NONRESPONSE TO POLITICALLY-SENSITIVE QUESTIONS ACROSS POLITICAL REGIMES

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Abstract

The purpose of this study is to identify the relationship between political regimes and unit nonresponse, "don't know" item nonresponse and "no answer" item nonresponse, seeking to use willingness to answer politically-sensitive questions as a proxy to measure the quality of democracy.

Using data from World Values Survey's sixth wave to measure nonresponse, as well as data from Freedom House, V-Dem, Polity IV and The Economist Intelligence Unit's Democracy Index to measure democratization, I conducted correlations and multiple linear regressions in order to see the relationship between political regimes as my independent variable and types and amounts of nonresponse.

The results of the analysis is that contrary to what the literature suggested, namely that nonresponse will be either most spread across democratic regimes due to oversaturation, or across non-democratic regimes due to preference skewing. The highest levels of nonresponse were found in flawed democracies, yet the results of the analysis should be accepted with caution, as regime type did prove to not have much explanatory power over the distribution and type of nonresponse recorded.

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Table of Contents

List of Tables

List of Figures

What Is Nonresponse and Why It Matters

The quality of democracy throughout the world has decreased. The latest Freedom House report claims that "contempt for independent institutions and open discussion has become entrenched from Central Europe to Eurasia. Time is running out for the EU and the United States to confront the antidemocratic backlash." (Freedom House, 2018).

There are more than handful of studies that confront the level of democratic quality, through the assessment of institutional aspects, such as The Comparative Study of Electoral Programs, or changes in values, such as the World Values Survey, or look at policies, such as V-Dem.

But few address proxies in determining the quality of democracy. One of those proxies is willingness to respond to politically-sensitive questions.

As nonresponse affects statistical results by increasing the value of estimates in sample variance which leads to a bias and reduced representability in the population (Little and Rubin, 1986), nonresponse has been tackled in the field of quantitative analysis since the inception of the field itself yet measuring and reporting nonresponse as well as modeling the data and

imputing data when reliable measurements at the same aggregate level are available, is as far as the current literature goes.

Connecting political regimes to nonresponse has been hinted at in the literature (Tourrangeau et al. 2000 Horn, 2011), but not tested in depth. However, these studies are more aimed to address the issue of nonresponse, and now the meaning nonresponse may have.

This paper attempts to fill this gap by looking at willingness to respond to politically-sensitive questions a unit level and at item level. There are two varieties on nonresponse, namely unit nonresponse, referring to the situation in which a respondent explicitly refuses to answer to the entire questionnaire, and item nonresponse, which refers to the instances in which although the respondents accepted to respond to the questionnaire, she refuses to answer to certain questions within said questionnaire. Item nonresponse options in surveys are “don’t know” and “no response”. This is important because many questions on democratic support have a social desirability problem, such as if one supports democracy when there is no alternative available.

Research Question

This study aims to find out whether a state's level of democratization is related to unit nonresponse in surveys. Furthermore, by analyzing answers to politically-sensitive questions I shall investigate what type of item nonresponse is preponderant in certain types of regimes.

In the following section I will talk about nonresponse, how it has been studied so far and the competing currents of literature which attribute nonresponse to different factors. After that, I shall introduce the data and methodology used in this research paper.

Chapter I. Outline of the Literature

In this section, I will revisit the literature on nonresponse, drawing on the literature of Tourrangeau et al. (2002) as well as Groves at al. I shall start by introducing and defining the nonresponse categories and elaborate on their use in social surveys. After that, I will talk about social *desirability* and *oversaturation*, which, as suggested by the literature, affect nonresponse. Lastly, I shall address some of the research on nonresponse carried out in non-democratic political regimes.

1.1. On Nonresponse

Nonresponse comes in two forms, namely unit nonresponse and item nonresponse. Unit nonresponse describes the instances in which a respondent that was chosen through a process of random sampling explicitly refuses to answer to the entire questionnaire. Item nonresponse describes the situation in which a respondent, although having agreed to answer to the questionnaire, refuses to answer to certain questions. Item nonresponse itself comes in two forms, a “don’t know” answer and a “no answer” response.

Tourrangeau et al. (2000) assert that while unit nonresponse in its “don’t know” form may very well indicate that the respondents is lacking an opinion on the question at hand, it is also commonly used as a self-preservation technique. Self-preservations techniques denote the practice respondents engage in of shielding their opinion if they have reason to believe that voicing said opinions would be in their disadvantage. This could either be because they are living in non-democratic regimes and feel that they cannot voice opinions that are not aligned with said non-democratic regime, or because they fear that by voicing out dissenting opinion they would no longer have access to networks that benefit them Eichholz et al. (2001).

When in a survey the respondent replies *I don’t know*, commonly called a "don't know" response, that can be interpreted that the respondent, in fact, means “I am thinking about it” argue Eichholz et al. (2001) as they might perceive the question to require a high cognitive answer.

The common practice is to return to the "don't know" responses and further probe the respondent, states the Survey Research Center’s Interviewer’s Manual (1976: 17) while others choose not to include the "don't know" response as an option. However, this is problematic, as it can be the case that the respondent lacks knowledge or opinion on the issue he is being questioned on and probing him in order for him to deliver a response would not lead to a response that is necessarily valid. This meaning that it represents the respondent’s actual opinion, for example, Francis and Busch (1975) have found that "don't know" responses correlate with low education on matters related to a certain question.

Converse (1970) asserts that random responses from persons who have no opinions about the inquired create a lot of error in survey data, as they tend to give answers that would please the interviewer. Schuman and Presser suggest that “respondents should be allowed, perhaps even encouraged, to see "don't know" as a legitimate response in attitude surveys.” (1996: 114).

The "don't know" and "no answer" options allow respondents to indicate that they either do not know the answer to a particular issue or that they have no opinion on the issue. The inclusion of such options in a survey leads to the reduction of *noise* in the data. If such options were not included in the survey, respondents would do not have an opinion or a strong opinion on a particular issue would be forced to choose one of the existing option, thus would report a non-attitude, which creates the *noise*.

The idea of adding the "don't know" and "no answer" options in order to avoid non-attitude reporting is based on the assumption that (Krosnick, et al., 2002) respondents can be put in two categories, i.e. those who have opinions on a given issue and are aware of possessing opinions and those who have no opinions on a given issue and are aware of not possessing opinions. This implies that the first category of respondents would report their opinions regardless of whether a "don't know" and "no answer" is available, while the second category of respondents would choose either "don’t know" or "no answer" when these options are offered among survey answers. In the absence of the "don't know" and "no response" options the latter category, those who have no opinions on an issue and are aware of having no opinions would fabricate an opinion out of necessity.

However, this assumption appears to be flawed, as assuming that the "don't know" and "no answer" options solely attract the respondents who truly do not have an opinion on a given issue or do not know the answer to the question. It is not certain in all cases that a respondent who opts for one of these answers does not have an opinion on the topic at hand. This has been discussed by Feick (1989), who argues that in the cases in which respondents are not completely certain of the meaning of a question, Oppenheim (1992), who asserts that respondents may opt for the "don't know" and "no answer" options in order to avoid thinking and/or committing themselves to an answer, and by Krosnick (1991) who believes that when a survey surpasses a respondent's ability or motivation, they are likely to choose the "don't know" and "no answer" options.

Krosnick (1991) talks about *satisficing*, which can be either the delivery of biased or incomplete information or the refusal of delivering information.

> *Satisficing* may lead respondents to employ a variety of response strategies, including choosing the first response alternative that seems to constitute a reasonable answer, agreeing with an assertion made by a question, endorsing the *status quo* instead of endorsing social change, failing to differentiate among a set of diverse objects in ratings, saying ‘don't know’ instead of reporting an opinion, and randomly choosing among the response alternatives offered. (Krosnick, 1991)

In recent years, the "don't know" and "no answer" options have started being omitted from survey design by scientific consensus (Schwarz & Bonner, 2001). Krosnick et al. (2002) found that including the "don't know" and "no answer" in the survey design did not improve the quality of the data exponentially, and that it is possible that the respondents who opted for the "don't know" and "no answer" responses would have provided substantive answers were the two missing from the survey design.

Aggregate level analysis, while offering a broad picture of the issue under study, has the shortcoming of being likely to generalize and accentuate its results, due to lack of verification possibilities. "*Analyses at the aggregate level suggest that many or even most respondents who choose an explicitly offered no-opinion response option may have meaningful attitudes, but we cannot rule out the possibility that some people do so because they truly do not have attitudes.*" (Krosnick et al., 2002, pp. 386).

1.2. Nonresponse and Politically-Sensitive Questions

The social desirability bias is a type of response bias encountered in social science research, exemplified through the tendency of survey respondents to answer questions in a manner that will be perceived favorably by their peers. What is thought of as good behaviour can be over-reported, wile what is considered to be undesirable behaviour can be under-reported, argue Tourrangeau et al. (2000).

People's responses are affected by social-desirability in the sense that it compels them to deliver popular opinions and refrain from delivering what would be considered a deviant attitude (Tourrangeau et al., 2000). Data shows that collectivist Asian societies tend to show higher levels of social desirability. Economic factors have also proven to influence the degree of social desirability, in poorer countries interviewers are part of the educated elite, while in developed ones they are average individuals, thus increasing, respectively decreasing the desire to provide socially-desirable answers (Tourrangeau et al., 2000).

In their assessment of responder-interviewer interaction, Groves et al. (2002) underline that opinion change as compliance with requests - in this case non-refusal to report opinion - can be influenced by authority or, more specifically, by the perception of legitimacy, which people balance against their right to privacy. Moreover, Groves et al. (2002) argues that *liking* has the ability to influence response rates. Here, *liking* implies that "one should be more willing to comply with the requests of liked others" and this has been reported to be linked to similarity of attitude (Byrne, 1971), dress (Suedfeld, Bochner and Matas, 1971), cooperation (Aronson, Bridgeman and Geffner, 1987), praise (Drachman, deCarufel and Insko 1978), physical attractiveness (Benson, Karabenic and Lerner, 1976) and background (Stotland and Patchen, 1961). This can be linked to Tourrangeau et al.'s (2002) argument that economic factors influence the degree of social desirability as well as willingness to answer to the questionnaire in the first place.

Although techniques such as data imputation for item nonresponse as well as studying unit nonresponse on people with the same phenotype and genotype are helping fill the gap in the literature concerning nonresponse (De Vaus, 2002), little attention has been given to the relationship between nonresponse in surveys and levels of democratization.

Literature on preference skewing (Tourrangeau et al., 2000) and on the social desirability bias suggest that nonresponse is used in non-democratic regimes as a self-preservation technique. This implies that in flawed democracies or non-democracies unit nonresponse rates as well as item nonresponse rates would be higher than in their more democratized counterparts. Thus, the more democratized a country is, the lower nonresponse rates should be.

Groves et al. (2002) argued that depending on the authority requesting the survey, respondents could be more or less likely to agree to respond to the questionnaire in the first place, or to agree to respond to certain items in the questionnaire. Singer and Kohne-Aguirre (2001) found that in less democratic and in non-democratic regimes item nonresponse to certain types of questionnaire items has been recorded when the survey is ordered by state authorities.

The items in question are those perceived as being politically-sensitive. What is perceived as being politically sensitive can differ both across time and across cultures, which leads to difficulties in obtaining reliable quantitative data to certain questionnaire items. An example of this could be questions asking respondents to situate themselves on a left-right political scale, no matter what political setting they are living in. On the other hand, some questions can be perceived as sensitive only in some regimes. In hybrid regimes for example, questions related to how fair the elections or how much freedom challengers have to run for office can be interpreted as sensitive, while in democratic regimes this is a straight-forward question perceived to be related to electoral transparency (Kohne-Aguirre, 2001).

It is important to keep in mind that "don't know" and "no response" are two different types of item nonresponse although often they are interpreted as a cluster. Clustering means that although the answers have a different nature, they are recorded as having one meaning. The clustering is an inherited bad practice, as at the moment when surveys are designed, the "don't know" and "no answer" options appear as one answer option on the questionnaire. Although the respondent has chosen either "don't know" or "no answer", the most the interviewer can do is make a note of which one the respondents has chosen. The problem continues at the data entry level, when people transcribing the data from hard-copy questionnaires into digital, might

have not have the option of signaling whether "don't know" or "no answer" has been chosen. Thus, although the respondent could make a very decided choice for either of the nonresponse options, the information can be lost.

Eichholz et al. (2001) found a positive relationship between question sensitivity and refusals to answer a certain question, and a negative one between question sensitivity and "don't know" answers. They also found that the more cognitive effort a question requires to be answered, the more "don't know" answers it will receive. Their findings are relevant for my study, as I too shall treat the two types of item nonresponse separately

The biggest help in explaining nonresponse to politically-sensitive questions comes from voting behaviour-related research, Ladd, Carll, Niemi and Weisberg in *Controversies in Voting Behavior* (1976), shed some light on the explanations behind low voter turnout and the determinants on the vote, briefly addressing false information in surveys.

De Leeuw (2001) puts forward methods for improving response in surveys and argues that measuring and reporting nonresponse is vital for reducing nonresponse-induced bias. While nonresponse in household and business surveys is associated with low education (Groves and Couper, 1998) this has been disproven, as data has shown that demographic characteristics such as education, age and employment status do not differ among respondents and non-respondents (Doyle and Farrant, 1999).

Stoop (2004) identified single males as the major population of non-respondents in household and business and Steeh (1981) looks at the confidentiality policy of surveys to explain nonresponse asserting that when respondents fear for the anonymity of their identity responses become distorted, yet Lynn (2002) finds that neither confidentiality nor anonymity affects responses or response-rates.

Yet predictions of nonresponse are hard to make at individual level due to the fact that data collected at individual level is not available in vast amounts while still ensuring for variance of factors such as political, cultural and economic ones. Moreover, the existing data needs to be compared to other existing data on a respondent, which usually is collected from census offices or through other waves of a survey. Time-series studies are afflicted by attrition

However, there is something that has been repeatedly linked to nonresponse increase, and that is *oversaturation*. *Oversaturation* is explained by Groves and Magilavy (1981), who argue that one may feel that she has done her part as a survey participant after taking part in a survey or two, thus, the more surveys are carried out in a country, the less likely it is that the respondent will agree to answer to the questionnaire.

Schleifer (1986) asserts that along with the survey-taking climate, such as the perceived legitimacy of the surveys, the number in which they are conducted can also increase nonresponse as there is an *outsurveying* effect. *Outsurveying* refers to the same problem oversaturation does, namely too many surveys being carried out within a period of time in one geographic location, which makes people less likely to accept to participate in surveys/respond to questionnaires.

This is augmented by Mazis (1975), who address the same issue, yet from the opposite perspective, by using the term *scarcity*. Their findings show that the scarcer, the more valuable the opportunity to respond to questionnaires is perceived. Mazis (1975) suggested gross domestic product per capita as a relevant measurement of outsurveying, as according to her finding more surveys had been conducted in states that had a higher gross domestic product per capita.

1.3. How Missing Data Hinders Research

Under the assumption that missing data occurs randomly (Hertel, 1976), the most commonly used techniques for dealing with this issue is case-wise and pair-wise deletion of cases. This leads to an undesirable effect, namely a non-representative sample as it removes respondents or items from the dataset, which end up not being represented. Additionally, this also ignores factors that could be representative for the analysis.

An alternate method to dealing with missing data is, given that the systematic relationships exist, namely that other variables in the analysis are linked with the ones registering a nonresponse, the researcher is able to assess what the nature of the nonresponse bias is and incorporate it into the analysis' interpretation (Hutcheson and Prather in De Vaus, 2002, Volume IV), or if the items that have registered a nonresponse are found in similar surveys

which are measured at the same aggregate level and of course, the same respondent participated in.

Tourangeau and Yan (2007) find that if a respondent's opinion deviates from societal norms, the respondent might find it socially desirable to misreport their preferences and opinions. This phenomenon, of providing untruthful answers, is known as the social desirability bias. Philips and Clancy (1972) argue that the way in which social desirability bias affects survey respondents can lead to the raising of questions regarding the validity of the measuring instruments themselves, not solely of the sample representativity in the population.

Kuran (1997) asserts that in autocratic regimes questions related to the relationship between citizens and authorities may suffer from preference falsification, the citizens attempting to align their reported attitudes with those of the regime. There is the risk that citizens from authoritarian regimes mistake public opinion surveys for tools of government surveillance (Linz, 2000), while in semi-democratic ones they fear of being excluded from benefits and networks were they not to support the regime (Bratton, Bhavnani, & Chen, 2012).

Refraining from delivering an answer is another self-censorship strategy used by respondents to avoid voicing their opinions, one which renders survey data from oppressive regimes unreliable (Tourangeau and Yan (2007). While the degree of self-censorship practiced by respondents depends on their perception of risk, which varies at individual level, it can also vary across countries, as the perception of risk itself differs at country-level (Tannenberg, 2017), which makes the responses or lack thereof non-comparable.

Delivering a “don’t know” response or a “no answer” response are ways in which respondents refrain from voicing their opinions. This hinders the external validity of the survey, meaning that although the questions are worded so as to capture a range of expected responses, they fail to capture responses that actually represent the attitudes of the observed population.

1.4. Nonresponse Across Regime Types

Cross-national surveys seek to collect data that is functionally equivalent across populations argues Smith (2010). Due to this the measurement needs to have comparable validity across nations. Yet, due to “differences in language, culture, and structure that make cross-national research so analytically valuable hinder achieving measurement equivalency” (2010:733). Language is considered to be the greatest barrier to achieving comparable data as it can lead to measurement differences. Differences pertaining to government structures also affect data as the same question cannot be posed. There are legal limitations to research, Smith gives the example of China which, while allows for extensive surveying from outside sources, limits question about the Communist party. The conceptualization of survey items also pertains to culture, for example in an authoritarian system or a hybrid regime, the concept of democracy encompasses less than it does in a liberal democracy.

Although techniques such as data imputation for item nonresponse as well as studying unit nonresponse on people with the same phenotype and genotype are helping fill the gap in the literature concerning nonresponse (De Vaus, 2002), little attention has been given to the relationship between nonresponse in surveys and levels of democratization.

Literature on preference skewing (Tourrangeau et al., 2000). and on the social desirability bias suggest that nonresponse is used in non-democratic regimes as a self-preservation technique, respondents either delivering a "don't know" or "no answer" response. Tourrangeau et al (2000) thus imply that in flawed democracies and in non-democracies unit nonresponse rates as well as item nonresponse rates would be higher than in their more democratized counterparts. Thus, the more democratized a country is, the lower nonresponse rates should be.

The notion that people from politically oppressive regime do not have substantive opinions about the political field was dispelled by the anti-regime protests that swept the Middle East and North Africa in the 2000s. (Horn, 2011). What they lacked, was the ability to voice their opinions through instruments such as free press and rights of public assembly, meaningful elections and accountable political representation.

The validity and reliability of surveys from oppressive regimes and less developed democracies is questioned due to this fact, as they were not able to predict or warn of the events that ensued, namely the Arab Spring, a wave of protests and demonstrations which led to toppling of regimes and civil wars (Horn, 2011).

1.5. Survey Research in Non-Democratic Regimes

Survey research blossomed in the time of autocracies, the 1960s, and was applied to repressive regimes and liberal regimes alike (Horn, 2011). Kwiatkowski (1992) argues that the Communist East followed Western democracies and used polling and survey research, through surveys directed by the state with the purpose of using them for the manipulation of the masses, surveys carried out during period of liberalization which addressed politically-sensitive question, respectively surveys that avoided politically-sensitive questions in the cases in which repression was anticipated. However, the type of survey missing from the enumeration is the independent one, which is concerned with politically-sensitive questions in repressive regimes, argues Horn (2011), while it is questionable how much useful information the aforementioned produced.

In East Germany nonresponse was closely related to politically sensitive questions (Sieger, 1990, 329) while authoritarian systems which were not communist were plagued by a lack of opinion (Suleiman, 1987, 63). Transitional states made timid attempts towards opinion polling after the Second World War while the post-Soviet space was claimed to be affected by social desirability, much like in the authoritarian times (Petrenko and Olson, 1994), yet this was proven otherwise (Miller, et al., 1996), while in Latin America efforts were put into collection methods and survey design so as to minimize response bias (Beltran and Valdivia 1999).

While the validity and representativity of survey research has become more trustworthy with the aid of statistical methods and improved survey design, it remains unclear to what degree the results of opinion surveys in repressive states are reliable, more specifically, to what degree they represent the actual public opinion.

In spite of this, comparative studies on the causes and effects of democratic attitudes, trust in government, political legitimacy and regime support have been carried out across countries with different types of regimes (see Gilley, 2006b; Gilley, 2006a; Booth & Seligson, 2009; and Moehler, 2009) by using data gathered through direct questions of potentially sensitive topics.

Chapter II. Hypotheses

After reviewing the literature on nonresponse, I can formulate the following hypotheses.

Oversaturation will lead respondents to refuse to respond to questionnaires (Groves and Magilavy, 1981), and states with a higher gross domestic product per capita are included in more surveys (Mazis, 1975). Thus, as states with a high gross domestic product per capita tend to be democracies (Rigobon and Rodrik, 2004).

Concurrently, a different stream of literature suggests that nonresponse will be spread more across non-democracies *(H1)*, as, along with preference falsification, it is a technique used to mask dissent, avoid repercussions, were they to voice their real opinions (Tourrangeau et al. 2000). Additionally, since in poorer states the interviewer is part of the educated elite, *liking* may lead respondents to deliver a higher number of nonresponse. This, while relying on different methods to assess determinants of nonresponse, contradicts the previous hypothesis.

Sensitive topics also fall victim to social desirability and vary widely across cultures and political regimes (Horn, 2011), thus, we can expect to be able to observe variation in unit nonresponse to politically-sensitive questions. Schleifer (1986) asserts that the survey-taking climate can influence nonresponse he does not delve into a more in-depth study of how nonresponse, including both unit and item nonresponse, is spread across different political regimes.

The covered literature implies that nonresponse as a whole is expected to fluctuate across regimes but also across particular questions. However, the existing literature, with the exception of Eichholz et al. (2001), who do not address politically-sensitive questions specifically, does not differentiate between the type of unit nonresponse, namely "don't know" or "no answer" and whether any type is predominant in certain types of political regimes. I believe, however, that the type of issue - politically-sensitive or otherwise – determines the type of nonresponse *(H2)*.

Moreover, the existing observations were made after analyzing data from public opinion surveys ordered by governments or public opinion surveys that had a political nature. It could be that the setting the nature of the surveys created biased results. I suggest conducting an analysis of qualitative data on public opinion collected from a variety of political regimes, through a survey that was not commissioned by governments, and that does not have a political nature.

Chapter III. Research Methodology

In this section, I will introduce the data and methods used to test the hypotheses outlined above. Next, I will present the operationalization of the variables used in the analysis.

3.1. About the Data

In order to avoid bias produced by perceptions about the survey commissioner and the scope of the survey, in this study, I shall use quantitative data from a public opinion collected from a variety of political regimes, through a survey that was not commissioned by governments, and that does not have a political nature.

The dataset used in this research paper is the World Value Surveys Round 6. The data was collected from sixty countries over a period of five years, namely 2010, 2011, 2012, 2013 and 2014. As I am trying to look at the connection between nonresponse rates and political regimes, this dataset has proved most valuable because it offers variation in terms of political regimes

covered. I will elaborate on the political regimes comprised in the World Values Survey's Sixth wave dataset in a latter section, which will also address the measurements used for categorizing political regimes.

The World Values Survey is a survey that studies changing values and how values impact on social and political life. The survey seeks the use rigorous, high-quality research design, which, although starting from a common questionnaire, eliminates some of the questions that comprise the survey according to a country's rules or cultural sensitivities. The survey has been conducted in almost a hundred countries which contain approximately ninety per cent of the world's population, starting with 1981 (World Values Surveys, 2018). The World Values Survey is the largest cross-national, time series, non-commercial study of human values and beliefs, covering the full range of global variations in all of the world's major cultural zones.

Unit nonresponse is generally not added to item nonresponse and considered as a whole in studies, as the unit nonresponse would not boost item nonresponse to particular questions since it would apply as a blanket to all the questions. In the following table, a list of the countries included in World Values Survey's sixth wave, together with the year when the data was collected is present, as well as information about the data-collection method and the reported response rates.

The response rates were gathered from the *Technical Record* provided to the World Values Surveys organization. The *Technical Records* vary in both the information they are compiled of and the clarity of said information.

Table 1: Countries Included in World Survey Wave 6 and Unit Response

Country	Year	Data Collection Method	Unit Response (%)
Algeria	2014	face-to-face	97.2
Argentina	2013	face-to-face	55.3
Armenia	2011	face-to-face	not reported
Australia	2012	face-to-face	31.1
Azerbaijan	2011	face-to-face	91
Belarus	2011	face-to-face	62.9
Brazil	2014	face-to-face	99.1
Colombia	2012	face-to-face	not reported
Cyprus	2011	face-to-face	69.4
Chile	2012	face-to-face	not reported
China	2013	face-to-face	77.34
Ecuador	2013	face-to-face	88.25
Egypt	2012	face-to-face	not reported
Estonia	2011	face-to-face	56.1
Georgia	2014	face-to-face	61.9
Germany	2013	face-to-face	38.9
Ghana	2012	face-to-face	79.5
Haiti	2014	face-to-face	not reported
Hong Kong	2014	face-to-face	not reported
India	2012	face-to-face	not reported
Iraq	2013	face-to-face	not reported
Japan	2010	face-to-face	98.3
Jordan	2014	face-to-face	97.9
Kazakhstan	2011	face-to-face	46.9
Kuwait	2014	face-to-face	76.5
Kyrgyzstan	2011	face-to-face	97.2
Lebanon	2013	face-to-face	35.6
Libya	2014	face-to-face	not reported
Malaysia	2012	face-to-face	95.6
Mexico	2012	face-to-face	34.3
Morocco	2011	face-to-face	not reported
Netherlands	2012	face-to-face	76.2
New Zealand	2011	by mail	not reported
Nigeria	2012	face-to-face	84.9
Pakistan	2012	face-to-face	85.3
Palestine	2013	face-to-face	80.1
Peru	2012	face-to-face	53.4
Philippines	2012	face-to-face	57.8
Poland	2012	face-to-face	65.8
Qatar	2010	face-to-face	not reported
Romania	2012	face-to-face	76.4
Russia	2011	face-to-face	34.6
Rwanda	2012	face-to-face	72.3
Singapore	2012	face-to-face	73

Slovenia	2011	face-to-face	65.9
South Korea	2010	face-to-face	not reported
South Africa	2013	face-to-face	93.8
Spain	2011	face-to-face	77.5
Sweden	2011	face-to-face	64.6
Taiwan	2012	face-to-face	41.7
Thailand	2013	face-to-face	not reported
Trinidad and Tobago	2010	face-to-face	87.8
Tunisia	2013	face-to-face	76.1
Turkey	2012	face-to-face	not reported
Ukraine	2011	face-to-face	72.6
United States	2011	CAWI	not reported
Uruguay	2011	face-to-face	not reported
Uzbekistan	2011	face-to-face	76.3
Yemen	2014	face-to-face	94.7
Zimbabwe	2012	face-to-face	75.9

Source: World Values Survey Wave Six (2014).

Face-to-face, computer-assisted web interviewing (CAWI) as well as postal surveys have been used as data-collecting method in this wave of the World Values Survey. Different types of data-collecting methods deliver different response rates. The World Values Surveys report that in postal surveys the response rates is between 15% to 20%, while face-to-face and CAPI the response rates are around 40% to 80% but require the application of weights.

Two countries were removed from the dataset to assure consistency. New Zealand was removed from the dataset as the method used to gather the data was sending out questionnaires by mail. The United States were removed from the dataset as the method used to gather the data was computer-assisted web interviewing.

Another issue that hindered the consistency of the data was the fact that the World Values Surveys does not require for unit response rates to be communicated. Thus, unit response rates have remained undetermined for fourteen states, which have been eliminated from the study.

The nature of World Value Surveys reflects in the strictness of the methodology itself. Since the World Value Surveys program primarily seeks to research culture and people's values, the study is not presented as a political one neither to the respondents nor in general to the academic community. However, while the respondents are not asked questions related to partisanship and the candidates they support, they are asked questions about their perception on the state of democracy in their country, about the type of leadership they prefer and about involvement in contentious action among others.

This is what makes the study relevant to this particular research paper, as attitudes towards political issues are expressed through a nonpolitical channel. Since the World Values Survey is merely a survey about values and culture, an agreement to respond cannot, first, be translated to political action by local governments, which, second, deters respondents from skewing their preferences for the sake of social desirability.

The choice of a dataset provided by a research program on culture and values may seem dubious, but it is explained by the fact that respondents would be least suspicious of the survey itself, as they are being surveyed not by representatives of the government, but by fellow citizens working for an international research organization. This avoids it being wrongfully perceived as a study ordered by the government, which could lead to preference-skewing and a high number of nonresponses in non-democratic regimes.

The sixth wave, for example, starts with questions on the importance of family and friends. Moreover, in states where phenomena and questions and certain phenomena are perceived as being politically-sensitive, the respective questions are excluded from the questionnaire.

The World Value Surveys organization asserts that the length of the questionnaire is the most widespread reason why people refused to answer, the questionnaire containing approximately 300 questions. However, if the respondents feel uncomfortable with questions that have not been removed from the questionnaire at the translation, planning and cultural calibration stage, they have the option to select "refuse to answer".

Although the dataset used in this research paper is does not have a political nature, many of its questions can be interpreted in that way as some explicitly enquire about left-right scale positioning, voting patterns and the respondent's perception of the political situation in their country.

In order to find out which topics from the realm of politics were most sensitive I looked at the number of item nonresponse, both in its “don’t know” and “no answer” and compared the average number of nonresponse gathered on these items to three questions which have no political relevance. The latter set of questions I shall refer to as benchmark questions from here on out.

Table 2: Politically-Sensitive Questions

Politically-Sensitive Question	Grading
All things considered, how satisfied are you with your life as a whole these days?	10-point scale
Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?	dichotomous
Signing a petition?	categorical, 4 options
Joining in boycotts?	categorical, 4 options
Attending peaceful demonstrations?	categorical, 4 options
Joining strikes?	categorical, 4 options
In political matters, people talk of "the left" and "the right." How would you place your views on this scale, generally speaking?	10-point scale
The Armed Forces	categorical, 4 options
The Press	categorical, 4 options
The Courts	categorical, 4 options
The Government	categorical, 4 options
Political Parties	categorical, 4 options
United Nations	categorical, 4 options
How important is it for you to live in a country that is governed democratically?	10-point scale
How democratically is this country being governed today?	10-point scale
When elections take place, do you vote always, usually or never? - local level	categorical, 3 options
When elections take place, do you vote always, usually or never? - national level	categorical, 3 options
Votes are counted fairly?	categorical, 4 options
Opposition candidates are prevented from running?	categorical, 4 options
TV news favors the governing party?	categorical, 4 options
Voters are bribed?	categorical, 4 options
Votes are counted fairly?	categorical, 4 options
Journalists provide fair coverage of elections?	categorical, 4 options
Election officials are fair?	categorical, 4 options
Rich people buy elections?	categorical, 4 options
Voters are threatened with violence at the polls?	categorical, 4 options
Voters are offered a genuine choice in the elections?	categorical, 4 options

Source: World Values Survey Wave Six (2014).

The benchmark questions were chosen as to be not culturally-sensitive, meaning that they are not expected to fluctuate depending on the culture the respondents are embedded in. At the same time, it can be argued that income and age could be detrimental for the answers to these

questions, but what I am ultimately interested in is not the values themselves, but whether an item nonresponse, be it "no answer" or "don't know" was registered.

Table 3: Benchmark Questions

Benchmark Questions	Grading
Could you tell me how secure do you feel these days in your neighbourhood?	categorical, 4 options
How often, if ever, do you use a personal computer?	categorical, 4 options
On this card is an income scale on which 1 indicates the lowest income group and 10 the highest income group in your country. We would like to know in what group your household is.	10-point scale

Source: World Values Survey Wave Six (2014).

3.2. Operationalization of the Variables

In order to test the hypothesis which states that *oversaturation* is the reason for a high number of nonresponse answers I needed to confront the number of public opinion surveys have been held in a country with their nonresponse rates for the World Value Surveys dataset. I am only interested in public opinion surveys as other types of surveys such a market surveys or ones led by private companies are either comprised of questions that are irrelevant for the study at hand, or do not allow access to their data.

As there is no universal database that keeps track of public opinion surveys I chose to look at the three main public opinion surveys which are the ones generated by the Pew Research Centre, The World Bank Group Country Opinion Survey World Bank and the Eurobarometer, Latino Barometer, Afrobarometer, Arabarometer and Asiabarometer.

Eurobarometer, Latino Barometer, Afrobarometer and Asiabarometer have been considered as one survey, as the nature and the way in which the survey is conceptualized, designed and applied are in fact very similar. Nota bene! Spain was included in both Eurobarometer and Latino Barometer. Because they are different instances in which respondents were surveyed, I summed them up.

When looking at how many times a certain country has been included in a public opinion survey conducted by these three institutions I chose to include all the instances in which this has happened. The reason for choosing to include all instances in favor to a more limited period of time is that there is no reason to conclude that oversaturation has temporal implications.

I created a variable (*surveys)* which contained the total number of surveys conducted in each of the countries under study, by summing up the number of surveys conducted by the Pew Research Center, The World Bank Group Country Opinion Survey and Eurobarometer, Arabarometer, Afrobarometer, Asiabarometer and Latino Barometer.

Table 4: Country Presence in Public Opinion Surveys

Country	World Bank	Barometers	PEW	Total
Algeria	0	3	0	3
Argentina	1	17	7	25
Australia	0	0	4	4
Azerbaijan	0	0	0	0
Belarus	1	0	0	1
Brazil	1	17	10	28
Cyprus	0	13	0	13
China	1	3	11	15
Ecuador	0	17	0	17
Estonia	0	13	0	13
Georgia	1	0	0	1
Germany	0	52	18	70
Ghana	1	6	4	11
Japan	0	3	10	13
Jordan	1	3	13	17
Kazakhstan	1	1	10	12
Kuwait	0	3	2	5
Kyrgyzstan	1	1	0	2
Lebanon	1	3	11	15
Malaysia	1	3	3	7
Mexico	1	17	9	27
Netherlands	0	52	1	53
Nigeria	1	6	9	16
Pakistan	1	1	13	15
Palestine	0	3	6	9
Peru	1	17	3	21
Philippines	1	2	3	6
Poland	1	13	12	26
Romania	1	13	0	14
Russia	1	0	16	17
Rwanda	1	0	0	1
Singapore	0	2	0	2
Slovenia	0	13	0	13
South Africa	1	6	5	12
Spain	0	45	12	57
Sweden	0	19	1	20
Taiwan	0	1	0	1
Trinidad and Tobago	0	0	0	0
Tunisia	1	1	3	5
Ukraine	1	0	5	6
Uzbekistan	1	2	1	4
Yemen	1	3	0	4
Zimbabwe	1	6	0	7

Source: World Values Survey Wave Six (2014).

A variable was created for gross domestic product per capita *(gdp)*. The value of the gross domestic product per capita was gathered for each country in accordance to the year the World Values Survey Sixth wave was carried out, which covered 2010, 2011, 2012, 2013 and 2014. This variable was created to see if gross domestic product per capita is related to oversaturation, a link that was consistently found in the literature on nonresponse.

I collected data on nonresponse from World Values Survey's sixth wave's *Technical Reports*. As I have previously mentioned, the World Values Survey organization does not require researchers to deliver information about response rates. Due to this, some countries have been eliminated from the study. Moreover, some states, although reporting on response rates in the *Technical Report* document, do not differentiate between the instances when an individual explicitly refused to answer to the questionnaire and those when someone has made the decision on his behalf or the instances when the randomly-sampled respondent was unreachable or unavailable. Those countries have been eliminated from the study as well for the sake of clarity and consistency. While the removal of seventeen states from the sample can potentially hinder the study at hand by reducing its overall range, I believe that a substantial and representative analysis can still be carried out with the remaining countries, in number of forty-three.

I augmented the data with information on unit response rates, creating a unit response rate variable called *unit response (unitrr)*. Then, in order to calculate the *unit nonresponse (unitnr)* I subtracted unit response from one hundred.

In order to tackle the two types of unit nonresponse I created two variables, item nonresponse of the "don't know" sort (itemdk) and item nonresponse of the "no answer" type (itemna). I

measured these for every politically-sensitive question, in every country. However, in order to show the real number of nonresponse, to every item nonresponse I added the unit nonresponse registered for each country. This did not boost either “don’t know” item nonresponse, neither “no answer” item nonresponse as it was evenly applied to both of the variables.

In order to see how the nonresponse patterns spread across political regimes I need to use measurements of democratization, which work with well-established criteria that are not dictated by popular opinion but rather on expert opinion. Thus, I have chosen four proxies for measuring democratization, namely Freedom House, V-Dem, Polity IV and The Economist Intelligence Unit Index of Democratization.

These measures are different in terms of focus point: while Freedom House seeks to generate a ranking not necessarily in types of democracy, but in those of freedom, Polity IV looks at types of democracy and V-Dem looks at regimes and transitions. The inclusions of different measurements of democratization allows for this research paper to also provide context for the issue at hand. The data from his measurements were collected for the very year in which the World Values Survey's Sixth Round collected its data.

The importance of providing more than one measurement of democratization lies in the fact that conceptualization of the attributes these studies choose to look for as well as the measurement they settle on can lead to different ends. One thing they have in common, which is at the same time what makes them comparable is the level of aggregation they have chosen, that being, the country level. In terms of measurement, there are significant differences, Freedom House for example works with a 1 to 7 scale, 1 being a perfectly free democracy and

7 being an un-free state. The other three measurements, namely V-Dem, Polity IV and The Economist Intelligence Unit Index of Democratization use a 1 to 10 scale, but V-Dem allows for a two-decimal differentiation between regimes on a scale from 1 to 10.

Freedom House (2000) scores for two attributes, namely political rights and civil rights which are in turn split into components that form a check-list. These components are assigned weights, which is why a 3.5 score might mean that a state is partly free, but mean that another state is not free although it has the same score. Moreover, Freedom House's ratings are expert-based, thus subjective and the scores given by experts to the criteria making up the list is not transparent, in fact, it is not made public.

The Polity IV Project looks at political regime characteristics and transitions and covers one hundred and sixty-seven countries. Countries are judged on five attributes which add up to generate either a democracy or an autocracy score or a polity score. The Economist Intelligence Unit's Democracy Index (EIUDI) focuses on five categories, namely electoral process and pluralism, civil liberties, the functioning of government, political culture and political participation, which are analyzed through sixty indicators. The countries are then split into four regime types: authoritarian, hybrid regimes, flawed democracies and full democracies.

The Economist Intelligence Unit's Democracy Index seeks to be a tool for businesses, financial firms as well as governments, thus being more consumer-oriented rather than academia-oriented. The analysis is done by experts, sometimes local, sometimes regional and the reasoning behind their scoring is transparent. Scores are provided yearly for every country.

V-Dem bases its categorization on factual information taken from official documents such as government records and constitutions for approximately half of its three hundred and fifty indicators, while five experts provide ratings on the other half, which are based on subjective assessments of political practices and their compliance with the state's de jure laws. The V-Dem indicators this study will work with are the *Polity Institutionalized Autocracy* and *Polity Institutionalized Democracy*. V-Dem defines the two types of polity in the following way:

> Autocracy is defined operationally in terms of the presence of a distinctive set of political characteristics. In mature form, autocracies sharply restrict or suppress competitive political participation. Their chief executives are chosen in a regularized process of selection within the political elite, and once in office they exercise power with few institutional constraints ("V-Dem Codebook v8" Varieties of Democracy, 2018: 309).

and

> Democracy is conceived as three essential, interdependent elements. One is the presence of institutions and procedures through which citizens can express effective preferences about alternative policies and leaders. Second is the existence of institutionalized constraints on the exercise of power by the executive. Third is the guarantee of civil liberties to all citizens in their daily lives and in acts of political participation. The operational indicator of democracy is derived from codings of the competitiveness of political participation, the openness and competitiveness of executive recruitment, and constraints on the chief executive ("V-Dem Codebook v8" Varieties of Democracy, 2018: 309).

These two indicators have been merged into the *Policy revised combined score* indicator, which facilitates using the Polity regime measure in both time-series analyses and on a wider regime spectrum ("V-Dem Codebook v8" Varieties of Democracy, 2018).

While the initial range was -10 to +10, where -10 implied the peak of autocracy and +10 the peak of democracy, the range was converted to a 0 to 1 scale for simplicity. The option to either provide a democracy and autocracy score or a polity one is very similar to the way in which Polity IV scores countries.

V-Dem scores differently than from Polity IV by scoring countries relative to each other, not just positioning them on a scale according to criteria. This helps paint a more accurate picture of the variety of regimes the states in this study represent.

The measurements of democratization gathered from Freedom House, Polity IV, The Economist Intelligence Unit's Democracy Index and V-Dem, coincide with the period in which the World Values Survey was carried out in the respective countries. While all four measurements of democratization categorize countries similarly, I decided to use The Economist Intelligence Unit's Democracy Index as my primary measurement. My choice is explained by the fact that The Economist Intelligence Unit's measurement splits states into four categories, namely full democracies, flawed democracies, hybrid regimes and authoritarian regimes, categorization that has most simplicity. The remaining three measurements of democratization - Polity IV, Freedom House and V-Dem will be used to test my results.

I created variables for each of the measurements of democratization, namely *Polity IV (polity), The Economist Intelligence Unit's Democracy Index (eiuid), V-Dem (vdem) and Freedom House (freedom*), and assigned the values registered by every country to each of them. In accordance to this, I then clustered the states in the World Values Survey's Sixth wave into the regime categories dictated by The Economist Intelligence Unit's Democracy Index.

Table 5: States by Regime Type According to The Economist Intelligence Unit's Democracy Index

Country	Regime Type
Algeria	authoritarian regime
Argentina	flawed democracy
Australia	full democracy
Azerbaijan	authoritarian regime
Belarus	authoritarian regime
Brazil	flawed democracy
Cyprus	flawed democracy
China	authoritarian regime
Ecuador	hybrid regime
Estonia	flawed democracy
Georgia	hybrid regime
Germany	full democracy
Ghana	flawed democracy
Japan	full democracy
Jordan	authoritarian regime
Kazakhstan	authoritarian regime
Kuwait	authoritarian regime
Kyrgyzstan	hybrid regime
Lebanon	hybrid regime
Malaysia	flawed democracy
Mexico	full democracy
Netherlands	full democracy
Nigeria	authoritarian regime
Pakistan	hybrid regime
Palestine	hybrid regime
Peru	flawed democracy
Philippines	flawed democracy
Poland	flawed democracy
Romania	flawed democracy
Russia	authoritarian regime
Rwanda	authoritarian regime
Singapore	hybrid regime
Slovenia	flawed democracy
South Africa	flawed democracy
Spain	full democracy
Sweden	full democracy
Taiwan	flawed democracy
Trinidad and Tobago	flawed democracy
Tunisia	hybrid regime
Ukraine	hybrid regime
Uzbekistan	authoritarian regime
Yemen	authoritarian regime
Zimbabwe	authoritarian regime

Source: World Values Survey Wave Six (2014).

The method I shall use to investigate the relationship between unit nonresponse and regimes types as well as the one between item "don't know" and item "no response" answers to politically-sensitive questions and political regimes is correlation tests and multiple linear regression analysis.

These methods are suitable for my data as my independent variable is categorical – political regimes, and my dependent variables are continuous – "don't know" and "no answer" item nonresponse.

Chapter IV. Analysis and Presentation of Results

After having explained the variables I have created in order to be able to analyze the data, I will proceed to present the results of my analysis.

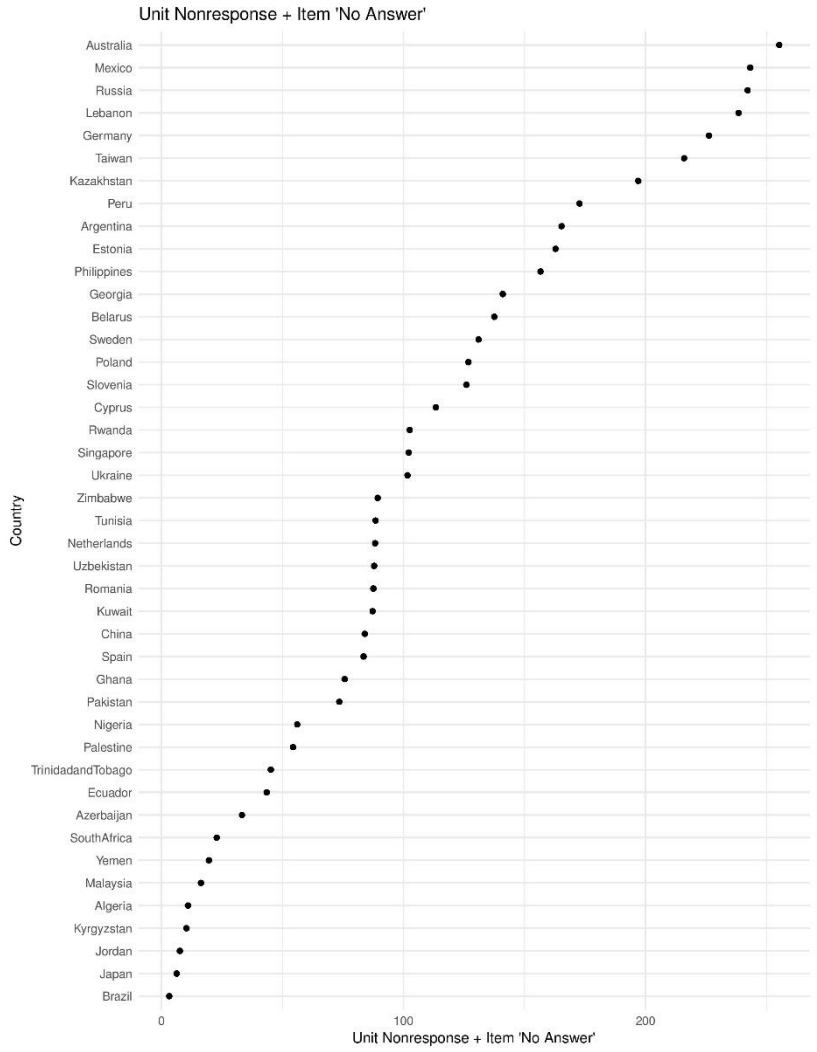
I will start my analysis with a descriptive analysis of the data I will be using, more explicitly, data gathered from the World Values Survey's sixth wave. The data was collected from 60 countries across 5 continents. Nonresponse is the focus of this research paper, and, as it differs significantly from country to country - due to both national and regional specifics but also due to the survey method - we must ensure that the survey methodology is consistent across the states included in the study.

Nonresponse can refer to either unit on item nonresponse, the first of which describes the instances when the randomly-selected respondent explicitly refuses to answer to a survey questionnaire, while the latter describes the instances in which although the randomly-selected respondent has agreed to answer to the survey questionnaire she refuses to answer certain questions. *Oversaturation* will lead respondents to refuse to respond to questionnaires (Groves and Magilavy, 1981), and states with a higher gross domestic product per capita are included

in more surveys (Mazis, 1975). Thus, as states with a high gross domestic product per capita tend to be democracies (Rigobon and Rodrik, 2004). Accordingly, shall test my hypothesis that there will be more nonresponse in democracies, than in non-democracies *(H1)*.

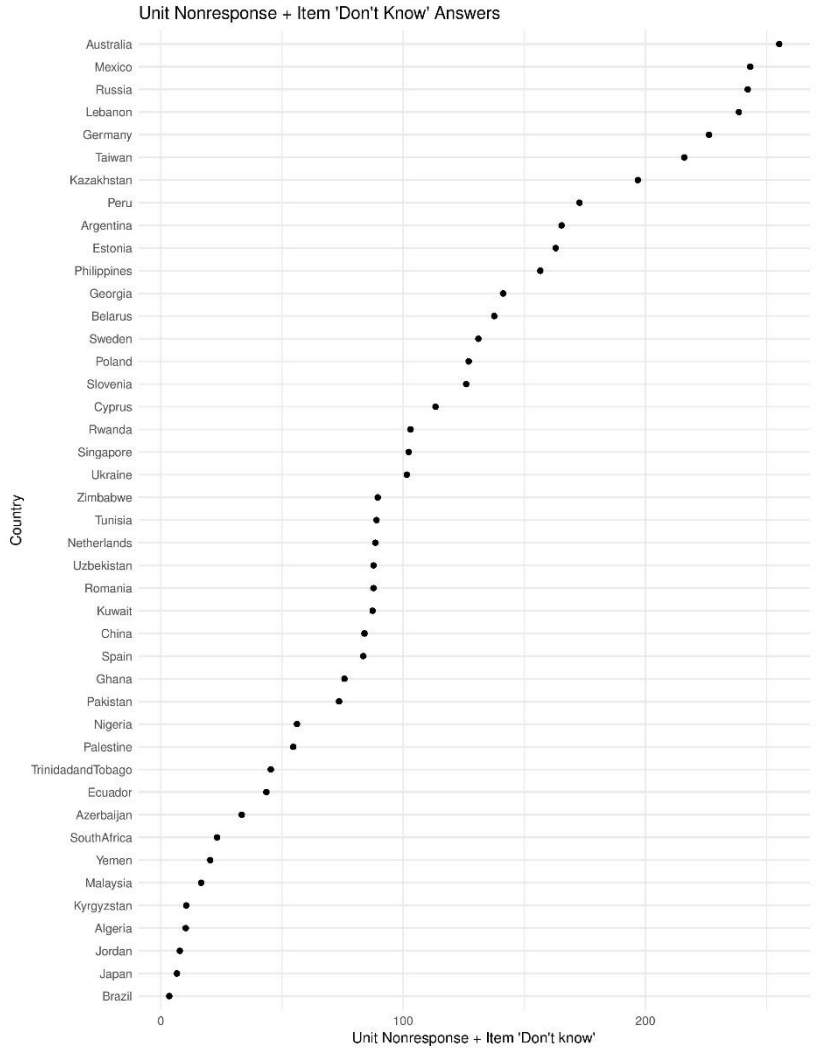
Delving into preliminary analysis, I look at "don't know" item nonresponse and "no answer" item nonresponse by country, by plotting them, to see whether there is item nonresponse in the countries under study. The data is aggregated at country level solely, not at question level. Nota bene! The amount of both nonresponse is augmented by unit nonresponse for both the "don't know" option and the "no answer" one and the nonresponse is measured in thousands.

Figure 1: "No Answer" Item Nonresponse and Unit Nonresponse by Country



Source: World Values Survey Wave Six (2014).

Figure 2:"Don't Know" Item Nonresponse and Unit Nonresponse by Country

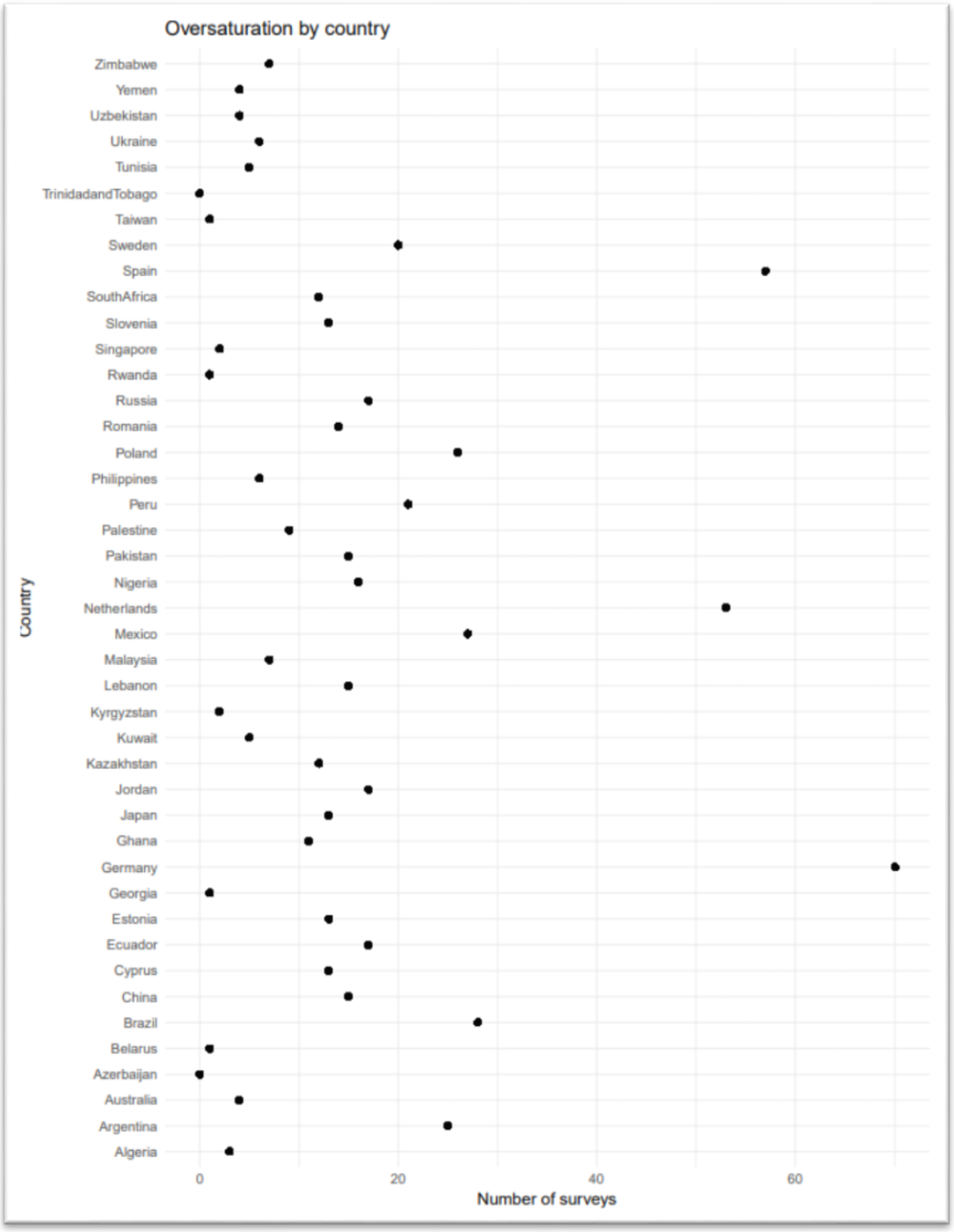


Source: World Values Survey Wave Six (2014).

The preliminary analysis of the data shows that there is variance across countries for both "no answer" item nonresponse and unit nonresponse as well as for "don't know" item nonresponse and unit nonresponse. Thus, it is worthwhile to continue with my analysis.

I then plotted out the variables indicating how many surveys have been carried out in each country. As I have mentioned previously, the surveys taken into account were public opinion surveys which were not carried out by local governments, but rather by international institutions.

Figure 3: Oversaturation: Number of Surveys Carried Out in Each Country



Source: World Values Survey Wave Six (2014).

In order to see if there is more response in non-democracies than in democracies, I need to look at how unit nonresponse, "don't know" item nonresponse and "no answer" item nonresponse" are distributed across political regimes.

However, because my hypothesis links item nonresponse distribution to regime type, I must cluster the countries under study by regime type and check whether item nonresponse varies across regimes.

The literature suggests that *oversaturation* will lead respondents to refuse to respond to questionnaires (Groves and Magilavy, 1981), and most surveys take place in states with a high gross domestic product per capita (Mazis, 1975). In order to calibrate the results of this comparison I decided to also include gross domestic product per capita, which, as the literature suggest (Schafer and Olsen, 1999) denotes whether a country would have been included in a lot of public opinion surveys. In what follows I test whether gross domestic product per capita is an accurate indicator of oversaturation for the states included in the World Values Survey's sixth wave.

Thus, I confronted the number of surveys carried out in a country with the respective country's GDP per capita and the data shows that there is a positive relationship between the two, which might be influenced by the outliers, as some countries have proven to have both a high gross domestic product per capita, such as Netherlands, Spain and Germany, which have been included in 53, 57 and respectively 70 public opinion surveys. However, while the correlation coefficient shows a positive relationship between the number of opinion surveys carried out in a country and higher numbers of unit nonresponse, the relationship is not a strong one, there is in fact a very weak association between the number of public opinion surveys conducted within a country and unit nonresponse numbers.

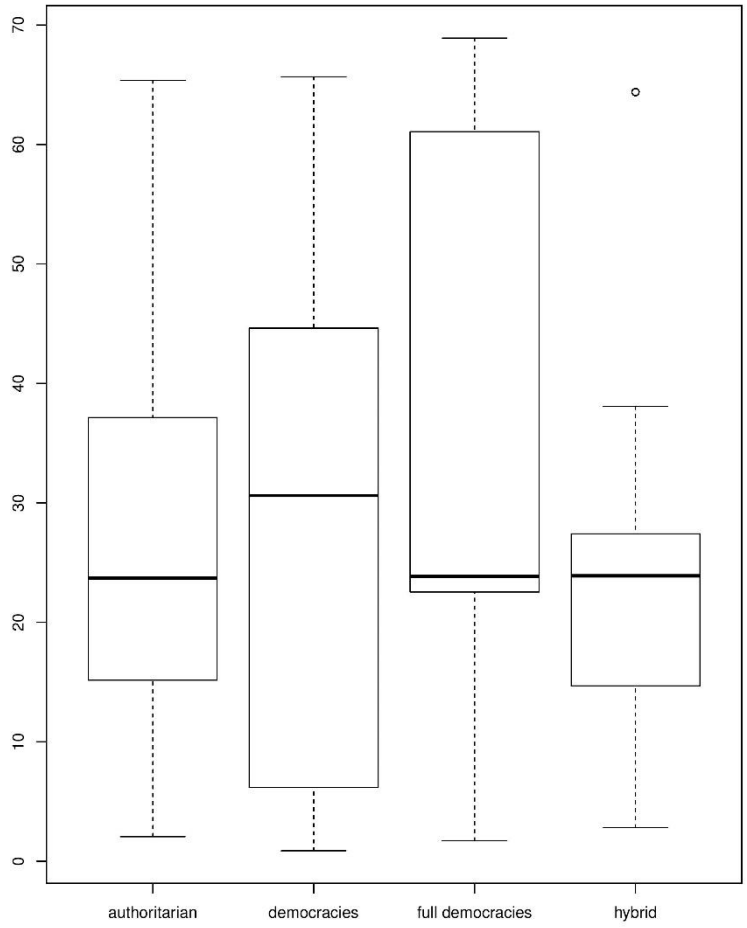
Table 6: Correlation Result Between Number of Surveys Conducted in a Country and Unit Nonresponse

	Pearson's R
Number of Surveys and Unit Nonresponse	0.23

Source: Pew Research Center (2014), World Bank Group (2015), Eurobarometer, Asiabarometer, Afrobarometer, Arabarometer, Latino Barometer and World Values Surveys Round 6 (2014).

I then plotted unit nonresponse by regime, to see whether the fact that nonresponse is predominant in democratic regimes, as suggested by the literature, is true.

Figure 4: Unit Nonresponse by Regime

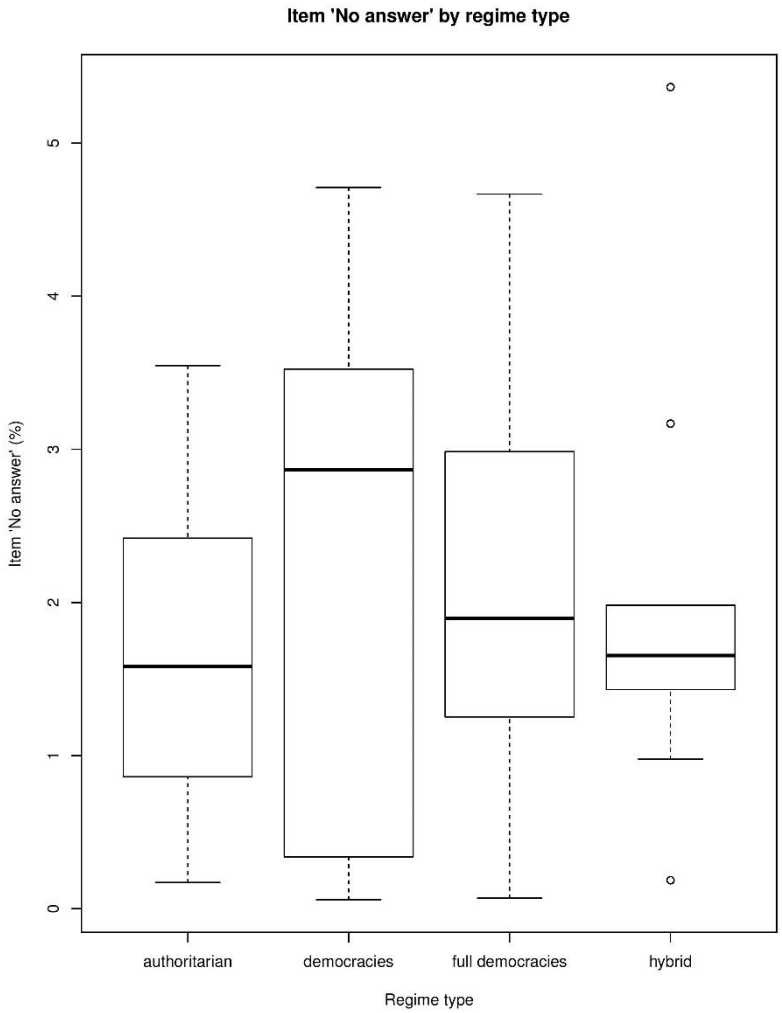


Source: World Values Survey Wave Six (2014).

The data shows that unit nonresponse does vary across political regimes. The highest numbers of unit nonresponse were recorded in flawed democracies. The remaining three political regimes – authoritarian, hybrid and full democracies have relatively similar levels of unit nonresponse. The data verifies the previous belief, supported by the literature.

By analyzing the box plot above generated by the data, we can see that the highest value for unit nonresponse across political regimes is much lower in hybrid regimes than in authoritarian, flawed democracies and full democracies. The latter three have relatively similar highest values, with authoritarian regimes and flawed democracies being most similar to each other. The lowest values are relatively similar for all four political regimes. Most of the values are distributed midway between the 20^{th} and 30^{th} percentile in authoritarian regimes, hybrid regimes and full democracies, while flawed democracies record the highest density of scores around the 30^{th} percentile. The box plot shows that states are not distributed themselves evenly across regimes, hybrid regimes containing the fewest number of respondents, followed by authoritarian regimes, full democracies and flawed democracies in that order.

Figure 5: "No answer" Item Nonresponse by Regime



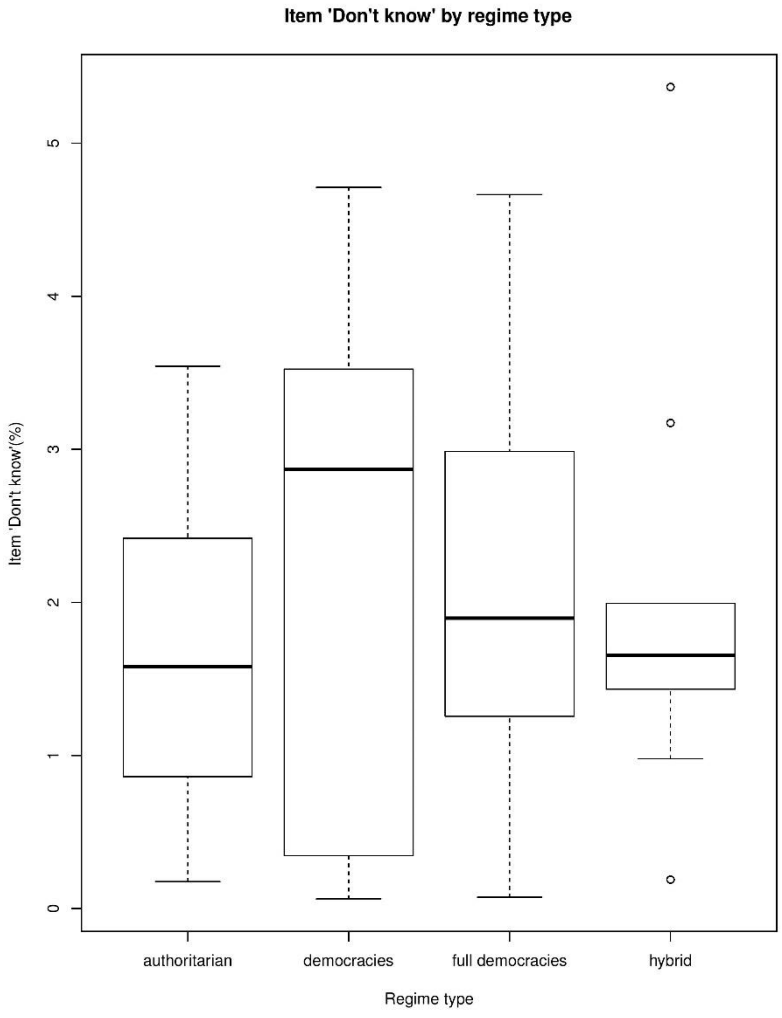
Source: World Values Survey Wave Six (2014).

"No answer" nonresponse is most spread in flawed democracies, followed by full democracies, hybrid regimes and authoritarian regimes, in that order. While flawed democracies are taking the lead, there is a higher difference between flawed democracies and the remaining three regimes – hybrid, authoritarian and full democracies, than in between the latter three.

By analyzing the box plot above generated by the data, we can see that the highest value for "no answer" item nonresponse across political regimes is much lower in hybrid regimes than

in authoritarian, flawed democracies and full democracies. The latter two have relatively similar highest values, with full democracies and flawed democracies being most similar to each other. The lowest values are relatively similar authoritarian regimes, flawed democracies and full democracies, the latter two being most similar. Most of the values are distributed midway between the 20th and 40th percentile in authoritarian regimes, hybrid regimes and full democracies, while flawed democracies record the highest density of scores around the 60th percentile. The box plot shows that states are not distributed themselves evenly across regimes, hybrid regimes containing the fewest number of respondents, followed by authoritarian regimes, full democracies and flawed democracies in that order.

Figure 6: "Don't Know" Item Nonresponse by Regime



Source: World Values Survey Wave Six (2014).

"Don't know" nonresponse is spread much like "no answer" nonresponse, namely most spread in flawed democracies, followed by full democracies, hybrid regimes and authoritarian regimes, in that order. While flawed democracies are taking the lead, there is a higher difference between flawed democracies and the remaining three regimes – hybrid, authoritarian and full democracies, than in between the latter three. While the spread is similar, it is not identical.

By analyzing the box plot above generated by the data, we can see that the highest value for "don't know" item nonresponse across political regimes is much lower in hybrid regimes than in authoritarian, flawed democracies and full democracies. Full democracies and flawed democracies being most similar to each other. The lowest values are relatively similar for authoritarian regimes, flawed democracies and full democracies, the latter two being most similar. Most of the values are distributed midway between the 20th and 40th percentile in authoritarian regimes, hybrid regimes and full democracies, while flawed democracies record the highest density of scores around the 60th percentile. The box plot shows that states are not distributed themselves evenly across regimes, hybrid regimes containing the fewest number of respondents, followed by authoritarian regimes, full democracies and flawed democracies in that order.

Concurrently, a different stream of literature suggests that nonresponse will be spread more across non-democracies *(H1)*, as, along with preference falsification, it is a technique used to mask dissent, avoid repercussions, were they to voice their real opinions (Tourrangeau et al. 2000). Additionally, since in poorer states the interviewer is part of the educated elite, *liking* may lead respondents to deliver a higher number of nonresponse. This, while relying on different methods to assess determinants of nonresponse, contradicts the previous hypothesis.

Table 7: Percentage of Item Nonresponse to Politically-Sensitive Questions

Politically-Sensitive Question	"Don't Know" Item Nonresponse (%)	"No Answer" Item Nonresponse (%)	Total Item Nonresponse (%)
All things considered, how satisfied are you with your life as a whole these days?	0.30	0.20	0.50
Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?	1.55	0.42	1.98
Signing a petition?	1.79	1.11	2.90
Joining in boycotts?	2.17	0.91	3.08
Attending peaceful demonstrations?	1.55	0.79	2.34
Joining strikes?	1.79	0.83	2.62
Any other act of protest?	2.84	5.29	8.14
In political matters, people talk of "the left" and "the right." How would you place your views on this scale, generally speaking?	7.01	1.83	8.85
The Armed Forces	1.79	0.62	2.42
The Press	1.23	0.61	1.85
The Courts	1.96	0.60	2.65
The Government	1.86	0.67	2.53
Political Parties	2.32	0.78	3.10
United Nations	6.74	1.02	7.76
How important is it for you to live in a country that is governed democratically?	1.54	0.50	2.03
How democratically is this country being governed today?	2.42	0.52	2.95
When elections take place, do you vote always, usually or never? - local level	0.65	0.73	1.39
When elections take place, do you vote always, usually or never? - national level	0.65	0.85	1.50
Votes are counted fairly?	5.77	3.66	9.44
Opposition candidates are prevented from running?	4.70	1.27	5.90
TV news favors the governing party?	7.42	1.89	9.31
Voters are bribed?	5.89	1.44	7.33
Votes are counted fairly?	6.39	1.80	8.19
Journalists provide fair coverage of elections?	5.50	1.48	6.99
Election officials are fair?	6.28	1.56	7.84
Rich people buy elections?	7.47	1.93	9.37
Voters are threatened with violence at the polls?	6.91	1.80	8.71
Voters are offered a genuine choice in the elections?	5.50	1.65	7.15

Source: World Values Survey Wave Six (2014).

We can see that there is variation among politically-sensitive questions, the item with the highest percentage of nonresponse being the one asking people whether they believe that *Votes are counted fairly* (World Values Survey, 2014), which reached 9.44 percent, while the one with the lowest percentage of item nonresponse is *When elections take place, do you vote always, usually or never?* (World Values Survey, 2014) referring to elections for local office, which reached 1.39 percent.

Table 8: Percentage of Item Nonresponse to Benchmark Questions

Benchmark Questions	"Don't Know" Item Nonresponse (%)	"No Answer" Item Nonresponse (%)	Total Item Nonresponse (%)
Could you tell me how secure do you feel these days in your neighbourhood?	0.19	0.17	0.37
How often, if ever, do you use a personal computer?	0.07	0.67	0.75
On this card is an income scale on which 1 indicates the lowest income group and 10 the highest income group in your country. We would like to know in what group your household is.	0.37	1.98	2.04

Source: World Values Survey Wave Six (2014).

The data shows that there is also fluctuation among the chosen benchmark questions in terms of item nonresponse percentages but the fluctuation is more limited than in the case of politically-sensitive questions. The highest percentage of item nonresponse was recorded for the question related to income, namely *On this card is an income scale on which 1 indicates the lowest income group and 10 the highest income group in your country. We would like to know in what group your household is.* (World Values Survey, 2014), which reached 0.7 percent while the lowest percentage of item nonresponse was recorded for the benchmark question related to computer usage, *namely How often, if ever, do you use a personal computer?* (World Values Survey, 2014), which reached 0.37 percent.

Sensitive topics also fall victim to social desirability and vary widely across cultures and political regimes (Horn, 2011), thus, we can expect to be able to observe variation in unit nonresponse to politically-sensitive questions. Schleifer (1986) asserts that the survey-taking climate can influence nonresponse he does not delve into a more in-depth study of how nonresponse, including both unit and item nonresponse, is spread across different political regimes.

The covered literature implies that nonresponse as a whole is expected to fluctuate across regimes but also across particular questions. However, the existing literature, with the exception of Eichholz et al. (2001), who do not address politically-sensitive questions specifically, does not differentiate between the type of unit nonresponse, namely "don't know" or "no answer" and whether any type is predominant in certain types of political regimes. I hypothesize that the political regime does influence the amount of item nonresponse to politically-sensitive questions present in a country *(H2)*.

Table 9: Average Item Nonresponse for Politically-Sensitive Questions versus Benchmark Questions

	%
Politically-Sensitive Questions	5.14
Benchmark Questions	1.80

Source: World Values Surveys Round Six (2014).

The data shows that there is considerable difference between the total number of item nonresponse to politically-sensitive questions and the benchmark questions, the amount of item nonresponse to politically-sensitive questions being approximately three times higher than the one of recorded for benchmark questions. This proves that the questions this study considered politically-sensitive are perceived differently by respondents themselves. Nota bene! These

percentages refer are for all the countries. Next, I checked whether there is a correlation between levels of democratization as measured by The Economist Intelligence Unit's Democracy Index. While all the correlation tests have reached statistical significance, this does not translate to a substantive significance, as they show there I but a very weak positive relationship between my two variables in the tests that were carried out.

Table 10: Correlations between Levels of Democratization, Unit and Item Nonresponse

	Pearson's R
Levels of Democratization as measured by The Economist Intelligence Unit's Democracy Index and Unit Nonresponse	0.12***
Levels of Democratization as measured by The Economist Intelligence Unit's Democracy Index and "No answer" Item Nonresponse	0.12***
Levels of Democratization as measured by The Economist Intelligence Unit's Democracy Index and "Don't Know" Item Nonresponse	0.12***
Levels Democratization as measured by Polity IV and Unit Nonresponse	0.17***
Levels of Democratization as measured by Polity IV and "No answer" Item Nonresponse	0.17***
Levels of Democratization as measured by Polity IV and "No answer" Item Nonresponse	0.17***
Levels Democratization as measured by V-Dem and Unit Nonresponse	0.10***
Levels of Democratization as measured by V-Dem and "No answer" Item Nonresponse	0.10***
Levels of Democratization as measured by V-Dem and "No answer" Item Nonresponse	0.10***
Levels Democratization as measured by Freedom House and Unit Nonresponse	-0.11***
Levels of Democratization as measured by Freedom House and "No answer" Item Nonresponse	-0.11***
Levels of Democratization as measured by Freedom House and "No answer" Item Nonresponse	-0.11***

Note: ***p<.001

Source: World Value Surveys Round 6 (2016), Freedom House (2010, 2011, 2012, 2013, 2014), V-Dem (2015), The Economist Intelligence Unit's Democracy Index (2010, 2011, 2012, 2013, 2014), Polity IV (2016).

The data shows that there are very weak positive relationships between levels of democratization as measured by The Economist Intelligence Unit's Democracy Index, Polity IV and V-Dem and unit nonresponse, "don't know" item nonresponse and "no answer" item nonresponse and a very weak negative correlation between Freedom House and unit nonresponse, "don't know" item nonresponse and "no answer" item nonresponse. The negative relationship is explained by the fact that the way in which Freedom House scores countries is from one to seven, where one is a free country, therefore a democratic one, while seven is a unfree country, therefore pertaining to an authoritarian regime.

The difference in the strength of the relationships between and unit nonresponse, "don't know" item nonresponse and "no answer" item nonresponse and The Economist Intelligence Unit's Democracy Index, Polity IV, V-Dem and Freedom House is explained by the fact that not all four organizations apply the same type of measurement, Freedom House differentiating itself also when it comes to scale. Moreover, not all organizations measure the same things. However, it is important that we compare the results of the correlation tests among different measurements of democratization in order to test the validity of the result by measuring it again correlation tests between the World Values Surveys sixth round and multiple other measurements of democratization.

As I am trying to see how "don't know" item nonresponse and "no answer" item non response are spread across political regimes I ran a regression analysis including the types of political regimes as measured by The Economist Intelligence Unit's Democracy Index, while controlling for the total number of public opinion surveys carried out in each state as well as each state's gross domestic product per capita, collected for the year when the World Values Survey was being carried out in the respective state.

Before conducting the multiple linear regression analysis, I checked whether the assumptions required for this statistical analysis are met. There is a linear relationship between my dependent variable – political regimes and my independent variable "don't know" and later, "no answer" item nonresponse. The residuals are normally distributed, thus I the assumption of multivariate normality is met. I tested whether the independent variables are highly correlated with each other by using the variance inflation factor values and I concluded that the assumption regarding lack of collinearity is met. I tested whether my data is homoscedastic, namely that the variance of the error terms is similar across the values of the political regimes.

Table 11: Political Regimes as Predictors of Delivering "Don't Know" Item Nonresponse

	Dependent variable:	
	Delivering "Don't Know" Item Nonresponse	
	Estimate (%)	Standard Error (%)
Intercept	1.53 ***	0.03
Hybrid	0.42 ***	0.02
Flawed Democracy	0.69 ***	0.03
Full Democracy	-0.55 ***	0.05
Survey Numbers	0.01 ***	0.00
GDP per capita	0.02 ***	0.00
Adjusted R-squared: 0.07		
F-statistic: 892 on 6 and 63680 DF, p-value: <0.001		
Note:		*p<0.1; **p<0.05; ***p<0.01

Source: World Value Surveys Round 6 (2016)

A trend can be noticed, namely that the more democratic a state is, the less “don’t know” item nonresponse to politically-sensitive questions will be registered. Therefore, in hybrid regimes we can expect to see 0.42 percent more "don't know" item nonresponse than in authoritarian regimes, which is the reference category, denominated in the table above by *Intercept*. This is due to the fact that this variable is categorical, not continuous, and it provides a coefficient for each of its categories. The first category in my analysis is authoritarian regimes, thus it becomes the reference category. There is 0.69 percent more "don't know" item nonresponse in flawed democracies. There is 0.55 percent less "don't know" item nonresponse in full democracies.

At the same time, we can notice that the more surveys are run in a country, the more nonresponse it will have. A one-unit increase in surveys conducted in a country will lead to 0.01 percent more “don’t know” item nonresponse to politically sensitive questions at country level. Additionally, the higher the gross domestic product per capita, the more nonresponse to politically sensitive questions A one-unit increase in gross domestic product per capita, measured in thousands of USD, leads to a 0.02 percent increase in "don't know" item nonresponse at country level. The data does show that the more democratic a country is, the less "don't know" unit nonresponse it will have.

The p-value, which represents the statistical significance of the regression analysis indicates that the coefficient estimate delivered by the regression analysis is very precise. The null hypothesis, namely that regime type does not have an effect over the distribution of "don't know" item nonresponse, which implies that the coefficient is zero, can thus be rejected. The results of the regression analysis are statistically significant at the 1% level. However, the small

p-values and the small standard errors may be influenced by the very large sample size (N=63687). The adjusted r-squared indicates that seven percent of the variance in the distribution of "don't know" item non-response can be explained by political regimes.

The Adjusted R-squared, the goodness of fit measure of the regression, has the value of 0.07. The data shows that solely 0.07 of the variability of "don't know" item nonresponse distribution is explained by regime types. As the R-squared ranges between 0 and 1, where 0 means that the regime variables have no explanatory power of the distribution.

Table 12: Political Regimes as Predictors of Delivering "No Answer" Item Nonresponse

	Dependent variable:	
	Delivering "No Answer" Item Nonresponse	
	Estimate (%)	Standard Error (%)
Intercept	1.53 ***	0.03
Hybrid	0.42 ***	0.02
Flawed Democracy	0.68 ***	0.03
Full Democracy	-0.55 ***	0.05
Survey Numbers	0.01 ***	0.00
GDP per capita	0.02 ***	0.00
Adjusted R-squared: 0.07		
F-statistic: 892 on 6 and 63680 DF, p-value: <0.001		
Note:		*p<0.1; **p<0.05; ***p<0.01

Source: World Value Surveys Round 6 (2016)

A trend can be noticed, namely that the more democratic a state is, the less “don’t know” item nonresponse to politically-sensitive questions will be registered. Therefore, in hybrid regimes we can expect to see 0.42 percent more "don't know" item nonresponse than in authoritarian regimes, which is the reference category, denominated in the table above by *Intercept*. There is 0.68 percent more "don't know" item nonresponse in flawed democracies. There is 0.55 percent less "don't know" item nonresponse in full democracies.

At the same time, we can notice that the more surveys are run in a country, the more nonresponse it will have. A one-unit increase in surveys conducted in a country will lead to 0.01 percent more “don’t know” item nonresponse to politically sensitive questions at country level. Additionally, the higher the gross domestic product per capita, the more nonresponse to politically sensitive questions A one-unit increase in gross domestic product per capita, measured in thousands of USD, leads to a 0.02 percent increase in "don't know" item nonresponse at country level. The data does show that the more democratic a country is, the less "don't know" unit nonresponse it will have.

The p-value, which represents the statistical significance of the regression analysis indicates that the coefficient estimate delivered by the regression analysis is very precise. The null hypothesis, namely that regime type does not have an effect over the distribution of "no answer" item nonresponse, which implies that the coefficient is zero, can thus be rejected. The results of the regression analysis are statistically significant at the 1% level. However, the small p-values and the small standard errors may be influenced by the very large sample size (N=63687).

The Adjusted R-squared, the goodness of fit measure of the regression, has the value of 0.07. The data shows that solely 0.07 percent of the variability of "no answer" item nonresponse distribution is explained by regime types. As the R-squared ranges between 0 and 1, where 0 means that the regime variables have no explanatory power of the distribution of "no answer" item nonresponse. The adjusted r-squared indicates that seven percent of the variance in the distribution of "no answer" item non-response can be explained by political regimes.

Conclusions

This paper addresses the study of the quality of democracy by looking at the refusal to respond to politically-sensitive questions. This is an approach that proves useful compared to answering questions on direct support for democracy as it is less susceptible to the social desirability bias.

The existing literature claimed that oversaturation will lead respondents to refuse to respond to questionnaires and that a higher gross domestic product per capita may be an indicator of a country being susceptible to oversaturation. The literature also suggests that nonresponse will be more spread across non-democracies as it is a technique used to mask dissent and avoid repercussions in a repressive political regime. The covered literature implies that nonresponse as a whole is expected to fluctuate across regimes but did not approach the different type of nonresponse, namely unit nonresponse, "don't know" item nonresponse and "no answer" item nonresponse.

The data shows that the hypothesis that nonresponse will be spread more across non-democracies since along with preference satisfaction it is a technique to mask dissent, avoid repercussions were they to voice their real opinions cannot be proven true.

In fact, the data provided by the World Values Survey's sixth wave suggest that in the case on unit nonresponse, "don't know" item nonresponse and "no answer" item nonresponse, these types of nonresponse come in fact in most density in flawed democracies.

However, it is interesting that nonresponse is most dense in flawed democracies and not full democracies, which, much like the results of the correlation analysis suggest that gross domestic product per capita is either not an accurate indicator of oversaturation, or that oversaturation has little effect on nonresponse itself.

The analysis carried out in this paper suggest that there is little difference between the distribution of unit, "don’t' know" item nonresponse and "no answer" unit nonresponse itself. This could be explained by the fact that "don't know" and "no answer" item nonresponse is influence by the very way in which it appears in questionnaire response options Most times, the two types of nonresponse are clustered into a single item, as the surveys are interested in the values of the response options, not the nonresponse ones. Thus, it might be that if they are perceived as being recorded as one answer option, that the respondents would think they can be used interchangeably. The fact that item nonresponse options such as "don't know" and "no answer" are not included in questionnaires explicitly, in order to avoid a high number of item nonresponse which would lead to a decreased reliability of the representatively of the findings, makes it harder to understand how nonresponse is used, and whether its nuances are understood by the respondents.

Limitations and Further Research

In the regression model, in addition to regime type, I used gross domestic product per capita and the number of surveys conducted in a country as control variables, but there may be other variables present in the World Values Survey that influence item nonresponse rates. Moreover, it could well be that what influences "don't know and "no answer" item nonresponse across political regimes was not recorded in the World Values Survey, as the questionnaire of this survey is seeking to measure values, attitudes and culture.

Moreover, a drawback of the applied method is that the linear regression approach does not take into consideration the variation across country. Also, because of the linear regression framework, the countries with more respondents such as Russia, with 2500 respondents, can influence the results.

A hierarchical modelling approach would be useful in investigating the "don't know" and "no answer" item nonresponse rates, as shown in the preliminary analysis. A hierarchical model would account for this variation. Another reason is the number of respondents, which varies across countries – take for example Poland with 996 respondents and Russia with 2500 respondents. Another way in which this research could be taken further is by exploring other surveys such as The Comparative Study of Electoral Systems and the Barometers.

Survey design that seeks to reduce the number of nonresponses by not introducing "don't know" item nonresponse and "no answer" item nonresponse is widely utilized because researchers seek to measure responses, not nonresponses, but it would be beneficial for both response and nonresponse if surveys were designed in a way that would not prevent respondents from choosing a response option that they want to choose. This would, in turn, lead to more accurate data, that better represents the population the respondents were sampled from.

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