Responsiveness and Unelected Leaders: Lessons from the Catholic Church*

Jeffrey Ziegler[†]

Abstract

Are leaders responsive to their members' preferences over time, even when formal accountability mechanisms such as elections are weak or absent? Unelected leaders, especially religious leaders, typically influence their supporters' preferences, yet I suggest they should also have strong incentives to be responsive because they rely on dedicated, core members for legitimacy, volunteerism, and financial support. I test this argument by first analyzing over 10,000 papal messages to confirm the papacy is responsive to Catholic public opinion. I then conduct survey experiments using nationally representative samples of Catholics in Brazil and Mexico (N=5,006) to show that members increase their organizational trust and participation as a function of their existing organizational commitment, and the anticipated cost of support. The evidence suggests that leaders have incentives to be responsive besides elections, although there may be limits to the benefits that members provide in return.

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[†][Post-Doctoral Fellow](#), Emory University, Institute for Quantitative Theory and Methods, Atlanta, GA 30322, United States, e-mail: jeffrey.ziegler@emory.edu.

Although political scientists tend to focus on responsiveness under formal accountability mechanisms such as elections, many important political organizations do not fit this mold. Interest groups, religious groups, and other non-governmental organizations (NGOs), for instance, are not subject to external or internal accountability mechanisms uniformly across countries. The internal accountability mechanisms that do exist, through boards of directors or advisory committees, are not always transparent or impartial enough to operate as a sufficient source of accountability. In the absence of elections or other formal accountability mechanisms, do unelected leaders have incentives to be responsive to their members' concerns over time, and why?

Even under strong formal accountability mechanisms, leaders and elites typically inform the opinions and behavior of their supporters (Clifford and Jerit 2013; Druckman and Lupia 2016). Under weaker accountability mechanisms there are fewer restrictions on leaders to pursue their own ideal policies and exert influence over other internal actors. This is especially true of religious leaders (Bassi and Rasul 2017; Grzymala-Busse 2012; Margolis 2018; McClendon and Riedl 2016; Paterson 2018; Spenkuch and Tillmann 2018).² Religious leaders play a key role by interacting with followers and acting as "liaisons between the social and political worlds, providing voters with cues as to how their identifications with particular groups should translate into political preferences and activities" (Margolis 2018, 1). And yet, I argue that there are strong motivations for religious organizations to be responsive, the same motivations as interest groups and non-governmental organizations more generally, which are driven by their centralized governance structure and dependence on members.

Effective interest groups secure members and their resources, which are crucial to expand networks and coordinate political activities (Ebrahim 2003; Heiss and Kelley 2017). For their part, members also want their leader to be responsive to their preferences. If followers receive responsiveness, they should theoretically be more likely to trust and support the organization. And, if members do not receive responsiveness they can always

²In the case of the Catholic Church, religious doctrine and Canon law states that the pope is (in most matters) infallible, and the pope promotes an image of political independence. This marketing is effective; for instance, the director of a documentary about Pope Francis stated that "he [Pope Francis] is not influenced by polls or whatever. I don't think he would ever consider any public opinion over something he means and he's convinced of" (CBS 2018).

"vote with their feet" and sanction the organization by exiting (Keohane 2002; Wapner 2002). Interest groups, and religious groups, are often limited however in the actions they can take to be responsive, so an effective form of responsiveness is to distribute public messages that relate to the preferences of their members. By speaking out on issues that members believe are important leaders can, therefore, show their supporters how responsive they are to maintain and increase organizational trust and participation.

To analyze whether unelected leaders supply responsiveness through their public messages, and whether that supply is driven by the expectation that members provide legitimacy and resources in return, I examine one of the largest and oldest political organizations that has few formal internal or external accountability mechanisms: the Roman Catholic Church. I argue that given, not despite of, its considerable political power, the Church very much depends on its followers. Religious leaders that weaken their support among members risk their organizations', and their own, political strength. The Catholic Church should, therefore, have strong incentives to tailor its messages to represent its members' concerns.

First, I present evidence that the leader of the Church, the pope, is responsive to Catholics' preferences by evaluating the impact of Catholic public opinion on papal rhetoric using a unique data set of over 10,000 papal speeches, messages, and letters. The findings suggest that when an issue gains saliency among a greater proportion of members, the pope dedicates a greater proportion of his rhetoric to that issue. The converse, however, is not empirically verified; papal rhetoric is not a reliable predictor of Catholic public opinion, which suggests that the pope does not systematically influence Catholics' priorities in the aggregate over time, though he may certainly try.

Next, I address why the pope should be theoretically motivated to be responsive, even though there are few, if any, formal accountability mechanisms to sanction non-responsiveness. Given the reliance of the Church on its members, I hypothesize that the central motivation of the Church to be responsive is driven by an expectation that members are more likely to increase their organizational trust and participation when they receive messages that reaffirm their concerns. As such, I expect that members with greater existing participation will, by definition, receive and expect responsiveness given their frequent participation in church activities. These dedicated members should be

more likely to react positively to papal responsiveness by exhibiting a greater willingness to participate in the organization.

I employ original, nationally representative survey experiments of Catholics in Brazil and Mexico (N=5,006) to test this argument. The results indicate that Catholics who attend church services weekly, in comparison to Catholics that attend infrequently, are more willing to participate in future activities through the Church in general. Further, they are more likely to agree that the Church is responsive, and have a greater existing expectation that the Church should be responsive. Importantly, in comparison to regular attendees that do not receive responsiveness, regular attendees that receive papal responsiveness are more likely to increase their already strong organizational participation. The findings suggest that dedicated members are more likely to expect responsiveness, and when it is provided, they are more likely to increase their participation and their perception of how much responsiveness the Church provides.

Less active members, on the other hand, are much less likely to exhibit high levels of trust and participation in the Church, regardless of which papal statements they receive. In fact, less dedicated members that receive responsive messages are less interested in attending services and volunteering in the future than less dedicated members that do not receive responsive messages. To the extent possible, I examine whether this heterogeneous treatment effect between frequent and infrequent attendees is impacted by any disagreement between respondents' and the pope's preferences.

Respondents that exhibit low pre-treatment organizational involvement and disagree with the Church's issue position are more likely to detract their support. Infrequent church attendees, however, are also more likely to decrease their support if they receive messages on issues that they agree on with the Church. Responsiveness among passive, life-long members may be counterproductive because it signals that action is unnecessary and that leadership presently prioritizes that issue (Levine and Kam 2017; Butler and Hassell 2018). Dedicated members, interestingly, still respond positively to issues that they prioritize, regardless of whether they agree or disagree with the Church, which shows a potential tolerance of leaders that have inconsistent positions (Tomz and Van Houweling 2012).

The two complimentary and novel analyses support a comprehensive argument that details both the impact of members' preferences on leader rhetoric, as well as the impact of organizational responsiveness on members' attitudes and behaviors. Rather than concentrate on the ability of leaders to influence political preferences, this paper contributes an alternative perspective that outlines when and how unelected leaders, similar to the pope, should act in accordance with their own followers' political preferences to extract support.

Further, by addressing the motivations of religious leaders to provide responsiveness, the theory and results additionally speak to the role of religion in international and comparative political studies without the "conventional theoretical tool kit that is limited to mundane politics of states and nations" (Snyder 2011, 4). Since typical models of elected governance and representation do not translate well to religious groups, many scholars have narrowed their focus to "develop concepts that describe and theorize religious actors and religious ends as precisely that: religious" (Shah and Philpott 2011). I argue that many institutions and actors share fundamental characteristics with religious groups, and those characteristics shape the incentives that religious organizations have to interact with their members and provide responsiveness. By conceptualizing religious groups as non-governmental or interest groups more generally, I expand upon research that utilizes the organizational structure of religious groups to hypothesize how they strategically influence other political actors such as supporters and politicians, or governmental policies (Gill 2001; Warner 2000). In total, the theoretical and empirical implications of this paper help detail whether and why leaders of religious organizations, as well as interest groups and NGOs, with few or no formal accountability mechanisms provide responsiveness to their members.

Theory

A central assumption of representational democratic theory is that elections are the primary mechanism through which members or constituents can hold organizational leadership accountable, which motivates leaders to be responsive.³ Yet, even when

³The responsiveness of a leader to their members' preferred action differs in two substantial ways depending on (1) whether a representative is elected or unelected and (2) the set of available actions to the

there are theoretically strong motivations for group leaders to be responsive, models of elite behavior still typically focus on the ability of leaders to influence members by disseminating information, framing debates in the media to influence members' preferences, and acting as group representatives (Zaller 1992). Unelected leaders that operate in centralized interest or non-governmental organizations exert even greater control over other internal actors because those leaders generally benefit from higher degrees of access and efficiency (Hafner-Burton and Montgomery 2010).

This is precisely how centralized religious organizations, such as the Catholic Church, operate.⁴ The Catholic Church functions as any other interest group; it carries out its organizational objectives on as broad a scale as possible to influence internal actors such as parishioners, priests, and cardinals, as well as external actors such as national governments (Huntington 1973). The Church carries out its organizational objectives using a large bureaucracy (the Roman Curia) which is charged with the administration of the Catholic Church (Haynes 2001; Valuer 1971).

As evidence of their effort, religious leaders have been shown to influence followers' preferences by priming certain religious values (Djupe and Gwiasda 2010; Djupe and Calfano 2013). Their rhetoric has also been shown to influence followers' willingness to contribute to public goods and participate politically (Condra, Isaqzadeh and Linardi 2017; McClendon and Riedl 2015a; McClendon and Riedl 2015b; Rink 2018, Sheikh 2012).⁵ Therefore, in the context of the Catholic Church, the conventional model of accountability and responsiveness hypothesizes that papal rhetoric positively predicts Catholic public opinion because the pope is viewed primarily as a leader of opinion, and he has few formal incentives to be responsive to Catholics' current political concerns, which wax and wane.

leader, which is a function of the institution the leader operates in (Gailmard 2014).

⁴A notable exception is Islam, which is largely decentralized. One hypothesized reason for the inability of Muslims to collectively organize campaigns internationally is due to a lack of centralized resource allocation to enhance cooperation among members and legislative allies (Pfaff and Gill 2006; Warner and Wenner 2006).

⁵Religious leaders may not always affect their intended audience. For instance, leaders of the Evangelical Immigration Table (EIT) in the United States were unable to increase the willingness of members to act politically, but they were more successful at demobilizing evangelical opponents of immigration reform (Margolis 2018).

Elections, however, are limited in their ability to select or sanction agents simultaneously and voters can only induce accountability to the degree that representatives receive utility for their effort (Ferejohn 1986; Fox and Shotts 2009). Accordingly, though unelected leaders may not be fearful of electoral punishment, they still have strong incentives to act upon their supporters' preferences to maintain power and legitimacy. Given the dispersed structure of centralized NGOs, especially global interest and religious groups, unelected leaders still rely on their members for key resources such as organizational trust and participation, which incentivizes unelected leaders to be responsive.

Trust in an organization is a necessary, but not sufficient, condition for members to participate and support a political organization. Leaders in democratic or undemocratic institutions must sustain organizational trust among their supporters because trust allows the organization to make decisions without the use of coercion or continual need of approval (Gamson 1968). More precisely, organizational trust is considered an integral component of specific and diffuse support, such that high (low) trust can increase (decrease) specific/short-term support (Easton 1965). Continual high (low) specific support from increased (diminished) levels of trust then leads to high (low) diffuse support, which refers to the willingness of individuals to grant legitimacy to the organization (Hetherington 1998). Therefore, low levels of trust can potentially constrain the capacity of leaders to act in the short-term, as well as the long-term through a reduction of organizational legitimacy. In this sense, the support of members both directly and indirectly impacts organizational accountability through "mechanisms leading to punishment through hierarchy, supervision, fiscal measures, legal action, the market, and peer responses" (Grant and Keohane 2005).

Since organizational trust is largely an evaluation of performance, it depends on the perceived responsiveness of the leader to satisfy the expectations of its supporters (Miller 1974).⁶ Leaders must be continually concerned with how their behavior impacts

⁶Responsiveness, therefore, does not necessarily entail that leaders' public messages exactly match their members' preferences. In general, non-informative communication can be impactful through salience and framing (Mullainathan, Schwartzstein and Shleifer 2008). In the context of the Church, Bassi and Rasul (2017) show that exposure to informative, persuasive messages during a papal visit alters members' intent to use, as well as the use of, contraception in both the short and long term. The pope should discuss

organizational trust, given the preferences of their supporters, because high (low) responsiveness precipitates high (low) levels of organizational trust in a cyclical nature (Keele 2007). Therefore, I predict that unelected leaders such as the pope should actually respond to, not lead, their members' opinions.⁷

Importantly, I argue that the motivation to provide responsiveness is driven by the expectation that members' increase the likelihood that they participate because diffuse support leads to higher organizational commitment and lower motivation to leave the organization (Tan and Tan 2000).⁸ Members' continued organizational commitment, consequently, is a function of their past and current organizational commitment. Supporters that receive responsiveness and develop organizational trust should be more likely to build, and then maintain, that trust.

This particularly applies to individuals who are "core members" that frequently participate in the organization because they should be the most likely members to receive responsiveness and accumulate goodwill toward the organization. The first implication is that members that participate more frequently should be more likely to expect responsiveness because if the pope is consistently responsive, core members are likely accustomed to it. Furthermore, when core members receive responsiveness, I hypothesize that they should be the most likely to increase their support given their high existing support.

In sum, although followers of centralized interest groups have few formal mechanisms through which to hold leaders accountable, the reciprocal relationship between followers and the organization should incentivize unelected leaders to be responsive to the

issues that members care about and react positively to, so the pope has little incentive talk about an issue the members care about, but take a completely contradictory stance relative to members. It still may be possible that some members deviate from the "mean Catholic" position on a given issue, which I account for and discuss in the survey design.

⁷The pope has already been shown to allocate a larger portion of his speech to "political" issues during times of international crisis (Genovese 2015; Genovese 2018), but I argue that the pope is, in fact, responding to Catholics when speaking "politically". I, nevertheless, attempt to account for economic and political trends that impact both Catholic public opinion and the pope in the research design.

⁸Han (2016) shows that by endorsing members' "goals and providing them with opportunities to pursue those goals", members are more likely to mobilize on behalf of the organization. When members receive responsiveness, members increase their activism. First, members feel like they are heard when they are prompted to give feedback and reflect on their participation in the organization. Second, members increase their activism when they are reminded of their "past and implied future" with an organization (2016, 300).

preferences of supporters. The motivation of leaders to be responsive is largely driven by their reliance on members, and the reaction that followers have to responsiveness. Members that are more involved in the organization should be more likely to have received responsiveness in the past due to their participation, expect responsiveness in the future, and react positively to responsiveness. This theoretical model helps illustrate why organizations with relatively few or no formal accountability mechanisms, such as the Catholic Church, have strong incentives to be responsive to their members.

I test these theoretical implications by utilizing unique evidence from empirical data and survey experiments. These data and experiments, described in the subsequent section, are designed to comprehensively assess the theoretical argument empirically.

Research Design

The empirical evaluation consists of two studies. First, I develop a yearly measure of papal rhetoric to test for leader responsiveness. I utilize a new collection of over 10,000 original papal documents that were gathered using a `python` algorithm that I constructed to access publicly available papal documents from the [Vatican's](#) archives. I perform an automated content analysis of the papal statements with accompanying regression models to examine whether the pope is responsive to Catholic public opinion (Study 1).

I also conduct large, nationally representative survey experiments of Catholics in Mexico and Brazil (Study 2). The survey experiments (N=5,006) assess how members react when the pope, a formally unaccountable leader, provides responsiveness as well as the extent to which members' existing support conditions the impact of responsiveness or non-responsiveness. These two complimentary approaches more rigorously test the empirical implications surrounding the supply and consumption of responsiveness from unelected leaders.

Study 1: Are Unelected Leaders Responsive?

To test whether the pope is responsive to Catholics' concerns, I analyze the relationship between Catholic public opinion and papal rhetoric between 1995 and 2014. The corpus

of papal rhetoric is composed of official public statements made by the pope, including: general audiences; speeches; masses; letters to public officials and dignitaries; homilies; angeluses; and apostolic letters.⁹ These statements are communicated to Catholics world-wide, often directly from the pope himself or through news media.¹⁰ The vast scope of the corpus ensures that the measure of overall papal rhetoric captures more than just a small subset of statements that are intended for a specific audience. Further, the volume of documents helps accurately represent the totality of papal rhetoric created for public consumption during the observed time period.

The documents are classified using the supervised learning algorithm ReadMe developed by Hopkins and King (2010), which relies on a hand coded "training" set of papal documents from each category and year.¹¹ The training set is then used to estimate the proportions of papal rhetoric dedicated to each topic by year. I classify papal documents into five exhaustive categories: religious matters, socio-political issues, violence/conflict, human rights, and the economy. These categories were chosen to exactly match the topic categories of Catholic public opinion data to directly test whether papal responsiveness varies across issue area. The temporal trends of papal rhetoric by topic category are displayed in the left panel of Figure 1. There is substantial variation within and between the other topical proportions of papal rhetoric between 1995 and 2014, which spans three papacies.

To measure which topics Catholics are most concerned with, I compile information

⁹An angelus is a short, weekly address delivered by the pope that is broadcast on public television. Apostolic Letters (*Litterae Apostolicae*) are one type of ecclesiastical document that the pope releases under his name that pertains to the function and governance of the Church (e.g., Motu Proprio, encyclicals, Apostolic Constitutions).

¹⁰For instance, Pope Francis released a post-synodal apostolic exhortation (*Amoris laetitia* or *Joy of Love*) addressing family care in 2016. A post-synodal apostolic exhortation is a papal response to the Synod of Bishops (an advisory body for the pope) that shapes interpretation and encourages behavior, but does not define Church doctrine. Importantly, even this seemingly obscure communication received international news coverage and analysis (*Al-Jazeera* 2016; *Guardian* 2016; *NYT* 2016), which is indicative of the media coverage for even relatively minor papal messages.

¹¹The training set was hand coded by randomly and uniformly sampling documents from each year in the observed time period. Approximately 5% of the total corpus (as well as nearly 5% from each yearly corpus) is included in the training set, which matches the suggested number of hand coded documents by Hopkins and King (2010). The [Appendix](#) provides details on the construction of the outcome, including examples of hand-coded documents, the retrieval process, and the automated content analysis.

Figure 1: Change in the most important issues to Catholics and papal rhetoric across time by issue topic (1995-2014).

Notes: This figure serves as a visual comparison of the temporal and topical variation in papal rhetoric and Catholic public opinion among the four common categories (socio-political issues, violence/conflict, economy, and human rights). The left panel displays the predicted topic proportions in papal rhetoric, while the right panel highlights the concern of Catholics. The proportion of rhetoric dedicated to religious topics is omitted from the figure because these documents primarily pertain to religious services, events, and evangelization.

about the relevance of different topics to Catholics in a series of World Values Survey instruments between 1995 and 2014.¹² I merge numerous regional surveys that ask respondents which issue is most salient or important to create a measure of Catholic public opinion by topic and year. I first identify organization members (i.e. Catholics) by their self-identified religious denomination. I then select a survey item from each survey-round that asks respondents which issue is most important to measure the

¹²The combined data set on Catholic public opinion includes data from the World Values Survey, Latinobarometro, Afrobarometer, Asianbarometer, and the Eurobarometer data sets. The [Appendix](#) provides information about the number of Catholics included in the combined data set by country-year and survey-year. To ensure that Catholics represent a large enough proportion of each country year sample I only include countries that surveyed at least 50 Catholics. The [Appendix](#) also displays the yearly percent of world-wide Catholics represented in the measure of public opinion.

aggregate concerns of Catholics. In the combined data set from 1995 to 2014, the total number of Catholic respondents surpasses 400,000 from 86 different countries.

For each country, in each year, I take the proportion of Catholics that believe a given topic is the most important, weighted by their relative "voice" in the Church as a proportion of Catholics world-wide. Consider Brazil, which had about 65% (123 million) of its population self-identify as Catholic in 2010. If 50% of Brazilian Catholics, for example, believed that the economy was the most important issue, then the proportional positive "voice" of the issue contributed to public opinion is equal to (percent of Catholics in Brazil concerned with the economy) $\times$ ($\frac{\text{Brazil's Catholic Population}}{\text{World-wide Catholic Population}}$) or $(0.5) \times \left(\frac{123 \text{ million}}{1.1 \text{ billion}}\right) = 0.055$.¹³ The global measure of public opinion on a given issue is the summation of the weighted "voice" from each country in the combined data set. I standardize these summed topic proportions of public opinion by the amount of Catholics surveyed in a given year, such that the percentages from all topic categories sum to one for each year. The measure of public opinion shown in the right-panel of Figure 1 can thus be interpreted as the relative number of Catholics surveyed in a given year that believe topic x is the most important issue.

There is some variation in question wording and answer options across surveys. For instance, in the World Values Survey respondents in 2014 were asked: "If you had to choose, which one of the things on this card would you say is most important?". Respondents could only select from four vague and broad categories, which related to: violence/conflict, socio-political issues, economy, and human rights. Conversely, the Latinobarometro in 2005 asked respondents a slightly different question: "In your opinion, which would you consider to be the country's most important problem?". The choice set for respondents was also different. I, therefore, classify issues such as terrorism and crime as violence/conflict, education and environment as socio-political issues, poverty and unemployment as economy, and freedom of religion or speech as human rights. In the analysis, I match these four categories of public opinion to their corresponding categories of papal rhetoric (excluding the category for religious matters).

Another limitation of the combined data set is that the number of respondents

¹³Yearly Catholic population statistics are released by the Church in *Annuarium Statisticum*. I collected data on the number of Catholics for each country year in the combined data set of public opinion.

surveyed as a proportion of the total Catholic population varies by year because the cross-national coverage of the surveys on which I base this measure changes every year. In nearly every year the Catholics surveyed represent at least 30% of the total Catholic population world-wide. Though I cannot compile a completely representative survey of Catholics, I argue this subset represents the best indicator of world-wide Catholic public opinion available, and it provides a strong signal as to which issues Catholics are concerned with generally that the Church, and the pope, should be aware of.

Model Estimation

The outcome of interest is the estimated proportion of papal speech dedicated to a given topic in a given year, which is composed of four categories (violence/conflict, economy, human rights, and socio-political issues). Each topic category j lies within the interval zero to one, and all categories sum to one for each year t (after including the estimated proportion of papal rhetoric dedicated to religious matters). As such, the unit of observation (y_i) is a single topic proportion j in a single year t . Catholic public opinion is represented as x_i , which is the proportion of Catholics that believe issue j is the most important in year t . I perform a multi-level regression model using ordinary least squares (OLS) because additional predictors that are causally prior to Catholic public opinion and papal rhetoric must be measured at the year-level, and they are therefore invariant for all observations during the same year. The additional control variables, which are discussed in more detail below, are contained in the matrix $\mathbf{U}_t$ and each variable's value is equal across all topic groups j within a given year t .

$$y_i \sim N\left(\alpha_{j[i]} + \beta_{j[i]}x_i, \sigma_y^2\right), \text{ for } i = 1, \dots, N$$

$$\begin{pmatrix} \alpha_j \\ \beta_j \end{pmatrix} \sim N\left(\begin{pmatrix} \gamma_0^\alpha + \gamma_1^\alpha \mathbf{U}_t \\ \gamma_0^\beta + \gamma_1^\beta \mathbf{U}_t \end{pmatrix}, \begin{pmatrix} \sigma_\alpha^2 & \rho\sigma_\alpha\sigma_\beta \\ \rho\sigma_\alpha\sigma_\beta & \sigma_\beta^2 \end{pmatrix}\right), \text{ for } j = 1, \dots, 4 \quad (1)$$

To account for the possibility that the pope is heterogeneously responsive to public opinion across issue area, I vary intercepts (α) and slopes (β) for each public opinion topic category in equation 1. Since Catholic public opinion also sums to one for each yearly observation, estimating a single model with all predictors (public opinion of

all j topics) would induce perfect collinearity because the predictors are exact linear combinations of each other. To avoid this, I remove the global intercept and estimate separate intercepts for each topic (α_j). This specification examines whether the pope is responsive to Catholic public opinion.¹⁴

The second set of models that I estimate investigate whether Catholic public opinion is responsive to the pope. I estimate, therefore, in equation 2 the same multi-level regression model using OLS, but papal rhetoric is used as a predictor (x_i) of Catholic public opinion (y_i). These models also allow for varying intercepts and slopes as in equation 1. For both model specifications, I also estimate regressions that include lagged terms of the primary covariate ($t-4, \dots, t-1$) to capture any possible delayed covariation in the relationship.

$$Catholic\ public\ opinion_i \sim N\left(\alpha_{j[i]} + \beta_{j[i]} Papal\ rhetoric_i, \sigma_y^2\right), \text{ for } i = 1, \dots, N \quad (2)$$

The control variables that are added attempt to account for economic and political events that may influence papal rhetoric and Catholic public opinion. It is difficult to find and measure global, aggregate events that influence both papal rhetoric and Catholics' concern on the same issue. I add two control variables: (1) the logged number of battle related deaths in the world (from the [Uppsala Conflict Data Program](#), [Pettersson and Eck 2018](#)) and (2) global economic growth (from the [World Bank](#)) for each year of the analysis. This is not an exhaustive set of potential predictors of papal rhetoric, but these control variables help alleviate concerns that the direct association between Catholic public opinion and the propensity of the pope to discuss political issues is due to the occurrence of international economic or military crises.

¹⁴See the [Appendix](#) for an explanation of alternative model specifications that account for the compositional and temporal components of the data. Varying intercepts by pope were also included in equation 1, but did not alter the fit, reliability, or substantive interpretation of the model. As such, these models are not reported. Also, I do not allow the coefficients to vary on the additional lagged terms of Catholic public opinion because I do not have any theoretical expectation to suggest such a specification.

Study 1 Results: The Pope is Responsive to Members

Table 1 provides initial evidence that the pope is responsive to the concerns of members. The estimated pooled coefficient of current Catholic public opinion is positive and statistically reliable in each model (1-3), indicating that when a greater portion of Catholics are concerned about a given issue, papal rhetoric dedicated to the same topic also increases. For instance, consider model 3 from Table 1 which uses only the contemporaneous value of Catholic public opinion and its lags ($t-4, \dots, t-1$) to predict papal rhetoric. The estimated coefficient indicates that a change of 1% in Catholic public opinion on issue x_j is associated with a simultaneous change of 0.15 in the proportion of papal rhetoric dedicated to issue x_j .

The full model, model 2 in Table 1, accounts for existing levels of global violence and economic prosperity in addition to the temporal trend of Catholic public opinion. Given a 1% change of Catholic public opinion on a certain issue, the pope is estimated to dedicate 0.38 percentage points more of his rhetoric to the same issue. This is a substantively meaningful effect since the average change of Catholic public opinion between successive years is only 6%, which constitutes approximately a 2.28% associated change in papal rhetoric. With the addition of the control variables to the regression, the magnitude of the estimated coefficient for current Catholic public opinion increases, while the log-likelihood, AIC, and BIC decrease indicating better model fit.

I also investigate the first hypothesis, if Catholic public opinion is in fact driven by the proportion of papal rhetoric devoted to a given topic. The reverse causal process (that papal rhetoric impacts Catholic public opinion) does not appear to be statistically reliable. Models 4-7 in Table 1 display the same estimated models such that Catholic public opinion is regressed on papal rhetoric. In each model, papal rhetoric is not a reliable predictor of Catholic public opinion, which lends further evidence to the notion that Catholic public opinion leads papal rhetoric.

Finally, the bottom section of Table 1 suggests that the impact of Catholic public opinion on papal rhetoric differs by issue area. There is slight variation in papal rhetoric across issue area (σ_α). Additionally, there is similar variation in the effect of public opinion across issue area ($\sigma_{\beta 1}$), while there is little variation within issue area (σ_γ). This

Table 1: The variation in current papal rhetoric is positively associated with the variation in current Catholic public opinion.

	<i>Dependent variable:</i>					
	Proportion of papal rhetoric			Proportion of Catholic public opinion		
	(1)	(2)	(3)	(4)	(5)	(6)
Catholic public opinion	0.310*** (0.082)	0.381*** (0.097)	0.150* (0.060)			
Catholic public opinion _{<i>t</i>-1}		-0.032 (0.059)	-0.014 (0.063)			
Catholic public opinion _{<i>t</i>-2}		-0.121 (0.062)	-0.106 (0.066)			
Catholic public opinion _{<i>t</i>-3}		-0.033 (0.062)	-0.0004 (0.065)			
Catholic public opinion _{<i>t</i>-4}		0.035 (0.065)	0.080 (0.066)			
Papal rhetoric				0.274 (0.257)	0.118 (0.405)	0.535 (0.372)
Papal rhetoric _{<i>t</i>-1}					0.327 (0.482)	0.432 (0.468)
Papal rhetoric _{<i>t</i>-2}					-0.194 (0.515)	-0.135 (0.502)
Papal rhetoric _{<i>t</i>-3}					0.009 (0.520)	0.060 (0.485)
Papal rhetoric _{<i>t</i>-4}					0.041 (0.418)	0.131 (0.400)
σ_α	0.254	0.306	0.109	0.195	0.212	0.301
$\sigma_{\beta 1}$	0.313	0.344	0.105	0.442	0.590	0.964
σ_y	0.033	0.034	0.037	0.073	0.080	0.079
Control variables	✓	✓		✓	✓	
Log-Likelihood	136.290	96.263	104.380	79.081	57.114	63.632
AIC	-258.579	-170.526	-190.761	-144.162	-92.228	-109.265
BIC	-241.905	-146.778	-171.331	-127.488	-68.481	-89.835
N	80	64	64	80	64	64

Notes: The fixed coefficient estimates from an OLS multi-level regression are shown with standard errors in parentheses. Statistically reliability is reported as *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

further indicates that the pope's responsiveness varies by issue area, but these findings are limited. Due to the compositional nature of both the outcome and indicator, these models are not ideal to explain which topics generate more relative responsiveness, or how responsiveness to one issue area is impacted by the allocation of papal rhetoric to another issue area.¹⁵

There may also be a concern that the Pope is responsive to public opinion more generally, rather than responding specifically to Catholic public opinion. To address this, I create an indicator of total public opinion and "non-Catholic" public opinion for each topic for each country-year. The sample of countries is the same for both indicators of total and Catholic public opinion. Ultimately, the indicator of total public opinion is highly correlated with Catholic public opinion (0.92). This is not necessarily surprising given that the countries included in the sample generally have a large proportion of Catholics. However, when Catholic public opinion is replaced with total public opinion or non-Catholic public opinion exclusively, the relationship between public opinion and papal rhetoric is no longer statistically reliable. The results, which are included in the [Appendix](#), further suggest that if the pope is responsive he is being responsive to Catholics' preferences and not merely following general trends in international public opinion.

In total, these results provide only correlational support for the hypothesis that the pope is responsive to the concerns of his followers. Despite the variety and volume of papal data, the observed time period is far too narrow to make any definitive causal claims about the direct or lagged effect of Catholic public opinion on papal rhetoric. These findings, however, support the theoretically derived implication that unaccountable leaders should be responsiveness to follower' concerns because they know

¹⁵I cannot adequately model the effect of Catholic public opinion by issue area with this analytical strategy because the "random" effects of the multi-level models ignore the inherent negative correlation between topic categories in both the outcome and input variables. The Dirichlet regression mentioned in the [Appendix](#) represents one potential correction to this shortcoming. I fully acknowledge that responsiveness may be (and likely is) largely driven by the interactive effect between issue area and Catholic public opinion. I attempt to account for this in the research design in Study 2, and I discuss the low correlation between Catholics' political preferences by issue area and their dedication to the Church in the [Appendix](#). Though I cannot properly discern whether the pope is more responsive to specific issue areas, it appears that more involved Catholics do not demand responsiveness nor reward rhetoric on a specific political topic.

that motivated members are more likely to provide organizational trust and participate. To show that supporters, especially dedicated supporters, react to responsiveness I outline the design and results of survey experiments in the next section.

Study 2: Does Responsiveness Increase Support?

For the second portion of the analysis, I conduct survey experiments among Catholics in Brazil and Mexico because the two countries are home to the two largest populations of Catholics in the world. This should provide a large and representative sample of Catholics that generalizes to Catholics world-wide. More importantly, given the strength of their collective voice, if Catholics in these two countries react positively to responsiveness, it lends support to the hypothesis that Catholics more generally exhibit similar behavior, and that there is a motivation for the pope to provide responsiveness to extract support.¹⁶

Respondents that participate in the survey experiment are self-identified Catholics and they are presented with three selected news headlines outlining recent statements made by the pope that match the topic categories used in Study 1 (conflict, human rights, socio-political issues, economy, and control/religious matters). The three news headlines associated with each of the five topics are found in Table 2. These messages are meant to represent the typical language content and phrasing used in the media regarding the pope's statements.¹⁷

To isolate the effect of papal responsiveness on respondents' organizational attitudes and support, respondents are randomly assigned to receive news stories pertaining to either (1) a topic that they believe is most important (the "responsive" treatment), or (2) one of the four other issue areas ("non-responsive"). Within those respondents that receive "non-responsive" messages, there is an even probability of assignment to each topic, so it is possible to examine if one topic has an especially negative impact on respondents' preferences and behavior. The random assignment to treatment is shown

¹⁶For instance, given the importance of these two countries to the Church, the pope has made several recent visits. The pope has visited Brazil and Mexico as recently as 2013 and 2016 (NYT 2013; CNN 2016).

¹⁷The survey was translated from English to Spanish (for Mexican respondents) and Brazilian Portuguese (for Brazilian respondents). The original survey experiment was back-translated by two native speakers for each language. The translated versions of the survey experiment text that respondents viewed are available in the [Appendix](#).

Table 2: News headlines summarizing papal rhetoric for each issue area.

Conflict

1. "Pope pleads for end to 'homicidal madness' of terrorism".
2. "Pope meets with Colombian leaders in wake of peace deal".
3. "Let's unite against war and violence, Pope urges at Roman synagogue".

Economy

1. "Pope says economy must fight 'throwaway culture'".
2. "Generate new models of economic progress, Pope urges business leaders".
3. "'Economy of exclusion, inequality caused growth of poverty', says Pope".

Socio-political issues

1. "Education and play are key to childhood, Pope tells Cuba, US youth".
2. "Holy See backs global health goals, says 'leave no one behind'".
3. "Pope asks: give immigrants compassion, not blame".

Human rights

1. "Vatican diplomacy zeros-in on human rights in Africa".
2. "For Pope, it's imperative: religious liberty is a gift from God. Defend it".
3. "Pope says promotion of human rights is central to the commitment of the European Union".

Control (neutral)

1. "Pope marks 80th birthday in Rome, addresses Cardinals at Mass".
 2. "If you're tempted to gossip, 'bite your tongue,' Pope says".
 3. "Love God now - because you might not have tomorrow, Pope says".
-
-

in the top panel of Figure 2.

Prior to viewing the news headlines, respondents provide pre-treatment information regarding their age, gender, region of residence, and political preferences among issues similar to the news treatments. After viewing the news headlines, respondents then

Figure 2: Respondent assignment to treatment and outcome responses for survey experiment of Catholics.

express the degree to which they think the Church is responsive, the degree to which they trust the Church, and the degree to which they anticipate increasing their organizational participation.

As an example, Figure 3 shows exactly how the news headlines and an outcome question appear to respondents during the survey. All of the outcome questions that gauge respondents' levels of organizational trust and participation are presented in

the bottom panel of Figure 2. The order in which the outcomes are presented is randomized. The outcome responses are designed to increase the implied real-world cost for respondents across different forms of organizational trust and participation to test the limits of members' anticipated support from responsiveness.

Figure 3: Appearance of treatment and outcome as presented to respondents.

"Pope pleads for end to 'homicidal madness' of terrorism."

"Pope meets with Colombian leaders in wake of peace deal."

"Let's unite against war and violence, Pope urges at Roman synagogue."

Please indicate how strongly you agree or disagree with the following statement from 1 (Strongly disagree) to 10 (Strongly agree):

"I trust the Church."

Strongly disagree					Neutral					Strongly agree
1	2	3	4	5	6	7	8	9	10	

Notes: The text in the figure is written in English, while respondents see the survey in Spanish or Brazilian Portuguese. For each outcome, the text in the bottom of the screen changes, while the news headlines remain in place. The [Appendix](#) includes translated versions of the treatment prompt and outcomes.

The first, less costly, set of responses are listed at the bottom of Figure 2, and ask respondents whether they think the Church is responsive, and how strongly they trust the Church. Respondents are also asked about their future behavioral participation in the Church, specifically the degree to which they anticipate attending Church services and volunteering through the Church. Last, respondents are asked about their willingness to engage in outside political activities, namely how interested they are to sign a petition on an issue that is about their most salient issue. These outcomes are designed to capture both psychological and behavioral differences in participants' propensity to

extend trust and support to the Church when they are presented with varying amounts of responsiveness.

Study 2 Results: Responsiveness Increases Catholics' Support

The unconditional mean response of each treatment group for each outcome question is shown in Figure 4. On average, the treatment effect accounts for roughly 3% of the possible remaining "support" that respondents can allocate along a 10-point scale, given that the mean response is 7 across outcomes.¹⁸ Across the two countries, respondents that receive responsive papal messaging seem more likely to increase their organizational trust and participation toward the Catholic Church. This is especially notable given the rather neutral intensity, content, political directionality, and form of responsiveness that respondents receive via the three news headlines.

As an initial test of the treatment "strength", beginning in the left panel in Figure 4, respondents that receive responsive papal statements on their most important issue, on average, agree more strongly with the statement that "The Church is responsive to its members' needs and concerns".¹⁹ Respondents that receive papal responsiveness increase their perception of how responsive the Church is by 0.21 points, on average, out of a possible increase of roughly 4 points along a 10-point scale.²⁰ Similarly, respondents that receive papal responsiveness, on average, agree more strongly with the statement that "I trust the Church" by 0.08 points. The mean difference between respondents that receive papal responsiveness and those that do not is also positive for the behavioral outcomes, such as whether respondents are interested in attending church services in the future and volunteering through the Church.

Though the marginal treatment effect appears to increase organizational trust as well as participation, it is not possible in all outcome questions to reject the null hypothesis that the average response for respondents that receive non-responsive messages is

¹⁸The [Appendix](#) provides summary statistics for the group means across outcomes.

¹⁹I also report a more formal validity check in which respondents re-express and write the papal statements they viewed on the initial treatment page. The responses from respondents are compared to the text they viewed as the treatment using vector distance measures, which is presented in the [Appendix](#).

²⁰Based on a two-tailed t-test, the null hypothesis that the difference in means equals zero can be rejected at the 95% confidence interval.

Figure 4: Catholics, in general, are more likely to increase their organizational trust and participation when they receive responsive statements from the pope.

Notes: The unconditional, pooled means are displayed with 95% confidence intervals. The average level of support across outcomes by respondents that received the "responsive" treatment is represented in red. For each outcome, respondents are asked: 'Please indicate how strongly you agree or disagree with the following statement from 1 (Strongly disagree) to 10 (Strongly agree):'. The precise wording of each outcome is: *Outcome 1*: "The Church is responsive to its members' needs and concerns."; *Outcome 2*: "I trust the Church."; *Outcome 3*: "I plan to attend more church services in the future."; *Outcome 4*: "I want to volunteer through the Church more in the future."; *Outcome 5*: "Would you like to learn more about a political petition related to '[most preferred issue]'?". For all outcomes, the number of respondents asked N=5,006. Some respondents did not answer every outcome, but the missingness does not exceed 3% in any of the treatment groups for any response question.

greater than or equal to the average response for those that receive responsive messages (one-tailed t-test $\alpha = 0.05$, $H_0: x_{\neg Treatment} \geq x_{Treatment}$; $H_a: x_{\neg Treatment} < x_{Treatment}$). This may be due to a lack of precision, a null effect, or a heterogeneous effect driven by respondents' existing support.²¹ Based on the survey design it is possible to examine the theoretical implication that Catholics' prior support and participation for the Church, which is measured by their attendance, increases their already high organizational trust and participation when they receive papal responsiveness.

Figure 5 reports the conditional group means by attendance. Catholics who attend church services more frequently are more likely to expect responsiveness from the Church, and lend greater overall support, in comparison to less frequent attendees. For instance, in the most left panel of Figure 5, when asked "On a scale from 1 (Not at all important) to 10 (Extremely important), how important is it to you that the Church responds to the needs and concerns of its members?", Catholics that attend church weekly are more likely to place greater importance on responsiveness than those that attend monthly, and even more so than those that attend yearly or never. This trend holds for all the outcome questions.

To test for a non-linear treatment effect, I estimate an OLS regression model with an interaction between respondents' anticipated organizational support and the amount of time that they already spend at church. I also estimate the models with other pre-treatment characteristics that may alter the direct effect of responsiveness on respondents' organizational trust and participation. This includes traits such as age, gender, duration of membership, expected responsiveness from the Church, desired advocacy by the Church, as well as their political preferences.

For ease of interpretation, I plot the average marginal effect of responsive papal statements by respondents' church attendance in Figure 6. A table of the full estimated coefficients from the regression model are presented in the [Appendix](#). First, dedicated

²¹If a "true" effect size similar to the average marginal treatment effect presented in Figure 4 actually exists, it would require sampling over 5,500 respondents in each treatment group. The power calculation is conducted for a one-sided t-test with a true treatment effect of 0.1, projected 90% statistical significance, 80% statistical power, and an average within treatment group standard deviation equal to 2.5. While the average treatment effect may be theoretically meaningful, across outcomes it is nominally small and constitutes approximately a 0.10 increase. Due to this limitation, the number of respondents required to detect a statistically reliable treatment effect of this size is unrealistic.

Figure 5: Members that attend church services more frequently exhibit higher levels of organizational trust and support, on average, regardless of whether they receive responsive papal messages or not.

Notes: The conditional, pooled means by attendance rate are displayed with 95% confidence intervals. For all outcomes, the number of observations is limited to complete cases, which results in N=4,431. The measure of church attendance is a three-group factor [Never/yearly, monthly, weekly].

members (those that attend church weekly) are more likely to increase their anticipated future attendance of Church services, which is vital for individual parishes, and the central apparatus, to maintain financial and political strength. When asked how strongly respondents agree with the statement, "I plan to attend more church services in the future", members that attend church services weekly are more likely to increase their support if they receive responsiveness. Holding all of the respondents' pre-treatment characteristics and preferences constant at their pooled sample means, the estimated average treatment effect of receiving papal responsiveness is associated with a 0.44 point

increase in the strength of their anticipated attendance of church services. And although the marginal treatment effects are not statistically distinguishable from zero at the 95% confidence interval, the estimated coefficients for the other behavioral outcomes are all positive. These findings suggest that respondents' are more willing to view the Church as responsive, and more willing to participate in the Church, when they receive responsive papal statements.²²

Interestingly, among Catholics that attend less frequently, the average respondent barely viewed the Church as any more responsive when they received responsive papal rhetoric (and the difference is not statistically reliable). In fact, infrequent attendees were less likely when they received responsiveness to trust the Church, less willing to attend church in the future, less willing to volunteer through the Church, and less willing sign a petition on an issue respondents' deem salient.

While the impact of responsiveness should be greater among dedicated members, it is surprising to find that less dedicated members actually decrease their support and participation when they receive responsiveness. One explanation for this trend is that when passive members see that the pope is responsive, it signals that the pope already prioritizes that issue and action is unnecessary (Levine and Kam 2017; Butler and Hassell 2018). If this is the case, members who agree with the pope, not members that disagree, should be less likely to support the Church when they receive responsiveness.

Another possible explanation, however, is that individuals' pre-treatment political preferences may not be aligned with those of the pope. It may be that if a respondent disagrees with the pope along a given issue dimension, and a respondent receives message on that issue, the respondent may actually have a negative reaction and discount their organizational participation and trust. This disagreement, moreover, may be the reason why they attend church less. If this is the case, members that disagree with the pope, not members that agree, should be less likely to extend support to the Church when they receive messages on their "most important" issue. I examine these

²²As an additional robustness check of the main analysis, I re-estimate the regression model with an index of post-treatment church involvement based on a principal component analysis (PCA) of the five outcome questions. The results, which are presented in the [Appendix](#), depict a similar story: anticipated involvement in the Church increases with papal responsiveness, but papal responsiveness does not positively or negatively impact anticipated political involvement.

Figure 6: Dedicated, core members increase their perceived organizational responsiveness, trust, and participation when they receive responsiveness from the Catholic Church.

Notes: The point estimates represent the average marginal effect of responsive papal messaging ("responsive" news headline treatment) on organizational trust and participation outcomes by respondents' attendance. 95% confidence intervals are displayed.

two possibilities by utilizing a variable that measures whether individuals agree with the Church on the issue that they were randomly assigned to view as part of the treatment assignment.

The conditional means by issue agreement are presented in Figure 7 and show that respondents, in general, decrease their support when they receive papal statements that do not match their stated preference position on that given policy dimension. Still, less dedicated members do not decrease their support more than dedicated members when they receive messages from the pope that take positions they potentially disagree with.

Nevertheless, I additionally take into account members' issue saliency by interacting

Figure 7: Members, on average, reduce their support when they receive papal messages they disagree with.

Notes: For all outcomes, the number of observations is reduced because not all respondents supplied their position preferences (N=3,851). The conditional, pooled means by issue agreement are displayed with 95% confidence intervals. A respondent is "in agreement" with the Church when they indicate in the pre-treatment policy preferences a similar position to the Church. For instance, the Church certainly agrees with the statement that we should "promote and defend human rights". If a respondent "Agrees" or "Strongly agrees" with that statement, they are "in agreement" with the pope.

respondents' issue agreement with, (1) whether that issue is of high priority to respondents (responsive to their concerns), and (2) respondents' organizational commitment. I re-estimate the regression models presented in the manuscript with

an interaction between the treatment (papal responsiveness), church attendance, and whether respondents agree with the Church along the issue dimension that the papal statements discuss.

The results, presented in the [Appendix](#), suggest that the strength of agreement with the Church on an issue may condition the impact of responsiveness on the propensity of respondents' to increase their organizational support. As a baseline, those that agreed with the statement they viewed were more likely to increase their organizational trust and participation, especially if respondents care about that issue. Importantly, after controlling for other pre-treatment factors, it appears that even those members that attend Church frequently, and disagree with the message they viewed, are actually more likely to increase their trust and participation if they receive a message on an issue they deem important. In this sense, it is not clear if dedicated members actually change their opinions, but it at least appears that they are willing to set those opinions aside for the Church.

Conversely, infrequent attendees do appear to negatively react to messages that they deem salient, and that they are in disagreement on with the Church. This suggests that their lack of participation may be connected to their disagreement with the Church. However, infrequent participants that receive messages (1) they agree with, and (2) that they view as important are still less likely to support the Church. This might imply that infrequent participants believe that the organization already prioritizes that particular issue, and that action is not urgent. Given this mixed result, the marginal difference between infrequent attendees that agreed versus disagreed with the message they saw is not statistically reliable. Unfortunately, the design and results are insufficient to properly analyze how agreement with position, not just salience, alters the impact of responsiveness. Nevertheless, the results of the survey experiments confirm the hypothesis that members' overall positive reaction to responsiveness is primarily driven by dedicated members that extend their already high support when they receive responsiveness.

Discussion

Given the important role of interest groups and non-governmental organizations in global politics, especially religious groups, the unelected leaders of these organizations are viewed as having tremendous power to influence supporters' preference and behavior. I argue, however, that even when there are few formal accountability mechanisms, there are still incentives for leaders to be responsive. In the case of the Catholic Church, the pope is prompted to discuss and legitimize issues that members' believe are important because Catholics should respond positively to messages that address their concerns.

I provide evidence from empirical data and survey experiments, which suggests that the pope is responsive to Catholics' concerns, and that the relationship is driven by the willingness of members to reward responsiveness with greater organizational support. Importantly, the characteristics that are theorized to motivate the Church to provide responsiveness are the same basic underlying traits that define interest and non-governmental organizations more broadly.

Though the Catholic Church is only one example, the theory and findings of this study establish clear implications for future research on the ability of non-governmental groups to represent broad interests in international politics. Though many view interest groups as an efficient vehicle to aggregate political preferences, not all scholars have viewed interest groups as beneficial for representation or political responsiveness. In fact, interest group liberalism suggests that diffuse public interests are not reflected in governmental outcomes when authority is delegated to administrative agencies that rely on interest groups in which politicians associate (Lowi 1979). The theory and findings paint a less pessimistic portrait: leaders are responsive, but primarily because members provide resources to the organization.

This responsiveness, however, is most likely limited given the reputational and credibility costs of leaders. In instances when there are extreme changes in public opinion, it may not be feasible or credible for leaders of large, diverse interests to make rapid organizational changes. Voters, for instance, have been shown to respond adversely when candidates change positions over time. In fact, voters who place higher

importance on issues are "more, not less, tolerant of candidates who espouse inconsistent positions over time" (Tomz and Van Houweling 2012). This may be consistent with the finding that dedicated Catholics actually increase support when they receive statements on a topic they deem important, but it is a topic in which they disagree with the Church.

Moreover, the depth, scope, and independence of internal regulation varies significantly by organization and sector. The ability or willingness of organizations to hold themselves accountable lies along a "spectrum of accountability mechanisms within which NGOs, especially large NGOs, operate" (Nelson 2007). For instance, [Transparency International](#) has strong internal accountability measures between members, boards, and executives; it selects the governing Board of Directors through national chapters and individual members. Conversely, the organizational leadership of [BRAC](#), one of the largest NGOs in the world, is quite autonomous and there are minimal accountability mechanisms for members (Ahmed, Hopper and Wickramasinghe 2011). Given the size and breadth of the Church's organizational structure, the pope may be more constrained in the position he takes than leaders of smaller NGOs. However, given the lack of formal accountability mechanisms, the pope may also be less constrained in which issues he prioritizes. Since dedicated members are the most likely to provide additional support when the pope provides responsiveness, the pope may be able to speak more freely with regard to topic, but less freely with regard to position.

As such, these findings may then represent a lower bound of organizational responsiveness. One may expect more responsiveness in an organization that has elections for leadership and greater internal and external oversight. Moreover, accountability may be lower in religious organizations more generally because members may not care to hold leaders accountable; they may be motivated to maintain their organizational trust and participation because of their long held religious associations or beliefs. Though the theory and findings do not provide definitive answers for all organizations across the spectrum of accountability, they prompt new expectations regarding the presence or absence of responsiveness for organizational leaders that do not face credible and repeated elections, which can be tested in a more rigorous manner across a wider variety of important political organizations in future research.

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Appendix

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The first portion of the Appendix is dedicated to Study 1 (A.1), which investigates whether papal rhetoric is responsive to Catholic public opinion. It includes variable construction and description, as well as model extensions and robustness checks for the regression analysis presented in the manuscript. The second portion provides information about the survey experiments (Appendix A.2). This includes details related to the experimental design, question wording, description of country samples, and robustness checks for the analysis in the manuscript.

A.1 Study 1: Automated content analysis and regressions

A.1.1 Measurement of papal rhetoric

Table A.1 lists some illustrative examples of hand-coded documents that are included in the "training" set used for the automated content analysis. The original papal documents are typically lengthy, so documents in the training set are divided and each segment (often a sentence) of a given document is assigned to a specific issue area. Since the unit of analysis of the training set is at the sentence-level, I divided each document in the test set into sentences prior to running the automated content analysis. The predicted probabilities that are generated from the automated content analysis can therefore be

interpreted as the predicted proportion of papal rhetoric (observed as sentences within papal documents) dedicated to a given issue area.

Table A.1: Examples of hand-coded documents of papal rhetoric for each issue area.

<p>Violence/conflict:</p> <p>"I would like to pray with you and I do it from the heart for all the victims of the mafia just a few days ago close to Taranto. There was a crime that was merciless not even sparing a child."</p> <p>Economy:</p> <p>"The fight against hunger and malnutrition is hindered by market priorities. The primacy of profits have reduced foodstuffs to a commodity like any other subject to speculation of a financial nature."</p> <p>Socio-political issues:</p> <p>"Refugees such as yourselves often find themselves deprived sometimes for long periods of basic needs such as a dignified home, healthcare, education and work. They have had to abandon not only their material possessions but above all their freedom, closeness to family, their homeland and cultural traditions."</p> <p>Human rights:</p> <p>"Therefore all initiatives such as your own are welcome, which aim to help people communities and institutions to rediscover the ethical and social importance of the principle of human dignity, which is the root of liberty and justice."</p> <p>Religious/other:</p> <p>"I would like to say thank you thank you very much right from the start you have accompanied me with your prayers your affection and your precious service in the various celebrations. Let us pray together to our Lady Hail Mary."</p>

The majority of documents are translated and published in English on the Vatican's archive, while others are only published in Latin, Spanish, French, or German. To increase the quantity and duration of the analysis, I translate the multilingual corpora into a common language using Google Translate. This process is especially time efficient, and given that the ordering of terms in a document does not affect the classification algorithm, "the translation software needs only to correctly translate the significant terms in the original document" (Lucas et al. 2015, 260).

As an illustration of the output that is generated by the automated content analysis,

the quote below (a speech made by Pope John Paul II on July 14, 2004) was estimated by the algorithm to be primarily composed of "religious/other" content.²³ This matches the hand-coded label the document would receive if it was placed in the training set.

"Before leaving this enchanting place where I have spent a period of invigorating rest, I feel the need to address my deepest thanks to you, Mr. Mayor, to the Municipal Administration and to the entire Town Council of Introd for your cordial welcome to me and my collaborators. I extend these sentiments of gratitude to those who have cooperated in their various capacities to ensure that my stay here in Les Combes, among the mountains of the Valle d'Aosta, would go smoothly. I am now preparing to leave for Castel Gandolfo, cherishing in my mind and heart the memory of all the care I have received. I feel deeply grateful to you too, for everything. I ask the Lord, whose omnipotent providence is strikingly visible in this Alpine scenery, to continue to protect the communities and administrators of Introd. Very dear brothers and sisters, may the Madonnina of Gran Paradiso watch over you from this mountain top. For my part, I assure you of my special remembrance in prayer, as I bless you all, each and every one."

A.1.2 Measurement of Catholics and their public opinion

Next, I construct the measure of Catholic public opinion, $\left(\frac{\text{Country } A \text{ Catholic Population}}{\text{World-wide Catholic Population}}\right) * \% \text{ of Catholics in } A \text{ concerned with topic } x$, which requires two steps of data collection. First, I develop a measure of the population in each country that adheres to Catholicism. The *Yearly Catholic Population Statistics* are released by the Church in *Ecclesiae 1995-2014*. I collected data on the number of Catholics for each country year in the combined data set of public opinion. The full set of scanned documents from the *Annuarium Statisticum* can be viewed on my [data archive](#).

²³Unfortunately, it is not possible to execute the ReadMe algorithm on a single document and retrieve estimated proportions of each topic category because (1) the number of words to be subset from all words for estimation at each iteration and (2) the total number of draws of different subsets of those select words are too low. Simply put, the sample is too small. Still, documents in the "test set" can be used to compare to ReadMe's estimate of the distribution.

Second, I gather information on Catholics' preferences by compiling numerous World Values Survey instruments. The number of Catholics found in each survey in each year is presented in Table A.4. Only countries in which at least 50 Catholic respondents were recorded are included in the sample used in the main analyses. Even with this low threshold, the limited number of countries surveyed in each year means that the sample of Catholics in the surveys represent a small portion of the total target population. Figure A.1 shows the percentage of all world-wide Catholics are "represented" in the sample. With regard to the geographic dispersion of the sample, Table A.2 records the number of Catholic respondents in each country in each year.

Figure A.1: Percent of world-wide Catholics represented in measure of public opinion (1995-2014).

Notes: Given the substantial lack of respondents surveyed in 1999, I removed the outlying observation for all models specified using equation 1. The exclusion of the observation did not change the substantive interpretation or reliability of the models, so all models reported in the main text include the yearly observation from 1999.

Table A.2: Number of Catholics by country panel.

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Albania	0	0	0	70	0	0	0	580	0	0	0	0	0	0	0	0	0	0	0	0
Andorra	0	0	0	0	0	0	0	0	0	0	545	0	0	0	0	0	0	0	0	0
Argentina	1874	1020	987	1026	1002	968	965	974	955	980	972	1718	921	921	937	912	899	0	1598	0
Australia	542	0	0	0	0	0	0	0	0	0	330	0	0	0	0	0	0	344	0	0
Austria	0	0	1701	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bahamas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	875
Barbados	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	226
Belarus	0	161	0	0	0	0	0	0	0	0	0	0	0	0	0	0	155	0	0	0
Belgium	0	0	1430	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Belize	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	664	0	574	0	642
Benin	0	0	0	0	0	0	0	0	0	0	210	0	0	158	0	0	174	0	0	0
Bolivia	0	644	660	643	0	812	838	1002	942	3366	936	3251	948	892	966	912	926	0	916	0
Bosnia	0	0	0	157	0	0	154	0	0	0	0	0	0	0	0	0	0	0	0	0
Brazil	940	785	678	704	0	669	697	714	837	829	830	1725	812	832	773	2274	776	910	753	1630
Burkina Faso	0	0	0	0	0	0	0	0	0	0	0	0	473	129	0	0	0	110	0	0
Burundi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	341	0	0
Cameroon	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	239	0
Canada	0	0	0	0	0	800	0	0	0	0	0	876	0	0	0	0	0	0	0	0
Cape Verde	0	0	0	0	0	0	0	456	0	0	496	0	0	463	0	0	377	0	0	0
Chile	914	1592	884	807	0	1506	832	801	813	804	767	2436	746	785	795	763	1356	0	710	0
Colombia	0	1049	3557	3664	0	1016	991	995	977	955	3218	954	965	1067	952	2068	918	2052	902	1069
Costa Rica	0	811	815	771	0	726	726	725	693	654	678	645	693	663	642	1543	636	1020	617	1001
Cote d'Ivoire	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Croatia	0	989	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Czech Rep.	0	0	0	457	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Denmark	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dominican Rep.	0	245	0	0	0	0	0	0	0	703	636	702	768	773	735	1665	627	825	646	776
Ecuador	0	1062	1040	1060	0	1016	1066	1077	1026	1004	1011	1020	1018	984	998	3358	1005	1176	1725	0
El Salvador	0	673	577	666	738	603	555	542	530	534	546	567	461	562	513	1311	455	693	542	678
Finland	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
France	0	0	1259	0	0	0	0	0	0	0	0	411	0	0	0	0	0	0	0	0
Germany	0	0	1267	0	0	0	0	0	0	0	0	430	0	0	0	0	0	0	422	0
Ghana	0	0	0	0	0	0	0	97	0	0	100	0	319	101	0	0	0	361	0	0
Great Britain	0	0	224	0	0	0	0	0	0	0	106	0	0	0	0	0	0	0	0	0
Guatemala	0	540	535	694	0	595	517	605	583	1145	530	566	542	481	505	1323	467	830	472	729
Guyana	0	0	0	0	0	0	0	0	0	0	0	155	0	0	0	105	0	98	0	104
Haiti	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	894	0	972	0	736
Honduras	0	754	685	572	0	612	571	546	501	550	498	498	470	474	461	1281	460	833	440	678
Hungary	0	0	0	366	0	0	0	0	0	0	0	0	0	0	471	0	0	0	0	0
India	55	0	0	0	0	0	59	0	0	0	0	0	0	0	0	0	0	0	0	0
Indonesia	0	0	0	0	0	0	65	0	0	0	0	0	0	0	0	0	66	0	0	0
Ireland	0	0	1841	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Italy	0	0	1818	0	0	0	0	0	0	0	885	0	0	0	0	0	0	0	0	0
Jamaica	0	0	0	0	0	0	0	0	0	0	0	68	0	0	0	0	0	0	0	0
Kenya	0	0	0	0	0	0	0	0	369	0	168	0	0	140	0	0	293	0	0	0
Latvia	0	222	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lebanon	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	261	0
Lesotho	0	0	0	0	0	0	0	0	247	0	261	0	0	249	0	0	0	236	0	0
Lithuania	0	0	778	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Luxembourg	0	0	1017	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Madagascar	0	0	0	0	0	0	0	0	0	0	262	0	0	248	0	0	0	0	222	0
Malawi	0	0	0	0	0	0	0	0	181	0	137	0	0	117	0	0	0	231	0	0
Malaysia	0	0	0	0	0	0	0	0	0	0	0	84	0	0	0	0	0	0	0	0
Mauritius	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	133	0	0
Mexico	1466	2214	801	999	0	2151	858	953	909	934	1972	1002	976	969	990	2255	956	2656	950	1236
Mozambique	0	0	0	0	0	0	0	229	0	0	200	0	0	170	0	0	0	376	0	0
Namibia	0	0	0	0	0	0	0	0	202	0	0	193	0	160	0	0	0	127	0	0
Netherlands	0	0	402	0	0	0	0	0	0	0	0	261	0	0	0	0	0	334	0	0
New Zealand	0	0	0	172	0	0	0	0	0	131	0	0	0	0	0	0	107	0	0	0
Nicaragua	0	795	769	717	0	715	697	671	552	635	567	570	550	526	544	1276	522	826	473	745
Nigeria	503	0	0	0	0	0	0	0	197	0	176	0	0	141	0	0	359	118	0	0

Table A.3: Number of Catholics by country panel, continued.

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Panama	0	898	868	794	0	822	654	755	738	775	793	752	779	766	753	1765	681	974	720	1104
Paraguay	544	521	500	540	0	555	540	547	529	507	1045	1037	1042	1046	1075	2366	1049	1291	1057	1254
Peru	1100	2075	920	890	0	894	2140	1014	971	971	936	2037	890	935	958	2110	937	2028	929	1166
Philippines	0	1017	0	0	0	0	858	0	0	0	996	0	0	0	0	1013	0	836	0	0
Poland	0	0	1078	0	0	0	0	0	0	0	944	0	0	0	0	0	0	889	0	0
Portugal	0	0	1761	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Puerto Rico	659	0	0	0	0	0	412	0	0	0	0	0	0	0	0	0	0	0	0	0
Romania	0	0	0	69	0	0	0	0	0	0	134	0	0	0	0	0	0	0	0	0
Rwanda	0	0	0	0	0	0	0	0	0	0	0	0	788	0	0	0	0	851	0	0
Singapore	0	0	0	0	0	0	0	97	0	0	0	62	0	0	0	0	0	133	0	0
Slovakia	0	0	0	801	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Slovenia	715	0	0	0	0	0	0	0	0	0	675	0	0	0	0	0	695	0	0	0
South Africa	0	364	0	0	0	0	285	175	0	0	0	511	0	84	0	0	81	0	535	0
South Korea	0	157	0	0	0	0	166	0	0	0	256	0	0	0	0	201	109	0	0	0
Spain	2605	2181	3578	2870	0	980	0	0	0	1837	0	1768	2733	1794	1736	1692	861	0	1683	0
Suriname	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1223
Switzerland	0	619	0	0	0	0	0	0	0	0	0	0	509	0	0	0	0	0	0	0
Tanzania	0	0	0	0	0	0	330	0	212	0	212	0	0	174	0	0	0	314	0	0
Togo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	204	0	0
Trinidad and Tobago	0	0	0	0	0	0	0	0	0	0	0	205	0	0	0	0	199	0	0	1047
Uganda	0	0	0	0	0	0	366	455	0	0	494	0	0	486	0	0	127	367	0	0
Ukraine	0	166	0	0	0	0	0	0	0	0	0	68	0	0	0	0	94	0	0	0
United States	0	0	0	0	278	0	0	0	0	0	0	256	0	0	0	0	485	0	0	0
United States	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Uruguay	733	1158	732	720	0	716	689	680	668	604	554	893	1134	515	529	1011	731	504	489	534
Venezuela	1057	2302	1069	1007	0	1837	1038	1026	1073	1007	1050	962	885	918	1041	971	954	0	950	0
Vietnam	0	0	0	0	0	0	59	0	0	0	0	92	0	0	0	0	0	0	0	0
Zambia	0	0	0	0	0	0	0	0	151	0	194	0	513	0	148	0	0	0	138	0
Zimbabwe	0	0	0	0	0	0	175	0	0	98	90	0	0	0	84	0	0	482	0	0

Table A.4: Number of Catholics by yearly survey panel.

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Afro Barometer	0	0	0	0	0	0	0	1412	1559	94	3000	340	0	2820	230	0	1052	2889	747	0
Americas Barometer	0	0	0	0	0	0	0	0	0	2449	0	3542	620	0	0	16903	0	15107	0	16714
Asian Barometer	0	0	0	0	0	0	0	0	0	0	1045	223	25	0	0	1052	220	0	0	0
Euro Barometer	14397	0	13952	7006	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Latino Barometer	7255	16992	15583	15733	0	13672	15188	15695	15323	15785	14169	16131	15757	15903	15903	15666	13480	0	15144	0
WVS	5235	8056	4721	4678	2018	4321	4165	677	0	691	7247	6700	3558	0	471	201	3830	7147	2646	799

A.1.3 Alternative model specifications

The ideal analytical strategy would model the compositional nature of papal rhetoric. One tool to accomplish this is Dirichlet regression, which allows for nominal proportions in the outcome without limiting each observation to a single category (Hijazi and Jernigan 2009). The estimation of each topic category's slope and intercept incorporates the inherent and contemporaneous negative correlation between outcome categories. Unfortunately, there are too few observations to perform such an analysis.

Table A.5: The variation in contemporaneous papal rhetoric is positively associated with the variation in current Catholic public opinion.

	<i>Dependent variable:</i>					
	Proportion of papal rhetoric					
	(1)	(2)	(3)	(4)	(5)	(6)
Catholic Public Opinion	0.102** (0.037)	0.104* (0.047)	0.124* (0.054)	0.129* (0.056)	0.150* (0.060)	0.113* (0.049)
Catholic Public Opinion _{t-1}	-0.029 (0.056)	-0.029 (0.056)	-0.022 (0.058)	-0.021 (0.063)	-0.014 (0.063)	-0.015 (0.052)
Catholic Public Opinion _{t-2}			-0.073 (0.060)	-0.072 (0.063)	-0.106 (0.066)	-0.102 (0.054)
Catholic Public Opinion _{t-3}				0.006 (0.065)	-0.0004 (0.065)	-0.003 (0.054)
Catholic Public Opinion _{t-4}					0.080 (0.066)	0.071 (0.055)
$\sigma_{\alpha(\text{Issue topic})}$	0.010	0.012	0.016	0.016	0.012	0.010
$\sigma_{\alpha(\text{Pope})}$						0.001
$\sigma_{\beta 1}$	0.009	0.008	0.009	0.009	0.011	0.006
σ_y	0.001	0.001	0.001	0.001	0.001	0.001
Control variables	-	-	-	-	-	-
Log Likelihood	144.731	133.301	123.218	112.472	104.380	113.041
AIC	-279.462	-254.602	-232.435	-208.945	-190.761	-206.082
BIC	-267.552	-240.618	-216.499	-191.189	-171.331	-184.494
N	80	76	72	68	64	64

Notes: The fixed coefficient estimates from an OLS multi-level regression are shown with standard errors in parentheses. Statistically reliability is reported as *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

Table A.5 displays the full lag structure between Catholic public opinion's impact on papal rhetoric outlined in equation 1. The model in the last column also includes varying intercepts by pope. The results in Table A.5 do not differ substantially from the results displayed in the manuscript.

Table A.6: The variation in contemporaneous papal rhetoric is not reliably associated with the variation in current total public opinion.

	<i>Dependent variable:</i>	
	Proportion of papal rhetoric	
	(1)	(2)
Total Public Opinion	0.050 (0.059)	
Total Public Opinion _{t-1}	0.031 (0.059)	
Total Public Opinion _{t-2}	-0.007 (0.061)	
Total Public Opinion _{t-3}	0.043 (0.060)	
Total Public Opinion _{t-4}	0.057 (0.051)	
non-Catholic Public Opinion		0.090 (0.070)
non-Catholic Public Opinion _{t-1}		0.008 (0.063)
non-Catholic Public Opinion _{t-2}		-0.057 (0.067)
non-Catholic Public Opinion _{t-3}		0.017 (0.066)
non-Catholic Public Opinion _{t-4}		0.110 (0.066)
σ_a	0.05	0.07
$\sigma_{\beta 1}$	0.03	0.07
σ_y	0.04	0.04
Log-Likelihood	93.486	94.585
AIC	-164.972	-167.170
BIC	-141.224	-143.422
N	64	64

Notes: The fixed coefficient estimates from an OLS multi-level regression are shown with standard errors in parentheses. Statistically reliability is reported as *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

The second set of robustness models I conduct replace Catholic public opinion with total public opinion and non-Catholics' opinion. If it is the case that the pope responds to general shifts in public opinion, and not necessarily in response to shifts in his members' preferences, then there should be a positive association between total public opinion and papal rhetoric regarding the same subject matter. Table [A.6](#) shows that none of the estimated coefficients for total public opinion or non-Catholics' opinion are reliably associated with papal rhetoric.

A.2 Study 2: Survey experiments

The two survey experiments were conducted in Brazil and Mexico in Summer 2018. As of 2010, Brazil had the largest absolute number of Catholic followers, as well as share of the global Catholic population (over 133.5 million and 12.2% of the world Catholic population), while Mexico was second in both categories (over 96 million followers and 8.6% of the world Catholic population) (Pew 2011). The two countries were also selected because they are relatively similar in terms of political, economic, as well as demographic characteristics. The following sections outline the sample by demographic characteristics (age, gender, region), as well as robustness analyses and supporting materials for the analysis presented in the manuscript.

A.2.1 Sample description

I generated pre-analysis quotas prior to data collection by respondent characteristics (age, gender, region) to ensure national representative samples in both countries, which are shown in Tables A.7 and A.8. The final samples, including their deviation from the target population, are found in Tables A.9 and A.10. Given that the samples are nationally representative, and that there is a large within country sample size for both samples, I do not use any re-weighting based on respondent characteristic for the regression analysis.

Table A.11 displays the summary statistics for each of the treatment groups for each response item, including the number of missing participants, mean, and standard deviation. In every outcome, respondents that receive responsive papal rhetoric have a higher, on average, level of support. The difference between the group means, however, is not statistically different in all outcomes.

Table A.7: Pre-analysis quota for number of Catholic respondents fielded by age, gender, and country.

Country	Age	% of country and sample (M/F)	Estimated N (M/F)	Respondents + 10% cushion (M/F)
Mexico	18-24	0.10/0.10	250/250	275/275
	25-34	0.12/0.13	300/325	330/357
	35-44	0.11/0.10	275/250	302/275
	45-54	0.08/0.09	200/225	220/247
	55-75	0.08/0.09	200/225	220/247
Subtotal		.49/.51	1225/1275	1347/1402
Brazil	18-24	0.09/0.08	225/200	247/220
	25-34	0.13/0.12	325/300	357/330
	35-44	0.10/0.11	250/275	275/302
	45-54	0.09/0.09	225/225	247/247
	55-75	0.09/0.10	225/250	247/275
Subtotal		.5/.5	1250/1250	1375/1375

Table A.8: Pre-analysis quota for number of Catholic respondents fielded by region and country.

Country	Region	% of country and sample (% in region)	Estimated N (total in region)	Respondents + 10% cushion (total in region)
Mexico	Pacifico	0.09	225	247
	Norte	0.18	450	495
	Oeste-Centro	0.17	425	467
	Centro	0.26	650	715
	D.F.	0.17	425	467
	Sureste	0.13	325	357
Brazil	Norte	0.08	200	220
	Nordeste	0.28	700	770
	Sudest	0.42	1050	1155
	Sul	0.14	350	385
	Centro-Oeste	0.08	200	220

Table A.9: Count toward quota for number of Catholic respondents fielded by age, gender, and country.

Country	Age	Male (N)	Female (N)	% of sample (M/F)	% of target population (M/F)
Mexico	18-24	258	256	10/10	10/10
	25-34	303	325	12/13	12/13
	35-44	276	251	11/10	11/10
	45-54	200	226	8/9	8/9
	55-75	199	226	8/9	8/9
	Subtotal	1236	1284	49/51	49/51
Brazil	18-24	225	202	9/8	9/8
	25-34	325	301	13/12	13/12
	35-44	251	275	10/11	10/11
	45-54	225	225	9/9	9/9
	55-75	225	219	9/9	9/10
	Subtotal	1252	1222	51/49	50/50

Table A.10: Count toward quota for number of Catholic respondents fielded by region and country.

Country	Region	N	% of sample	% of target population
Mexico	Pacifico	234	9	9
	Norte	454	18	18
	Oeste-Centro	338	14	17
	Centro	692	28	26
	D.F.	433	17	17
	Sureste	331	13	13
Brazil	Norte	201	8	8
	Nordeste	704	28	28
	Sudest	1052	42	42
	Sul	350	14	14
	Centro-Oeste	217	8	8

Table A.11: Summary statistics of treatment and non-treatment groups by outcome question.

Outcome	Responsiveness treatment	N	Missing	Mean	Standard deviation	Critical value
Responsiveness	No	2479	21	6.30	2.38	0.33***
	Yes	2489	17	6.50	2.36	
Trust	No	2434	66	7.10	2.40	0.38
	Yes	2454	52	7.17	2.37	
Future Volunteerism	No	2482	18	6.39	2.50	0.39
	Yes	2486	20	6.44	2.62	
Future Attendance	No	2482	18	6.73	2.40	0.37*
	Yes	2482	24	6.83	2.43	
Petition Interest	No	2479	21	7.50	2.24	0.30
	Yes	2489	17	7.51	2.32	

Notes: The total number of Catholic respondents equals 5,006. The far right column displays the test statistic from a one-sided t-test, in conjunction with the statistical reliability of the critical value. The one-tailed t-test distinguishes whether the average participant's outcome response is less if they receive discordant messages than the average participant's outcome response if they receive concordant messages ($H_0: x_{\neg Treatment} \geq x_{Treatment}; H_a: x_{\neg Treatment} < x_{Treatment}$). The statistical reliability of the critical value is reported as *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

Figure A.2: Low correlation between Catholics' political preferences by issue area and church attendance.

A.2.2 Measuring survey respondent attention using textual recall

Many researchers are interested in studying the effects of textual framing on a number of political and social outcomes, such as the ability of elite rhetoric to affect the political preferences of their followers. The difference between randomly assigned textual frames is often the intended "treatment", which entails that the researcher moderate some aspect of the presented text that all respondents read as part of a field or survey experiment. Given that text is easy to skim, many respondents (especially paid, online work forces) may not fully grasp or comprehend the textual treatment, not due to a lack of true understanding, but due to a lack of attention.

To ensure that only respondents that focus on the experiment are included in the final sample, political scientists typically include *Screeners* questions about factual information unrelated to the experimental tasks, or *manipulation checks* that "assess whether or not the subject was exposed to the treatment by asking a question that could only be answered by reading the treatment or testing whether an intervening variable varies by condition" (Berinsky, Margolis, and Sances 2014). More recently, it has been suggested that researchers include multiple Screener questions to improve upon their ability (1) to measure and interpret which respondents do not pay attention, and (2) to decrease the sample bias caused by excluding numerous, non-random respondents.

One short coming of this approach is that even if five Screener questions are included in an experiment, it does not guarantee that (or provide a measure of) whether respondents actually comprehend the framing treatment, which is really the goal of an indicator of "attention" or "comprehension" during an experiment. Moreover, even with five questions, there is little potential variation in the measure of attentiveness (i.e. $\frac{\# \text{ correct}}{\# \text{ of Screeners}}$) to distinguish between respondents, while the cost of fielding additional respondents increases due to the increased length of interview.

Given these drawbacks, I employ an alternative validity check of the treatment application that measures how attentive respondents are to the task at hand, and takes into account the content of the textual framing that respondents view. The process begins by asking respondents to "Please briefly rephrase the selected quotes you read on the previous page" after respondents are provided text as part of the treatment. This

allows me to create a measure of textual similarity between respondents' answers and the text that respondents viewed as part of the experimental treatment. The vignette that is used in the survey experiments provides all respondents with an equal "amount" and "type" of textual treatment (all respondents received the same number of news headlines from actual statements made by the pope). This is important because no respondent receives double exposure to treatment that another respondent does not receive. Moreover, asking respondents to recall the statements that they read on the previous page does not prime or alter respondents potential answer(s) to the subsequent outcome(s) given their treatment assignment.

To create the indicator of document similarity, I utilize various q -gram distance measures because "contrary to edit-based or heuristic metrics, q -gram based metrics can easily be computed between very long text strings since the number of q -grams encountered in natural language (for say, $q \geq 3$) is usually much less than the q -grams allowed by the alphabet" (Van der Loo 2014, 120). This requires lemmatization, or the reduction of words to segments or *grams*. I, therefore, set the number of grams $q = 3$ when calculating each distance.

The first distance measure I employ, the Jaccard distance, is typically used for duplicate detection and measures the proportion of common root words to unique root words in both documents, $d_{Jaccard}(doc_1, doc_2) = 1 - \frac{doc_1 \cap doc_2}{doc_1 \cup doc_2}$. The distance is calculated as the size of the intersection divided by size of union of two sets, or in other words, it indicates the "unique q -grams in two strings and compare[s] which ones they have in common" (Van der Loo 2014, 118). This should detect any individuals that may have copied the text from the previous page in anticipation that some respondents may find that storing this information is useful to the complete the survey.

I also consider the cosine distance, such that any given document (written recall by each respondent) is a sparse vector, and the overlapping angle (or similarity) between that respondent's written recall and the text that respondent viewed as the treatment is $d_{Cosine}(doc_1, doc_2) = 1 - \frac{doc_1 \cdot doc_2}{\|doc_1\| \|doc_2\|}$.²⁴ This allows for a more nuanced measure of content

²⁴ $d_{Cosine}(A, B) = 1 - \cos(\theta) = 1 - \frac{A \cdot B}{\|A\| \|B\|} = 1 - \frac{\sum_{i=1}^n A_i B_i}{\sqrt{\sum_{i=1}^n A_i^2} \sqrt{\sum_{i=1}^n B_i^2}}$, where $\|\cdot\|$ is the standard Euclidean norm.

Figure A.3: Distribution of Jaccard distance measures for all respondents in Mexico and Brazil.

overlap between documents.

For each respondent, therefore, I calculate the two measures of how similar the recall of each respondent is to the actual treatment text that they observed. Figure A.3 highlights the Jaccard distances for all respondents in both Mexico and Brazil. For interpretation, both distance measures are bounded from 0 to 1, such that 0 corresponds to full overlap ($doc_1 \cap doc_2 = doc_1 \cup doc_2$), and 1 equals no overlap, ($doc_1 \cap doc_2 = \emptyset$, or doc_1 and doc_2 have no q -grams in common).

In each sub-figure, two points have been selected and are meant as examples to highlight that responses closer to zero are in fact more discernibly similar to the text they viewed as the treatment, at least subjectively to a human audience. Since each distance captures different measures of proximity, I take the average of the two measures (Jaccard and cosine), and use the mean similarity measure of each respondent as an additional indicator to re-estimate the regression presented in the manuscript. The results (which are not presented to conserve space) do not differ from those in the manuscript, suggesting that a respondent's lack of attention does not impact their potential responses to the outcome questions (neither the estimated interaction effect changed, nor was the indicator for attention itself statistically reliable).

A.2.3 Robustness of regression results in manuscript

Table A.12 displays the full estimated coefficients of all the models presented in the first set of regressions with an interaction between respondent church attendance and receiving papal responsiveness. See the manuscript for further details on the interpretation of these models. Table A.13 also provides the estimated coefficients from the full model including a triple interaction between church attendance, responsiveness, and agreement with the Church. For ease of interpretation, Figure A.4 highlights a heterogeneous effect of responsiveness when accounting for whether individuals agree or disagree with the Church on their most salient issue.

Table A.12: Predictors of organizational trust and participation among Catholic survey respondents using the binned categories for duration of membership.

	Outcome:									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Trust	Trust	Responsive	Responsive	Volunteer	Volunteer	Attendance	Attendance	Petition	Petition
Responsive papal messaging	-0.14 (0.11)	-0.14 (0.11)	0.03 (0.12)	0.03 (0.12)	-0.25* (0.11)	-0.25* (0.11)	-0.40*** (0.12)	-0.40*** (0.12)	-0.10 (0.12)	-0.10 (0.12)
Attendance (Monthly)	0.54*** (0.11)	0.59*** (0.11)	0.46*** (0.11)	0.54*** (0.11)	1.16*** (0.11)	1.18*** (0.11)	0.94*** (0.11)	0.97*** (0.11)	0.32*** (0.11)	0.34*** (0.11)
Attendance (Weekly)	1.12*** (0.10)	1.20*** (0.10)	0.95*** (0.11)	1.07*** (0.11)	1.61*** (0.10)	1.65*** (0.10)	1.49*** (0.11)	1.74*** (0.11)	0.48*** (0.11)	0.52*** (0.11)
Responsiveness*Attendance (Monthly)	0.21 (0.15)	0.21 (0.15)	0.09 (0.16)	0.08 (0.16)	0.27 (0.15)	0.26 (0.15)	0.44** (0.16)	0.44** (0.16)	-0.01 (0.16)	-0.01 (0.16)
Responsiveness*Attendance (Weekly)	0.28 (0.14)	0.28 (0.14)	0.27 (0.15)	0.26 (0.15)	0.45** (0.14)	0.43** (0.14)	0.32*** (0.15)	0.51*** (0.15)	0.17 (0.15)	0.17 (0.15)
Desired responsiveness _{pre-treatment}	0.21*** (0.02)	0.21*** (0.02)	0.39*** (0.02)	0.20*** (0.02)	0.19*** (0.02)	0.39*** (0.02)	0.22*** (0.02)	0.22*** (0.02)	0.11*** (0.02)	0.11*** (0.02)
Church should advocate	0.06*** (0.03)	0.06*** (0.03)	0.05** (0.02)	0.03* (0.02)	0.08*** (0.01)	0.07*** (0.01)	0.06*** (0.02)	0.05*** (0.02)	0.18*** (0.02)	0.18*** (0.02)
Duration of membership (6 to 10 years)	-0.00 (0.20)	0.03 (0.20)	-0.22 (0.21)	-0.17 (0.20)	0.41* (0.19)	0.43* (0.19)	0.20 (0.21)	0.22 (0.21)	0.19 (0.21)	0.20 (0.21)
Duration of membership (11 to 15 years)	0.60** (0.21)	0.64** (0.21)	0.20 (0.22)	0.27 (0.22)	0.74*** (0.21)	0.77*** (0.21)	0.77*** (0.22)	0.79*** (0.22)	0.13 (0.22)	0.15 (0.22)
Duration of membership (16 or more years)	0.36*** (0.14)	0.43*** (0.14)	0.06 (0.15)	0.13 (0.15)	0.60*** (0.14)	0.63*** (0.14)	0.46** (0.15)	0.49** (0.15)	0.15 (0.15)	0.17 (0.15)
Age (25-34)	0.01 (0.09)	0.01 (0.09)	0.08 (0.10)	0.08 (0.09)	0.15 (0.09)	0.15 (0.09)	0.08 (0.10)	0.09 (0.10)	-0.02 (0.10)	-0.02 (0.10)
Age (35-44)	0.08 (0.10)	0.10 (0.10)	-0.05 (0.10)	-0.03 (0.10)	0.17 (0.09)	0.18 (0.09)	0.13 (0.10)	0.14 (0.10)	-0.10 (0.10)	-0.09 (0.10)
Age (45-54)	0.22* (0.10)	0.24* (0.10)	0.12 (0.11)	0.16 (0.10)	0.14 (0.10)	0.15 (0.10)	0.05 (0.11)	0.07 (0.11)	-0.23* (0.11)	-0.22* (0.11)
Age (55-75)	0.30** (0.10)	0.32** (0.10)	0.07 (0.11)	0.10 (0.11)	0.00 (0.10)	0.01 (0.11)	-0.24* (0.11)	-0.23* (0.11)	-0.34** (0.11)	-0.33** (0.11)
Gender (Male)	0.13* (0.06)	0.14* (0.06)	0.12 (0.06)	0.13* (0.06)	-0.10 (0.06)	-0.10 (0.06)	-0.24*** (0.06)	-0.24*** (0.06)	0.11 (0.06)	0.11 (0.06)
Gender (Other)	0.77 (0.62)	0.73 (0.62)	0.92 (0.65)	0.86 (0.64)	0.36 (0.61)	0.34 (0.61)	0.19 (0.65)	0.17 (0.65)	1.35* (0.65)	1.33* (0.65)
Preference rank _{can/fir}	-0.02 (0.04)	-0.02 (0.04)	-0.01 (0.04)	-0.01 (0.04)	0.01 (0.04)	0.01 (0.04)	0.05 (0.04)	0.04 (0.04)	0.04 (0.04)	0.04 (0.04)
Preference rank _{lacto-political}	-0.02 (0.04)	-0.05 (0.04)	0.04 (0.04)	-0.01 (0.04)	0.02 (0.04)	0.00 (0.04)	0.12** (0.04)	0.10* (0.04)	0.07 (0.04)	0.05 (0.04)
Preference rank _{human rights}	-0.05 (0.04)	-0.05 (0.04)	0.05 (0.04)	0.05 (0.04)	0.02 (0.04)	0.02 (0.04)	0.09* (0.04)	0.09* (0.04)	0.00 (0.04)	0.00 (0.04)
Policy preference _{gunprotestment}	0.04*** (0.01)	0.06*** (0.01)	0.03** (0.01)	0.06*** (0.01)	0.02* (0.01)	0.03** (0.01)	0.01 (0.01)	0.02 (0.01)	-0.01 (0.01)	-0.00 (0.01)
Policy preference _{radicalisation}	0.03* (0.01)	0.02 (0.01)	0.02 (0.01)	0.00 (0.01)	0.02 (0.01)	0.01 (0.01)	0.04*** (0.01)	0.03** (0.01)	0.06*** (0.01)	0.05*** (0.01)
Policy preference _{trans rights}	0.04* (0.02)	0.07*** (0.02)	0.02 (0.02)	0.06** (0.02)	0.06** (0.02)	0.07*** (0.02)	0.05** (0.02)	0.07*** (0.02)	0.18*** (0.02)	0.19*** (0.02)
Policy preference _{school prayer}	0.24*** (0.01)	0.22*** (0.01)	0.25*** (0.01)	0.21*** (0.01)	0.25*** (0.01)	0.23*** (0.01)	0.26*** (0.01)	0.25*** (0.01)	0.07*** (0.01)	0.06*** (0.01)
Policy preference _{utility}	0.03** (0.01)	0.04** (0.01)	0.01 (0.01)	0.02 (0.01)	0.01 (0.01)	0.01 (0.01)	-0.00 (0.01)	-0.00 (0.01)	0.05*** (0.01)	0.05*** (0.01)
Constant	1.40*** (0.32)	1.56*** (0.32)	1.46*** (0.34)	1.70*** (0.33)	0.60 (0.31)	0.69* (0.32)	-0.03 (0.34)	0.07 (0.34)	2.23*** (0.33)	2.30*** (0.33)
Country fixed effects		✓		✓		✓		✓		✓
R ²	0.32	0.33	0.26	0.28	0.37	0.37	0.36	0.36	0.18	0.19
Adj. R ²	0.32	0.32	0.26	0.28	0.37	0.37	0.36	0.36	0.18	0.18
RMSE	1.95	1.94	2.04	2.02	1.92	1.91	2.05	2.05	2.04	2.03

Notes: Coefficient estimates are from OLS regression models, and standard errors are shown in parentheses. The total number of observations equals 4,431 in all models. The regression models include of all covariates detailed in the manuscript. Statistically reliability is reported as *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

Table A.13: Dedicated Catholics increase their perceived responsiveness, trust, and participation regardless of whether they receive responsive papal messages.

	<i>Outcome:</i>									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Trust	Trust	Responsive	Responsive	Volunteer	Volunteer	Attendance	Attendance	Petition	Petition
Agreement (Yes)	0.31 (0.18)	0.34 (0.18)	0.01 (0.19)	0.05 (0.19)	0.27 (0.18)	0.28 (0.18)	0.01 (0.20)	0.02 (0.20)	0.22 (0.20)	0.22 (0.19)
Attendance (Monthly)	0.51** (0.16)	0.58*** (0.16)	0.47** (0.16)	0.59*** (0.16)	1.15*** (0.16)	1.18*** (0.16)	0.91*** (0.17)	0.95*** (0.17)	0.36* (0.17)	0.38* (0.17)
Attendance (Weekly)	1.12*** (0.15)	1.21*** (0.15)	0.95*** (0.16)	1.09*** (0.16)	1.71*** (0.15)	1.76*** (0.15)	1.63*** (0.16)	1.68*** (0.16)	0.58*** (0.16)	0.61*** (0.16)
Responsiveness	-0.10 (0.15)	-0.09 (0.15)	0.09 (0.16)	0.10 (0.15)	-0.06 (0.15)	-0.06 (0.15)	-0.43** (0.16)	-0.43** (0.16)	-0.01 (0.16)	-0.01 (0.16)
Agree with Church*Attendance (Monthly)	-0.23 (0.25)	-0.27 (0.25)	0.16 (0.27)	0.10 (0.26)	-0.02 (0.25)	-0.04 (0.25)	0.02 (0.27)	-0.00 (0.27)	-0.22 (0.27)	-0.23 (0.27)
Agree with Church*Attendance (Weekly)	-0.09 (0.24)	-0.11 (0.24)	0.03 (0.26)	-0.01 (0.25)	-0.21 (0.24)	-0.22 (0.24)	0.07 (0.26)	0.06 (0.26)	-0.22 (0.26)	-0.23 (0.26)
Agree with Church*Responsiveness	-0.45 (0.25)	-0.46 (0.25)	-0.36 (0.27)	-0.38 (0.26)	-0.60* (0.25)	-0.61* (0.25)	0.02 (0.27)	0.02 (0.27)	-0.48 (0.27)	-0.48 (0.27)
Attendance (Monthly)*Responsiveness	0.24 (0.20)	0.22 (0.20)	-0.07 (0.21)	-0.10 (0.21)	0.11 (0.20)	0.10 (0.20)	0.41 (0.22)	0.40 (0.22)	-0.23 (0.21)	-0.24 (0.21)
Attendance (Weekly)*Responsiveness	0.27 (0.19)	0.26 (0.19)	0.16 (0.20)	0.14 (0.20)	0.28 (0.19)	0.27 (0.19)	0.61** (0.20)	0.60** (0.20)	0.02 (0.20)	0.01 (0.20)
Agree with Church*Attendance (Monthly)*Responsiveness	0.24 (0.35)	0.24 (0.35)	0.33 (0.36)	0.34 (0.36)	0.63 (0.35)	0.63 (0.35)	0.22 (0.37)	0.23 (0.37)	0.90* (0.37)	0.90* (0.37)
Agree with Church*Attendance (Weekly)*Responsiveness	0.10 (0.33)	0.10 (0.33)	0.30 (0.35)	0.29 (0.34)	0.48 (0.33)	0.48 (0.33)	-0.18 (0.35)	-0.18 (0.35)	0.46 (0.35)	0.46 (0.35)
Control variables	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Country fixed effects		✓		✓		✓		✓		✓
R ²	0.33	0.34	0.27	0.29	0.37	0.37	0.37	0.37	0.18	0.18
Adj. R ²	0.33	0.33	0.27	0.28	0.37	0.37	0.36	0.36	0.18	0.18

Notes: Coefficient estimates are from OLS regression models, and standard errors are shown in parentheses. The total number of observations equals 3,851 in all models. The regression models include of all covariates detailed in the manuscript. Statistically reliability is reported as *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

Figure A.4: Marginal effects plots of triple interaction between church attendance, responsiveness, and agreement with papal statements.

(e) Petition

Notes: The point estimates represent the average marginal effect of responsive papal messaging ("concordant" news headline treatment) on organizational trust and participation outcomes by respondents' duration of membership (using the full categories) in the Catholic Church. 95% confidence intervals are displayed. For each outcome, respondents are asked: 'Please indicate how strongly you agree or disagree with the following statement from 1 (Strongly disagree) to 10 (Strongly agree):'.

As a final robustness, I construct an index from the five outcomes using a principal component analysis (PCA) to summarize the responses by reducing the dimensionality of the multivariate outcomes. In other words, I estimate various dimension reductions and investigate which dimensions explain the largest variance. If the outcomes are constructed properly, there should be two underlying dimensions that represent respondents' latent *church* and *political* engagement post-treatment.

The scree plot in the left panel of Figure A.5 displays the estimated eigenvalues, which indicates that there are two strong underlying dimensions. In fact, the first two dimensions account for nearly 80% of the cumulative variance. Moving forward, using the first two dimensions, I investigate more thoroughly which variables are more highly correlated with a specific dimension. The right panel of Figure A.5 displays coordinate projections of the outcomes, showing that respondents treat the four outcome questions regarding their engagement in the church similarly (high correlated). Interestingly, the

Figure A.5: Left panel: Scree Plot of eigenvalues ordered by magnitude; Right panel: correlation circle highlights sum of $\cos^2$ along each dimension.

Notes: There is no standard statistic to determine the appropriate number of components, but the general rule of thumb is to determine the number of dimensions at the point beyond which the remaining eigenvalues are relatively small, in this case two.

outcome concerning political engagement is nearly orthogonal to the other outcomes, which suggests that it is actually tapping into a different psychological dimension distinct from the religious engagement questions (negatively correlated variables would be positioned in opposed quadrants). If a variable is perfectly represented by only two principal components, the sum of the $\cos^2$ distance on these two PCs is equal to one. All the variables are "good representations" of the underlying dimensions they represent because the lines are further from the origin and closer to the circumference of circle (explain greater variance).

This is further evidenced by how participants respond to the outcomes given that receive responsiveness as part of the treatment. The left panel of Figure A.6 highlights the trend that we observe and discuss in the manuscript: if a respondent reports that they attend church service more frequently, they are more likely to increase their engagement in the Church. Interestingly, responsive papal messaging does not appear to have a clearly positive or negative effect on political engagement. This largely confirms the

results of the main analysis: those members that are already more engaged in the Church drive any positive effect that papal responsiveness has.

Figure A.6: Marginal effects plots of receiving papal responsiveness on a given respondent's church engagement (left panel) and political engagement (right panel) accounting for their current church attendance.

A.2.4 Question wording and translations

The question wording and ordering for the survey experiment in original English is provided in the following sub-section. The translated versions of the survey experiment can be found on my online [data archive](#).

- *Consent:* "We invite you to participate in a research study conducted by investigators from Washington University in St. Louis. The purpose of the study is to learn about attitudes and policy views of Catholics.

If you self-identify as Catholic and agree to participate, we would like you to read some information about the Church and then take a brief survey. It will take approximately ten minutes to complete. Your responses will remain anonymous.

All participants who complete the survey will receive compensation and will enter five prize drawings for an Amazon gift card of \$100. The prize drawings will take place in August 2018 and will be conducted by our research team. The winners will be informed individually.

Thank you very much for your consideration of this research study."

- I agree to participate
 - I do not agree to participate
- *Religious self-identification*: "Do you self-identify as a member of the Catholic church?"
 - Yes
 - No
- *Age*: "How old are you?"
 - Less than 18
 - 18-24
 - 25-34
 - 35-44
 - 45-54
 - 55-75
 - Over 75
- *Demographic information (question order randomized)*:
 - "How do you identify your gender?"
 - * Female
 - * Male
 - * Other

- "What region do you live in?"
 - * Brazil
 - Norte
 - Nordeste
 - Sudeste
 - Sul
 - Centro-Oeste
 - * Mexico
 - Pacifico
 - Norte
 - Oeste-Centro
 - Centro
 - D.F.
 - Sureste
- *Membership information (question order randomized):*
 - "How long have you considered yourself a member of the Catholic church?"
 - * 0 to 5 years
 - * 6 to 10 years
 - * 11 to 15 years
 - * 16 years or more
 - How frequently do you attend Catholic mass?
 - * At least once a week
 - * At least once a month
 - * At least once a year
 - * Never

- *Pre-treatment preference ranking (choice order randomized):* "Please rank the relative importance of these issues to you from 1 (Not at all important) to 4 (Extremely important)."
 - Economy
 - Human rights
 - Socio-political issues
 - Violence/conflict

- *Pre-treatment preferences toward Church (question order randomized):*
 - "How strongly do you agree or disagree with the following statement [1-10]:

'The Church should advocate on issues related to "[insert most salient issue from previous question]".'

10 Strongly disagree

5 Neutral

1 Strongly agree
 - "On a scale from 1 (Not at all important) to 10 (Extremely important), how important is it to you that the Church responds to the needs and concerns of its members?"
 - 1 Not at all important
 - 10 Extremely important

- *Pre-treatment policy preferences (choice order randomized):* "For each of the following statements, please indicate how strongly you agree or disagree from 1 (Strongly disagree) to 10 (Strongly agree). 'It is important to...'"
 - "...redistribute income from the wealthy to the poor through taxation and subsidies."
 - "...promote and defend human rights."

- "...maintain military power."
- "...permit prayer in public schools."
- "...relax environmental regulation to stimulate economic growth."
- *Pre-treatment instructions:* "On the next page, you will be presented with three news headlines summarizing some recent statements that the pope has made. Please read the statements and answer the proceeding questions. You will be able to advance to the next page after 10 seconds."
- *News headline treatments:*
 - **Conflict:**
 - * "Pope pleads for end to 'homicidal madness' of terrorism" (Dec 20, 2016).
 - * "Pope meets with Colombian leaders in wake of peace deal" (Dec 16, 2016).
 - * "Let's unite against war and violence, Pope urges at Roman synagogue" (Jan 17, 2016).
 - **Economy:**
 - * "Pope says economy must fight 'throwaway culture'" (Jul 15, 2014).
 - * "Generate new models of economic progress, Pope urges business leaders" (May 14, 2016).
 - * "'Economy of exclusion, inequality caused growth of poverty', says Pope" (May 13, 2016).
 - **Socio-political issues:**
 - * "Education and play are key to childhood, Pope tells Cuba, US youth" (Sep 19, 2015).
 - * "Holy See backs global health goals, says 'leave no one behind'" (May 27, 2016).
 - * "Pope asks: give immigrants compassion, not blame" (Jun 21, 2015).

Human rights:

- * "Vatican diplomacy zeros-in on human rights in Africa" (Mar 30, 2016).
- * "For Pope, it's imperative: religious liberty is a gift from God. Defend it" (Sep 26, 2015).
- * "Pope says promotion of human rights is central to the commitment of the European Union" (Nov 25, 2014).

– Control (neutral):

- * "Pope marks 80th birthday in Rome, addresses Cardinals at Mass" (Dec 17, 2016).
- * "If you're tempted to gossip, 'bite your tongue,' Pope says" (Jan 15, 2017).
- * "Love God now - because you might not have tomorrow, Pope says" (Jan 12, 2017).

- *Attention check:* Please briefly rephrase the selected quotes you read on the previous page:
- *Outcome responses (question order randomized):* "Please indicate how strongly you agree or disagree with the following statement from 1 (Strongly disagree) to 10 (Strongly agree):"

– "I trust the Church."

1 Strongly disagree

5 Neutral

10 Strongly agree

– "The Church is responsive to its members' needs and concerns."

1 Strongly disagree

5 Neutral

10 Strongly agree

– "I plan to attend more church services in the future."

- 1 Strongly disagree
 - 5 Neutral
 - 10 Strongly agree
- "I want to volunteer through the Church more in the future."
- 1 Strongly disagree
 - 5 Neutral
 - 10 Strongly agree
- "Would you like to learn more about a political petition related to '[most preferred issue]'?"
- 1 Strongly disagree
 - 5 Neutral
 - 10 Strongly agree