

The Importance of Being Private: How the Presence of Others Can Bias Survey Responses¹

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April 1, 2024

Very preliminary draft. Please do not cite or distribute.

Abstract

Surveys are a key instrument to learn about people's attitudes and beliefs. In this paper we analyze a potential source of misreporting of own preferences: the presence of others at the time of the survey. The Asian Barometer survey includes information on whether the interview took place in private, or whether others were present. We use waves 1 to 5 (N=92,678, 15 countries) to analyze to what extent expressed views on sensitive issues may change when others are present. We find that the presence of others increases the rate at which respondents refuse to answer sensitive political questions, particularly when the bystanders are children and neighbors or passers-by. We also find that respondents alter their answers to the same questions in the presence of others. Responses are more favorable to the regime when parents or in-laws are present, but more critical of the political system when neighbors or passers-by are present. Surprisingly, the latter effect is more pronounced in autocracies. We argue that the magnitude of the bias may be sizable: omitting information on the presence of others in the analysis can bias results in a similar way as omitting education or place of residence would do. This highlights the need to include and pay attention to such survey instruments when trying to understand public views on sensitive issues, in particular in countries where democracy is lacking or imperfect.

Keywords: Surveys; Asia; Asian Barometer; Survey Design; Social Desirability Bias.

¹We thank Joseph Antwi-Boasiako, Zhefeng He, and Stefano Toffoletto for excellent reseach assistance.

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1 Introduction

Social desirability bias has typically been one of the most problematic challenges in survey data collection: That is, respondents have the tendency to provide socially acceptable answers, thereby hiding (or misleading) their true opinions, particularly when the questions are on socially sensitive topics. In order to prevent this, surveyors try to protect as much as possible the privacy and anonymity of respondents. Nonetheless, complete privacy is not always possible, in particular when surveys are done in person in the field; other household members or relatives may be present in the house (not necessarily in the same room) or acquaintances or neighbours stop or walk by, thereby reducing the respondent's sense of privacy. Even if the presence of others is only temporary in time and not within personal reach, respondents may systematically hide their true beliefs and preferences if they perceive the conversation may be overheard.

We address this issue and exploit the fact that the Asian Barometer surveys systematically ask enumerators to code in detail the presence of others while the survey takes place. We analyze to what extent respondents disguise their preferences when others (relatives, acquaintances, neighbours, passers-by, or bureaucrats/officials) may possibly eavesdrop the conversation. We exploit the fact that the Asian Barometer provides data for different countries in order to further analyze which questions are more likely to be sensitive to the presence of others under different regime types.

This study contributes to the literature on motivated misreporting (Tourangeau & Yan, 2007), that has shown that a fraction of respondents tend to provide socially desirable answers, especially to questions on sensitive topics. This paper extends the study on motivated misreporting to a particular context and adds another layer of misreporting due to the presence of others at the time of the survey. As Aquilino, 1997, Cialdini and Goldstein, 2004 Tourangeau and Yan, 2007, and Mneimneh et al., 2015 show in the context of health and psychology studies, some respondents may provide truthful answers to interviewers, but they may be less keen to do so in the presence of a third party (see the latter for a literature review). In this paper, we extend the analysis to surveys on political attitudes and beliefs.

Zimbalist, 2018 and Tannenbergh, 2022 use Afrobarometer data and show that, in authoritarian regimes, respondents who believe that enumerators have been sent by the government (as opposed to being sent by an independent research institute) are more likely to hide their true opinions on questions regarding trust, approval, and corruption. Both studies uncover an

endogenous phenomenon: those respondents who believe that the government is sending enumerators to track them are respondents who generally are more likely to believe in conspiracy theories (Ostwald & Riambau, 2021). Therefore, Zimbalist, 2018 and Tannenbergs, 2022 show how individuals with a particular set of beliefs respond differently from others to sensitive questions. Here, we focus on situations that may be outside the control of the respondent, since others may be present (or randomly appear) during the interview for any respondent regardless of their mindset or beliefs.

Zimbalist, 2022 is likely the closest study to this one. It uses Afrobarometer data from 34 countries to examine the effect of third parties onto expressed answers, focusing on spouses, children and by-standers who are not relatives (e.g., neighbours). The study finds that the presence of non-familial others is correlated with lower satisfaction of democracy, higher fear of political intimidation, higher perceptions of corruption, and lower evaluations of politicians. On the other hand, the presence of familial bystanders is not significant in most occasions, and, when it is, it is in the opposite direction —i.e., correlated with higher perceptions of how democracy works and the politicians. Our paper expands into this contribution by looking at a different region, incorporating multiple cross-national survey waves, and paying closer attention to regime types.

We use data from waves 1 to 5 of the Asian Barometer survey, which includes 97,439 observations from 15 different countries, collected between 2000 and 2021. The presence of others was coded for about 95% of the surveys (92,678). Among those coded, around 55% the surveys were done in private, whereas the remaining were carried out in the presence of the spouse (16%), children (15%), parents or in-laws (7%), neighbours or passers-by (14%), or government/party officials (slightly less than 1%).¹

We select a variety of questions that are sensitive in nature, which may be largely grouped in three topics: (i) evaluations of the political system (e.g., agreement with one’s country being a democracy; satisfaction with how democracy works); (ii) trust in different institutions (such as the police, the military, the government or the courts); and (c) perceptions on corruption (e.g., frequency by which local/state officials break the law; personally witnessing corrupt behavior).²

We first analyze whether the presence of others affects respondents’ likelihood to answer sensitive questions. We find that respondents are less likely to answer sensitive questions in the

¹The coding of these categories varies across country-waves. In some cases, these are mutually exclusive options. In others, interviewers select all that apply. The list of options available also varies.

²We only show results for evaluations of the political system for now.

presence of others, a pattern that is driven mainly by children and non-family bystanders. We use V-Dem scores close to the data collection period of each wave to divide our sample into autocracies and democracies. Results suggest that the effect is equally present across regime types.

We then analyse whether actual responses vary with the presence of others. Overall, we find that evaluations of the system and its main actors tend to be higher when parents/in-laws are present. Surprisingly, we also find that evaluations of the system tend to be more negative in the presence of non-family bystanders. While these results hold overall, they seem to be driven primarily by respondents' behavior in autocracies. We show that the magnitude of the bias may be sizable: omitting information on the presence of others in the analysis can bias results in a similar way as omitting education or place of residence would do.

There are two possible reasons that could explain these patterns of behavior. We consistently find in this dataset that elder respondents tend to be much more supportive of their regimes and of their rulers (see also Christensen and Lægveid, 2005). Hence, respondents may be misreporting their own beliefs in order to please their parents (or in-laws) or in order to prevent later reprimands. On the other hand, these patterns could also arise from a sample selection issue: Those adults who are more likely to live with their parents/in-laws, and hence more likely to have them present at the time of the interview, could be more conservative and supportive of the regime in nature. Surprisingly, one would expect that citizens in autocracies may also provide answer that are more supportive of the regime in the presence of non-family others. However, this may also be explained by another selection issue: These questions may be only allowed in countries where at least a modicum of electoral opposition is allowed.

While we cannot fully disentangle which of the mechanisms is more prevalent, we have reasons to believe that social desirability can account for a large part of the observed differences. We have no reason to believe that the presence of these people may be correlated with political attitudes and beliefs of the respondent. In other words, motivated misreporting is plausibly the most likely mechanism behind many respondents' expressed behavior in the presence of others.

To the best of our knowledge, other than the ones hitherto cited, no recent studies using face-to-face interview data, such as the Asian Barometer or the European Social Survey, control for the presence of others at the time of the interview. Results presented in this paper highlight the need to include and pay attention to survey instruments that assess the surroundings of the interview when trying to understand public views on sensitive issues, in particular in countries

where democracy is lacking or imperfect. Failing to control for interview privacy (in face-to-face settings or even phone or online surveys) may result in biased estimates and a poor understanding of the public’s beliefs.

2 The Data³

We use data from Waves 1-5 of the Asian Barometer Survey, these are all the waves for which data is publicly available at the time data harmonization began. Along with the European Social Survey, this is the only major multi-country survey on political attitudes and beliefs that includes detailed information on the presence of others during the interview. We focus on the Asian Barometer as its countries exhibit more variation in democracy scores. The dataset includes 97,439 observations from 15 different countries over a 21-year time period (2000-2021). The range of respondents by country is 1,000–1,800, with the exceptions of Hong Kong in Waves 1 and 2 (811, 849), India in Wave 5 (5,318), Japan in Wave 3 (1,880), and China across all waves. See asianbarometer.org for additional details.

The presence of others was coded by enumerators for 92,678 surveys. Figure 1 shows a breakdown of waves, countries, and the information available regarding the presence of others. About 45% of the surveys had at some point the presence of someone beyond the interviewer and the respondent. As the figure suggests, this is rare in some countries (e.g. Japan, Korea), but fairly common in others (e.g. China, Mongolia, Taiwan).

The distribution of the presence of others across categories is presented in Table 1.⁴ Direct family members and relatives account for most of the occasions in which an outsider was present. Still, neighbors or by-standers are fairly common across waves (between 13-16%). The overall picture suggests that the presence of party and government officials is rare, but it still happens in a non-negligible proportion of interviews in some country-waves (e.g. 89 surveys in China Wave 3, 85 and 79 in Indonesia Waves 2-3, 65 in Singapore Wave 3).

³In February 2024, the Asian Barometer released updated datasets for waves 3, 4, and 5. This disrupted our data harmonization pipeline. Some inconsistencies in the data may arise due to the reintroduction of coding issues previously fixed. We are currently working on this.

⁴These categories were recorded as mutually exclusive in waves 3-4, we suspect this was a parsing error that may have been fixed in the February 2024 update. Some categories are omitted in some countries, we will eventually have an appendix table with this information.

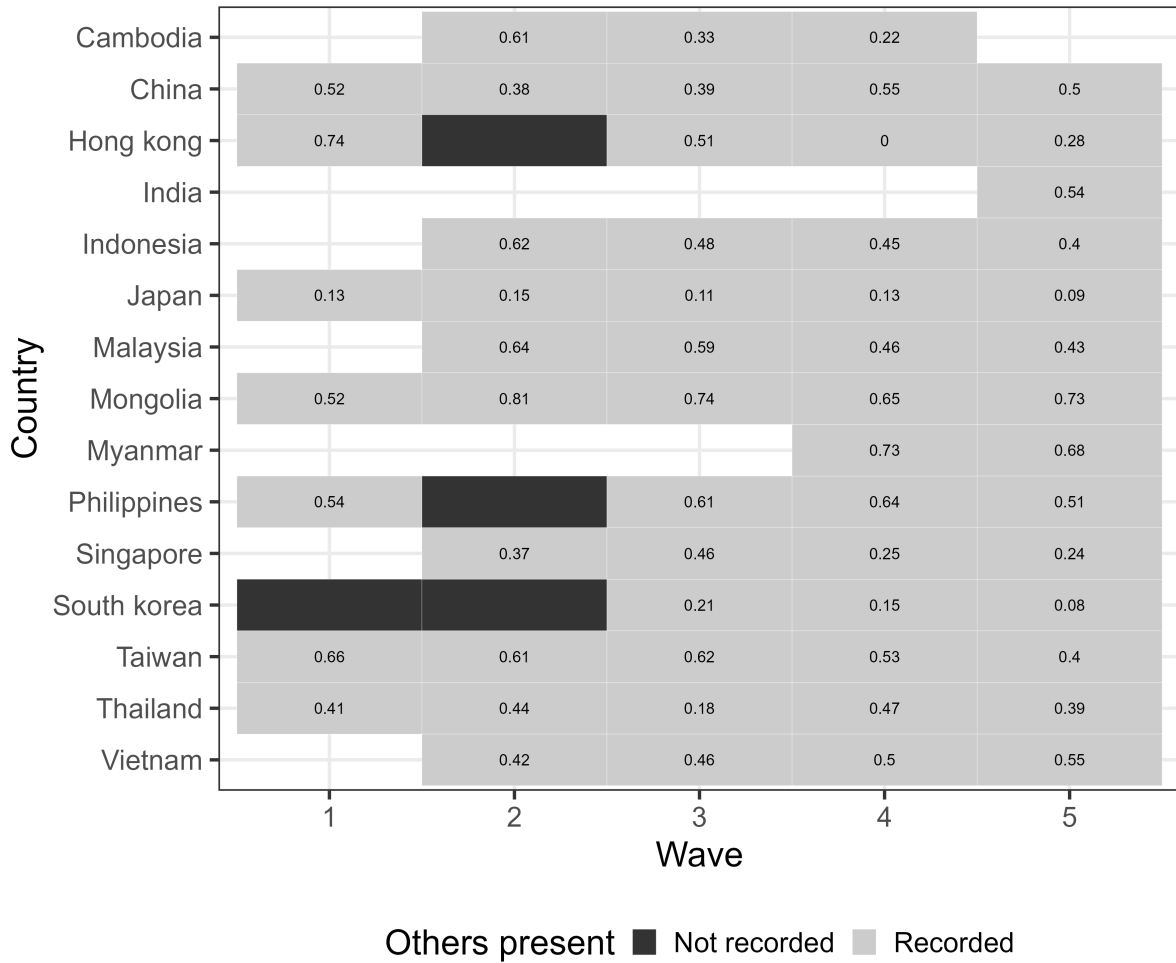


Figure 1: Distribution of presence of others across country-waves.

Table 1: Proportion of presence of others by category

Wave	Nobody	Partner or spouse	Children	Parent or in-law	Non-family	Party or gov. official
1	0.509	0.177	0.213	0.081	0.158	
2	0.517	0.179	0.165	0.083	0.151	0.008
3	0.580	0.169	0.115	0.071	0.132	0.018
4	0.558	0.164	0.177	0.065	0.138	0.003
5	0.543	0.156	0.162	0.078	0.137	0.004

Note: Proportions over the total number of interviews recording whether someone was present. The presence of party or government officials was not recorded in any of the countries in Wave 1. Categories were recorded as mutually exclusive for waves 3-4.

3 Results

3.1 Overall results

We first look at willingness to answer five different sensitive questions in the presence of others:

1. In your opinion, how much of a democracy is the country? (1=not a democracy – 4=A full democracy)
2. In the whole, how satisfied or dissatisfied are you with the way democracy works in this country? (1=Not at all satisfied – 4=Very satisfied)
3. Over the long run, our system of government is capable of solving the problems our country faces (1=Strongly disagree – 4=Strongly agree)
4. I would rather live under our system of government than any other that I can think of (1=Strongly disagree – 4=Strongly agree)
5. How likely is it that the government will solve the most important problem you identified within the next five years? (1=Not at all – 4=Very likely)

All questions revolve around respondents’ perceptions of the political system in the country. We construct a binary indicator that takes value 1 if the respondent refuses to answer the question, and 0 otherwise. Hence, it is a ‘strict’ refusal to answer, since those who (claim they) do not understand the question, and those who do not know are not coded as “refuses to answer”.

In order to assess how the presence of others affects respondents willingness to answer, we estimate the following model via OLS regression (with cross-country weights as provided by the Asian Barometer)

$$y_i = \alpha + \text{Others}_k \beta_k + X\gamma + \mathbb{1}_c + \mathbb{1}_w + \varepsilon_i, \quad (1)$$

where y_i is the outcome variable of interest (in this case, perceptions about democracy), Others_k is one of six binary indicators recording the presence of others (anyone, spouse, children, parents or in-laws, neighbors or passers-by, government or party officials), X is a vector of controls that includes an indicator for women, formal education, age, an indicator for urban, and religiosity. $\mathbb{1}_c$ and $\mathbb{1}_w$ are country and wave indicators, respectively.⁵

Results are shown in the left panel of Figure 2. In general, the presence of anyone affects respondents' willingness to answer questions for all outcomes except for whether the government will solve the most important problem identified by the respondent. One reason for this discrepancy is that the sensitivity of this question may depend of what the respondent chooses as the most important problem in the country. Moving toward specific categories, we see that the general pattern stems primarily from the presence of children and neighbors or passers-by, suggesting that the main reason to refusal has to do with the sensitivity of the potential answer. This interpretation is also supported by the positive point estimates for the presence of party or government officials in all outcomes except for the system's capability to solve the country's problems, although the rare frequency of the presence of officials during interviews prevents us from determining if this effect is distinguishable from zero.

Next we turn to the answers given to the very same set of questions. Conditional on answering those, are respondents more (or less) likely to provide positive views in the presence of others? To this avail, we exclude those respondents who did not understand the question, or who could not choose between the alternatives presented. That is, we consider only those respondents who either strongly agree, agree, disagree or strongly disagree with the statement presented to them.

The right panel of Figure 2 shows the results. There, we notice two overall patterns: On the one hand, the presence of parents or in-laws leads to more favorable views of the political system. This may occur for two reasons. First, older individuals tend to be more conservative, and respondents answering questions in their presence may tend to give answers that favor the regime. Alternatively, those who are responding a survey with parents or in-laws present may be likely to live them, and to be generally more conservative as well.

⁵We suspect the February 2024 update may have introduced errors in our coding of education and age.

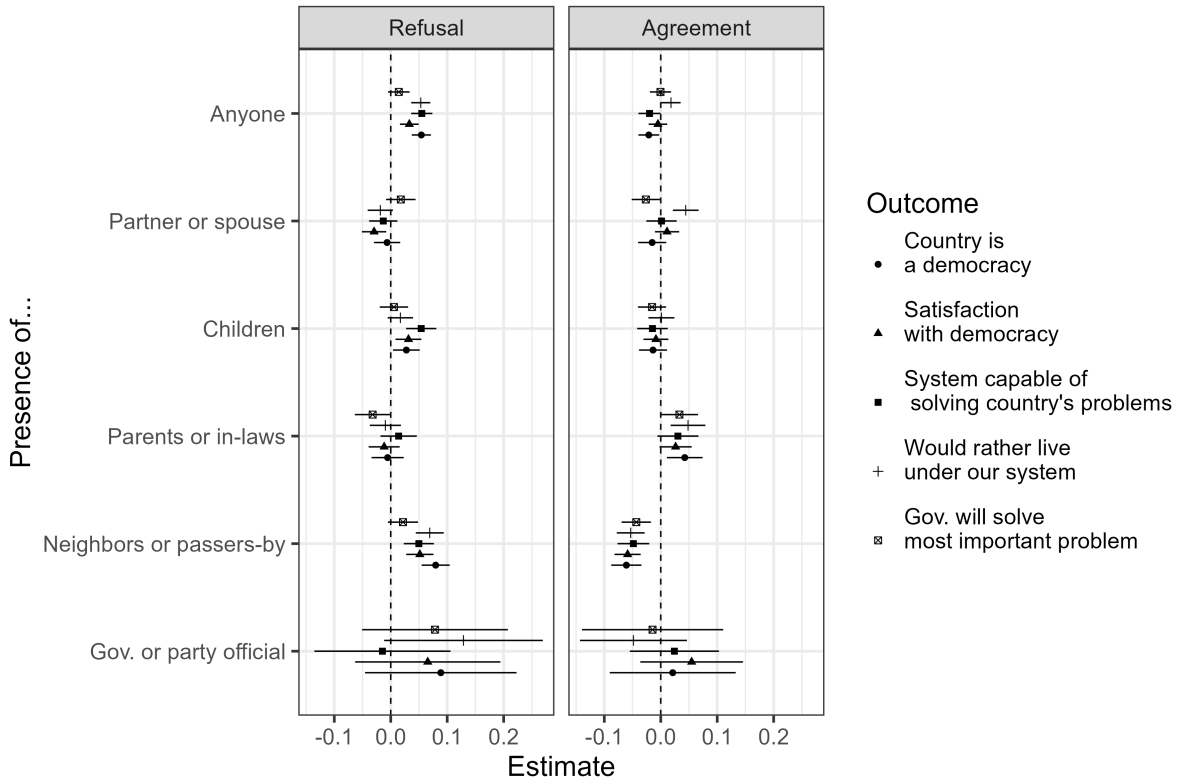


Figure 2: Presence of others and questions about the political system

Outcomes are rescaled to mean zero and standard deviation one. The left panel indicates whether respondents refuse to respond the corresponding question, right panel indicates agreement with corresponding statement. Each estimate comes from an OLS regression of the outcome of interest against the presence of each category, including controls for women, education, age, urban, religiosity, and country and wave fixed-effects. Horizontal lines denote 95% confidence intervals derived from HC2 robust standard errors.

On the other hand, the presence of neighbors or passers-by leads to answers that are less favorable to the political system. This may be attributed to another selection issue: those who choose to answer questions in the presence of non-family bystanders may be more likely to hold strong opinions about the regime and political system.

3.2 Results by regime type

Next we analyse whether the patterns observed hold generally in all countries, or hold particularly in a subset of countries. To that avail, we use the regime type typology proposed by V-Dem according to its Liberal Democracy Index corresponding to the year in which the fieldwork occurred in each country-wave. This typology classifies countries as closed autocracies, electoral autocracies, electoral democracies, and liberal democracies.

To facilitate interpretation, we divide our data in two groups: autocracies and democracies. We estimate the relationship between the presence of others across categories and the responses to our democracy questions of interest separately for each subset. Other specification and estimation details remain the same. The goal is to assess whether results seen thus far are driven by a particular group of countries, or if, on the contrary, hold constant across all groups.

Figure 3 shows the results for rejections to answer in the presence of others. With the exception of lower agreement on the question about whether the government will solve the most important problem identified by respondents in democracies, we see no major differences in refusal rates in the presence of others across regimes.

Figure 4 shows the results for rejections to answer in the presence of others. Here, we find a surprising pattern about the presence of neighbors or passers-by. The effect identified in Figure 2 stems primarily from respondents in autocracies. This may happen for two reasons: First, those willing to answer sensitive political questions in the presence of non-family bystanders in autocracies may represent disproportionately the kind of respondent who tends to be outspoken about the regime. Alternatively, that this pattern is more noticeable in autocracies than in democracies may have to do with expectations about the beliefs of bystanders that are not officials and the respondent does not know as well as family members. In democracies, respondents may feel ambiguous about whether a stranger is in favor or against the regime. In contrast, respondents in autocracies may default to believe that any stranger that does not have any ties to the government or ruling party may be opposed to the regime.

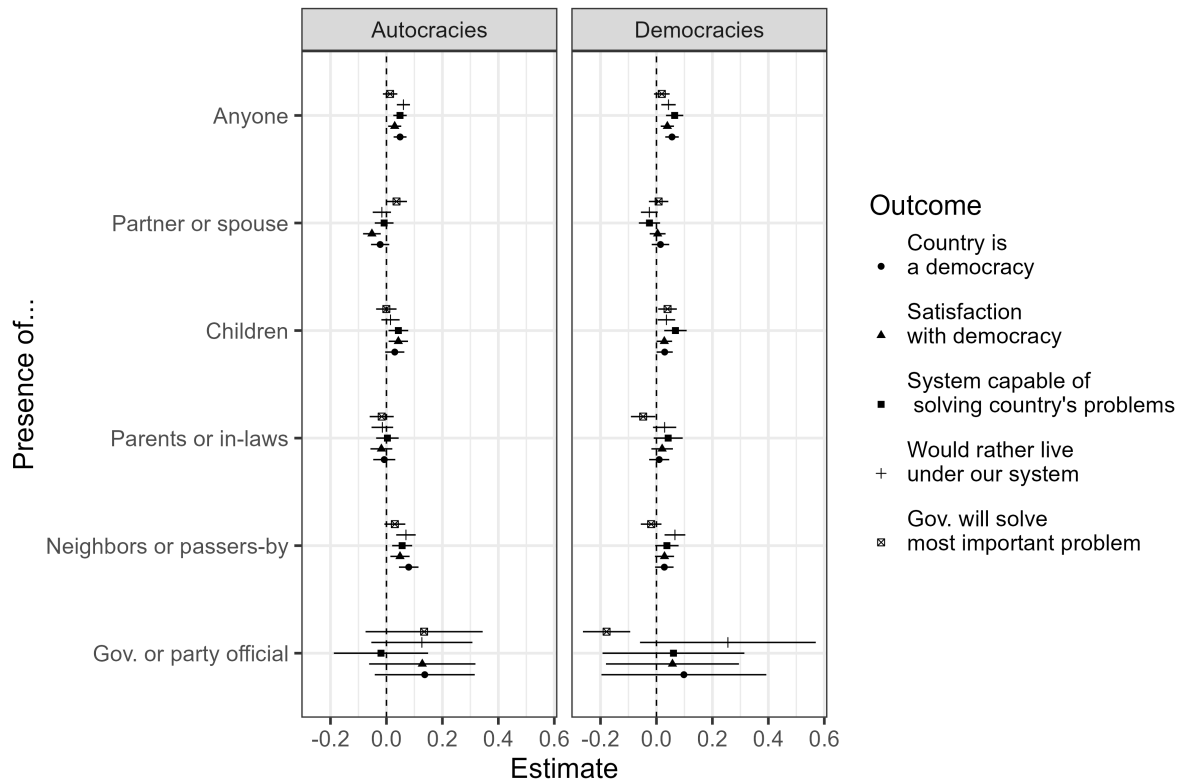


Figure 3: Presence of others and refusal to answer questions about political system by regime type

Outcomes are rescaled to mean zero and standard deviation one. Each estimate comes from an OLS regression of the outcome of interest against the presence of each category, including controls for women, education, age, urban, religiosity, and country and wave fixed-effects. Horizontal lines denote 95% confidence intervals derived from HC2 robust standard errors.

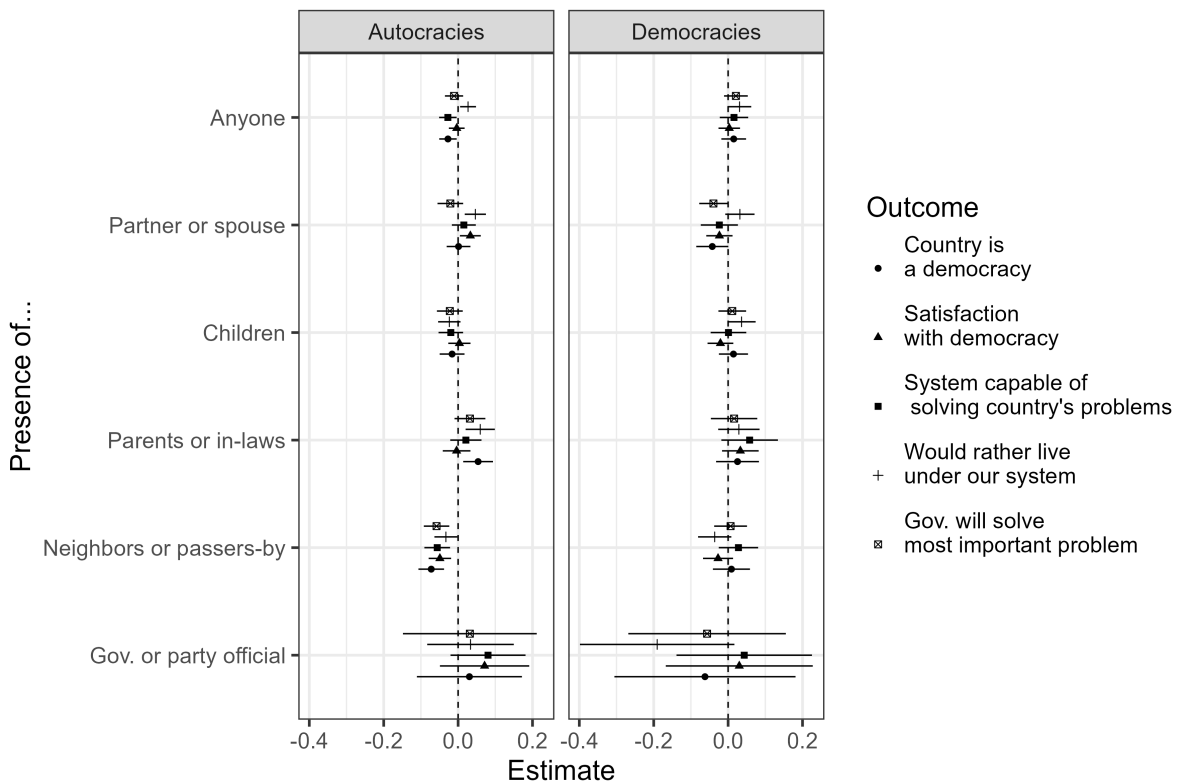


Figure 4: Presence of others and responses to questions about political system by regime type

Outcomes are rescaled to mean zero and standard deviation one. Each estimate comes from an OLS regression of the outcome of interest against the presence of each category, including controls for women, education, age, urban, religiosity, and country and wave fixed-effects. Horizontal lines denote 95% confidence intervals derived from HC2 robust standard errors.

3.3 Additional results

We are hesitant of presenting results for these variables after the February 2024 Asian Barometer data update, but our paper will also look at the effect of the presence of others outcomes about:

1. Trust in different institutions (e.g. PM or president, the military, government)
2. Perceptions of corruption at different levels of government

4 Discussion

We can summarize all results presented above as follows: Respondents are less willing to respond sensitive political questions in the presence of others, particularly among children and non-family bystanders. Moreover, respondents express more positive views of the regime in the presence of parents or in-laws and more negative views in the presence of non-family bystanders. We do not have sufficient evidence to claim that these effects are more pronounced in autocracies or democracies, but we do find suggestive evidence that the more negative views of the political system in the presence of non-family bystanders stems from autocratic regimes.

What is the mechanism that drives this behavior? Social desirability seems certainly to be one mechanism at hand. This may explain why the presence of parents or in-laws is generally correlated with better views of the system and their officials. One explanation is that respondents may want to please the elder by giving more positive views when they are aware they are present. Overall (results not shown) elder respondents tend to hold the system and officials in much higher esteem than adults and youngsters. In light of this, and taking into account the degree of respect for the elder existing in most Asian societies, it is plausible that respondents whose parents/in-laws are present prefer to soften their criticism of the regime/inflate their support for it.

On the other hand, however, it could be that respondents who are closer to their parents (and therefore more likely to live with them and to have them present at the time of the survey) are generally happier with the system and its rulers. Hence, we cannot fully disentangle whether the effects are mostly driven by social desirability or by sample selection.

We believe similar competing rationales may explain differential responses under the presence of a party of government official. An unexpected visit may result in respondents' sense of wariness increasing and therefore increasing their expressed support for the system and their

rulers. However, it could be that officials are present because they happened to be hanging out with respondents at the time of the survey. In this case, respondents' answers could be sincere and the effect be driven not by fear of reprisal but by sample selection. However, we do not find many instances of government and party officials present during the survey in our data. Further research is needed to shed light on the prevailing mechanism.

All this suggests that if we do not consider the presence of others in the analysis of sensitive questions, we may be suffering from severe omitted variable bias. Omitting information on the presence of others may bias results in a similar fashion as omitting place of residence or education level would. This is particularly relevant in countries with low scores on liberal democracy indexes.

5 Concluding remarks

This paper has used Asian Barometer survey data to assess whether the presence of others at the time of the survey is correlated with expressed attitudes on sensitive political and social issues. It has shown that the presence of others can indeed be correlated with better evaluations of the system and its political and social leaders. These effects are particularly pronounced in autocratic regimes, and mostly take place (but not always) when parents, in-laws, or children are watching the interview.

The size of the effect is large: ignoring information on the presence of others in the analyses can bias results in a similar fashion as ignoring education or location could.

Two competing mechanisms may explain the effects: social desirability (if respondents are deliberately misreporting), or sample selection (if respondents are being honest, and presence of others is correlated with unobservables in terms of attitudes and beliefs). While it is likely that both mechanisms may be present, further research is needed in order to disentangle the true size of each of them.

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