## **Supplementary Materials**

In Study 1a, we examined used three versions of the vignettes to investigate whether judgments of the individual would be affected by how contagiousness was conveyed. Based on Niemi, Leone, and Young (in press), we varied whether the target specifically (a) spread the disease, or (b) was affected completely, for a very long time.

- (a) The following sentences were added to the vignette provided in the main text:[COVID-19] Someone he socialized with on his trip also contracted the coronavirus [flu].[Flu] Someone he socialized with on his trip also contracted the seasonal flu.[Car accident] Another driver also sustained injuries in the accident.
- (b) [All conditions] Dan was still in the hospital, and completely unwell, several weeks later.

## **Pre-Registrations**

Studies were preregistered through AsPredicted.org, and are appended to this document.

## Data

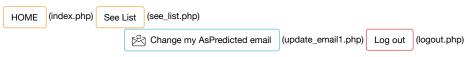
Data files are uploaded to the corresponding author's repository <a href="https://github.com/">https://github.com/</a>







You are logged in as: niemi@cornell.edu



## As Predicted: "COVID-19 and Contamination (Study 1 of 3)" (#39671)

Created: 04/22/2020 06:30 AM (PT)

#### Author(s)

Laura Niemi (Cornell University) - niemi@cornell.edu Kevin Kniffen (Cornell University) - kmk276@cornell.edu John Doris (Cornell University) - doris@cornell.edu

#### 1) Have any data been collected for this study already?

No. no data have been collected for this study vet.

### 2) What's the main question being asked or hypothesis being tested in this study? Main Hypotheses:

Because moral values protecting group-level well-being (binding values) entail concern about purity, they cause people to be less willing to help and more willing to morally judge an individual as responsible when they are affected by COVID-19, compared to non-disease damage. We expect to find this in contrast to moral values protecting individual-level well-being (individualizing values). We expect the effect of binding values on moral iudament of individuals with COVID-19 to be exacerbated when the person is explicitly described using framing that implies contagiousness or complete persistent damage (found in other work to exacerbate contamination judgments).

#### Research Questions:

- (a) Do binding values cause people to be less willing to help and more willing to morally judge an individual affected by COVID-19 as responsible, relative to individualizing values?
- (a) Do binding values cause people to be less willing to help and more willing to morally judge an individual affected by COVID-19 as responsible, compared to a person with the flu or car accident injuries?

## 3) Describe the key dependent variable(s) specifying how they will be measured.

The primed respondents will read about a person affected by COVID-19, seasonal flu or a car accident and will be asked Likert-scale (1-7) questions: "How responsible is Dan for the car accident?" "How willing would you be to assist Dan?" "How risky was the trip?" "How injured is Dan?" "How contaminated is Dan?"

## 4) How many and which conditions will participants be assigned to?

Participants will be randomly assigned between-subjects to one of 27 total conditions: 3 priming conditions (binding values, individualizing values, or neutral control); 3 damage conditions (COVID-19, seasonal flu, car accident), and three framing conditions (no contagiousness, contagiousness, total persistent damage).

## 5) Specify exactly which analyses you will conduct to examine the main question/hypothesis.

To test the main hypotheses, we will use general linear models to compare the variance in responses to the DVs described in Question 3 (responsibility, injury/contamination, willingness to help, riskiness) across the priming conditions (binding, individualizing, control) and framing conditions (no contagiousness, contagiousness, total persistent damage), described in Question 4.

## 6) Describe exactly how outliers will be defined and handled, and your precise rule(s) for excluding

Participants failing simple attention checks will be excluded from the analyses. Two attention check questions are embedded in the Moral Foundations Questionnaire (MFQ), and one will be presented at the end of the study.

### 7) How many observations will be collected or what will determine sample size? No need to justify decision, but be precise about exactly how the number will be determined.

We will recruit 60 participants per condition expecting approximately 10 exclusions, targeting 50 participants per condition. We will continue to recruit participants until at least 50 participants have completed each condition and passed the attention checks included in the instrument. The total number of participants to be recruited is 1620.

## 8) Anything else you would like to pre-register?

(e.g., secondary analyses, variables collected for exploratory purposes, unusual analyses planned?) Demographic information will be collected for reporting purposes. For exploratory purposes, we will measure baseline Moral Foundations using the 30-item MFQ (described in Graham et al., 2011). We will analyze the

contribution of people's moral values to their responses with the use of regression models or analyses of variance within sub-groups of participants.

## CONFIDENTIAL - FOR PEER-REVIEW ONLY



## COVID-19 and Contamination (Study 1 replication) (#40556)

**Created:** 05/06/2020 11:12 AM (PT) **Shared:** 08/07/2020 10:52 AM (PT)

This pre-registration is not yet public. This anonymized copy (without author names) was created by the author(s) to use during peer-review. A non-anonymized version (containing author names) will become publicly available only if an author makes it public. Until that happens the contents of this pre-registration are confidential.

## 1) Have any data been collected for this study already?

No, no data have been collected for this study yet.

## 2) What's the main question being asked or hypothesis being tested in this study?

In this study we test replication of the previous "COVID-19 and Contamination Study 1" from this project.

In line with our predictions, in "COVID-19 and Contamination Study 1", we found that priming binding values increased attribution of responsibility and perceptions of contamination to victims. However, the effect was weak and not specific to victim-type (COVID-19, flu, car accident) as we had hypothesized; also, we saw no effects of the prime on other variables of interest including willingness to help or perceived risk.

Here, we increase the sample size (from 60 per condition to 120) to test whether weak trends observed in Study 1 are reliable effects with more power.

## 3) Describe the key dependent variable(s) specifying how they will be measured.

Exactly as in "COVID-19 and Contamination Study 1", the primed respondents will read about a person affected by COVID-19, seasonal flu or a car accident and will be asked Likert-scale (1-7) questions: "How responsible is Dan for the car accident?" "How willing would you be to assist Dan?" "How risky was the trip?" "How injured is Dan?" "How contaminated is Dan?"

#### 4) How many and which conditions will participants be assigned to?

Participants will be randomly assigned between-subjects to one of 9 total conditions: 3 priming conditions (binding values, individualizing values, or neutral control); 3 damage conditions (COVID-19, seasonal flu, car accident).

We will not run the three framing conditions used in "COVID-19 and Contamination Study 1"; we will only use one type of vignette with no explicit contamination framing.

## 5) Specify exactly which analyses you will conduct to examine the main question/hypothesis.

As in "COVID-19 and Contamination Study 1", to test the main hypotheses, we will use general linear models to compare the variance in responses to the DVs described in Question 3 (responsibility, injury/contamination, willingness to help, riskiness) across the conditions described in Question 4.

## 6) Describe exactly how outliers will be defined and handled, and your precise rule(s) for excluding observations.

Again, participants who fail simple attention checks embedded in the Moral Foundations Questionnaire (MFQ), and presented at the end of the study, will be excluded.

## 7) How many observations will be collected or what will determine sample size? No need to justify decision, but be precise about exactly how the number will be determined.

We will increase our sample size per condition from 60 ("COVID-19 and Contamination Study 1") to 120 participants per condition expecting approximately 10-20 exclusions, targeting 100-110 participants per condition. We will continue to recruit participants until at least 100 participants have completed each condition and passed the attention checks included in the instrument. The total number of participants to be recruited is 1080.

## 8) Anything else you would like to pre-register? (e.g., secondary analyses, variables collected for exploratory purposes, unusual analyses planned?)

As in "COVID-19 and Contamination Study 1", demographic information will be collected for reporting purposes. For exploratory purposes, we will measure baseline Moral Foundations using the 30-item MFQ (described in Graham et al., 2011). We will analyze the contribution of people's moral values to their responses with the use of regression models or analyses of variance within sub-groups of participants. We will add a question at the end of the study allowing us to report the percentage of participants who can correctly remember a detail from the prime they saw.

## CONFIDENTIAL - FOR PEER-REVIEW ONLY



## COVID-19 and Contamination (Study 1 replication with new prime) (#40558)

Created: 05/06/2020 11:17 AM (PT) Shared: 08/07/2020 10:52 AM (PT)

This pre-registration is not yet public. This anonymized copy (without author names) was created by the author(s) to use during peer-review. A non-anonymized version (containing author names) will become publicly available only if an author makes it public. Until that happens the contents of this pre-registration are confidential.

## 1) Have any data been collected for this study already?

No, no data have been collected for this study yet.

## 2) What's the main question being asked or hypothesis being tested in this study?

In this study we are running "COVID-19 and Contamination Study 1 replication" again, with the same hypotheses. We swap out the prime for an alternative in order to test its appropriateness for our examination of the effects of moral values on attitudes in the context of COVID-19.

As in "COVID-19 and Contamination Study 1 replication", we increase the sample size from "COVID-19 and Contamination Study 1" from 60 per condition to 120 to test whether weak trends observed in "COVID-19 and Contamination Study 1" are reliable effects with more power.

#### 3) Describe the key dependent variable(s) specifying how they will be measured.

Exactly as in "COVID-19 and Contamination Study 1 replication", the primed respondents will read about a person affected by COVID-19, seasonal flu or a car accident and will be asked Likert-scale (1-7) questions: "How responsible is Dan for the car accident?" "How willing would you be to assist Dan?" "How risky was the trip?" "How injured is Dan?" "How contaminated is Dan?"

## 4) How many and which conditions will participants be assigned to?

As in "COVID-19 and Contamination Study 1 replication", participants will be randomly assigned between-subjects to one of 9 total conditions: 3 priming conditions (binding values, individualizing values, or neutral control); 3 damage conditions (COVID-19, seasonal flu, car accident).

#### 5) Specify exactly which analyses you will conduct to examine the main question/hypothesis.

As in "COVID-19 and Contamination Study 1 replication", to test the main hypotheses, we will use general linear models to compare the variance in responses to the DVs described in Question 3 (responsibility, injury/contamination, willingness to help, riskiness) across the conditions described in Question 4.

## 6) Describe exactly how outliers will be defined and handled, and your precise rule(s) for excluding observations.

Again, participants who fail simple attention checks embedded in the Moral Foundations Questionnaire (MFQ), and presented at the end of the study, will be excluded.

# 7) How many observations will be collected or what will determine sample size? No need to justify decision, but be precise about exactly how the number will be determined.

As in "COVID-19 and Contamination Study 1 replication", we will increase our sample size per condition from 60 (Study 1) to 120 participants per condition expecting approximately 10-20 exclusions, targeting 100-110 participants per condition. We will continue to recruit participants until at least 100 participants have completed each condition and passed the attention checks included in the instrument. The total number of participants to be recruited is 1080.

## 8) Anything else you would like to pre-register? (e.g., secondary analyses, variables collected for exploratory purposes, unusual analyses planned?)

As in "COVID-19 and Contamination Study 1 replication", demographic information will be collected for reporting purposes. For exploratory purposes, we will measure baseline Moral Foundations using the 30-item MFQ (described in Graham et al., 2011). We will analyze the contribution of people's moral values to their responses with the use of regression models or analyses of variance within sub-groups of participants.

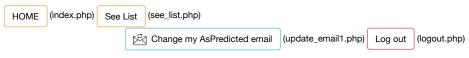








You are logged in as: niemi@cornell.edu



## As Predicted: "COVID-19 and Willingness to Help" (#39672)

Created: 04/22/2020 06:33 AM (PT)

## Author(s)

Laura Niemi (Cornell University) - niemi@cornell.edu Kevin Kniffen (Cornell University) - kmk276@cornell.edu John Doris (Cornell University) - doris@cornell.edu

#### 1) Have any data been collected for this study already?

No, no data have been collected for this study yet.

## 2) What's the main question being asked or hypothesis being tested in this study?

Main Hypothesis:

Because moral values protecting group-level well-being (binding values) entail concern about purity, they cause people to be less willing to volunteer or donate to residents in a large community affected by infectious disease, particularly COVID-19 - currently the most uncontrolled infectious disease threat. We expect to find this in contrast to moral values protecting individual-level well-being (individualizing values), despite the putative function of binding values to protect groups.

- (a) Do binding values cause people to be less willing to volunteer or donate to residents in a large community affected by COVID-19, relative to individualizing values)
- (b) Do binding values cause people to be less willing to volunteer or donate to residents in a large community affected by another infectious disease (HIV/AIDS), relative to individualizing values?
- (b) Do binding values cause people to be less willing to volunteer or donate to resident in a large community affected by a non-disease threat, severe storms, relative to individualizing values?

## 3) Describe the key dependent variable(s) specifying how they will be measured.

The primed respondents will read about communities hit hard by COVID-19, HIV/AIDS, or severe storms, and will be asked Likert-scale (1-7) questions: "How likely would you be to volunteer at [soup kitchen, homeless shelter, medical facilities]?" "How likely would you be to donate to [soup kitchen, homeless shelter, medical facilities]?" "How risky to your health do you think volunteering would be?"

### 4) How many and which conditions will participants be assigned to?

Participants will be randomly assigned between-subjects to one of 9 total conditions; 3 priming conditions (binding values, individualizing values, or neutral control) and 3 threat conditions (COVID-19, HIV/AIDS, or severe storms).

## 5) Specify exactly which analyses you will conduct to examine the main question/hypothesis.

To test the main hypothesis, we will use general linear models to compare the variance in responses to the DVs described in Question 3 (volunteering, donation, riskiness) across the priming conditions (binding, individualizing, control) and threat conditions (COVID-19, HIV/AIDS, severe storms), described in Question 4.

#### 6) Describe exactly how outliers will be defined and handled, and your precise rule(s) for excluding observations.

Participants failing simple attention checks will be excluded from the analyses. Two attention check questions are embedded in the Moral Foundations Questionnaire (MFQ), and one will be presented at the end of the study.

#### 7) How many observations will be collected or what will determine sample size? No need to justify decision, but be precise about exactly how the number will be determined.

We will recruit 60 participants per condition expecting approximately 10 exclusions, targeting 50 participants per condition. We will continue to recruit participants until at least 50 participants have completed each condition and passed the attention checks included in the instrument. The total number of participants to be recruited is 540.

## 8) Anything else you would like to pre-register?

(e.g., secondary analyses, variables collected for exploratory purposes, unusual analyses planned?)

Demographic information will be collected for reporting purposes. For exploratory purposes, we will measure baseline Moral Foundations using the 30-item MFQ (described in Graham et al., 2011). We will analyze the contribution of people's moral values to their responses with the use of regression models or analyses of variance within sub-groups of participants.