### APPENDIX TO “MILITARY ALLIANCES AND PUBLIC SUPPORT FOR WAR”

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I. **YOUGov Survey: Questions and Sampling**

**Randomized Treatments**

We randomized five features of the scenario.

**Alliance:**
- *alliance:* Does not have a military alliance with the U.S.
  - *alliance_text:* blank –OR–
- *alliance:* Has a written military alliance agreement with the U.S.
  - *alliance_text:* As noted, the country that was attacked has a written military alliance with the U.S. The agreement, which was signed and ratified three years ago, says: “If one member of the alliance is attacked, the other member will take all necessary actions, including the use of armed force, to defend its ally.”

**Stakes:**
- If the attacker succeeds in taking part of the other country, this would weaken U.S. military security and hurt the U.S. economy. –OR–
- If the attacker succeeds in taking part of the other country, this would neither weaken U.S. military security nor hurt the U.S. economy.

**Costs:**
- The U.S. military could stop the invasion, but the military operation would be very costly to the United States. –OR–
- The U.S. military could stop the invasion, and the military operation would not be very costly to the United States.

**Regime:** Democracy –OR– Not a democracy

**Region:** Africa –OR– Asia –OR– Eastern Europe –OR– South America

**Text of the Experiment**

There’s a lot of talk these days about U.S. relations with other countries in the world. We’d like to get your thoughts about a situation our country could face in the future. The situation is general, and is not about a specific country in the news today. Some parts of the description may seem important to you; other parts may seem unimportant. After describing the situation, we will ask your opinion about a policy option.

—new page—
The leader of a country in [region] wanted more power and resources, so he sent his military to attack another country in [region] and take part of that country's territory. Here are some facts about the two countries.

<table>
<thead>
<tr>
<th></th>
<th>The country that attacked</th>
<th>The country that was attacked</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of government</td>
<td>Not a democracy</td>
<td>[regime]</td>
</tr>
<tr>
<td>Shared interests?</td>
<td>Does not share many interests with the U.S.</td>
<td>Shares many interests with the U.S.</td>
</tr>
<tr>
<td>Alliance with the U.S.?</td>
<td>Does not have a military alliance with the U.S.</td>
<td>[alliance]</td>
</tr>
</tbody>
</table>

❑ Click here after you have read this page carefully.

—new page—

[alliance_text] [stakes]

[costs]

❑ Click here after you have read this page carefully.

—new page—

Just to review...

The leader of a country in [region] wanted more power and resources, so he sent his military to attack another country in [region] and take part of that country's territory. Here are some additional facts about the countries.

<table>
<thead>
<tr>
<th></th>
<th>The country that attacked</th>
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<td>Alliance with the U.S.?</td>
<td>Does not have a military alliance with the U.S.</td>
<td>[alliance]</td>
</tr>
</tbody>
</table>

[alliance_text] [stakes]

[costs]
Do you favor or oppose sending the U.S. military to stop the invasion?

- Favor strongly
- Favor somewhat
- Neither favor nor oppose
- Oppose somewhat
- Oppose strongly

—new page—

Here is the situation again, for your reference.

The leader of a country in [region] wanted more power and resources, so he sent his military to attack another country in [region] and take part of that country's territory. Here are some additional facts.

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<th>The country that was attacked</th>
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<tr>
<td>Alliance with the U.S.?</td>
<td>Does not have a military alliance with the U.S.</td>
<td>[alliance]</td>
</tr>
</tbody>
</table>

[alliance_text] [stakes]

[costs]

We would like your opinions about what might happen if the U.S. does not send its military to stop the invasion. Please tell us how much you agree or disagree with the following statements.

If the U.S. does not send its military, other countries will doubt America's willingness to honor military alliance agreements in the future.

- Agree strongly
- Agree somewhat
- Neither agree nor disagree
- Disagree somewhat
- Disagree strongly

—new page—
Here is the situation again, for your reference.

The leader of a country in [region] wanted more power and resources, so he sent his military to attack another country in [region] and take part of that country’s territory. Here are some additional facts.

<table>
<thead>
<tr>
<th></th>
<th>The country that attacked</th>
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<tr>
<td>Alliance with the U.S.?</td>
<td>Does not have a military alliance with the U.S.</td>
<td>[alliance]</td>
</tr>
</tbody>
</table>

Please tell us how much you agree or disagree with the following statements.

If the U.S. does not send its military, other countries will doubt America's willingness to honor non-military agreements in areas such as trade or the environment.

- Agree strongly
- Agree somewhat
- Neither agree nor disagree
- Disagree somewhat
- Disagree strongly

Here is the situation one last time, for your reference.

The leader of a country in [region] wanted more power and resources, so he sent his military to attack another country in [region] and take part of that country’s territory. Here are some additional facts.

<table>
<thead>
<tr>
<th></th>
<th>The country that attacked</th>
<th>The country that was attacked</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of government</td>
<td>Not a democracy</td>
<td>[regime]</td>
</tr>
<tr>
<td>Shared interests?</td>
<td>Does not share many interests with the U.S.</td>
<td>Shares many interests with the U.S.</td>
</tr>
<tr>
<td>Alliance with the U.S.?</td>
<td>Does not have a military alliance with the U.S.</td>
<td>[alliance]</td>
</tr>
</tbody>
</table>
Please tell us how much you agree or disagree with the following statements.

The U.S. has a moral obligation to send its military to defend the country that was attacked.
- Agree strongly
- Agree somewhat
- Neither agree nor disagree
- Disagree somewhat
- Disagree strongly

Which of the following statements best describes the situation we presented?

The situation took place in …
- Africa
- Asia
- Eastern Europe
- South America

The country that was attacked was …
- A democracy
- Not a democracy

The country that was attacked …
- Did not have a military alliance with the U.S
- Had a written military alliance with the U.S.

We said that, if the attacker succeeds in taking part of the other country …
- this would weaken U.S. military security and hurt the U.S. economy.
- this would neither weaken U.S. military security nor hurt the U.S. economy.

We said that the U.S. military could stop the invasion …
- but the military operation would be very costly to the United States.
- and the military operation would not be very costly to the United States.
**ATTITUDINAL CONTROLS**

To measure militarism, we coded responses to the following item to go from 0 to 1, such that larger values represented more militaristic attitudes.

Please tell us how much you agree or disagree with this statement: “The use of military force only makes problems worse.”
- Agree strongly
- Agree somewhat
- Neither agree nor disagree
- Disagree somewhat
- Disagree strongly

To measure internationalism, we coded responses to the following item to go from 0 to 1, such that higher values indicated higher support for a U.S. role abroad.

Please tell us how much you agree or disagree with this statement: “The United States needs to play an active role in solving conflicts around the world.”
- Agree strongly
- Agree somewhat
- Neither agree nor disagree
- Disagree somewhat
- Disagree strongly

To measure nationalism, we coded answers to each of the following two questions from 0 to 1, such that larger values indicated greater nationalist sentiment. We then created an index by averaging the two items.

Please tell us how much you agree or disagree with these statements:
“In the United States, our people are not perfect, but our culture is superior to others.”
- Agree strongly
- Agree somewhat
- Neither agree nor disagree
- Disagree somewhat
- Disagree strongly

“I would rather be a citizen of America than of any other country in the world.”
- Agree strongly
- Agree somewhat
- Neither agree nor disagree
- Disagree somewhat
- Disagree strongly
To measure affinity for the Republican Party, we used branched questions to produce a scale with seven levels, from 0 (Strong Democrat) to 7 (Strong Republican).

Generally speaking, do you think of yourself as a….?

- Democrat
- Republican
- Independent
- Other (open textbox)
- Not sure

If Democrat: Would you call yourself a strong Democrat or a not very strong Democrat?

- Strong Democrat
- Not very strong Democrat

If Republican: Would you call yourself a strong Republican or a not very strong Republican?

- Strong Republican
- Not very strong Republican

If Independent or Other: Do you think of yourself as closer to the Democratic or the Republican Party?

- The Democratic Party
- The Republican Party
- Neither
- Not sure

**DEMOGRAPHIC CONTROLS**

We used the following question to generate a dummy variable for whether the subject was male.

Are you male or female?

- Male
- Female

We used the following question to generate a dummy variable for whether the subject was white.

What racial or ethnic group best describes you?

- White
- Black or African-American
- Hispanic or Latino
- Asian or Asian-American
- Native American
- Middle Eastern
- Mixed Race
- Other [Type in race]
We used the following question to compute the respondent’s age in years, and then (to facilitate presentation) rescaled the data to represent age in centuries.

In what year were you born?

We used the following question to measure education, which we coded such that 0 = High school or less; .33 = Some college; .67 = Four-year college degree; 1 = Post-graduate degree.

What is the highest level of school you have completed?
- Did not graduate from high school
- High school graduate
- Some college, but no degree (yet)
- 2-year college degree
- 4-year college degree
- Postgraduate degree (MA, MBA, MD, JD, PhD, etc.)

**POLITICAL INTEREST**

To measure political interest, we coded answers to the following question from 1 to 4, such that larger values indicated greater interest in politics. Respondents were classified as having a high level of political interest if they answered that they followed government and public affairs “most of the time.”

Some people seem to follow what's going on in government and public affairs most of the time, whether there's an election going on or not. Others aren't that interested. Would you say you follow what's going on in government and public affairs...?
- Most of the time
- Some of the time
- Only now and then
- Hardly at all
- Don't know
YOUGov Sampling

The field period for the YouGov survey was April 7–29, 2017. YouGov interviewed 1,388 respondents who were then matched down to a sample of 1,200 to produce the final dataset. The respondents were matched to a sampling frame on gender, age, race, education, party identification, ideology, and political interest. The frame was constructed by stratified sampling from the full 2010 American Community Survey (ACS) sample with selection within strata by weighted sampling with replacements (using the person weights on the public use file). Data on voter registration status and turnout were matched to this frame using the November 2010 Current Population Survey. Data on interest in politics and party identification were then matched to this frame from the 2007 Pew Religious Life Survey. The matched cases were weighted to the sampling frame using propensity scores. The matched cases and the frame were combined and a logistic regression was estimated for inclusion in the frame. The propensity score function included age, gender, race/ethnicity, years of education, and ideology. The propensity scores were grouped into deciles of the estimated propensity score in the frame and post-stratified according to these deciles.

II. YOUGov Survey: Additional Analyses

Figure 1: Effect of Alliances (As in the Article)

Figure 2: Effect of Alliances, Weighted

*Note:* Observations were weighted using sampling weights provided by YouGov.
Figure 3: Effect of Alliances on a Five-Point Scale

Note: Respondents were asked: “Do you favor or oppose sending the U.S. military to stop the invasion?” For this figure, the dependent variable was 0 if oppose strongly, 1 if oppose somewhat, 2 if neither favor nor oppose, 3 if favor somewhat, and 4 if favor strongly.

Figure 4: Effect of Alliances on a Five-Point Scale, Weighted

Note: Same as Figure 3, but observations were weighted using sampling weights provided by YouGov.

Figure 5: Effect of Alliances, By Region

Note: Sample sizes were 335 for Africa, 302 for Asia, 273 for Eastern Europe, and 290 for South America.
Figure 6: Effect of Alliances on People with High Political Interest

Note: This figure pertains to the 624 respondents who said they follow what’s going on in government and public affairs most of the time.

Figure 7: Effect of Alliances on People with Low Political Interest

Note: This figure pertains to the 567 respondents who did not say that they followed what’s going on in government and public affairs most of the time.
Figure 8: Effect of Alliances on Democrats

Note: Pertains to 475 respondents who identified with the Democratic Party.

Figure 9: Effect of Alliances on Independents

Note: Pertains to 430 who did not identify as Democrat or Republican.

Figure 10: Effect of Alliances on Republicans

Note: Pertains to 295 respondents who identified with the Republican Party.
In the paper, we estimated the strength of each causal pathway by computing the product of regression coefficients (Baron and Kenny 1986). First, we estimated the effects of alliances on each of the mediators, as shown in the paper.

Next, moving down the causal chain, we regressed support for war on the three mediators, each rescaled from 0 to 1 for ease of interpretation. The regression controlled for all interactions of the randomized treatments, as well as socio-political attitudes and demographic variables that could confound the relationship between the mediators and the outcome. Figure 11, below, shows the estimated effect of moving each mediator from its minimum to maximum value, holding other variables constant.

**Figure 11: Effects of Mediators on Support for War**

![Graph showing effects of mediators on support for war](image)

*Note: Estimated effect of moving each mediator from its minimum to maximum value, holding other variables constant.*

Other factors equal, willingness to intervene was 49 percentage points higher among people who strongly agreed that inaction would undermine America’s reputation for honoring military alliances (reputation for military reliability = 1) than among people who strongly disagreed that staying out would cause this kind of reputational damage (reputation for military reliability = 0). In contrast, support for war was only 8 percentage points higher (a statistically insignificant estimate) among respondents who anticipated that inaction would cause reputational spillovers than among people who doubted the possibility of reputational spillovers. Finally, independent of any reputational concerns, citizens who perceived a moral obligation gave 38 points more support for war than citizens who denied any moral obligation.

Finally, we combined the two sets of estimates—the effect of alliances on the mediators, and the effects of the mediators on support for war—to assess the importance of each causal mechanism. As the paper shows, alliances affected support for war primarily by triggering concerns about the country’s reputation about military reliability and the country’s moral obligation to intervene.
Causal Mediation via Product of Coefficients

Although the product of coefficients method is easy to understand and useful for models with multiple mediators, other methods have been gaining traction in political science, including work by Imai, Keele, Tingley, and Yamamoto (2011) that situates causal mediation within a potential-outcomes framework. To assess the robustness of our findings, we adapted the Imai et al. approach to our unique experimental design: a model with three mediators.

When all the models are linear, the potential outcomes approach should produce the same conclusions as the simpler product-of-coefficients method. When some models are nonlinear, however, the estimates could diverge. To assess the robustness of our findings, we first applied the potential outcomes framework in a purely linear setting, and then applied it to a nonlinear setting that used probit regression to analyze the dichotomous dependent variable.

As expected, the two approaches agreed when all models were linear (Figure 12), but differed slightly when we used a nonlinear probit regression (Figure 13). In the latter case, the estimated importance of the military reputation pathway decreased from 57 to 49 percent of the total effect, and the importance of the moral obligation pathway fell from 31 to 29 percent of the total effect. In general, though, our substantive conclusions remained the same.

Figure 12: Causal Mechanisms via Potential Outcomes (Linear Model)

Note: Estimated by adapting the methods in Imai, Keele, Tingley, and Yamamoto (2011) to accommodate an experimental design with three mediators. For this figure, all models were linear.

Figure 13: Causal Mechanisms via Potential Outcomes (Probit Model)

Note: Estimated by adapting the methods in Imai, Keele, Tingley, and Yamamoto (2011) to accommodate an experimental design with three mediators. For this figure, probit regression was used to model support for war.
III. **LUCID SURVEY: QUESTIONS AND SAMPLING**

*Questions:* In addition to answering the same questions as in the YouGov study, respondents answered six questions about moral foundations. The answer options for each question were “Agree strongly” “Agree somewhat” “Neither agree nor disagree” “Disagree somewhat” and “Disagree strongly.”

CARE: If the U.S. does not send its military, the country that was invaded would suffer serious harm to its safety and security.

FAIRNESS: If the U.S. does not send its military, this would be unfair to the country that was invaded.

LOYALTY: If the U.S. does not send its military, this would be disloyal to the country that was invaded.

AUTHORITY: If the U.S. does not send its military, this would show disobedience to higher authorities.

LIBERTY: If the U.S. does not send its military, this would be a threat to the liberty of people in the invaded country.

SANCTITY: If the U.S. does not send its military, this would increase the spread of germs and diseases.

*Sampling:* The Lucid survey was fielded in December 2017 and June 2018. Lucid used quota sampling to ensure that the sample was diverse with respect to gender, age, ethnicity, and geographic region. Our final sample had 2,703 respondents.
IV. LUCID SURVEY: ADDITIONAL ANALYSES

Figure 14: Effect of Alliances on Support for War

![Graph showing the effect of alliances on support for war.](image)

Figure 15: Effect of Alliances on Support for War (Five-Point Scale)

![Graph showing the effect of alliances on support for war with a five-point scale.](image)

*Note:* Respondents were asked: “Do you favor or oppose sending the U.S. military to stop the invasion?” For this figure, the dependent variable was 0 if oppose strongly, 1 if oppose somewhat, 2 if neither favor nor oppose, 3 if favor somewhat, and 4 if favor strongly.
Figure 16: Effect of Alliances, by Region

Figure 17: Effects of All Treatments on Support for War
Figure 18: Support for War With and Without Alliances, by Context

Figure 19: Effect of Alliances, by Context
Figure 20: Effects of Alliances on Mediators

Reputation for Military Reliability
Reputation for Nonmilitary Reliability
Moral Obligation

Figure 21: Effects of Mediators on Support for War

Reputation for Military Reliability
Reputation for Nonmilitary Reliability
Moral Obligation

Figure 22: Estimates of Causal Mechanisms

Reputation for Military Reliability
Reputation for Nonmilitary Reliability
Moral Obligation
Other Pathways
Figure 23: Causal Mechanisms via Potential Outcomes (Linear Model)

![Diagram showing causal mechanisms via potential outcomes in a linear model.]

*Note:* Estimated by adapting the methods in Imai, Keele, Tingley, and Yamamoto (2011) to accommodate an experimental design with three mediators. For this figure, all models were linear.

Figure 24: Causal Mechanisms via Potential Outcomes (Probit Model)

![Diagram showing causal mechanisms via potential outcomes in a probit model.]

*Note:* Estimated by adapting the methods in Imai, Keele, Tingley, and Yamamoto (2011) to accommodate an experimental design with three mediators. For this figure, probit regression was used to model support for war.
Causal Mediation Analysis of the Effects of Alliances on Moral Obligation

We first estimated the effect of military alliances on each moral foundation (as shown in the paper). Next, we estimated the effects of moral foundations on moral obligations (Figure 25, below). Finally, we combined the estimates using the product of coefficients method (Figure 26, below and in the paper) and using the potential outcomes framework (Figure 27, below).

**Figure 25: Effects of Moral Foundations on Moral Obligation**

![Graph showing the effects of moral foundations on moral obligation](image)

*Note:* This figure shows how the six moral foundations affected overall beliefs about a moral obligation to intervene. To produce this figure, we regressed the respondent’s sense of obligation (defined as agreement with the statement that the “U.S. has a moral obligation to defend the country that was attacked”) on all six measures of moral foundations, controlling for attitudinal and demographic variables and all interactions of the randomized treatments. The figure gives the estimated effect of moving each moral foundation from its minimum to maximum value, holding other variables constant. Other factors equal, moral obligation was 33 points higher among people who strongly agreed that nonintervention 26 was unfair, than among people who felt the opposite. Similarly, perceptions of moral duty were 25 percentage points higher among those who strongly agreed that staying out would be disloyal, than among people who disagreed with that view. Three other moral foundations—authority, care, and liberty—had smaller but still positive effects, while sanctity did not drive thinking about the morality of military intervention.
Figure 26: Estimates of Causal Mechanisms for Moral Obligation (As in the Article)

Note: Estimated by adapting the methods in Imai, Keele, Tingley, and Yamamoto (2011) to accommodate an experimental design with three mediators. For this figure, the dependent variable (moral obligation) was scaled from 0 to 100 and all models were linear.

Figure 27: Estimates of Causal Mechanisms for Moral Obligation (Potential Outcomes)