). The logic of each test is consistent with the hypotheses and research question, and care was taken to minimize additional tests to control for false positives. Because all of the key results are *p* < .0001 in each sample and also combined, the decision to combine the samples for certain analyses for simplicity and ease of reading did not alter the interpretation.
6. The MTurk and Prolific pre-registration supplements calculated power analyses based on estimated effect sizes for the original 1998 paper, but on closer examination, these calculations are not precise given that no variance was reported alongside the original means. Therefore, in the current manuscript no precise quantitative comparisons between original and replication effect sizes are given (LeBel et al., 2019).
7. The Prolific pre-registration supplement incorrectly reported on pp. 34 how many cases were missing for age. The correct answer is zero.
8. One participant was excluded for reporting an age of 11. This exclusion was not pre-registered; it was unexpected as the online panel participants were screened to be adults.

## Project Process Outline

The current replication is part of a mass pre-registered replication project by the last author with the aim of revisiting well-known research findings in the area of social psychology and judgment and decision making and examining the reproducibility and replicability of these findings.

The current replication followed the same project outline as noted below. For each of the replication projects, researchers completed full pre-registrations, data analysis, and APA-style submission-ready reports. Authors independently reproduced the materials and designed the replication experiment, with a separate pre-registration document. The researchers then peer-reviewed one another to try and arrive at the best possible design. Then, then lead and corresponding authors reviewed the integrated work and the last corresponding author made final adjustments and conducted the pre-registration and data collection.

The OSF page of the project contains two Qualtrics survey designs with pre-registration documents: one for each of the two teams. In the manuscript, we followed the most conservative of the pre-registrations.

**Figure S1**

*Flow Chart of JDM Replication-Extension Project*



## Methods and items

### Study 1

Participants completed both the Self and Estimation (other) conditions for both the Paid and Unpaid conditions. Vignette introduction (both samples): "The blood supply in the United States has reached record lows in the past month. The American Red Cross will be coming to the community for a blood drive in several weeks. They have asked us to get some sense of how many residents will be willing to donate blood and what factors might make volunteering more attractive."

**Table S1**

*Study 1 IV and DV Text by Replication Sample (Differences Are Superficial)*

|  |  |  |
| --- | --- | --- |
|  | *IV: Paid Condition* | *IV: Unpaid Condition* |
| MTurk | The Red Cross is now considering paying $15 to each individual who donates blood.  | The Red Cross is considering to collect donations in the typical way without providing any financial compensation.  |
| *DV: Willingness to Donate Blood* |
|  | Would you donate blood if the Red Cross were to pay $15? (yes/no).  | Would you donate blood if the Red Cross you were not to be paid? (yes/no).  |
|  | *DV: Estimating Others' Willingness to Donate Blood* |
|  | We would like you to try to estimate as accurately as you can what percentage of your peers would donate blood if the Red Cross were to pay $15. (Please answer in number from 0 - 100) | We would like you to try to estimate as accurately as you can what percentage of your peers would donate blood if they were not to be paid. (Please answer in number from 0 - 100) |
| Prolific | Red Cross was considering paying $15 to each donor who donates blood. | Red Cross were to collect donations in the typical way, you would not receive any financial compensation for their donations. |
|  |  *DV: Willingness to Donate Blood* |
|  | Would you donate blood if the Red Cross were to pay $15?  | Would you donate blood if you were not to be paid?  |
|  | *DV: Estimating Others' Willingness to Donate Blood* |
|  | Based on your estimation, what percentage of your peers would donate blood for $15? (Please answer from 0 - 100) | Based on your estimation, what percentage of your peers would donate blood if they were not to be paid? (Please answer from 0 - 100) |

### Study 4

Participants were randomized to either the Self or the Estimation (other) condition. Vignette introduction (both samples): *"*We are interested in how accurate people's estimates are of smokers' and nonsmokers' attitudes toward cigarette taxation and smoking restrictions. We are asking both smokers and nonsmokers to indicate whether they would support a number of proposals (e.g., "Would you support or oppose an increase in taxes on cigarettes?").

**Table S2**

*Study 4 IV and DV Text (Differences Are Superficial Other Than the MTurk Extension)*

|  |  |  |
| --- | --- | --- |
|  | IV: Self Condition | IV: Other (Estimation) Condition |
| MTurk | *DV: Actual Support* Please indicate your support for the smoking-related policies below. Do you think there should be restrictions on smoking in the following areas? | *DV: Estimated Support*We would like you to try to estimate as accurately as you can the percentage of smokers [nonsmokers] who indicate support for each of the following proposals. |
|  Extension | " | *DV: Estimated Support*We would like you to try to estimate as accurately as you can the percentage of light smokers (<10 cigarettes per day), moderate smokers (10-20 cigarettes per day), heavy smokers (>20 cigarettes per day), former smokers (not smoking currently, but having smoked for more than 6 months) and nonsmokers (never smoked for more than 6 months) who indicate support for each of the following proposals.  |
| Prolific | *DV: Actual Support* Would you support an increase in taxes on cigarettes, complete ban on cigarette advertisement or complete ban on cigarettes in public places? Do you think there should be restrictions on smoking in restaurants, workplaces, buses and trains, airplanes, or hotels and motels?  | *DV: Estimated Support*Based on your estimation, what's the percentage for smokers who would support the following policies? Based on your estimation, what's the percentage for nonsmokers who would support the following policies?  |

## Communal Orientation Scale (Prolific Sample)

Chen, Lee-Chai, & Bargh (2001)

1. It bothers me when other people neglect my needs.
2. When making a decision, I take other people's needs and feelings into account.
3. I'm not especially sensitive to other people's feelings.\*
4. I don't consider myself to be a particularly helpful person.\*
5. I believe people should go out of their way to be helpful.
6. I don't especially enjoy giving others aid.\*
7. I expect people I know to be responsive to my needs and feelings.
8. I often go out of my way to help another person.
9. I believe it's best not to get involved taking care of other people's personal needs.\*
10. I'm not the sort of person who often comes to the aid of others.\*
11. When I have a need, I turn to others I know for help.
12. When people get emotionally upset, I tend to avoid them.\*
13. People should keep their troubles to themselves.\*
14. When I have a need that others ignore, I'm hurt.

Respondents rate each item on a seven-point scale from 1 (*extremely uncharacteristic of me*) to 7 (*extremely characteristic of me*). Items with an asterisk are reverse-coded.

**Table S3**

*Paid vs. Unpaid Donation Willingness (Self) and Estimates (Others) in Study 1 Replications*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | *Sample* | *t* | *df* | *d* [95% CI] | Interpretation |
| Self | MTurk | 8.50 | 798 | 0.29 [0.22, 0.35] | Signal Same Direction |
|  | Prolific | 4.17 | 798 | 0.13 [0.07, 0.19] | Signal Same Direction |
| Others | MTurk | 24.25 | 798 | 0.67 [0.61, 0.73] | Signal Same Direction |
|  | Prolific | 23.66 | 798 | 0.64 [0.58, 0.70] | Signal Same Direction |

*Note*. All *p*s < .001. Paired-sample *t*-tests were conducted to contrast donation rates between Paid and Unpaid conditions. The interpretation is based on [(LeBel et al., 2019)](https://paperpile.com/c/PMgTGo/hrkP), and the size of the effects could not be precisely compared to the original due to missing information.

**Table S4**

*Smokers vs. Nonsmokers Policy Support (Self Ratings) in Study 4 Replications Using Paired-Samples* t*-Tests (MTurk* N *= 799, Prolific* N *= 799)*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  Policy | Sample | *t* | *p* | *d* [95% CI] |
| Increase cigarette taxation | MTurk | 7.40 | < .001 | 1.19 [0.86, 1.51] |
| Prolific | 9.45 | < .001 | 1.42 [1.15, 1.68] |
| Ban cigarette ads | MTurk | 1.53 |  .13 | 0.25 [-0.06, 0.55] |
| Prolific | 4.26 | < .001 | 0.68 [0.43, 0.93] |
| Ban smoking in public places | MTurk | 6.82 | < .001 | 1.13 [0.81, 1.46] |
| Prolific | 6.45 | < .001 | 0.93 [0.68, 1.18] |
| Restrict smoking in restaurants | MTurk | 3.12 |  .003 | 0.60 [0.29, 0.91] |
| Prolific | 3.10 | <.003 | 0.59 [0.34, 0.84] |
| Restrict smoking in workplaces | MTurk | 2.86 |  .005 | 0.53 [0.22, 0.84] |
| Prolific | 3.56 | < .001 | 0.65 [0.40, 0.90] |
| Restrict smoking on buses and trains | MTurk | 1.54 |  .13 | 0.28 [-0.03, 0.58] |
| Prolific | 2.63 | <.01 | 0.47 [0.23, 0.72] |
| Restrict smoking on airplanes | MTurk | 1.10 |  .28 | 0.19 [-0.11, 0.50] |
| Prolific | 2.62 |  .01 | 0.52 [0.28, 0.77] |
| Restrict smoking in hotels & motels | MTurk | 4.32 | < .001 | 0.81 [0.49, 1.12] |
| Prolific | 5.05 | < .001 | 0.94 [0.68, 1.19] |
| Total (*M*) | MTurk | 3.71 | < .001 | 0.43 [0.21, 0.65] |
| Prolific | 5.39 | < .001 | 0.55 [0.37, 0.73] |

**Table S5**

*Overestimation of Self-Interest by Policy in Study 4 (MTurk* df *= 205, Prolific* df *= 398)*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  Policy | Sample | *M* | *SD* | *t* | *d* [95% CI] | Interpretation |
| Increase cigarette taxation | MTurk | 43.4 | 30 | 20.5 | 1.43 [1.23, 1.62] | Signal Same Direction |
| Prolific | 44.1 | 28 | 31.0 | 1.55 [1.41, 1.70] | Signal Same Direction |
| Ban cigarette ads | MTurk | 15.3 | 32 | 6.95 | 0.49 [0.34, 0.63] | Signal Same Direction |
| Prolific | 12.9 | 31 | 8.41 | 0.42 [0.32, 0.52] | Signal Same Direction |
| Ban smoking in public places | MTurk | 36.0 | 32 | 16.1 | 1.12 [0.95, 1.30] | Signal Same Direction |
| Prolific | 36.5 | 29 | 24.8 | 1.24 [1.11, 1.37] | Signal Same Direction |
| Restrict smoking in restaurants | MTurk | 22.0 | 33 | 9.45 | 0.66 [0.51, 0.81] | Signal Same Direction |
| Prolific | 22.2 | 31 | 14.5 | 0.72 [0.61, 0.83] | Signal Same Direction |
| Restrict smoking in workplaces | MTurk | 20.7 | 31 | 9.72 | 0.68 [0.53, 0.83] | Signal Same Direction |
| Prolific | 26.0 | 30 | 17.2 | 0.86 [0.75, 0.98] | Signal Same Direction |
| Restrict smoking on buses and trains | MTurk | 16.5 | 33 | 7.22 | 0.50 [0.36, 0.65] | Signal Same Direction |
| Prolific | 20.7 | 31 | 13.5 | 0.68 [0.57, 0.79] | Signal Same Direction |
| Restrict smoking on airplanes | MTurk | 6.5 | 32 | 2.92 | 0.20 [0.07, 0.34] | Signal Same Direction |
| Prolific | 13.0 | 33 | 7.87 | 0.39 [0.29, 0.50] | Signal Same Direction |
| Restrict smoking in hotels & motels | MTurk | 30.9 | 30 | 14.8 | 1.03 [0.86, 1.20] | Signal Same Direction |
| Prolific |  27.4 | 29 | 18.6 | 0.93 [0.81, 1.05] | Signal Same Direction |

*Note*. One-sample *t*-tests. Interpretation was based on [(LeBel et al., 2019)](https://paperpile.com/c/PMgTGo/hrkP), and effect sizes could not be precisely compared with the original because of missing variance.