Don't Know Much about Democracy: Reporting Survey Data with Nonsubstantive Responses

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ABSTRACT Large majorities in nearly every country support democracy, according to studies of cross-national surveys. But many of these reports have treated as missing data persons who did not provide a substantive response when asked to offer an opinion about the suitability of democracy as a regime type for their country, which has led to substantial overestimates of expressed support for democracy in some countries. This article discusses the consequences of excluding such nonsubstantive responses and offers suggestions to improve the study of popular support for democracy.

Popular support for democracy is an important and frequent variable in the political science literature, given its status as a prerequisite for democratic consolidation and its ability to foster increases in political and civil liberties (Diamond 1999, 65; Norris 2011, 233–34; Rose, Mishler, and Haerpfer 1998, 91). High levels of support for democracy across region (Norris 1999, 17), culture (Inglehart and Norris 2003, 64), and regime type (Dalton and Shin 2006, 85) therefore suggest that many countries already possess a key prerequisite for democratic transition and democratization. But this assessment might be premature because many studies exclude from analysis persons who did not provide a substantive response when asked to support or oppose democracy for their country.[1] In this article, we illustrate the problem with exclusion of nonsubstantive responders, report correct levels of democratic support in certain countries, and offer suggestions for improving the study of popular support for democracy.

THE PROBLEM WITH EXCLUDING NONSUBSTANTIVE RESPONSES

Perhaps the most basic measure of popular support for democracy in a country is the percent of the population that agrees that democracy would be a good political system for their country. The English version of a World Values Survey item measuring support for democracy along these lines reads:

> I'm going to describe various types of political systems and ask what you think about each as a way of governing this country. For each one, would you say it is a very good, fairly good, fairly bad, or very bad way of governing this country? . . . Having a democratic political system.

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Figure 1 presents results to this item from the 2,532 respondents to the 2000 Iran Values Survey: 1,397 respondents indicated that democracy would be a "very good" or "fairly good" way to govern Iran, represented by the black line from 0% to the black dot at 55%; 235 respondents indicated that democracy would be a "fairly bad" or "very bad" way to govern Iran, represented by the gray line from 91% to 100%; and 900 respondents did not indicate whether democracy would be a good or bad way to govern Iran, represented by the gap from 55% to 91%.

Therefore, 55% of Iranian respondents at least paid lip service to the idea that democracy would be a good way to govern their country. But this percentage is artificially inflated when, as is commonly done, the calculation of support excludes observations of persons who did not indicate whether democracy would be a good or bad way to govern their country: if the 36% of the Iranian sample who did not select one of the "good way" or "bad way" options is excluded, then the 55% that expressed support is divided by the 64% that expressed support or opposition, resulting in a calculated level of 86% expressed support for democracy, represented by the gray dot in figure 1—an estimate that overstates expressed support by a full *31 percentage points.*

But the 36% of Iranian respondents who declined to support or oppose democracy for their country should not be excluded: although these nonsubstantive responders have not rejected democracy with the same intensity as the 9% who expressly indicated that democracy would be a bad way to govern Iran, both groups have declined to endorse democracy as a good political system for their country. The practice of excluding nonsubstantive responses when reporting expressed support presumes that a situation of 86% expressed support, 14% expressed opposition, and 0% nonsubstantive response is equivalent to a situation of 55% expressed support, 9% expressed opposition, and 36% nonsubstantive response, and—for that matter—that both of these situations would be equivalent to a situation of 6% expressed support, 1%

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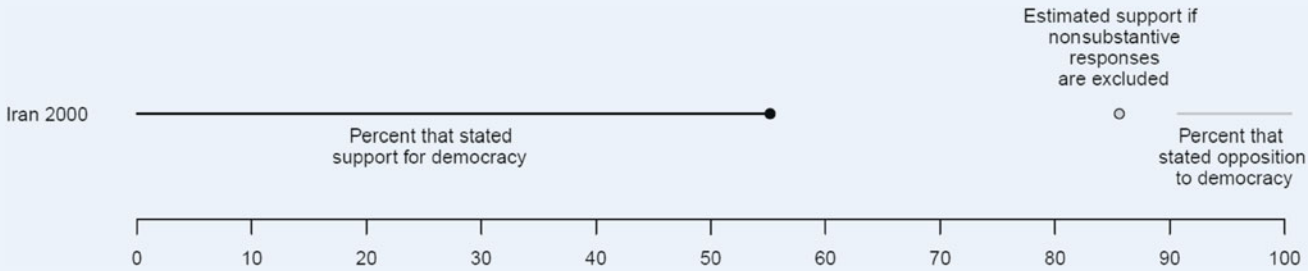
Figure 1

Support for Democracy, Iran 2000



Note: Figure 1 presents the percentage of respondents to the 2000 Iran Values Survey that indicated that a democratic political system would be a good way to govern Iran (black line), that indicated that a democratic political system would be a bad way to govern Iran (gray line), and that did not indicate an opinion about whether a democratic political system would be a good or bad way to govern Iran (gap between the black and gray lines). The gray dot at 86% indicates how the percentage that indicated that a democratic political system would be a good way to govern Iran would be reported if the 36% of respondents that did not indicate an opinion were excluded.

expressed opposition, and 93% nonsubstantive response. In each case, 86% of substantive responders support democracy, but a sample in which 86% express support for democracy is not equivalent to a sample in which 6% express support for democracy.

Figure 2 recreates figure 1 for the countries listed in table 1 of Inglehart (2003), with responses from East and West Germany combined. Gray dots represent the percentage expressed support for democracy reported in the article, but the percentage that includes nonsubstantive responses is indicated by the black dot at the end of the black line.[2] The gap between these percentages is often small, but the gap tends to be large in the nondemocratic countries for which measurement of support for democracy is critical.[3] For example, in 2001, 68% of respondents in Morocco and 73% of respondents in China indicated that democracy would be a good way to govern their country, but expressed support for democracy in these countries had been reported as 96% in studies that excluded nonsubstantive responses (see Dalton and Shin 2006, 82; Inglehart 2003, 52; Inglehart and Norris 2003, 66; and Tessler 2002, 236).

Excluding nonsubstantive responses can also affect inferences about the correlates of support for democracy, given that nonsubstantive response can be associated with such predictors. For example, in the 2000 Iran Values Survey, nonsubstantive response to the "having a democratic political system" item negatively correlated with higher levels of formal education ($r = -0.23$, $n = 2{,}424$, $p < 0.01$), positively correlated with increased age ($r = 0.09$, $n = 2{,}532$, $p < 0.01$), and was higher among women than among men (41% and 31%, respectively, $n = 2{,}532$).

To illustrate the variation in inferences due to exclusion of nonsubstantive responses, we calculated predicted probabilities with CLARIFY (King, Tomz, and Wittenberg 2000; Tomz, Wittenberg, and King 2003) based on two logistic regressions using gender, age, and education as predictor variables; the dichotomous dependent variable in both regressions was coded 1 if the respondent indicated that democracy was a good way to govern Iran, and 0 if the respondent did not indicate that democracy was a good way to govern Iran. The first regression excluded nonsubstantive responders, and the second regression included nonsubstantive responders in the 0 category. This coding decision altered inferences about the influence of education on support for democracy and about relative levels of support for democracy: when nonsubstantive responses were excluded, with gender and age at their mean values, 95% confidence intervals for the predicted probability that a respondent indicated that democracy is a good way to govern Iran ranged from [76, 85] percent for the lowest level of formal education to [87, 92] percent for the highest level of formal education. But the predicted probability gap increased and absolute levels respectively fell to [33, 41] percent and [69, 75] percent when nonsubstantive responses were included.[4]

SUGGESTIONS FOR HANDLING NONSUBSTANTIVE SURVEY RESPONSES

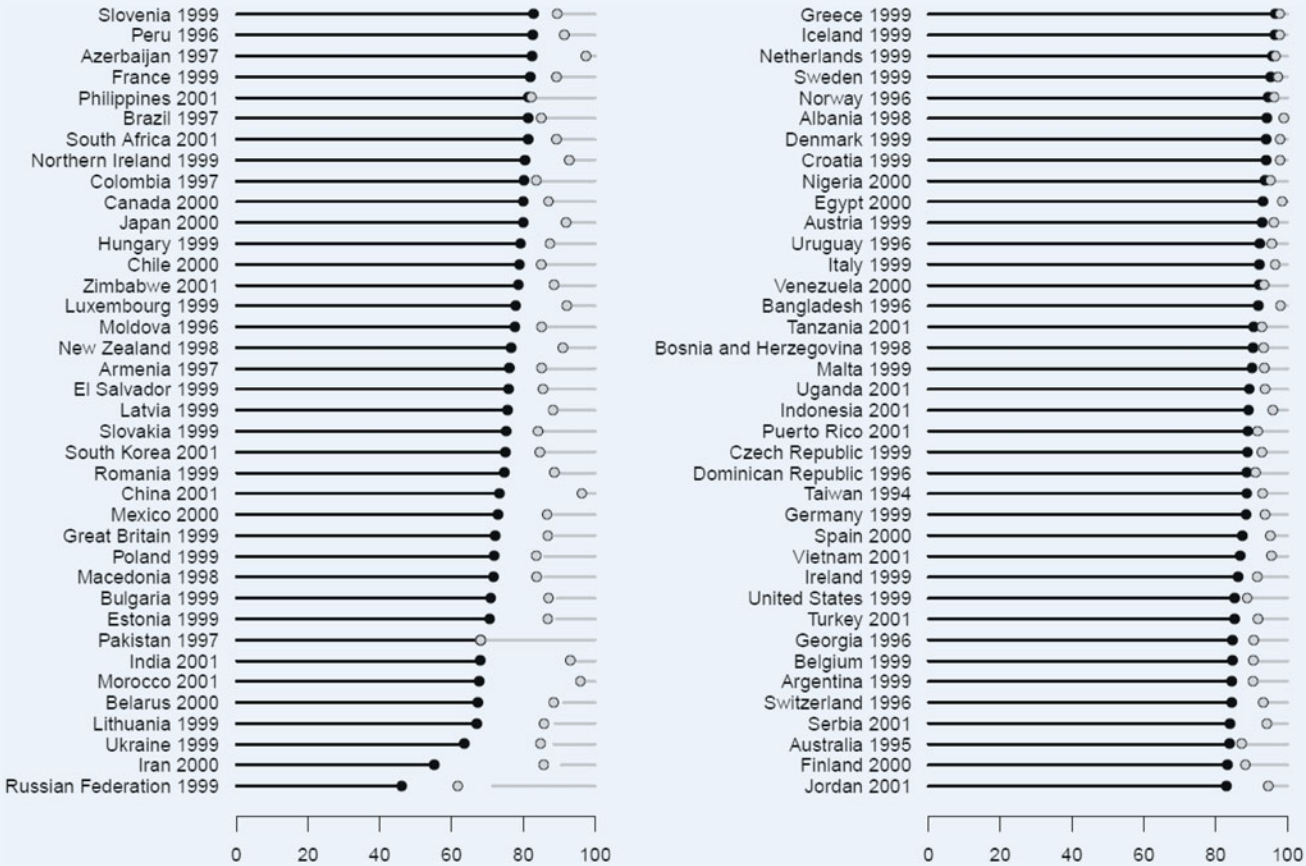
Studies should include nonsubstantive responses when calculating expressed support and should report the percentage of nonsubstantive responses so that readers see the range of possible levels of true support. For example, expressed support for a democratic Iran based on the 2000 Iran Values Survey sample could be presented as a [55, 91] percent interval, indicating that 55% of respondents expressed support, 9% of respondents expressed opposition, and the 36% reflected in the 55-to-91 interval did not provide a substantive response. This provides more and better information than an 86% point estimate and permits the reader to surmise that the level of true support for a democratic Iran in the sample is between 55% and 91%, depending on the percentage of nonsubstantive responders who censored their support for a democratic Iran.[5]

But studies concerned with providing a more precise estimate of true support for democracy should report a thorough analysis of nonsubstantive responses to assess as best as possible the percentage of nonsubstantive responses that reflect censored support or censored opposition. For this task, omission of nonsubstantive responses—a practice known as listwise deletion—is not necessarily a bad technique: listwise deletion might inflate reports of expressed opinion (what respondents *said*), but listwise deletion does not bias reports of true opinion (what respondents *think*) as long as the distribution of opinion among substantive responders matches the distribution of opinion among nonsubstantive responders. For example, 86% as an estimate of true support for a democratic Iran is accurate to the extent that the ratio of true support among the 900 nonsubstantive responders matches the 86% expressed—and presumably true—support among the 1,632 substantive responders.

Listwise deletion is equivalent to treating observed cases as a random sample of all cases and thus assuming that unobserved cases are missing completely at random (see Allison 2002, 646). But this is often not the case. In the 2000 Iran Values Survey

Figure 2

Support for Democracy



Note: Figure 2 presents the percentage of respondents to selected European Values Studies and World Values Surveys that indicated that a democratic political system would be a good way to govern their country (black line), that indicated that a democratic political system would be a bad way to govern their country (gray line), and that did not indicate an opinion about whether a democratic political system would be a good or bad way to govern their country (gap between the black and gray lines). The gray dots indicate how the percentage that indicated that a democratic political system would be a good way to govern their country would be reported if the respondents that did not indicate an opinion were excluded.

sample, for example, women were more likely than men to not provide a substantive response to the "having a democratic political system" item. For this situation, in which nonsubstantive responses are not missing completely at random, researchers should use techniques that soften the missing-completely-at-random assumption, such as inverse probability weighting, multiple imputation, and Heckman selection modeling.

Inverse Probability Weighting

In inverse probability weighting, observed data are used to predict the probability of providing a substantive response; the value of the substantive response from each observed respondent is then weighted by the inverse of the predicted probability that a respondent with his or her characteristics provided a substantive response.

Our first inverse probability weighting analysis modeled the presence of a substantive response to the "having a democratic political system" item among respondents to the 2000 Iran Values Survey. This model used a regression equation with a variable for gender, a variable for age, and a formal education variable that ranged from 1 for incomplete elementary education to 8 for a university degree. Resulting predicted probabilities of a substantive response from a given respondent ranged from 39% to 85%; for example, a 65-year-old woman with an incomplete elementary education had a 43% chance of providing a substantive response. The inverse values of these probabilities were then used to weight substantive responses. For example, substantive responses from 65-year-old women with an incomplete elementary education were weighted by a factor of 2.3, which is the inverse of 43% (i.e., 1 divided by 0.43). Inverse probability weights ranged from 1.2 to 2.6, with a respective mean and standard deviation of 1.6 and 0.3. This first inverse probability weighting analysis produced a 95% confidence interval of [84, 87] percent true support for a democratic Iran among respondents to the 2000 Iran Values Survey.[6]

Our second inverse probability weighting analysis modeled the presence of a substantive response to the "having a democratic political system" item among respondents to the 2000 Iran Values Survey using variables for gender, age, and formal education, plus variables for opinion about a political system with a strong leader, opinion about a political system in which experts make decisions, opinion about a political system in which the army rules, and agreement with the statement that democracy may have its problems but it is better than any other political system. Responses for these latter four opinion measures were trichotomized into variables in which +1 indicated a response of good or agreement, −1 indicated a response of bad or disagreement, and 0 indicated a nonsubstantive response.

Inverse probability weights ranged from 1.1 to 5.5, with a respective mean and standard deviation of 1.7 and 0.6. This second inverse probability weighting analysis produced a 95% confidence interval of [81, 86] percent true support for a democratic Iran among respondents to the 2000 Iran Values Survey.

Multiple Imputation

In multiple imputation, observed data predict multiple values of a missing value for an observation. The range of variation in predicted values reflects the uncertainty about the value that should be predicted; then, these multiple predicted values are used to generate multiple complete datasets, such that *n* predicted values produce *n* complete datasets. These *n* complete datasets are analyzed, and the results of the analyses are combined with statistical rules.

Our first multiple imputation used gender, age, and education to predict responses to the "having a democratic political system" item among respondents to the 2000 Iran Values Survey who did not provide a response to that item; three responses were predicted for each missing value, to generate three complete datasets.[7] This first multiple imputation analysis produced a 95% confidence interval of [84, 87] percent true support for a democratic Iran among respondents to the 2000 Iran Values Survey.

Our second multiple imputation used the seven variables from the second inverse probability regression equation to predict responses to the "having a democratic political system" item among respondents to the 2000 Iran Values Survey who did not provide a response to that item; three responses were predicted for each missing value to generate three complete datasets. This second multiple imputation analysis produced a 95% confidence interval of [82, 85] percent true support for a democratic Iran among respondents to the 2000 Iran Values Survey.

The third multiple imputation was based on the aforementioned seven variables, plus variables for confidence in government, a 1-to-10 rating of the current political system for the country, opinion about whether the economic system runs badly in a democracy, opinion about whether democracies are indecisive, opinion about whether democracies are not good at maintaining order, satisfaction with the financial situation of the household, and frequency of attendance at religious services. This third multiple imputation analysis produced a 95% confidence interval of [84, 87] percent true support for a democratic Iran among respondents to the 2000 Iran Values Survey.

Heckman Selection Models

Multiple imputation and inverse probability weighting presume that the probability of a nonsubstantive response is not a function of the response variable. This assumption cannot be tested statistically and is unlikely to hold in the nondemocratic regimes where measurement of support for democracy is critical. In these regimes, nonsubstantive response due to self-censorship might be more likely among persons who prefer replacing the current regime with a democratic regime than among persons who prefer the nondemocratic status quo. This assumption is especially problematic considering that, in our cross-national analysis, the nonsubstantive response rate to democratic support items was inversely related to the level of democracy in a country.

Heckman selection models can account for missing data when the probability of nonsubstantive response is a function of the response variable: observed data predict the probability of providing a substantive response, and a transformation of this probability is included as a control in a regression to predict the dependent variable of interest (Heckman 1976). But if the selection model is not specified correctly, a Heckman model can produce estimates inferior to estimates from models assuming that nonsubstantive response is not a function of the response variable (Enders 2010, 296).

Our first Heckman model predicted the presence of a substantive response to the "having a democratic political system" item among respondents to the 2000 Iran Values Survey using the seven variables from the second inverse probability regression equation plus a self-reported interest-in-politics variable. The first seven variables were used as predictors in the outcome equation; the regression was estimated on the 2,344 observations with full data on the model variables, split into 1,554 uncensored observations and 790 censored observations. After the Heckman model was estimated, the Stata 11 margins command computed the predicted probability that a nonsubstantive responder agreed that democracy would be a good way to govern Iran. These predicted probabilities then were used to estimate responses for the 900 nonsubstantive responders. This first Heckman analysis produced a 95% confidence interval of [76, 91] percent true support for a democratic Iran among respondents to the 2000 Iran Values Survey.

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Our second Heckman model retained the variables from the first Heckman model and added outcome predictors of financial satisfaction, confidence in the government, confidence in the churches, and frequency of religious service attendance. These variables were also included as predictors in the selection equation, alongside new variables for self-reported importance of politics to the respondent and for the frequency of political discussions with friends. Because data were missing in these additional variables, the regression sample size was reduced to 1,156 uncensored observations and 490 censored observations. This second Heckman analysis produced a 95% confidence interval of [84, 88] percent true support for a democratic Iran among respondents to the 2000 Iran Values Survey.

Summary

Given the diversity of techniques available to estimate censored opinions—and the diversity of assumptions that they require—reports of estimated true support for democracy should reflect

multiple methods for handling censored responses to inform readers about the sensitivity of estimates to missing data techniques and assumptions. Estimates of true support for democracy in the 2000 Iran Values Survey provide an example of relative convergence: the 86% estimate of true support for democracy derived from listwise deletion fell close to or within the 95% confidence intervals derived from inverse probability weighting, multiple imputation, and Heckman selection modeling.

IMPROVING THE DESIGN OF DEMOCRATIC SUPPORT ITEMS TO REDUCE NONSUBSTANTIVE RESPONSE

Given the lack of an optimal statistical adjustment for reducing uncertainty caused by nonsubstantive response, expectations about even the most careful posthoc adjustment should be tempered by the multitude of possible reasons for nonsubstantive response to items that measure support for democracy, such as censorship of prodemocracy views considered at odds with the regime party line, censorship of antidemocracy views considered politically or socially undesirable, a general reluctance to express opinions stemming from limited formal education or other characteristics, and a lack of clarity about the actual nature of a democratic system (see Chu and Huang 2010).

Thus, the best way to reduce nonsubstantive response levels might be to modify the items themselves. For example, collapsing the four "having a democratic political system" response options into a dichotomous choice might increase the substantive response rate by decreasing task difficulty; respondents would need to map their opinion onto only a single directional dimension—good or bad—instead of both a directional dimension and an intensity dimension—very good, fairly good, fairly bad, or very bad. In addition, substantive response rates might be increased by offering a neutral option to capture opinions located between good and bad, because lack of a middle option can induce nonresponse (see Krosnick and Presser 2010, 271, 274). Neutrality or ambivalence about democracy should be captured because it is a legitimate attitude, especially among respondents in countries who lack democratic experience. For example, 77% of respondents to the 2000 Iran Values Survey who indicated that democracy would be a good way to govern Iran also endorsed military rule as a good way to govern Iran.

IMPLICATIONS FOR THE STATUS OF GLOBAL SUPPORT FOR DEMOCRACY

Because support for democracy might be a prerequisite for democratization, proper handling of nonsubstantive responses to democratic support items can have implications for democracy promotion efforts that rely on public opinion surveys. Including nonsubstantive responses in calculations of support for democracy did not alter the finding of high levels of support for democracy across geographic region, cultural orientation, and regime type. In 75 of the 76 countries shown in figure 2, a majority of respondents indicated that democracy would be a good way to govern their country. Moreover, at least for the 2000 Iran Values Survey, point estimates of the level of true support for democracy that excluded nonsubstantive responses were similar to point estimates derived from more sophisticated missing data techniques.

But excluding nonsubstantive responses altered inferences about the effect of formal education on support for democracy in Iran and revised downward estimates of expressed support for democracy in countries with high nonsubstantive response rates. Thus, democracy receives widespread support as a desirable political system in many nondemocratic countries, but that support is not as monolithic or as strong as some reports have indicated, which should temper optimism about the receptivity of these populations to democratization. ■

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NOTES

1. See, for example, Dalton and Shin 2006, 95; Esmer 2008, 291; Inglehart 2003, 52; Inglehart and Norris 2003, 66; Mishler and Rose 2001, 316; and Tessler 2002, 236. Other studies, however, include nonsubstantive responses as valid observations: see, for example, Carballo 2008, 97; Dalton, Shin, and Jou 2007, 146; Kotze 2008, 357; Moreno and Méndez 2003, 134; Rose 2002, 107; and Shi and Lu 2010, 128.
2. Responses to the democratic support item were described with terms such as "say" and "endorses," indicating that reported percentages were intended to reflect expressed support.
3. There is evidence that the probability of a nonsubstantive response to democratic support items is a function of the response variable: country-level nonsubstantive response rate to democratic support items negatively correlated with the country's democracy rating. The correlation is -0.30 ($p = 0.01$, $n = 73$) for the "having a democratic political system" item, based on the respective European Values Study or World Values Survey for countries shown in figure 2. The correlation is -0.43 ($p < 0.01$, $n = 70$) for countries whose respondents were asked to agree or disagree with the statement that "Democracy may have problems but it's better than any other form of government." Democracy ratings were drawn from the polity2 variable in the Marshall, Gurr, and Jaggers Polity IV Annual Time-Series 1800–2009 dataset, p4v2009.xls, retrieved February 1, 2011, from http://www.systemicpeace.org/inscr/inscr.htm. Ratings for Bosnia and Herzegovina and for Serbia were drawn from the Polity IV Individual Country Regime Trends 1946–2008 graphs available at http://www.systemicpeace.org/polity/polity4.htm; ratings were not available for Iceland, Luxembourg, and Malta; the rating for the United States was used for Puerto Rico, and the rating for the United Kingdom was used for Great Britain and for Northern Ireland.
4. The 95% confidence interval for the predicted probability of support for democracy still ranged from [33, 41] percent for the lowest education level to [69, 75] percent for the highest education level when a multinomial logistic regression predicted a three-value dependent variable with separate categories for responses of "good way," "bad way," and nonselection of "good way" or "bad way." The multinomial regression was used instead of an ordered logistic regression because a Brant test revealed that all three model independent variables violated the parallel lines assumption of the ordinal logistic regression when the trichotomous dependent variable ranged from a response of "good way" to a nonsubstantive response to a response of "bad way."
5. This confidence interval was constructed based solely on uncertainty due to nonsubstantive response, to illustrate the degree and variability of estimate uncertainty caused by nonsubstantive response. But, when possible, confidence intervals can also account for other survey characteristics, such as sample size, total refusal rate, and sampling error.
6. Standard errors for this and other inverse probability weighting estimates were not adjusted to account for the percent of nonsubstantive responses. Confidence intervals for this and other estimates of true support were not adjusted to reflect sampling error.

7. The imputation was conducted with the Stata 11 mi routine, with the command: mi impute mvn [dependent variable] = [independent variables], replace add(3) rseed(123) force.

REFERENCES

Allison, Paul D. 2002. *Missing Data*. Thousand Oaks, CA: Sage.

Carballo, Marita. 2008. "Cultural Trends in Argentina: 1983–2000." In *Changing Values, Persisting Cultures: Case Studies in Value Change*, ed. T. Pettersson and Y. Esmer, 95–120. Leiden, the Netherlands: Brill.

Chu, Yun-han, and Min-hua Huang. 2010. "Solving an Asian Puzzle." *Journal of Democracy* 21 (October): 114–22.

Dalton, Russell J., and Doh Chull Shin. 2006. "Democratic Aspirations and Social Modernization." In *Citizens, Democracy and Markets around the Pacific Rim*, ed. R. J. Dalton and D. C. Shin, 75–96. Oxford: Oxford University Press.

Dalton, Russell J., Doh C. Shin, and Willy Jou. 2007. "Understanding Democracy: Data from Unlikely Places." *Journal of Democracy* 18 (October): 142–56.

Diamond, Larry. 1999. *Developing Democracy: Toward Consolidation*. Baltimore: Johns Hopkins University Press.

Enders, Craig K. 2010. *Applied Missing Data Analysis*. New York: Guilford.

Esmer, Yilmaz. 2008. "Islam, Gender, Democracy and Values: The Case of Turkey: 1990–2001." In *Changing Values, Persisting Cultures: Case Studies in Value Change*, ed. T. Pettersson and Y. Esmer, 275–301. Leiden, the Netherlands: Brill.

Heckman, James J. 1976. "The Common Structure of Statistical Models of Truncation, Sample Selection, and Limited Dependent Variables, and a Simple Estimator for Such Models." *Annals of Economic and Social Measurement* 5 (October): 475–92.

Inglehart, Ronald. 2003. "How Solid Is Mass Support for Democracy—and How Can We Measure It?" *PS: Political Science and Politics* 36 (1): 51–57.

Inglehart, Ronald, and Pippa Norris. 2003. "The True Clash of Civilizations." *Foreign Policy* 135 (March/April): 62–70.

King, Gary, Michael Tomz, and Jason Wittenberg. 2000. "Making the Most of Statistical Analyses: Improving Interpretation and Presentation." *American Journal of Political Science* 44 (April): 341–55.

Kotze, Hennie. 2008. "The Constant of Transformation: Eleven Years of Value Change in South Africa, 1990–2001." In *Changing Values, Persisting Cultures: Case Studies in Value Change*, ed. T. Pettersson and Y. Esmer, 335–67. Leiden, the Netherlands: Brill.

Krosnick, Jon A., and Stanley Presser. 2010. "Question and Questionnaire Design." In *Handbook of Survey Research* (2nd Edition), ed. P. V. Marsden and J. D. Wright, 263–313. San Diego, CA: Elsevier.

Marshall, Monty G., Ted Robert Gurr, and Keith Jaggers. 2010. *Polity IV Project: Political Regime Characteristics and Transitions, 1800–2009*. http://www.systemicpeace.org/polity/polity4.htm.

Mishler, William, and Richard Rose. 2001. "Political Support for Incomplete Democracies: Realist vs. Idealist Theories and Measures." *International Political Science Review* 22 (October): 303–20.

Moreno, Alejandro, and Patricia Méndez. 2003. "Attitudes toward Democracy: Mexico in Comparative Perspective." In *Islam, Gender, Culture, and Democracy: Findings from the World Values Survey and the European Values Survey*, ed. R. Inglehart, 127–44. Willowdale, Ontario, Canada: de Sitter Publications.

Norris, Pippa. 1999. "Introduction: The Growth of Critical Citizens?" In *Critical Citizens: Global Support for Democratic Governance*, ed. P. Norris, 1–27. Oxford: Oxford University Press.

———. 2011. *Democratic Deficit: Critical Citizens Revisited*. New York: Cambridge University Press.

Rose, Richard. 2002. "How Muslims View Democracy: Evidence from Central Asia." *Journal of Democracy* 13 (October): 102–11.

Rose, Richard, William Mishler, and Christian Haerpfer. 1998. *Democracy and Its Alternatives: Understanding Post-Communist Societies*. Baltimore: Johns Hopkins University Press.

Shi, Tianjian, and Jie Lu. 2010. "The Shadow of Confucianism." *Journal of Democracy* 21 (October): 123–30.

Tessler, Mark. 2002. "Do Islamic Orientations Influence Attitudes toward Democracy in the Arab World? Evidence from Egypt, Jordan, Morocco, and Algeria." *International Journal of Comparative Sociology* 43 (October): 229–49.

Tomz, Michael, Jason Wittenberg, and Gary King. 2003. CLARIFY: Software for Interpreting and Presenting Statistical Results. Version 2.1. Stanford University, University of Wisconsin, and Harvard University. January 5. Available at: http://gking.harvard.edu/.