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# We Spend How Much? Misperceptions, Innumeracy, and Support for the Foreign Aid in the United States and Great Britain 

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DOI:
10.1017/XPS.2017.6

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## Document Version

Peer reviewed version
Citation for published version (Harvard):
Scotto, TJ, Reifler, J, Hudson, D \& Vanheerde-Hudson, J 2017, 'We Spend How Much? Misperceptions, Innumeracy, and Support for the Foreign Aid in the United States and Great Britain', Journal of Experimental Political Science, vol. 4, no. 2, pp. 119-128. https://doi.org/10.1017/XPS.2017.6

Link to publication on Research at Birmingham portal

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Misperceptions, Innumeracy, and Support for the Foreign Aid in the United States and Great Britain. Journal of Experimental Political Science, 1-10. doi:10.1017/XPS.2017.6

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# We Spend How Much? <br> Misperceptions, Innumeracy, and Support for the Foreign Aid in the United States and Great Britain 

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June 12, 2017


#### Abstract

Majorities of citizens in high-income countries often oppose foreign aid spending. One popular explanation is that the public overestimates the percentage and amount of taxpayer funds that goes towards overseas aid. Can the framing of aid overcome this innumeracy? We report the results of an experiment examining differences in support for aid spending as a function of the information American and British respondents receive about foreign aid spending. In both nations, providing respondents with information about foreign aid spending as a percentage of the national budget significantly reduces support for cuts. The findings suggest that support for aid can be increased, but significant opposition to aid spending remains.


## 1 Introduction

NGOs and governments recognize that durable domestic support is a necessary linchpin of a sustainable national foreign aid programme (Stern 1998; International Development Committee 2009). Polls consistently show citizen support for increasing their nation's foreign aid outlays is low, but more systematic research finds that the answers people provide is susceptible to question framing and wording (Hudson and vanHeerde-Hudson 2013). The ways in which aid recipients are portrayed also affects the public's generosity and can stimulate paternalism (Baker 2015). A further reason citizens may be reluctant to increase aid spending is that they over-estimate the percentage of the budget allocated to foreign aid (Gilens 2001). For example, both Americans and British believe foreign aid constitutes a large portion of the budget, $28 \%$ (Klein 2013) and $18 \%$ (vanHeerde-Hudson 2014) respectively.

The impact of citizens' misperceptions of aid spending may be compounded by innumeracy - the inability to process and deal with quantitative information (Peters 2006). This problem is not unique to foreign aid. A recent survey by Ipsos MORI (2015) shows the British public overestimate the percentage of wealth owned by the top $1 \%$ at $59 \%$ (actual $23 \%$ ); underestimate the percentage of obese adults at $44 \%$ (actual $62 \%$ ); and overestimate the percentage of the population that are immigrants at $25 \%$ (actual $13 \%$ ). Innumeracy, or what Gigerenzer (2008) terms "collective statistical illiteracy", includes the inability to understand risk, probabilities, or estimate the size of sub-groups in society (e.g. African Americans, Jews, immigrants) (Citrin and Sides 2008; Alba et al. 2005). In addition, Kahan et al. (2013) show that innumeracy can itself be a function of directionally motivated reasoning.

Previous research has demonstrated the consequences of misperceptions (Gilens 2001; Kuklinski et al. 2000) and difficulties in correcting them (Nyhan and Reiffer 2010). We extend recent work on the consequences of political innumeracy (Mérola and Hitt 2015; Lawrence and Sides 2014) using a framing experiment where we directly test the notion that large numbers that lie outside people's everyday experience (millions and billions), adversely affect support for foreign aid. More specifically we examine the effect of presenting the foreign aid budget in absolute amounts versus as a percent of the budget or both (see Figure 1). Our results show that presenting aid spending as a percent of the national budget reduces demand to cut aid spending.

We examine the US and the UK because they are the largest donors in the world, committing US $\$ 33.1 \mathrm{bn}$ and US $\$ 19.3 \mathrm{bn}$ respectively in official development assistance (OECD 2016). The UK has doubled the proportion of national income it spends on foreign aid to become only the seventh country to meet the long-standing UN target of spending $0.7 \%$ of GNI on aid (Pearson 1969). The US is one of the least generous donors, sitting between

Figure 1: Experimental Design: Factorial Presentation of Budget Numbers

|  |  | Money |  |
| :---: | :---: | :---: | :---: |
|  | No | Yes |  |
| No | Baseline <br> Condition <br> (BC) | Money <br> Only <br> (MO) |  |
| Yes | Percent <br> Only <br> (PO) | Money and <br> Percent <br> (M\&P) |  |

Estonia and Spain, spending just $0.19 \%$ of GNI.

## 2 Data, Survey, and Experimental Design

In February 2013, a matched quota sample of 1,010 British and 1,990 US respondents received a YouGov online survey designed to measure individual attitudes on a host of foreign and domestic policy issues. Respondents were randomly to one of four treatment conditions:

- Baseline Condition (BC): Thinking about the amount of money the British (US) government spends on overseas aid, do you think the amount is too little, too much, or about right?
- Money Only (MO): Thinking about the 10.4 billion pounds (38 billion dollars) the British (US) government spends on overseas aid, do you think this amount is too little, too much, or about right?
- Percent Only (PO): Thinking about the $0.7 \%$ (1\%) of the budget the British (US) government spends on overseas aid, do you think this amount is too little, too much, or about right?
- Money and Percent (M\&P): Thinking about the 10.4 billion pounds (38 billion dollars)-or $0.7 \%$ (1\%) of the budget-the British (US) government spends on overseas aid, do you think this amount is too little, too much, or about right?

Subjects receive the experiment in the closing portion of the survey ${ }^{1}$ Prior to exposure to treatment, respondents were asked about: their par-

[^0]Table 1: Preferences for Foreign Aid Spending by TreatmentUnited States

|  | Baseline <br> Condition | Money <br> Only | Percent <br> Only |  <br> Percent | Sample |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Too Little | $7.8 \%$ | $4.1 \%$ | $12.3 \%$ | $6.9 \%$ | $\mathbf{7 . 8 \%}$ |
| About Right | 15.8 | 14.7 | 29.2 | 22.9 | $\mathbf{2 0 . 8}$ |
| Too Much | 63.6 | 63.0 | 43.4 | 55.8 | $\mathbf{5 6 . 4}$ |
| Don't Know | 12.8 | 18.2 | 15.0 | 14.4 | $\mathbf{1 5 . 0}$ |

Notes: $N=1990 ; \chi^{2}=81.60, d f=9 ; p<0.001$
Table 2: Preferences for Foreign Aid Spending by TreatmentBritain

|  | Baseline <br> Condition | Money <br> Only | Percent <br> Only |  <br> Percent | Sample |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Too Little | $8.1 \%$ | $7.1 \%$ | $11.2 \%$ | $9.1 \%$ | $\mathbf{8 . 9 \%}$ |
| About Right | 19.7 | 14.6 | 24.0 | 20.5 | $\mathbf{1 9 . 8}$ |
| Too Much | 62.5 | 69.5 | 50.4 | 60.2 | $\mathbf{6 0 . 5}$ |
| Don't Know | 9.7 | 8.8 | 14.3 | 10.2 | $\mathbf{1 0 . 8}$ |

Notes: $N=1010 ; \chi^{2}=20.23, d f=9 ; p<0.05$
tisan identification; their position on an 11-point left-right ideology scale; retrospective and prospective economic evaluations; the instrumental value of foreign aid; and whether government should do more to promote income equality. In addition to these pre-treatment attitudinal variables, our models include basic demographics - the respondents' age, gender, and religious status-as controls in the multivariate analyses below ${ }^{2}$

## 3 Experimental Results

As seen in Table 1 and Table 2, there is majority belief that government spends too much on foreign aid (except the "Percent Only" (PO) condition in the US, where merely a plurality believes this). However, response distributions differ significantly across treatment conditions. The most dramatic difference occurs for the PO treatment compared to the "Baseline Condition" (BC) -those saying "too much" is spent on aid falls from $63.6 \%$ to $43.4 \%$ in the US and from $62.5 \%$ to $50.4 \%$ in Britain. The full set of pairwise comparisons across treatment groups using t-tests is presented in Table 3.

[^1]Table 3: Pairwise comparison t-tests of all experimental conditions

| Country | Condition 1: mean | Condition 2: mean | Difference | p -value |
| :--- | :--- | :--- | :--- | :--- |
| US | Baseline: 2.64 | Money only: 2.72 | -0.08 | $p<.1$ |
| US | Baseline: 2.64 | Percent only: 2.37 | 0.27 | $p<.01$ |
| US | Baseline: 2.64 | Money and Percent: 2.57 | 0.07 | ns |
| US | Money only: 2.72 | Percent only: 2.37 | 0.36 | $p<.01$ |
| US | Money only: 2.37 | Money and Percent: 2.57 | 0.15 | $p<.01$ |
| US | Percent only: 2.37 | Money and Percent: 2.57 | -0.21 | $p<.01$ |
| UK | Baseline: 2.60 | Money only: 2.68 | -0.08 | ns |
| UK | Baseline: 2.60 | Percent only: 2.46 | 0.15 | $p<.05$ |
| UK | Baseline: 2.60 | Money and Percent: 2.57 | 0.03 | ns |
| UK | Money only: 2.68 | Percent only: 2.46 | 0.22 | $p<.01$ |
| UK | Money only: 2.68 | Money and Percent: 2.57 | 0.11 | $p<.1$ |
| UK | Percent only: 2.46 | Money and Percent: 2.57 | -0.11 | $p<.1$ |

Two sided p-values using unweighted data. Dependent variable coded so that $1=$ "Too little", $2=$ "About right", and $3=$ "Too much". Respondents who answered "Don't know" were recoded to missing.

Interestingly, the "Money and Percent (M\&P)" treatment creates a distribution right in the middle between the "Money Only" (MO) and PO treatments. In Britain, the percentage of those believing the nation spends "too much" on overseas aid in the M\&O treatment ( $60.2 \%$ ) sits perfectly between the percentage of respondents in the MO (69.5\%) and PO (50.4\%) treatments. In the US, a far greater proportion of Americans in the M\&P treatment come to see aid spending as "about right" and slightly more who receive this frame believe the US spends "too little" on aid than in the MO treatment (although in American the M\&P treatment is quite as perfectly between the MO and PO treatments).

## 4 Multivariate Analyses

To test the robustness of these findings we look at two further questions: (A) Are the treatment effects robust to adding a select set of predictors of support for aid? In other words, does adding other things that we know predict support for aid "crowd out" the effect of our treatments? And (B) Do the treatment effects work uniformly across different segments of the public? To be more precise, we expect that the treatment effects would be greater for the sub-group of people who are predisposed towards the benefits of aid, the importance of redistribution, and are optimistic about their economic situation.

Table 4: Marginal Effects-Sources of Support for Overseas Aid-US and GB

| Predictor | US Model A | US Model B | GB Model A | GB Model B |
| :---: | :---: | :---: | :---: | :---: |
| Money Treatment | 0.02 | -0.01 | -0.09+ | -0.09 |
| Percent Treatment | $0.29^{* * *}$ | $0.21^{* * *}$ | $0.14{ }^{* *}$ | 0.16* |
| Money \& Pct. Treat | $0.12^{* * *}$ | $0.09{ }^{+}$ | 0.003 | 0.02 |
| Economic Optimism | 0.08** | 0.05 | 0.01 | -0.09 |
| Favour Redistribution | 0.11*** | 0.03 | 0.04 | 0.06 |
| Instrumentalism | 0.31*** | $0.33{ }^{* * *}$ | $0.44^{* * *}$ | $0.48^{* * *}$ |
| Ideology | $-0.03^{* * *}$ | $-0.03^{* * *}$ | $-0.06^{* * *}$ | $-0.06^{* * *}$ |
| Female | 0.02 | 0.02 | 0.04 | 0.05 |
| Religious | $-0.05^{+}$ | -0.04 | 0.03 | 0.03 |
| Age | $-0.01^{* * *}$ | $-0.01^{* * *}$ | $-0.01^{* * *}$ | $-0.01^{* * *}$ |
| Democrat | $0.12^{* * *}$ | $0.12^{* * *}$ |  |  |
| Republican | -0.03 | -0.04 |  |  |
| Labour |  |  | 0.02 | 0.01 |
| Conservative |  |  | -0.09+ | -0.08 |
| Lib. Dem. |  |  | 0.07 | 0.08 |
| Green |  |  | 0.02 | 0.01 |
| Nationalist |  |  | $-0.15^{+}$ | $-0.15{ }^{+}$ |
| UKIP |  |  | $-0.25^{* * *}$ | $-0.25^{* * *}$ |
| Interaction Effects |  |  |  |  |
| Economic Optimism with Money |  |  |  |  |
| with Percent |  | ${ }^{-0.05}$ |  | 0.05 0.10 |
| with Money \& Pct. |  | 0.06 |  | 0.31* |
| Redistribution with Money |  | 0.12 |  | 0.01 |
| with Percent |  | 0.20** |  | 0.02 |
| with Money \& Pct. |  | 0.06 |  | -0.07 |
| Instrumentalism with Money |  | -0.03 |  | -0.03 |
| with Percent |  | -0.05 |  | -0.01 |
| with Money \& Pct. |  | -0.03 |  | -0.04 |

Notes: $* * *=p<0.001 ; * *=p<0.01 ; *=p<0.05 ;+=p<0.10$

We run a probit model using a dichotomous dependent variable that splits the sample into those who believe their nation spends "too much" on foreign aid (0) and those who feel otherwise (1). As for the right hand side of the model, we created a control variable called instrumentalism that measures respondents' beliefs about the instrumental value of foreign aid: whether aid strengthens US/GB political influence and helps to prevent international terrorism $3^{3}$ Table 4 contains marginal effects from two separate probit estimations for each country.

Model A reports the increase in probability of not believing the nation spends "too much" on foreign aid that comes about with the single unit change in dichotomous co-variates. Both GB and US respondents who receive the PO only treatment have a significantly higher probability of moving away from the belief that their nation spends "too much" on aid. In the US, receiving the PO treatment results in 29 percentage point change; only the shift from scoring low (0) to high (1) on the instrumentalism control has a stronger effect at making typical respondents warm towards aid spending. In Britain, the PO treatment results in a 14 percentage point change. This effect is outweighed only by foreign policy instrumentalism or by identifying with UKIP or regional parties (Plaid Cymru/SNP).

Other comparisons demonstrate the power of the PO treatment. In the US, it takes extreme changes in a respondent's ideology (moving the full distance of the 11 point scale from 10 [conservative] to liberal [0]) to exceed the effect of the PO treatment. In a similar vein, a respondent has to move from an advanced age (over 80) to a young voter just over 18 to show the decrease in propensity to believe that America was overspending on aid that occurs with a shift from the BC to PO treatment.

In Model B we examine the second question of whether the treatments have differential effects on those respondents who have a more instrumentalist view of aid, have positive economic evaluations, and support redistribution. To do so we add interactions between these variables and the treatments to Model A. The stand-alone marginal effect of the PO treatment remains quite strong in the US $(21 \%)$ and is slightly larger in the GB model with interactions ( $16 \%$ ) than in the model without ( $14 \%$ ). What most stands out is the fact that Americans with particular characteristics respond very strongly to the PO treatment. On top of the $21 \%$ increase in probability in moving away from favoring aid reductions that comes simply from receiving the treatment, Americans who feel good about their personal finances and receive the PO treatment see another $15 \%$ decline in their demand for aid cuts. Americans who receive the PO treatments and believe governments should promote income equality see an even larger $20 \%$ decline in opposition to overseas aid.

[^2]Model B for Great Britain suggests that support among all respondents will improve if British citizens are made aware of how small of portion of budget foreign aid is. However, by-and-large, there are not interactions between the treatments and the co-variates. Unlike the US case, those favouring economic redistribution or who are economic optimists are no more likely to be leery of aid cuts when they receive the PO treatments $\xrightarrow[4]{4}$

To summarize, we find that the treatment effects for the PO treatment hold in both countries (Question A above). Plus, we find that an instrumentalist belief in the benefits of aid also makes people warm towards aid spending. US respondents that are optimistic about their economic situation or support redistribution are more receptive to the PO treatment. But no such heterogeneous effects exist in the UK (Question B above).

## 5 Conclusion

Relative to everyday purchases, the raw amounts of foreign aid expenditures appear enormous. Any way you slice it, "billions" is a lot of money. Our findings suggest that these large numbers render the public cool towards their nation's levels of overseas aid expenditure. And those in the media with an agenda opposed to aid further throw ice on the public mood by noting the inefficiencies in these large expenditures ${ }^{5}$

Results from the above experiment suggest that it is possible to shift people's scepticism towards aid spending by presenting the percentage of the UK and US budgets allocated to foreign aid ${ }^{6}$ The observed reduction in citizen demands to cut foreign aid when only percentages of budgets are mentioned remains after adding controls for some common correlates of foreign aid to multivariate models.

However, it is only in the US that mentioning the low percentage spend

[^3]in the presence of dollar amounts where we see reduced support for aid cuts relative to the baseline or MO conditions. The cross-national difference in the effect of the M\&P treatment is not the only finding that differs across countries. Agree-disagree responses to the two questions that comprise the "instrumentalist" index show that Americans are more instrumentalist in their attitudes towards aid, but the effect of instrumentalism is stronger in the analyses that utilize respondents from the UK.

We have shown that in the US the effect of showing the percent figure is stronger for those people who are in favour of redistribution and being optimistic about their economic situation. However, there is no such heterogeneous treatment effect in Britain. This is a possible indication that attitudes are more inflexible in Britain. Our inference is that this may well be a function of the smaller misperceptions about the aid budget that exist in Britain. Extrapolating this finding suggests that the treatment effect of communicating the percent of the budget spent on aid will probably be most effective in countries where misperceptions are largest (see Eurobarometer 2003 for comparative EU data), but it may also be the case that this works at the individual level too. Or it may be the case that high estimates of the budget themselves reflect underlying negative attitudes towards aid. Future work will need to tease out the causal direction of attitudes, information, and support.

Finally, future research should consider the means by which innumeracy can be addressed. In the case of foreign aid, bringing public perceptions in line with actual government outlays is valuable in and of itself, particularly in light of concerns over low levels of citizens' knowledge and the consequences innumeracy has for democratic representation. But the big numbers problem-the billions spent on aid-still serves to skew judgments on the appropriate level of aid spending. There are few remedies on hand to address innumeracy. Wegwarth (2013) advocates national statistical literacy campaigns, but a more likely and potentially successful approach may involve moving away from "large numbers" and towards representations that are more intuitive for citizens with limited numeric skills. Here we have shown that presenting foreign aid as a percentage of the national budget is effective. Future work should explore visual as well as numerical presentations of budget information or more frequentist statements, i.e. one penny of every dollar is spent on foreign aid (Gigerenzer and Edwards 2003).

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## Appendix A Online Appendix

## Appendix A. 1 Response Distributions

Question wording and distributions of key co-variates and coding decisions:

1. Economic Optimism: How does the financial situation of your household now compare with what it was 12 months ago? Has it:

| Response | US | GB |
| :--- | :---: | :---: |
| Gotten a lot better | $5.1 \%$ | $1.9 \%$ |
| Gotten a little better | 19.1 | 10.1 |
| Stayed the same | 35.9 | 36.5 |
| Gotten a little worse | 23.5 | 36.4 |
| Gotten a lot worse | 15.0 | 13.3 |
| Don't know | 1.5 | 1.8 |

Note: Those responding 'Gotten a lot better' or 'Gotten a little better' coded ' 1 ' for the multivariate estimations and ' 0 ' otherwise.
2. Redistribution: Distribution of respondents on a 7-point scale where 1 equals "Government should get out of the business of promoting income equality" and 7 equals "Government should do more to reduce income equality"

| Response | US | GB |
| :--- | :---: | :---: |
| Government Should Get Out | $33.1 \%$ | $10.1 \%$ |
| 2 | 7.9 | 7.6 |
| 3 | 5.8 | 11.2 |
| 4 | 17.2 | 24.6 |
| 5 | 10.4 | 13.1 |
| 6 | 9.2 | 11.9 |
| Government Should Do More | 16.4 | 21.5 |

Note: For the dichotomous variable used in the multivariate analyses, a respondent's score is ' 1 ' on the Redistribution variable if they provide a response to this question that is above the sample median, which in both countries is " 4 ", and ' 0 ' otherwise.
3. Instrumentalism: Two questions combine to determine whether a respondent holds instrumentalist views concerning providing aid. The two questions are a) US/UK aid to developing countries strengthens our political influence in the world; and b) US/UK aid to developing countries helps to prevent international terrorism. Response distributions are as follows:
4. Ideology and Partisanship: In the multivariate analyses, an 11-point ideology scale captures respondents' left to right self placement (with higher scores indicating a more rightward self-placement). The mean and median ideology value in the US is 5.6 and 5 , respectively. In GB, it is 5.0 and

| Response | US | GB |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Question: | Strengthens <br> Influence | Prevents <br> Terrorism | Strengthens <br> Influence | Prevents <br> Terrorism |
| Strongly Agree | $7.0 \%$ | $5.5 \%$ | $2.9 \%$ | $2.5 \%$ |
| Agree | 31.1 | 20.4 | 24.2 | 17.7 |
| Neither or Don't Know | 32.5 | 33.2 | 34.5 | 33.3 |
| Disagree | 17.2 | 22.0 | 24.8 | 28.2 |
| Strongly Disagree | 12.2 | 18.9 | 13.6 | 18.3 |

Note: In both nations, the two items scale together well (US: $\alpha=0.77$; GB: $\alpha=0.77$ ), and an additive index of responses to the two variables yields a scale ranging from 2-10. In the multivariate analyses, "Instrumentalists" are those who score above the combined median index score of 6 , and receive a score of ' 1 '. Non-instrumentalists receive a score of ' 0 '.
5. $33.3 \%$ and $28.1 \%$ of the US sample thinks of themselves as Democrats and Republicans, respectively. In Britain, the distribution of partisan identification is as follows: $31.4 \%$ Labour, $25.4 \%$ Conservative; $8.0 \%$ Liberal Democrat; $5.6 \%$ UKIP; 4.2\% Green; $2.7 \%$ Nationalist (SNP/Plaid Cyrmu).
5. Other Demographics: For GB, $52.9 \%$ of the sample is female and the mean age is 52.7 (median (54)). For the US, $53.5 \%$ of the sample is female and the mean age is 53.0 (median (54)). In Britain, $47.6 \%$ of those sampled identifies with a religious denomination. The comparable number in the US is $71.7 \%$.

## Appendix A. 2 Full Probit Analyses

Table A1: Probit Coefficients

| Predictor | US A | US B | GB A | GB B |
| :---: | :---: | :---: | :---: | :---: |
| Money Treatment | 0.05 | -0.01 | ${ }_{(0.25}{ }^{+}$ | -0.25 |
|  | (0.09) $0.74 * *$ | (0.14) | (0.14) | (0.21) |
| Percent Treatment | $\begin{aligned} & 0.74 * * \\ & (0.09) \end{aligned}$ | $\begin{aligned} & 0.52^{* * *} \\ & (0.13) \end{aligned}$ | $\begin{aligned} & 0.38^{* *} \\ & (0.13) \end{aligned}$ | $0.41^{*}$ (0.19) |
| Money \& Pct. Treat | (0.09) $0.31^{* * *}$ | (0.13) $0.24+$ | (0.13) 0.01 | (0.19) 0.05 |
| Money \& Pct. Treat | (0.09) | (0.13) | (0.13) | (0.20) |
| Economic Optimism | 0.21** | 0.12 | 0.03 | -0.26 |
|  | (0.08) | (0.15) | (0.14) | (0.31) |
| Favour Redistribution | $0.28^{* * *}$ | 0.07 | 0.12 | 0.15 |
|  | (0.08) | (0.14) | (0.10) | (0.19) |
| Instrumentalism | $0.79^{* * *}$ | $0.87^{* * *}$ | $1.18{ }^{* * *}$ | $1.30{ }^{* * *}$ |
|  | (0.07) | (0.14) | (0.11) | (0.22) |
| Ideology | $-0.08^{* * *}$ | $-0.08^{* * *}$ | $-0.17^{* * *}$ | $-0.17^{* * *}$ |
|  | (0.01) | (0.01) | (0.03) | (0.03) |
| Female | 0.06 | 0.05 | 0.11 | 0.12 |
|  | (0.06) | (0.06) | (0.09) | (0.09) |
| Religious | $-0.12^{+}$ | -0.11 | 0.08 | 0.07 |
|  | (0.10) | (0.08) | (0.10) | (0.10) |
| Age | -0.01 *** | -0.01 *** | $-0.02^{* * *}$ | $-0.02^{* * *}$ |
|  | (0.002) | (0.002) | (0.003) | (0.003) |
| Democrat | 0.30 *** | $0.31^{* * *}$ |  |  |
|  | (0.08) | (0.08) |  |  |
| Republican | -0.08 | -0.09 |  |  |
|  | (0.09) | (0.09) |  |  |
| Labour |  |  | 0.04 | 0.04 |
|  |  |  | (0.13) | (0.13) |
| Conservative |  |  | -0.24 | -0.23 |
|  |  |  | (0.15) | (0.15) |
| Lib. Dem. |  |  | 0.18 | 0.22 |
|  |  |  | (0.15) | (0.18) |
| Green |  |  | 0.04 | 0.03 |
|  |  |  | (0.25) | (0.25) |
| Nationalist |  |  | -0.44 | -0.43 |
|  |  |  | (0.28) | (0.28) |
| UKIP |  |  | $-0.80^{* *}$ | -0.80 ** |
|  |  |  | (0.27) | (0.27) |
| Interaction Effects |  |  |  |  |
| Economic Optimism with Money |  | -0.12 |  | 0.12 |
|  |  | (0.22) |  | (0.43) |
| with Percent |  | $0.38{ }^{+}$ |  | 0.25 |
|  |  | (0.22) |  | (0.39) |
| with Money \& Pct. |  | 0.15 |  | $0.80{ }^{+}$ |
|  |  | 0.20 |  | (0.43) |
| Redistribution |  |  |  |  |
| with Money |  | 0.31 |  | 0.02 |
|  |  | (0.20) |  | (0.27) |
| with Percent |  | 0.52* |  | -0.05 |
|  |  | (0.20) |  | (0.26) |
| with Money \& Pct. |  | 0.15 |  | -0.20 |
|  |  | (0.19) |  | (0.26) |
| Instrumentalism |  |  |  |  |
| with Money |  | -0.07 |  | -0.07 |
|  |  | (0.20) |  | (0.31) |
| with Percent |  | -0.12 |  | -0.31 |
|  |  | (0.20) |  | (0.30) |
| with Money \& Pct. |  | $\begin{aligned} & -0.08 \\ & (0.18) \end{aligned}$ |  | $\begin{aligned} & -0.11 \\ & (0.30) \end{aligned}$ |
| Fit Statistics |  |  |  |  |
| $\chi^{2}$ | $540.6(\mathrm{df}=13)$ | $544.2(\mathrm{df}=22)$ | 283.6 ( $\mathrm{df}=16$ ) | 303.0 ( $\mathrm{df}=25$ ) |
| McFadden $R^{2}$ | 0.238 | 0.243 | 0.269 | 0.274 |

## Appendix A. 3 Robustness Checks for Multivariate Analyses

Table A2: Marginal Effects-No Control for Instrumentalism

| Predictor | US A | US B | UK A | UK B |
| :--- | :--- | :--- | :--- | :--- |
| Money Treatment | 0.02 | -0.02 | -0.05 | -0.05 |
| Percent Treatment | $0.27^{* * *}$ | $0.17^{* * *}$ | $0.15^{* *}$ | $0.15^{*}$ |
| Money \& Pct. Treat | $0.13^{* * *}$ | $0.10^{*}$ | 0.03 | 0.04 |
| Economic Optimism | $0.12^{* *}$ | 0.08 | -0.06 | -0.08 |
| Favour Redistribution | $0.16^{* * *}$ | $0.10^{+}$ | $0.09^{*}$ | $0.12^{+}$ |
| Ideology | $-0.04^{* * *}$ | $-0.03^{* * *}$ | $-0.07^{* * *}$ | $-0.08^{* * *}$ |
| Female | 0.02 | 0.02 | 0.01 | 0.01 |
| Religious | -0.03 | -0.03 | 0.04 | 0.03 |
| Age | $-0.01^{* * *}$ | $-0.01^{* * *}$ | $-0.01^{* * *}$ | $-0.01^{* * *}$ |
| Democrat | $0.17^{* * *}$ | $0.17^{* * *}$ |  |  |
| Republican | -0.03 | -0.03 |  |  |
| Labour |  |  | 0.05 | 0.05 |
| Conservative |  |  | -0.04 | -0.04 |
| Lib. Dem. |  |  | $0.13^{+}$ | $0.14^{*}$ |
| Green |  |  | 0.03 | 0.03 |
| Nationalist |  |  | -0.11 | -0.11 |
| UKIP |  |  |  | $-0.26^{* * *}$ |
| Interaction Effects |  | -0.03 |  |  |
| Economic Optimism |  | $0.15^{+}$ |  | 0.12 |
| with Money |  | 0.03 |  | 0.11 |
| with Percent |  |  |  |  |
| with Money \& Pct. |  | 0.10 |  | -0.04 |
| Redistribution |  | $0.17^{*}$ |  | -0.01 |
| with Money |  |  |  | -0.09 |
| with Percent |  |  |  |  |
| with Money \& Pct. |  |  |  |  |

Notes: $* * *=p<0.001 ; * *=p<0.01 ; *=p<0.05 ;+=p<0.10$


[^0]:    ${ }^{1}$ The amounts and percentages are approximations. The actual percentage of the budget the US devotes to aid is under $1 \%$. British respondents receive the $0.7 \%$ percentage

[^1]:    even though the actual amount of budget spent on aid is closer to $1.6 \%$ because the former is an amount that received extensive media attention during the fielding of the survey (e.g. Provost and Tran 2013). Some reports include military assistance as part of the aid tally. Our treatments are meant to exclude military assistance.
    ${ }^{2}$ More detailed question wording, response distributions, and coding decisions appear in the appendix.

[^2]:    ${ }^{3}$ Full results appear in the appendix. Included covariates mirror those in vanHeerde and Hudson (2010), Henson and Lindstrom (2012), and Paxton and Knack (2011).

[^3]:    ${ }^{4}$ The significant marginal effect for the interaction between economic optimism and the treatment where respondents are provided with information concerning the amount of money and percentage of the "budget" Britain spends on foreign aid is curious as the interaction between economic optimism and the PO treatment is insignificant (as are the two components of the interaction term on their own). We refrain from over-speculation on this point as the size of the number of respondents who both receive the treatment and express economic optimism is quite small $(\mathrm{n}=27)$ and pales in comparison to the number of people in the affirmative category of the significant interaction between economic optimism and the percent only treatment in the US $(\mathrm{n}=118)$.
    ${ }^{5}$ e.g. Burman and Batchelor's (2015) discussion of how a half billion pound UK aid project to combat malaria turned to expenditures on "wedding dresses for African brides."
    ${ }^{6}$ It should be noted that public opinion and the messages citizens receive concerning aid policies in the "real world" are "dynamic" (Chong and Druckman 2007). Sceptical media easily can brush aside positive messages about the benefits brought about by spending just a small percentage of the national budget on aid with another counter-frame focusing on the amounts of money that end up wasted or in the pockets of corrupt officials. Understanding the dynamic interplay of statements and rebuttals on citizen attitudes is a necessary next step in this research area.

