YouGov Survey Analysis

Tools

To streamline editing and minimize errors, I have written this document in Rmarkdown. So that others can edit this document without having to install a working version of R, I provide a docker image which will run R and compile the document in a container.

Documentation for working with Rmarkdown can be found here.

Docker documentation can be found here.

Variables

In this section I describe the variables used in the analysis. I provide a table of summary statistics for the continuous and dummy variables used in the analysis below.

Responses to the questions "is this action terrorism?", "was this action morally justified?", and "was this action strategic?" were originally collected on a 1-7 scale, where 1 indicated strong agreement and 7 indicated strong disagreement. I rescale responses to between -3 and 3, where -3 now indicates strong disagreement, 0 indicates a neutral answer, and 3 indicates strong agreement.

In the original YouGov survey, respondents were asked to identify their ideology as either "Very Liberal," "Liberal," "Moderate," "Conservative," "Very Conservative," or "Don't Know."

For analyses involving respondents' ideology, I operationalize ideology using both a categorical measure and an interval level measure. The categorical measure of ideology recovers the effect of switching a respondent from one ideology to another (i.e, switching from moderate to liberal), while the interval-level measurement recovers the average effect of a moving a respondent one space up or down the ideology scale. To construct the categorical measurement of ideology, I code respondents as either Liberal if they recorded their ideology as "very liberal or"liberal", moderate if they described themselves as moderates, conservative if they described themselves as somewhat or very conservative, and "not sure" as they reported being unsure about which category they fit into. I set the reference level in these analyses as "Moderate." For the interval-level measure, I remove "Don't Know" and scale answers to a -2-2 scale, where -2 indicates a very liberal respondent, and +2 indicates a very Conservative respondent.

Table 1: Summary Statistics For All Respondents

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Ideology	3,640	3.22	1.49	1	2	4	6
Moral.Justification	3,640	−1.62	1.85	−3	−3	0	3
Strategic	3,640	−0.39	2.11	−3	−3	1	3
Terrorism	3,640	1.69	1.58	−3	1	3	3
Conservative.Action	3,640	0.49	0.50	0	0	1	1
Female	3,640	0.53	0.50	0	0	1	1
Casualties	3,640	0.50	0.50	0	0	1	1

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## `summarise()` has grouped output by 'factor_ideo5'. You can override using the `.groups` argument.
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Table 2: Mean Responses by Party

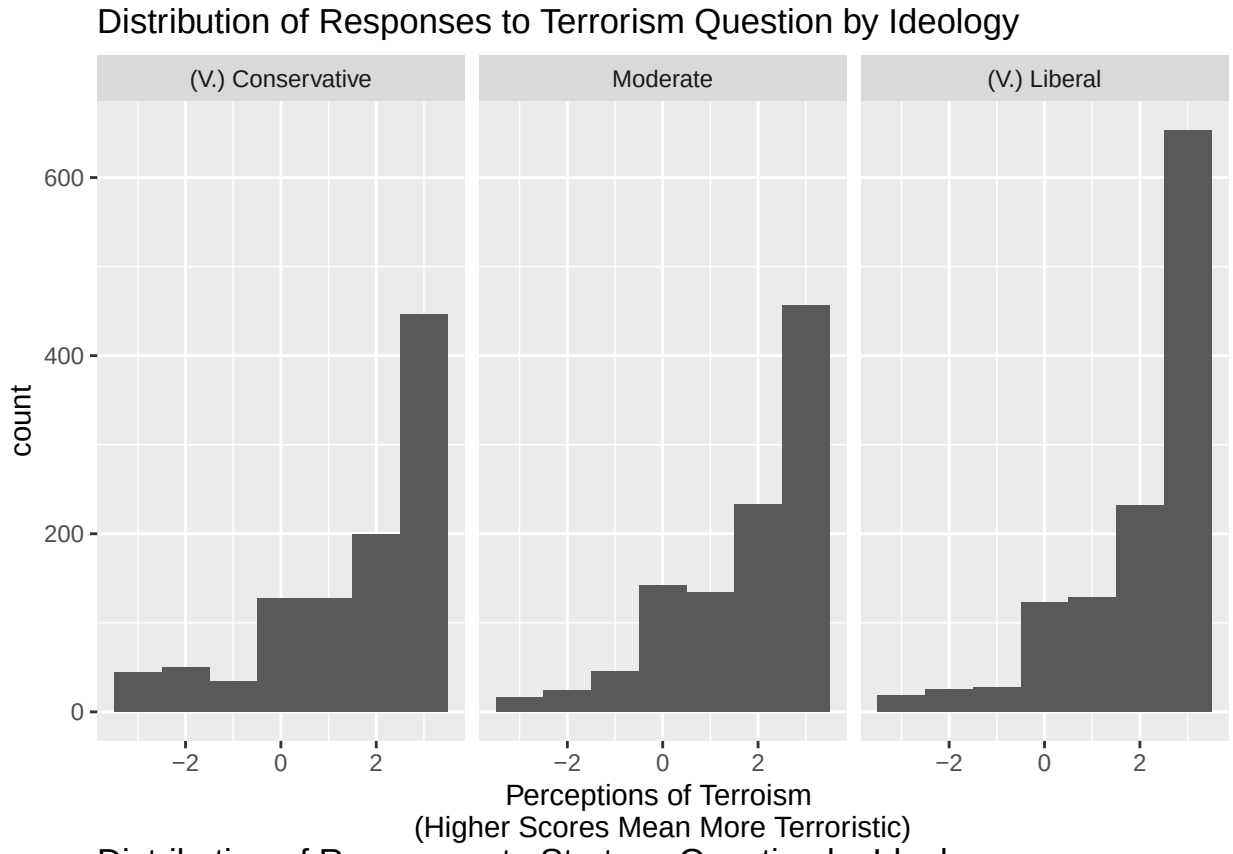
	Party	Mean.Strategic	Mean.Morally.Justifiable	Mean.Terroism
1	Moderate	-0.34	-1.62	1.74
2	(V.) Conservative	-0.41	-1.62	1.56
3	(V.) Liberal	-0.44	-1.78	2.00
4	Not Sure	-0.30	-1.05	0.91

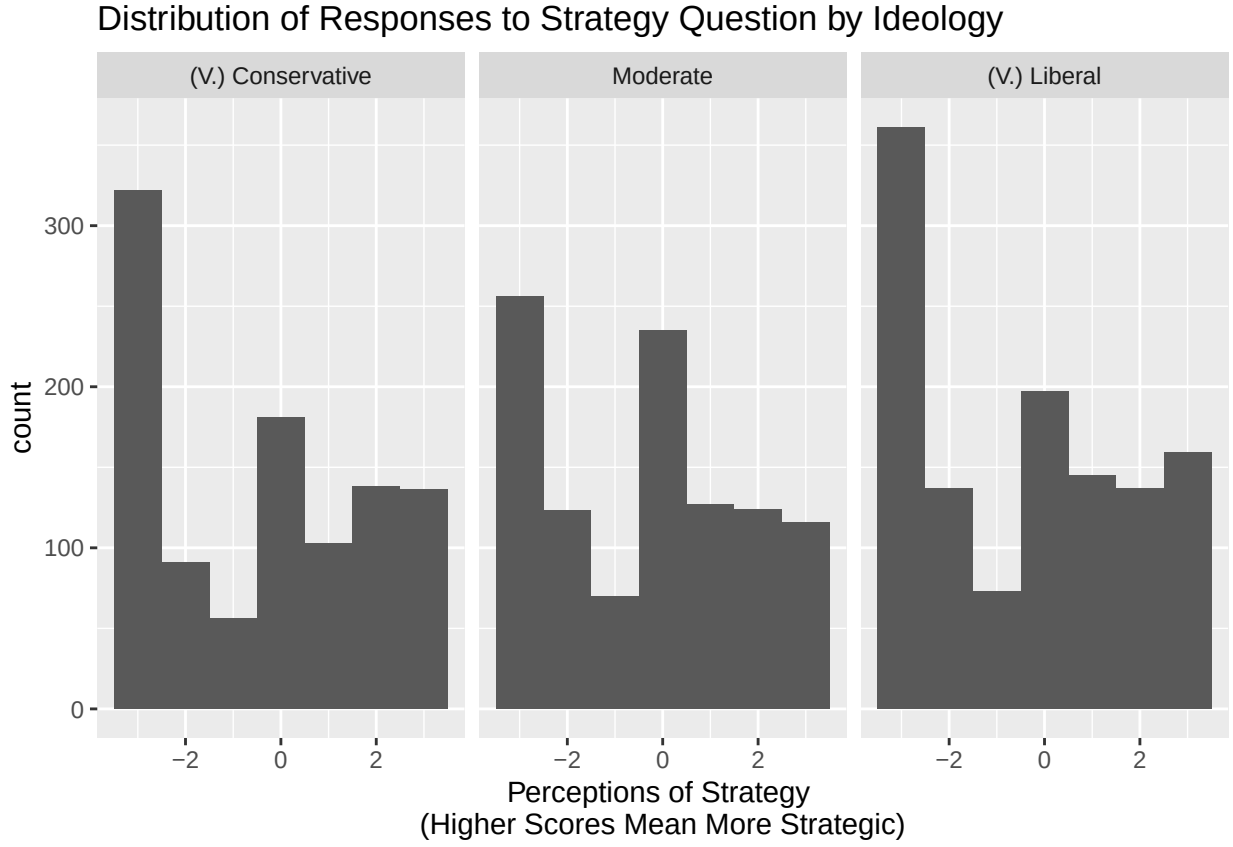
Table 3: Mean Responses by Party, Action Alignment

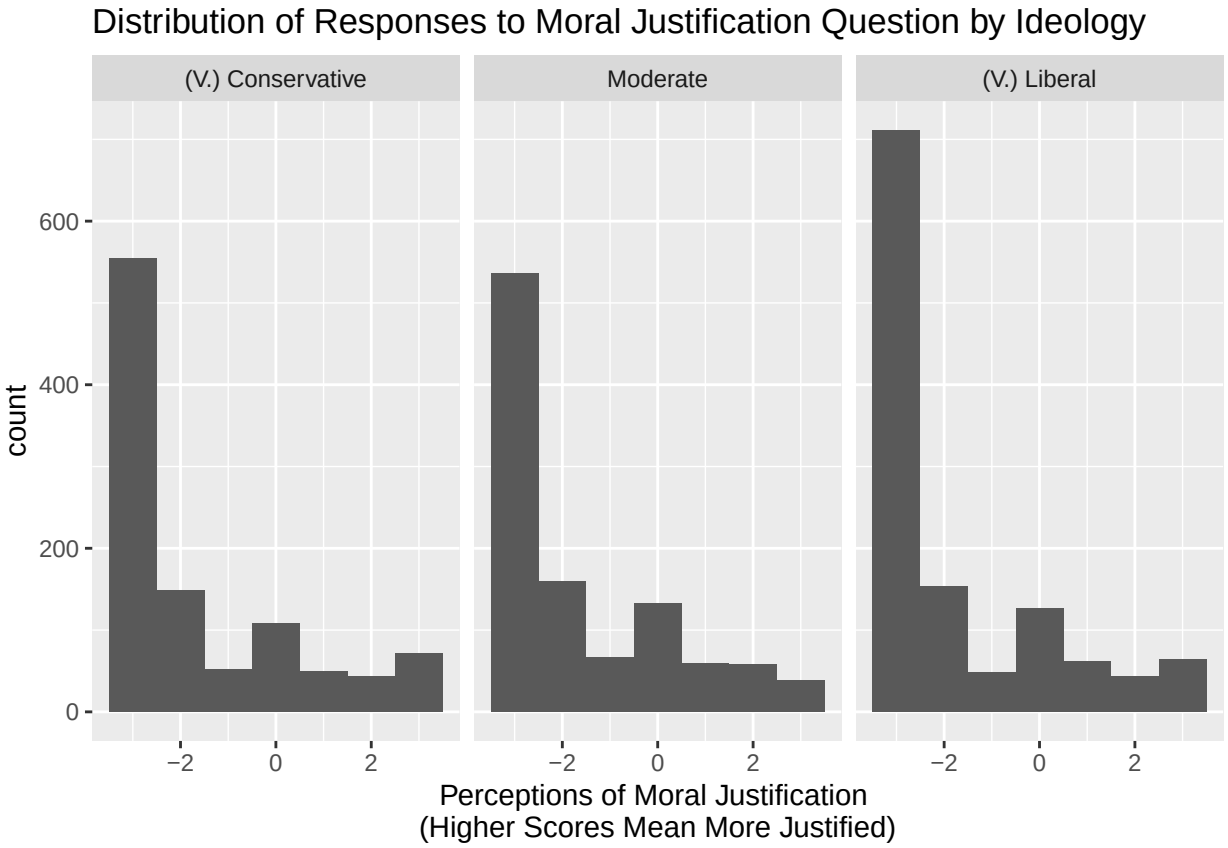
	Party	Conservative.Action	Mean.Strategic	Mean.Morally.Justifiable	Mean.Terroism
1	Moderate	FALSE	-0.24	-1.49	1.69
2	Moderate	TRUE	-0.46	-1.78	1.80
3	(V.) Conservative	FALSE	-0.27	-1.63	1.63
4	(V.) Conservative	TRUE	-0.53	-1.61	1.48
5	(V.) Liberal	FALSE	-0.49	-1.50	1.76
6	(V.) Liberal	TRUE	-0.40	-2.05	2.23
7	Not Sure	FALSE	-0.17	-1.04	0.93
8	Not Sure	TRUE	-0.43	-1.07	0.88

Table 4: Table of responses

Response	Morally Justifiable	Strategic	Terrorism
Strongly Disagree	52.66%	27.45%	2.47%
Disagree	13.82%	10.41%	3.27%
Somewhat Disagree	5.38%	6.13%	3.43%
Neutral	13.54%	21.18%	14.2%
Somewhat Agree	5.11%	11.21%	11.79%
Agree	4.29%	11.73%	19.53%
Strongly Agree	5.19%	11.9%	45.3%


Distribution of Responses to Terrorism Question by Ideology
(V.) Conservative
Moderate
(V.) Liberal
count
600
400
200
0
−2
0
2
Perceptions of Terroism
(Higher Scores Mean More Terroristic)


Distribution of Responses to Strategy Question by Ideology
(V.) Conservative
Moderate
(V.) Liberal
count
300
200
100
0
−2
0
2
Perceptions of Strategy
(Higher Scores Mean More Strategic)



Ideology on Moral Justification

First, I examine the relationship between a respondent's ideology and their views of the actions as morally justifiable. There is a significant positive relationship between a respondent's ideology on a five point scale and perceptions of moral justifiability indicating that *ceretis paribus*, conservatives rated the actions as more justifiable than liberals or moderates.

The interactions between an action being conservative and a respondent's ideology are uniformly significant and positive, indicating that respondents that are more conservative see conservative actions as significantly more justifiable than liberal actions, and vice versa.

Categorical Measure

In this section, I investigate the relationship between ideology and perceptions of the actions as morally justifiability.

Surprisingly, there is no significant relationship between the presence of casualties and perceptions of moral justifiability, indicating that the presence of casualties had no effect on perceptions of moral justifiability *ceritis paribus*.

Across all models, the estimate of the affect associated with an action being conservative is significant and negative indicating that among moderate respondents, an action being conservative was associated with a decrease in perceptions of it as moral justifiability.

Across all models, there is a significant positive interaction between the conservative action term and the conservative respondent term indicating that relative to moderate respondents, conservatives found conservative actions more justified. There is no significant interaction between the liberal respondent

Table 5: Ideology vs Moral Justifiability

	Dependent variable:					
	Action is morally justifiable					
	(1)	(2)	(3)	(4)	(5)	(6)
Ideology	0.12^{***}	0.12^{***}	0.05	0.05	0.05	0.03
	(0.02)	(0.02)	(0.03)	(0.03)	(0.03)	(0.03)
Conservative Action		-0.15^{**}	-0.69^{***}	-0.69^{***}	-0.70^{***}	-0.70^{***}
		(0.06)	(0.15)	(0.15)	(0.15)	(0.15)
Casualties				-0.02	-0.03	-0.02
				(0.06)	(0.06)	(0.06)
Female					-0.18^{***}	-0.12^{**}
					(0.06)	(0.06)
Black						0.69^{***}
						(0.09)
Hispanic						1.07^{***}
						(0.10)
Race — other						0.95^{***}
						(0.09)
Ideology × conserv. act.			0.16^{***}	0.16^{***}	0.16^{***}	0.16^{***}
			(0.04)	(0.04)	(0.04)	(0.04)
Intercept	-1.98^{***}	-1.91^{***}	-1.64^{***}	-1.63^{***}	-1.53^{***}	-1.83^{***}
	(0.08)	(0.08)	(0.11)	(0.11)	(0.12)	(0.11)
Observations	3,640	3,640	3,640	3,640	3,640	3,640
R^2	0.01	0.01	0.02	0.02	0.02	0.07
Adjusted R^2	0.01	0.01	0.01	0.01	0.02	0.07
Residual Std. Error	1.85	1.85	1.85	1.85	1.85	1.79
F Statistic	36.80^{***}	21.57^{***}	19.35^{***}	14.55^{***}	13.33^{***}	36.08^{***}
Note:						*p<0.1; **p<0.05; ***p<0.01

and conservative action terms, indicating that liberal respondents did not react significantly differently to conservative / liberal actions than moderate respondents.

Effects Graph

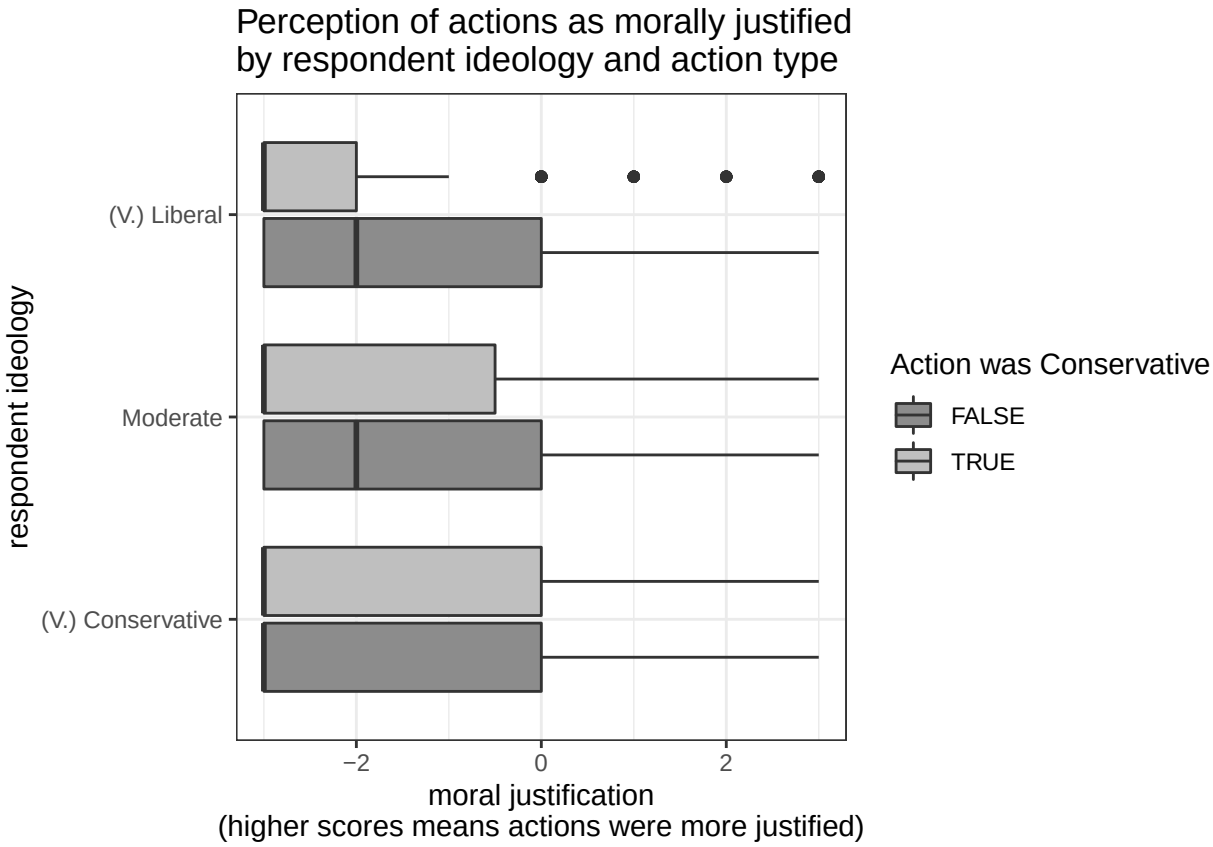
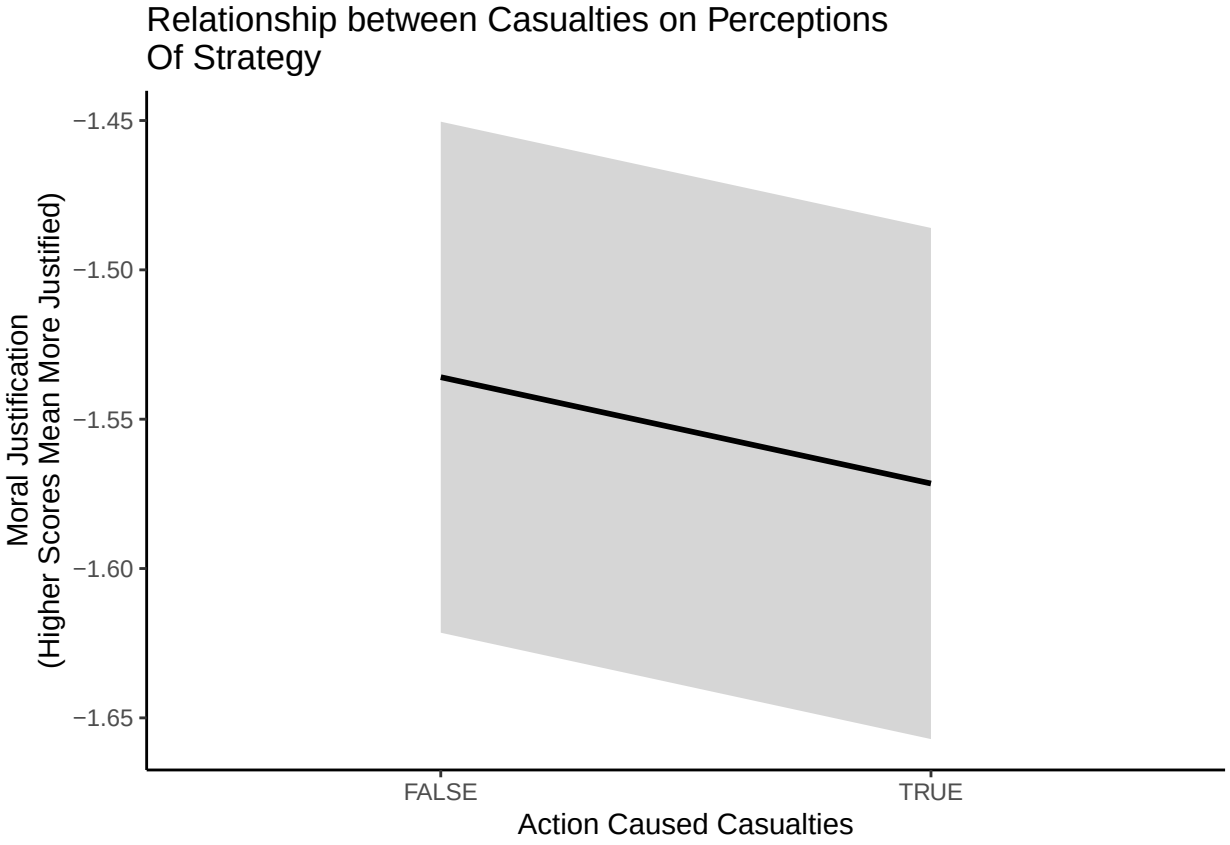


Table 6: Ideology vs Moral Justifiability

	Dependent variable:					
	Action is morally justifiable					
	(1)	(2)	(3)	(4)	(5)	(6)
Conservative	−0.11	−0.11	−0.38***	−0.38***	−0.37***	−0.23**
	(0.08)	(0.08)	(0.11)	(0.11)	(0.11)	(0.11)
Liberal	−0.21**	−0.20**	−0.16	−0.16	−0.14	−0.06
	(0.08)	(0.08)	(0.11)	(0.11)	(0.11)	(0.11)
Not Sure	0.57***	0.58***	0.32**	0.32**	0.35**	0.26*
	(0.10)	(0.10)	(0.14)	(0.14)	(0.14)	(0.14)
C. Action		−0.14**	−0.36***	−0.36***	−0.37***	−0.35***
		(0.06)	(0.12)	(0.12)	(0.12)	(0.11)
Casualties				−0.02	−0.03	−0.03
				(0.06)	(0.06)	(0.06)
Female					−0.20***	−0.14**
					(0.06)	(0.06)
Black						0.65***
						(0.09)
Hispanic						1.05***
						(0.10)
Race — other						0.91***
						(0.10)
Conservative × C. Action			0.54***	0.54***	0.55***	0.54***
			(0.16)	(0.16)	(0.16)	(0.15)
Liberal × C. Action			−0.08	−0.08	−0.08	−0.11
			(0.16)	(0.16)	(0.16)	(0.16)
Not Sure × C. Action			0.53***	0.53***	0.54***	0.48**
			(0.20)	(0.20)	(0.20)	(0.20)
Intercept	−1.54***	−1.47***	−1.37***	−1.36***	−1.26***	−1.66***
	(0.06)	(0.06)	(0.08)	(0.08)	(0.09)	(0.09)
Observations	3,640	3,640	3,640	3,640	3,640	3,640
R^2	0.02	0.02	0.02	0.02	0.03	0.08
Adjusted R^2	0.02	0.02	0.02	0.02	0.02	0.07
Residual Std. Error	1.85	1.85	1.84	1.84	1.84	1.79
F Statistic	20.80***	16.99***	12.97***	11.37***	11.31***	25.43***

Note: *p<0.1; **p<0.05; ***p<0.01

Effects of Casualties



Ideology on Strategy

Interval Measure

In this section, I investigate the relationships between a respondent's ideology on a five point scale, and their views of the actions as strategic.

Across all models, there is a significant negative relationship between an action resulting in casualties and perceptions of it as strategic indicating that holding all other factors constant, an action resulting in causalities was associated with lower perceptions of it as strategic, relative to an identical action that did not produce casualties.

When controlling for the interaction between respondents' ideologies and an action being conservative, there is a positive relationship between ideology on a five-point scale and perceptions of the actions as strategic. This indicates more conservative respondents saw the actions as more justified *ceritis paribus*. Insignificant interactions between the respondent ideology term and the conservative action indicates that a respondent's ideology does not influence the effect that an action being liberal conservative has on their view of it as strategic.

Categorical Measure

In this section, I analyze the effects of ideology on perceptions of the strategic usefulness of an action using a categorical measurement of ideology. Again, The reference level for this measure is "moderate."

The coefficient associated with a respondent being liberal is significant and negative across all models, indicating that relative to moderate respondents, liberals saw all actions as less justified. The coefficient associated with a respondent being conservative is not significant across all models indicating that there were

Table 7: Ideology Vs Perceptions of Actions as Strategic

	Dependent variable:					
	Action is strategic					
	(1)	(2)	(3)	(4)	(5)	(6)
Ideology	0.03	0.03	0.07**	0.07**	0.07**	0.07**
	(0.02)	(0.02)	(0.03)	(0.03)	(0.03)	(0.03)
Conservative Action		−0.17**	0.12	0.13	0.12	0.12
		(0.07)	(0.17)	(0.17)	(0.17)	(0.17)
Casualties				−0.13*	−0.14**	−0.14**
				(0.07)	(0.07)	(0.07)
Female					−0.30***	−0.28***
					(0.07)	(0.07)
Black						0.08
						(0.10)
Hispanic						0.41***
						(0.11)
Race — other						0.33***
						(0.11)
Ideology × conserv. act.			−0.08*	−0.09*	−0.09*	−0.08*
			(0.05)	(0.05)	(0.05)	(0.05)
Intercept	−0.49***	−0.41***	−0.56***	−0.49***	−0.34***	−0.42***
	(0.09)	(0.09)	(0.12)	(0.13)	(0.13)	(0.13)
Observations	3,640	3,640	3,640	3,640	3,640	3,640
R^2	0.0004	0.002	0.003	0.004	0.01	0.01
Adjusted R^2	0.0001	0.001	0.002	0.003	0.01	0.01
Residual Std. Error	2.08	2.08	2.08	2.08	2.07	2.07
F Statistic	1.39	3.71**	3.61**	3.66***	6.66***	6.64***
Note:						*p<0.1; **p<0.05; ***p<0.01

no significant differences between how conservative respondents and moderate respondents perceived the actions as strategic. Insignificant interactions between the ideology variables indicate that a respondents ideology does not influence how they react to an action being conservative / liberal.

Effects Graph

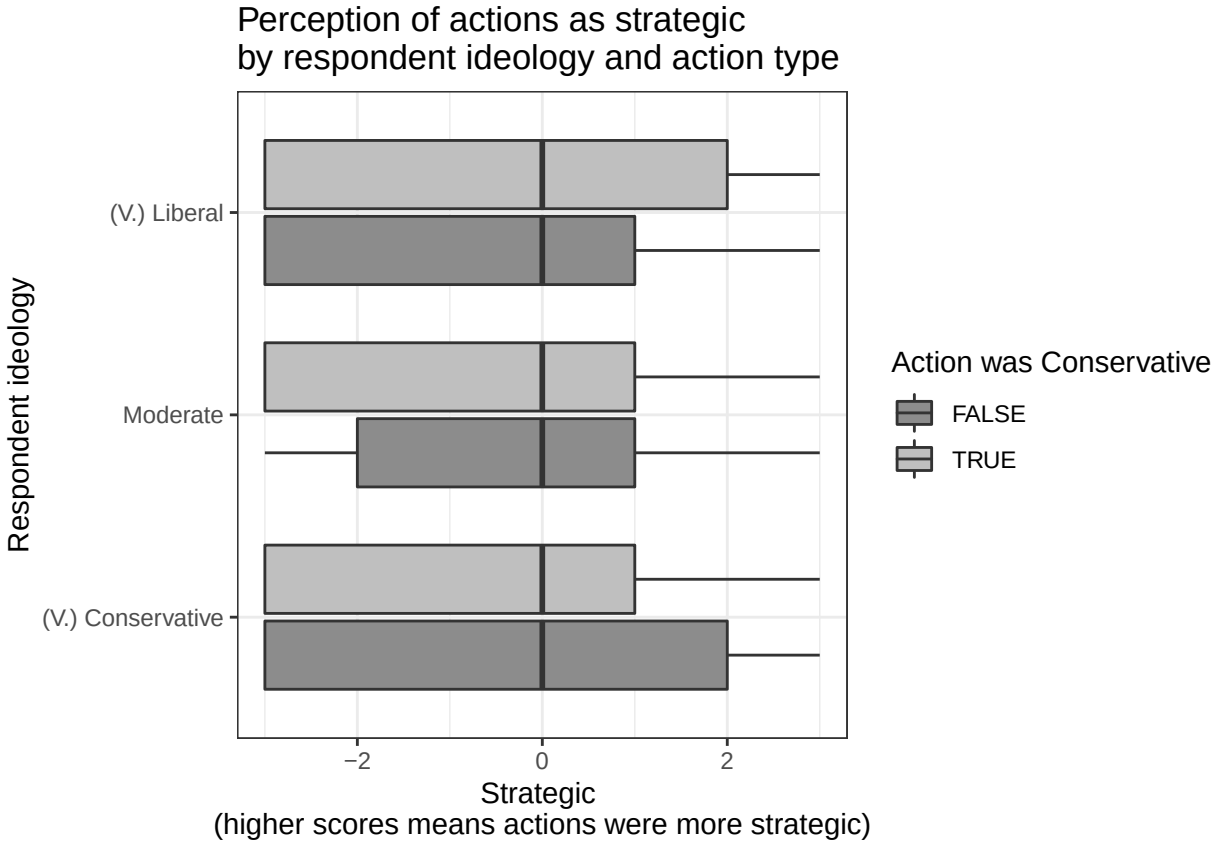
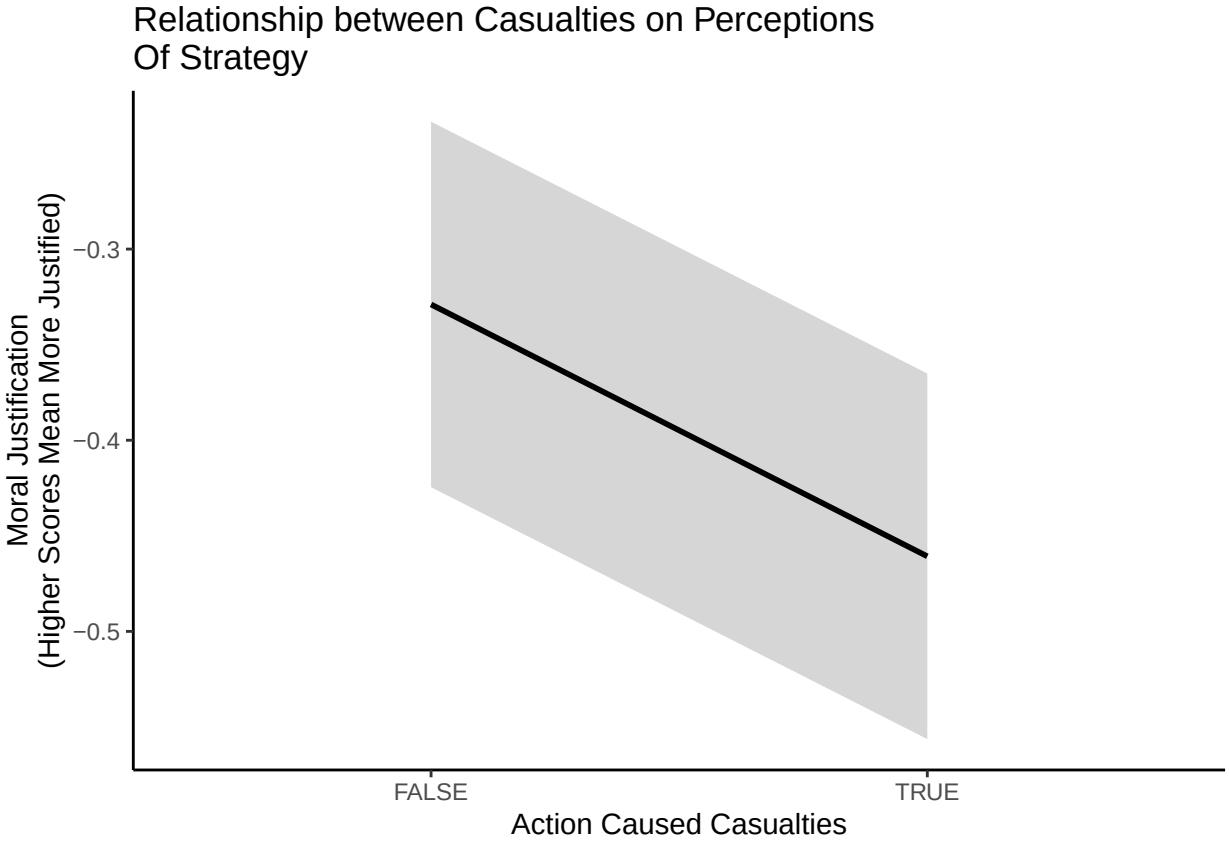


Table 8: Ideology Vs Perceptions of Actions as Strategic

	Dependent variable:					
	Action is strategic					
	(1)	(2)	(3)	(4)	(5)	(6)
Conservative	−0.11	−0.10	−0.14	−0.14	−0.13	−0.09
	(0.09)	(0.09)	(0.12)	(0.12)	(0.12)	(0.12)
Liberal	−0.25***	−0.24***	−0.41***	−0.41***	−0.38***	−0.35***
	(0.09)	(0.09)	(0.13)	(0.13)	(0.13)	(0.13)
Not Sure	−0.03	−0.02	−0.01	−0.01	0.03	0.01
	(0.12)	(0.12)	(0.16)	(0.16)	(0.16)	(0.16)
C. Action		−0.16**	−0.28**	−0.28**	−0.29**	−0.28**
		(0.07)	(0.13)	(0.13)	(0.13)	(0.13)
Casualties				−0.13*	−0.14**	−0.13**
				(0.07)	(0.07)	(0.07)
Female					−0.29***	−0.27***
					(0.07)	(0.07)
Black						0.08
						(0.10)
Hispanic						0.40***
						(0.11)
Race — other						0.32***
						(0.11)
Conservative × C. Action			0.08	0.08	0.09	0.08
			(0.18)	(0.18)	(0.18)	(0.18)
Liberal × C. Action			0.35*	0.35*	0.36*	0.34*
			(0.19)	(0.19)	(0.19)	(0.18)
Not Sure × C. Action			−0.01	−0.02	−0.01	−0.03
			(0.23)	(0.23)	(0.23)	(0.23)
Intercept	−0.29***	−0.21***	−0.16*	−0.09	0.05	−0.08
	(0.06)	(0.07)	(0.09)	(0.09)	(0.10)	(0.11)
Observations	3,640	3,640	3,640	3,640	3,640	3,640
R^2	0.002	0.004	0.005	0.01	0.01	0.02
Adjusted R^2	0.001	0.003	0.003	0.004	0.01	0.01
Residual Std. Error	2.08	2.08	2.08	2.08	2.07	2.07
F Statistic	2.60*	3.35***	2.56**	2.71***	4.38***	4.81***

Note: *p<0.1; **p<0.05; ***p<0.01

Effects of Casualties



Ideology on Perceptions of Actions as Terrorism

Interval Measure

In this section, I investigate the relationships between Ideology measured on a five-point scale, and perceptions of the actions as terrorism.

Across all of the models, moving a respondent rightwards along the ideology scale is associated with a decrease in their agreement of the actions as terrorism, suggesting that more conservative respondents identify the actions as less terroristic. The interactions between ideology and an action being conservative are significant and negative, indicating that conservatives are much less ready to identify conservative actions as terrorism, and vice versa. This is a substantively large effect - one step along the ideology scale corresponds to the same difference in perceptions associated with an action causing casualties. This fact is even more striking when considering that the standard deviation of the ideology measurement 1.49.

Categorical Measure

In this section, I investigate the relationships between the categorical measure of ideology five-point scale, and perceptions of the actions as terrorism.

Across all models the coefficient associated with casualties is positive indicating that respondents of all groups found actions that resulted in casualties to be more terroristic, *ceritus paribus*.

A positive coefficient for an action being conservative indicates that for moderate respondents, an action being conservative was associated with an increase in perceptions of it as terrorism, relative to liberal actions. This is a substantively large effect - almost twice the magnitude of the effect associated with an action producing casualties. This suggests that that ideology has a very large effect on perceptions of terrorism - the

Table 9: Estimates of Effect of Ideology on Terrorism

	Dependent variable:					
	Action is terrorism					
	(1)	(2)	(3)	(4)	(5)	(6)
Ideology	-0.21^{***}	-0.21^{***}	-0.14^{***}	-0.14^{***}	-0.14^{***}	-0.14^{***}
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
C. Action		0.08	0.58^{***}	0.56^{***}	0.56^{***}	0.55^{***}
		(0.05)	(0.13)	(0.13)	(0.13)	(0.13)
Casualties				0.19^{***}	0.18^{***}	0.18^{***}
				(0.05)	(0.05)	(0.05)
Female					-0.11^{**}	-0.14^{***}
					(0.05)	(0.05)
Black						-0.35^{***}
						(0.08)
Hispanic						-0.17^{**}
						(0.08)
Race — other						-0.46^{***}
						(0.08)
Ideology × C. act.			-0.14^{***}	-0.14^{***}	-0.14^{***}	-0.14^{***}
			(0.03)	(0.03)	(0.03)	(0.03)
Intercept	2.34^{***}	2.30^{***}	2.05^{***}	1.96^{***}	2.02^{***}	2.14^{***}
	(0.07)	(0.07)	(0.09)	(0.10)	(0.10)	(0.10)
Observations	3,640	3,640	3,640	3,640	3,640	3,640
R^2	0.04	0.04	0.04	0.05	0.05	0.06
Adjusted R^2	0.04	0.04	0.04	0.05	0.05	0.06
Residual Std. Error	1.58	1.58	1.57	1.57	1.57	1.56
F Statistic	149.57^{***}	76.11^{***}	56.58^{***}	45.80^{***}	37.56^{***}	29.20^{***}
Note:						*p<0.1; **p<0.05; ***p<0.01

Table 10: Estimates of Effect of Ideology on Terrorism

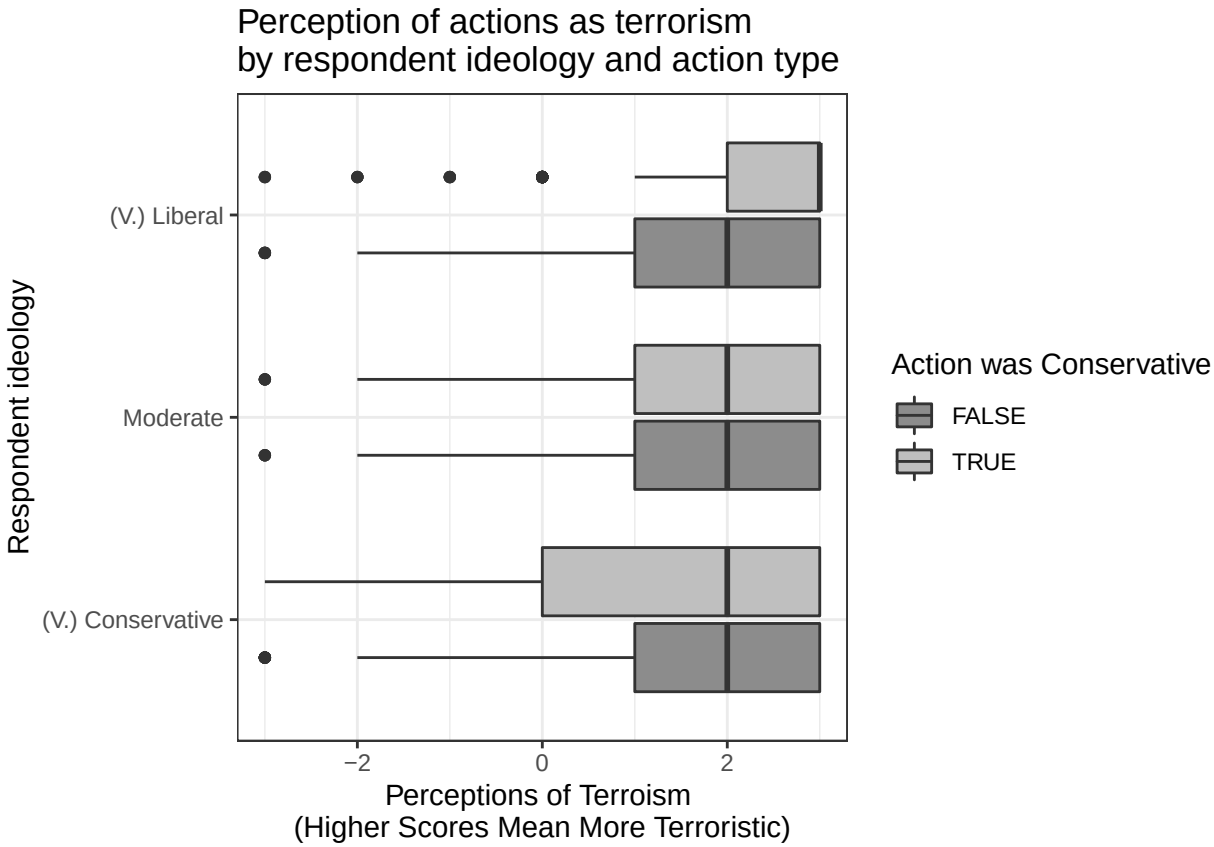
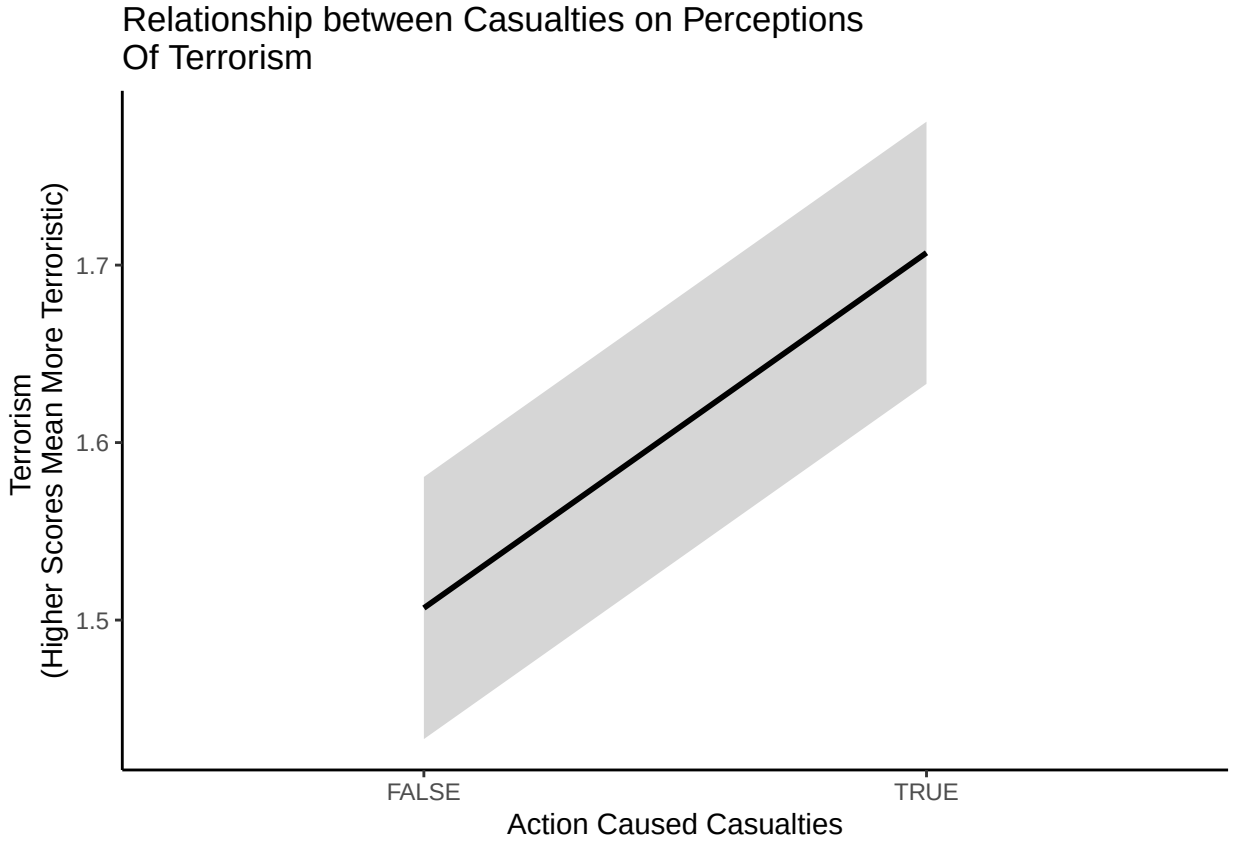
	Dependent variable:					
	Action is terrorism					
	(1)	(2)	(3)	(4)	(5)	(6)
Conservative	-0.17^{**}	-0.18^{***}	0.02	0.02	0.02	-0.03
	(0.07)	(0.07)	(0.09)	(0.09)	(0.09)	(0.09)
Liberal	0.27^{***}	0.27^{***}	0.17^{*}	0.17^{*}	0.18^{*}	0.17^{*}
	(0.07)	(0.07)	(0.10)	(0.10)	(0.10)	(0.10)
Not Sure	-0.83^{***}	-0.83^{***}	-0.63^{***}	-0.64^{***}	-0.62^{***}	-0.58^{***}
	(0.09)	(0.09)	(0.12)	(0.12)	(0.12)	(0.12)
C. Action		0.08	0.20^{**}	0.20^{**}	0.20^{**}	0.20^{**}
		(0.05)	(0.10)	(0.10)	(0.10)	(0.10)
Casualties				0.19^{***}	0.19^{***}	0.19^{***}
				(0.05)	(0.05)	(0.05)
Female					-0.09^{*}	-0.13^{**}
					(0.05)	(0.05)
Black						-0.32^{***}
						(0.08)
Hispanic						-0.17^{**}
						(0.08)
Race — other						-0.43^{***}
						(0.08)
Conservative × C. Action			-0.40^{***}	-0.40^{***}	-0.39^{***}	-0.39^{***}
			(0.14)	(0.13)	(0.13)	(0.13)
Liberal × C. Action			0.19	0.19	0.19	0.19
			(0.14)	(0.14)	(0.14)	(0.14)
Not Sure × C. Action			-0.41^{**}	-0.39^{**}	-0.39^{**}	-0.37^{**}
			(0.17)	(0.17)	(0.17)	(0.17)
Intercept	1.70^{***}	1.66^{***}	1.60^{***}	1.51^{***}	1.55^{***}	1.70^{***}
	(0.05)	(0.05)	(0.07)	(0.07)	(0.08)	(0.08)
Observations	3,640	3,640	3,640	3,640	3,640	3,640
R^2	0.04	0.04	0.05	0.05	0.05	0.06
Adjusted R^2	0.04	0.04	0.05	0.05	0.05	0.06
Residual Std. Error	1.58	1.58	1.57	1.57	1.57	1.56
F Statistic	54.93^{***}	41.76^{***}	27.46^{***}	25.75^{***}	23.26^{***}	20.73^{***}

Note: *p<0.1; **p<0.05; ***p<0.01

difference between how moderates and conservative respondents respond to an action is almost twice as large as the average change in response associated with an action causing casualties. Negative interactions between the conservative respondent and conservative action terms indicates that relative to moderate respondents, conservative respondents found conservative actions to be much less terroristic.

Across all models, the interactions between the liberal respondent and conservative action terms were insignificant, indicating that liberal respondents were not significantly different from moderate respondents in how they reacted to conservative actions.

Effects Graph



Effects of Casualties