Attitude Measurement and Response Bias in a National-Referendum about a New Icelandic Constitution

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Abstract - English
Survey questions have to be easily comprehended by respondents so they can be reliable. Respondents have to be able to understand what is asked about so they can formulate reliable answers, which actually mirror their opinion on the subject. Acquiescence bias is when respondents do not give their optimal answer but satisfies instead. That is, they answer in favor of a subject, regardless what is asked about. Satisficing is most likely to occur when the question is not comprehended properly, respondent is low in cognitive ability, and motivation is low. When questions are unbalanced (focus on only one of two competing viewpoints) or are in the form of a statement, they can lead people to respond in favor of the question, regardless of the subject asked about. This research tested whether the questions that were in a national referendum about the Icelandic Constitution, were susceptible to acquiescence bias. It was hypothesized that they would lead people to satisfy because they were unbalanced. Results show that question-wording did not affect respondents’ answers. It was, however, observed that strength of respondents’ opinion on the matters of the Constitution affected answers in one question. Implications and limitations are discussed.

Keywords: surveys, acquiescence bias, question-wording, referendum

Abstract - Icelandic
Spurningar í skoðanakönnunum þurfa að vera vel skiljanlegar svo svarendur geti gefið áreiðanleg svór við þeim. Svar viðkomandi við spurningu þarf að endurspeglía viðhorf hans til þess efnis sem spurt er um. Því er mikilvægt að spurningar séu vel smíðaðar. Samþykkið er þegar viðkomandi hefur tilheiningingu til þess að vera samþykktur spurningu óháð efnislegu innihaldi hennar. Samþykkið gerir helst vart við sig þegar spurning er ekki skilin á réttan hátt, svarandi hefur ekki næga hugræna getu til að svara og þegar innri hvöt viðkomandi til að svara spurningunni er lág. Þegar spurningar eru í ójafnvegi eða í formi fullyrðingar eykur það líkur á að svarandi sýni samþykkið. Þessi rannsókn skoðaði hvort þær spurningar sem spurt var um í þjóðaratkveðagreiðslu fyrir nýja íslenska stjórnarskrá væru líklegar til þess að leiða til samþykkið að hjá þátttakendum. Sett var fram tilgáta um að spurningarnar leiddu til samþykkið, þar sem orðalag þeirra var í ójafnvegi. Níðurstöður gáfu til kynna að orðalag spurninga hafði ekki áhrif á svarhafði þátttakenda. Hins vegar fannst vísbending um það að hversu sterka skoðun svarendur höfðu á stjórnarskránni hafði áhrif á svarhafði þeirra.

Lykilhugtök: skoðanakönnunir, samþykkið, orðalag, þjóðaratkveðagreiðsla
Foreword and Acknowledgements

Submitted in partial fulfillment of the requirements of the BSc Psychology degree, Reykjavik University, this thesis is presented in the style of an article for submission to a peer-reviewed journal.
Attitude Measurement and Response Bias in a National-Referendum about a New Icelandic Constitution

Questions are of vital importance to social sciences. They are, for example, used to measure people’s attitudes, self-esteem, depression, and happiness (Vaerenbergh & Thomas, 2012). Answers to questions should reflect correctly, respondents’ position on the latent variable that is being measured. For that to be achievable, questions have to be valid and reliable. They ought to measure what they are supposed to be measuring, and be consistent over time to at least some extent. Furthermore, questions have to be understood in the same way by the respondent and the researcher (Karlsson, 2003; Krosnick, 1999a). Respondents’ answers can be decomposed to true and error variance, and the question should minimize the error variance (Vaerenbergh & Thomas, 2012). The true variance is the respondent’s position on the variable, and the error variance is subject to various measurement errors.

One source of error variance in questionnaires is question-wording (Karlsson, 2003; Krosnick, 1999a; Krosnick, 1999b; Krosnick, 1991). Attitude questions have been found to be rather sensitive to questions-wording (Krosnick, 1991; Schuman & Presser, 1981; Tourangeau & Rasinski, 1988). If the question is complicated it can lead to acquiescence bias, which is one type of response bias, and refers to when respondent tends to agree with questions regardless of their content (Karlsson, 2003; Krosnick, 1991; Schuman & Presser, 1981; Vaerenbergh & Thomas, 2012). Questions are likely to lead to acquiescence bias when they are in the form of a statement, have an introduction, response options are yes or no, and when they are unbalanced (Karlsson, 2003; Schaeffer & Presser, 2003).

According to Lenzner (2012), for questions to be easily and consistently understood by all respondents, they have to be unambiguous and require little processing effort. If the question is
difficult to comprehend, the likelihood of acquiescence bias increases (Krosnick, 1991). Satisficing is when respondents do not give their optimal answer and pick the first seemingly responsible alternative but optimizing is when respondents give their best answer after careful consideration (Krosnick, 1991). According to Krosnick (1991), respondents have to successfully complete four stages of cognitive processing to give their optimal answer: 1) the meaning of the question has to be carefully interpreted, 2) information relevant to the topic has to be retrieved from long-term memory, 3) the information has to be used and weighted for judgement making, and 4) those judgements have to be reported in a way that conveys their meaning. When the question is difficult to understand, and the respondent has low cognitive ability and motivation, satisficing is more likely to occur because respondent cannot interpret the question, and retrieve relevant information from long-term memory, and, therefore, cannot answer the question by stating their real attitude (Krosnick, 1991). The likelihood for response bias, such as acquiescence, increases.

Connection between response bias and socio-economic variables such as education and income has been documented (Meisenberg & Williams, 2008; Vaerenbergh & Thomas, 2012; Weijters, Geuens, & Schillewaert, 2010). In a cross-national study by Meisenberg and Williams (2008), low education was found to be significant predictor of acquiescence bias in populations in all continents. Interestingly, acquiescence bias was found to be most prevalent in corrupt societies. Also, age and income have been found to be predictors of acquiescence bias (Kieruj & Moors, 2011; Meisenberg & Williams, 2008).

As mentioned before, questions should be balanced. That is they should focus on both of two competing viewpoints. A number of studies have examined the effect of balanced vs. non-balanced questions when questioning about political opinions and attitudes (Bishop, Oldendick, & Tuchfarber, 1982; Schuman & Presser, 1981; Shaeffer, Krosnick, Langer, & Merkle, 2005).
The results indicated that when questions focus on only one of two competing viewpoints (are unbalanced) they are more prone to acquiescence bias and they do not show the same results as fully-balanced or minimally-balanced questions (Shaef er, Krosnick, Langer, & Merkle, 2005). Unbalanced questions may lead respondents to satisfy instead of optimize because he or she does not complete the stages of cognitive processes successfully. They cannot understand the question properly and cannot retrieve relevant information from long-term memory because the question focuses only on one viewpoint. The results will be that the respondent cannot formulate a clear opinion about the subject asked about, and agrees with the question even though it does not represent his or her real opinion. According to Krosnick (1991) the confirmatory bias leads most people to seek agreement with a question rather than disagreement. Therefore, when the cognitive load becomes too much for respondents, because the question is unbalanced for example, they will acquiesce. This is supported by Lenzner (2012), but his study revealed that questions that are difficult to understand can reduce data quality. Furthermore, the study found that respondent’s verbal ability interacted with the comprehensibility of the question. If respondents were low in verbal ability then difficult questions had more effect on them than on other respondents with higher verbal ability.

It is generally well documented that questions can be subject to acquiescence and other response bias (Vaerenbergh & Thomas, 2012). There has, however, no research been done according to the writers knowledge, on how and if response bias occurs in national-referendums. In a referendum, people are asked whether they approve or disapprove certain laws. Obviously, it is important that all citizens are able to participate in referendums because law-making affects all citizens. Therefore, questions in referendums should be easily comprehensible and require little cognitive effort so everybody can answer them according to their real opinion on the matters asked about (Lenzner, 2012; Lenzner, Kaczmarek, & Lenzner, 2010).
In Iceland, a national-referendum was held on the 20th of October 2012. It was held in continuation of the work by the Constitutional Council, which had been appointed by the Icelandic Government to write a new Constitution for Iceland. Six questions were subject of the referendum. All of them asked about rather technical and complicated matter. All of the questions only focused on one of two competing viewpoints (according to the researcher). Additionally, the response options were in “Yes or No” format which have been found to lead to acquiescence bias (Karlsson, 2003).

In the present study, it was hypothesized that all of the questions subject of the national referendum could lead to acquiescence bias because they were all unbalanced, and had response format of “Yes or No”. To test that, the official versions of the questions were compared to additional versions: Questions in statement form, and balanced questions. It was hypothesized that more respondents would be in favour of the questions answering the official and statement versions compared to the balanced version. Furthermore, it was hypothesized that the Icelandic and the English versions of the questions would not have significant difference in how respondents answered. The effects of strength of respondent’s opinion on the matters of the Icelandic Constitution on answers were also tested. It was hypothesized that respondents with strong opinion would show less response bias compared to those with average or weak opinion.

Method

Participants

An e-mail list of individuals previously active in participating in e-mail surveys was provided by Reykjavik University. The list consisted of 3735 e-mail addresses that were associated with Reykjavik University, both staff and students. The survey was sent to these 3735 people. They were reminded twice to answer the survey and 808 responded. When statistical analysis was conducted 14 respondents were excluded because they did not answer any of the
experimental questions, so the final sample consisted of 794 respondents. Of these 794 respondents, 761 answered the question about their gender (male = 434, female = 327). The distribution between question-wording groups was fairly even, 245 respondents answered the official version, 280 answered questions in the statement form, and 269 answered the minimally-balanced version. The mean age for the sample was 31.75 years (SD = 9.89; lowest = 15 years, highest = 66 years).

Design

The independent variables were three. The question wording variable had three levels: Official version, minimally-balanced version, and statement version (see Appendix A). The language variable had two levels: Icelandic and English. The strength of opinion variable had five levels: Very strong, rather strong, average, rather weak, very weak (see Appendix B). Each respondent was subject to only one level of each independent variable. Different versions of question-wording were used to test the effect of question wording on respondents’ answers. Versions in Icelandic and English were used to test if Icelandic respondents would answer similarly in different languages to enhance the generalizability of the hypothesized results of the question-wording.

Two additional questions were asked: How much the respondents had studied and get informed on these issues; and how likely or unlikely, they were to vote on Election Day (see Appendix B).

There were six experimental groups in the study. The language variable had two levels, and the question-wording variable had three levels. The e-mail list was systematically randomized so that member no. 1 was put to group A, no. 2 to B, no. 3 to C,… and no. 7 to A, and so forth. The six groups were then randomly assigned to experimental manipulation. Group A was assigned the official questions in Icelandic, group B the minimally balanced questions in
English, group C the questions in statement version in English, group D the minimally balanced questions in Icelandic, group E the official questions in English, and group F the questions in statement version in Icelandic.

**Procedure**

The online survey program Survey Monkey was used to gather data. The survey was sent via e-mail on 12th October 2012. No financial reinforcement was included in participation. In the e-mail invitation the general purpose of the experiment was described without revealing the exact purpose of the experiment. People were informed that participation was voluntary and they could exit the survey at any point. They were also informed that answers were untraceable and all data that could possibly link individual answers to a certain e-mail would be deleted after data installation to the statistical analysis software, SPSS. If subjects did not answer the survey, a reminder was sent and if they still did not answer, a second reminder was issued.

**Data analysis**

To test the effects of language on respondents’ answers, a chi-square analysis was conducted. A hierarchical log linear analysis was conducted to test the effects of question-wording and respondents’ strength of opinion on the matters on the Constitution on answers. The language variable was not included in the log linear analysis because that would have made the groups too small. When data analysis was done, the strength of opinion variable was recoded to make the groups bigger and more equal in size: Very strong and rather strong = strong ($n = 305$), average strong or weak = average ($n = 282$), rather weak and very weak = weak ($n = 177$)

Hierarchical log linear analysis was used when there were more than two categorical variables at interest (Field, 2009). Log linear analysis tries to fit the simplest model to the data without losing its predictive power (Field, 2009). It first eliminates higher-order interaction effect from the model and tests whether that will significantly affect the predictive power of the model.
If elimination does not reduce the fit of the model than the higher-order interaction effect is excluded from the model (Field, 2009). This is subsequently done to the two-way interaction effects and the main effects. The final model should predict results that are not significantly different from observed data and, therefore, the final model should be non-significant.

**Results**

The first question asked whether the proposals of the Constitutional Council should form the foundation of a Bill for a new Constitution. Figure 1 shows how many were in favor for each wording version, and also for Icelandic and English versions. On the average, 72% in the Icelandic versions were in favor of the question, compared to 66% on the average in the English versions. The difference between the Icelandic and English version was not significant, $\chi^2(1, N=770), 3.23, p = .072$. The difference between language versions was larger within the official and statement versions than within the balanced version, where there was no difference.

![Figure 1](image_url)

*Figure 1*. Percentages in favor of proposals of the Constitutional Council to form the foundation for a new Constitution, comparison between language and question-wording versions.
In Figure 2 it can be seen that a higher percentage of those with average opinion were in favor of the first question, compared to the other groups. On the average, 62% of those with strong opinion were in favor of this question, 76% with average opinion, and 72% of those with weak opinion. The effect of respondents’ strength of opinion on the matters of the Constitution on answers was significant according to log linear analysis, \( \chi^2 (2, N = 740) = 14.545, p = .001 \). To analyze the effect of respondents’ strength of opinion on answers, a chi-square analysis was conducted. The values of the standardized residuals indicate that significantly more respondents with strong opinion on the matters of the Constitution opposed the question than expected (\( z = 2.4 \)), and significantly fewer with average opinion opposed the question than expected (\( z = -2.0 \)). The effect size was small but significant, Cramer’s V = .139, \( p = .001 \). The standardized residuals for those with weak opinion were not significant, but within that group the same trend was seen as in the average opinion group. This indicates that those with strong opinion on the matters of the Icelandic Constitution were less likely to be in favor of the question than those with average or weak opinion as can be seen in Figure 2.

As backward elimination for question one was employed in log linear analysis, the interaction effect between question-wording and respondents’ strength of opinion was eliminated from the model, and it did not significantly reduce the fit of the model, \( \chi^2 (4, N = 740) = 4.869, p = .301 \). The likelihood ratio for the final model was non-significant, \( \chi^2 (6, N = 740) = 6.047, p = .418 \). The model did not include the effect of question-wording on answers, \( \chi^2 (2, N = 740) = 1.18, p = .555 \), which indicates that different versions of question-wording did not affect answers. The model did, however, include strength of respondents’ opinion as mentioned before.

Figure 2 also shows how the effect of strength of opinion was different between wordings versions of the question. The interaction effect between respondents’ strength of opinion and wordings on answers was not significant as stated before, but the different effect of strength of
opinion between question versions is worth noting. It can be seen that those with average opinion on the matters of the constitution were most likely to be in favor of the question when it was in the form of a statement, and least likely when it was in its official version. Furthermore, those with weak opinion responded less often in favor of this question when it was in a balanced version compared to the other two versions. Respondents with strong opinion on the matters on the Constitution were, however, rather similar in their response between question versions.

*Figure 2.* Percentages in favor of that proposal of the Constitutional Council form the foundation for a new Constitution, comparison between respondents’ strength of opinion and question-wording versions.

Question number two asked whether natural-resources not subject to private ownership should be declared property of the nation. Figure 3 shows how many were in favor of that question for each wording version of the question, and for Icelandic and English versions. On the average, 79.5% in the Icelandic versions were in favor of the question, compared to 78.9% in the
English versions, which is not significant difference, $\chi^2 (1, N = 780) = 0.044, p = .834$. In Figure 3 it can be seen that there was very little difference within question-wording versions between language versions.

![Figure 3](image_url)

**Figure 3.** Percentages in favor of that those natural resources not subject to private ownership will be declared property of the nation, comparison between language and question-wording versions.

In Figure 4 it can be seen that on average 77% percent of respondents with strong opinion were in favor of question two, 82% with average opinion, and 76% with weak opinion. Log linear analysis indicates that the effects of respondents’ strength of opinion on the matters of the Constitution were not significant, $\chi^2 (2, N = 750) = 2.847, p = .241$. As backward elimination was employed, the interaction effect between question-wording and respondents’ strength of opinion was eliminated from the model, and it did not significantly reduce the fit of the model, $\chi^2 (4, N = 750) = 3.675, p = .452$. Question-wording did not have significant effect on answers, $\chi^2 (2, N = 750) = 1.053, p = .591$. The likelihood ratio for the final model was, $\chi^2 (8, N = 750) = 7.418, p = .
.492, and as mentioned before it did not include interaction effects between question-wording and strength of respondents’ opinion, and neither the main effects of question-wording nor strength of opinion. In Figure 4 it can be seen that within the weak opinion group, the statement version of question two had the highest percentage of respondents in favor compared to the official and balanced versions. The difference between question-wording versions was less within strong and average opinion groups compared to the weak opinion group. Although the interaction effect between question-wording and strength of opinion was not significant, this trend indicated that the statement affected respondents with weak opinion in a different way than the other two versions.

Figure 4. Percentages in favor of that those natural resources not subject to private ownership will be declared property of the nation, comparison between respondents’ strength of opinion and question-wording versions.
Question three asked whether there should be a provision about a National-Church in Iceland in the new Constitution. Figure 5 shows how many were in favor of question three for each question-wording version, and also the difference between the Icelandic and English versions. On the average, 42.3% in the Icelandic versions were in favor of the question, compared to 39.4% on the average in the English versions, which is not significant difference, $\chi^2 (1, N = 776) = 0.668, p = .414$. In Figure 5 it can be seen that difference within question-wording versions between language versions was small, except that within the official versions where the Icelandic versions had on average 6% more respondents in favor of question three compared to the English version group.

![Figure 5](image)

*Figure 5. Percentages in favor of that in a new Constitution is a provision about a National-Church, comparison between language and question-wording versions.*

In Figure 6 it can be seen that on average 38% of those with strong opinion on the matters of the Constitution were in favor of question three, 42% with average opinion, and 42% with weak opinion. According to log linear analysis, strength of opinion did not have significant effect
on answers, $\chi^2 (2, N = 748) = 1.084, p = .582$. The effect of question-wording was also non-significant, $\chi^2 (2, N = 748) = 0.147, p = .929$. As backward elimination was employed, the interaction effect between question-wording and strength of opinion was eliminated from the model, and it did not significantly reduce the fit of the model, $\chi^2 (4, N = 748) = 4.845, p = .304$. The likelihood ratio for the final model was, $\chi^2 (8, N = 748) = 6.171, p = .628$, and as previously mentioned it did not include interaction effects between question-wording and strength of respondents’ opinion, and neither the main effects of question-wording nor strength of opinion. In Figure 6 it can be seen that within the strong opinion group the highest percentage in favor of question three answered the balanced version. Within the average opinion group, 12% fewer were in favor of the question in the balanced version compared to the official and statement versions. This trend is worth noting even though the interaction effect between question-wording and strength of respondents’ opinion were not significant.

Figure 6. Percentages in favor of that in a new Constitution is a provision about a National-Church, comparison between respondents’ strength of opinion and question-wording versions.
Question four asked whether voting for individual candidates in parliamentary elections should be allowed to a greater extent than currently is. Figure 7 shows how many were in favor of question four for each question-wording version, and for the Icelandic and English versions. On average, 78% within the Icelandic version were in favor of question four, and 75% within the English version, which is not significant difference, $\chi^2(1, N = 780) = 1.147, p = .284$. Figure 7 shows that there is 10% difference between language versions within the statement version of question four. For both the official and balanced versions, the difference is 4%.

Figure 7. Percentage in favor of that voting for individual candidates is allowed to a greater extent than currently, comparison between language and question-wording versions.

In figure 8 it can be seen that on average 74% of those with strong opinion on the matters of the Constitution were in favor of question four, 81% with average opinion, and 74% with weak opinion. According to log linear analysis, strength of opinion did not have significant effect on answers, $\chi^2(2, N = 751) = 4.355, p = .113$. Question-wording also had non-significant effect, $\chi^2$
(2, \(N = 751\)) = 0.085, \(p = .958\). As backward elimination was employed, the interaction effect between question-wording and strength of opinion was eliminated from the model, and it did not significantly reduce the fit of the model, \(\chi^2 (4, N = 751) = 0.927, p = .921\). The likelihood ratio for the final model was, \(\chi^2 (8, N = 751) = 5.399, p = .714\), and as mentioned before it did not include interaction effects between question-wording and strength of respondents’ opinion, and neither the main effects of question-wording nor strength of opinion. In Figure 8 it can be seen that those with average opinion on the matters of the Constitution answered on average most often in favor of question four across all question-wording versions. Even though the effect of respondents’ strength of opinion was non-significant, the trend is that those who had average opinion were more likely to be in favor of question four compared to the other groups.

![Figure 8](image)

*Figure 8.* Percentage in favor of voting for individual candidates to be allowed to a greater extent than currently is, comparison between respondents’ strength of opinion and question-wording versions.
Question five asked whether a new Constitution should include a provision stating that ballot cast by the voters should carry equal weight throughout the country. Figure 9 shows how many were in favor of question five for each wording version of the question, and also the difference between the Icelandic and English versions. On average there were 77% within the Icelandic version in favor of question four, and 72% within the English version, which is not significant difference, \( \chi^2 (1, N = 775) = 2.905, p = .088 \). In Figure 9 it can be seen that difference between the Icelandic and English versions was similar within question-wording versions. But higher percentage was in favor of the Icelandic version compared to the English within all question-wording groups.

![Figure 9](image-url)

**Figure 9.** Percentage in favor of a provision stating that ballots cast by the voters carry equal weight throughout the country, comparison between language and question-wording versions.

In Figure 10 it can be seen that on average 78% of those with strong opinion on the matters of the Constitution were in favor of question five, 76% with average opinion, and 69%
with weak opinion. According to log linear analysis, strength of opinion did not have significant effect on answers, $\chi^2(2, N = 746) = 3.677, p = .159$, but the trend is that those with weak opinion on the matters of the Constitution were less likely to be in favor this question compared to the other two groups. Question-wording did not have significant effect on answers, $\chi^2(2, N = 746) = 1.801, p = .406$. As backward elimination was employed, the interaction effect between question-wording and strength of opinion was eliminated from the model, and it did not significantly reduce the fit of the model, $\chi^2(4, N = 746) = 2.732, p = .604$. The likelihood ratio for the final model was, $\chi^2(8, N = 746) = 8.918, p = .349$. The final model did not include the interaction effects between question-wording and strength of opinion, and neither the main effects of question-wording nor strength of opinion.

![Figure 10](image.png)

**Figure 10.** Percentage in favor of a provision stating that ballots cast by the voters carry equal weight throughout the country, comparison between respondents’ strength of opinion and question-wording versions.
Question six asked whether there should be a provision in a new Constitution so that a certain percentage of voters could demand a referendum on certain issues. Figure 11 shows how many were in favor of question six for each wording version of the question, and for the Icelandic and English versions. On average there were 72% within the Icelandic versions in favor of question four, and 70% within the English versions, which is not significant difference, $\chi^2 (1, N = 775) = 0.539, p = .463$. It can be seen in Figure 11 that within the official-wording version difference between language versions was small, but larger for the statement and balanced versions.

![Figure 11](image_url)

**Figure 11.** Percentage in favor of a provision so that a certain proportion of voters can demand a referendum on certain issues, comparison between language and question-wording version.

In Figure 12 it can be seen that on average, 67% of those with strong opinion on the matters of the Constitution were in favor of question six, 76% with average opinion, and 71% with weak opinion. According to log linear analysis, strength of opinion did almost have
significant effect on answers, $\chi^2 (2, N = 747) = 5.938, p = .051$. Question-wording did not have significant effect on answers, $\chi^2 (2, N = 747) = 4.219, p = .121$. As backward elimination was employed, the interaction effect between question-wording and strength of opinion was eliminated from the model, and it did not significantly reduce the fit of the model, $\chi^2 (4, N = 747) = 0.287, p = .991$. The likelihood ratio for the final model was, $\chi^2 (8, N = 747) = 9.828, p = .277$. The final model did not include the interaction effects between question-wording and strength of opinion, and neither the main effects of question-wording nor strength of opinion. In Figure 12 it can be seen that on the average, lowest percentage was in favor of question six within the official versions.

Figure 12. Percentage in favor of a provision so that certain proportion of voters can demand a referendum on a certain issue, comparison between respondents’ strength of opinion and question-wording versions.

The effect of respondents’ strength of opinion was almost significant, $p = .051$. A chi-square analysis looking only at the effect of respondents’ opinion on answers reveals that the
trend was that within the strong opinion group, more respondents were opposed to question six than expected ($z = 1.3$), and within the average opinion group, fewer opposed the question than expected ($z = -1.4$). This difference was, however, not significant. Within the weak opinion group there was very little difference between expected and observed count.

Discussion

It was hypothesized that questions in a national-referendum about a new Icelandic Constitution were susceptible to acquiescence bias. Statistical analysis showed that respondents were not more likely to agree with the official and statement versions compared to the balanced version. Therefore, the null hypothesis cannot be rejected. There are several possible explanations for these findings. As stated before, acquiescence bias has been found to affect people with low education more than people with high education (Meisenberg & Williams, 2008; Naryan & Krosnick, 1996; Weijters, Geuens, & Schillewaert, 2010). The sample used in this study consisted only of respondents studying or working at a university, so it is possible that their education level was a protecting factor against response bias. Furthermore, those who did participate were most likely motivated to answer the questions. According to Krosnick (1991), low cognitive ability and motivation are predictors for acquiescence bias, and it is likely that the sample used in this study consisted of people high in both cognitive ability and motivation. It is, however, possible that these results demonstrate that question-wording does not have the same effect in referendums, as they do in surveys. It is possible that matters that are subject to referendum are of great importance to people who do participate, and that could prevent people from satisficing.

The second hypothesis was that Icelandic and English versions of the questions would not affect respondents in a different way. This hypothesis was supported for all of the questions. The difference was, however, close to significance for questions number one and five, where lower
percentage was in favor of both these questions within the English version group. Question one asked whether the proposals of the Constitutional Council should form the foundation of a Bill for a new Constitution, and question five asked whether a new Constitution should include a provision stating that ballot cast by the voters should carry equal weight throughout the country. The English version of these questions contained words which Icelandic people are possibly not familiar with. For example: “ballot cast,” and “foundation of a Bill.” It is possible that respondents did not want to answer in favor of a question which they did not understand, and that could have led to the observed difference between the Icelandic and English versions for question one and five. Although that less comprehensibility usually leads to acquiescence bias (Krosnick, 1991; Lenzner, 2012), it is possible that when the question is not in the respondents’ spoken language they avoid agreeing with the question because they are more aware of their lack of ability to comprehend the question.

It was hypothesized that respondents with strong opinion would show less response bias compared to those with average or weak opinion. Only in question one, which asked whether the proposals of the Constitutional Council should form the foundation of a Bill for a new Constitution, did respondents’ strength of opinion affect answers. More respondents with strong opinion opposed the question than those with average and weak opinion. This indicates that those with average strong opinion were more likely to satisfice than the other two groups for this question. Within the weak opinion group, same trend was observed as within the average opinion, but it was not significant.

In question six, which asked whether there should a new Constitution should include a provision stating that certain percentage of voters could demand a referendum on certain issues, the effect of respondents’ strength of opinion was almost significant. The same trend was observed as for question one, which asked whether the proposals of the Constitutional Council
should form the foundation of a Bill for a new Constitution. More respondents with strong opinion opposed question five compared to those with average and weak opinion. A possible explanation for the effect of respondents’ strength of opinion on answers is that those with strong opinion had formulated a clear opinion on the topic before they answered the survey, but not those with average opinion. The first question asks if all of the articles proposed by the Constitutional Council should form the foundation of a Bill for a new Constitution. It is possible that cognitive load for respondents for this question was higher than for other questions, since the question covered a wide range of topics. A study by Lenzner (2012) found that when the question is not easily comprehensible, cognitive load increases which increases the risk of response bias.

Therefore, it is possible in the present study that cognitive load hindered respondents with average opinion from retrieving relevant information from long-term memory to formulate an answer. That resulted in an acquiescence bias which did not reflect their opinion about the topic. It is, however, possible that lack of motivation can explain the effects which are attributed to strength of respondents’ opinion. Low motivation was found to be a predictor for neutral responses in the study by Lenzner (2012). It is possible that respondents stating an average opinion on the matters of the Constitution did so because of a lack of motivation. And as Krosnick (1991) claims, low motivation can be a predictor for an acquiescence bias. But this is only a speculative inference and cannot be determined in this study.

The findings of this present study indicate that answers can be affected by strength of respondents’ opinion, if the question is incomprehensible and asks about a broad category of topics. If respondents do not have strong opinion about the topic they are more likely to be in favor of the question compared to those with strong opinion. This is in line with the literature that survey questions should be easily comprehensible, and demand low information processing to

This study had several limitations. The response rate was low, and the groups were small due to many levels of the independent variables. Although testing the effects of language versions of the questions gave valuable information that reduced the size of the groups for each language version. Another limitation to the study was that it was done on a sample which was not drawn from the general population. Therefore, the findings of this present study cannot be generalized to the population. Furthermore, a study by Kaminska, McCutcheton, and Billiet (2010) indicated that people who did not respond to survey invitation and were reluctant to participate gave unreliable answer due to lack of cognitive ability. That is a problem to researchers studying response bias because it is likely that those who are most likely to show response bias will not participate, which reduces the generalizability of these studies.

More research is needed to test the difference between Icelandic and English versions of questions for the Icelandic population to establish further evidence for this present study finding. Also, it is important to test the effects of language on a representative sample, because it is possible that the difference between the Icelandic and the English versions could be larger within lower education and verbal ability groups.

As mentioned before, a study of this kind should be conducted on representative sample to test the effect of question-wording and strength of respondents’ opinion, because the sample in this present study consisted most likely of motivated participants with good verbal abilities. The respondents in the present study may have been less influenced by the question-wording than respondents with lower motivation to participate and lower cognitive abilities. Future research on response bias in referendums should be done using representative samples. It is especially important to include people with lower-education, older people, and people with limited verbal
abilities in future research (Kieruj & Moors, 2011; Meisenberg & Williams, 2008; Vaerenbergh & Thomas, 2012; Weijters, Geuens, & Schillewaert, 2010). Therefore, measures on respondents’ verbal ability, and working-memory span should be gathered to test the relation between cognitive abilities and response biases to a further extent.
References


Appendix A

Official version - English

1. Do you want the proposals of the Constitutional Council to constitute the foundation of a Bill for a new Constitution?
   a. Yes, I want the proposals of the Constitutional Council to constitute the foundation of a Bill for a new Constitution.
   b. No, I do not want the proposals of the Constitutional Council to constitute the foundation of a Bill for a new Constitution.

2. Do you want in a new Constitution that natural resources which are not subject to private ownership will be declared property of the nation?
   a. Yes
   b. No

3. Do you want in a new Constitution a provision for a National Church in Iceland?
   a. Yes
   b. No

4. Do you want in a new Constitution that voting for individual candidates in parliamentary elections will be allowed to a greater extent than currently is?
   a. Yes
   b. No

5. Do you want in a new Constitution a provision for ballots cast by the voters to carry equal weight throughout the country?
   a. Yes
   b. No
6. Do you want in a new Constitution a provision so that certain proportion of voters can demand that a referendum be held on a certain issue?
   a. Yes
   b. No

Statement version - English

1. The proposals of the Constitutional Council should constitute the foundation of a Bill for a new Constitution.
   a. Yes, the proposals of the Constitutional Council should constitute the foundation of a Bill for a new Constitution.
   b. No, the proposals of the Constitutional Council should constitute the foundation of a Bill for a new Constitution.

2. In a new Constitution, natural resources which are not subject to private ownership should be declared property of the nation.
   a. Yes
   b. No

3. In a new Constitution, there should be a provision about a National-Church in Iceland.
   a. Yes
   b. No

4. In a new constitution voting for individual candidates in parliamentary elections should be allowed to a greater extent than currently is.
   a. Yes
   b. No

5. In a new Constitution there should be a provision for ballots cast by the voters to carry equal weight throughout the country.
a. Yes
b. No

6. In a new Constitution there should be a provision so that a certain proportion of voters can demand a referendum be held on certain issue.
   a. Yes
   b. No

**Balanced version - English**

1. Do you support or oppose that the proposals of the Constitutional Council constitute the foundation for a Bill for a new Constitution?
   a. I support that the proposals of the Constitutional Council constitute the foundation for a Bill for a new Constitution.
   b. I oppose that the proposals of the Constitutional Council constitute the foundation for a Bill for a new Constitution.

2. Do you support or oppose that in a new Constitution, natural resources which are not subject to private ownership will be declared a property of the nation?
   a. Support
   b. Oppose

3. Do you support or oppose that a new Constitution will include a provision about a National-Church in Iceland?
   a. Support
   b. Oppose

4. Do you support or oppose that in a new Constitution voting for individual candidates in parliamentary elections will be allowed to a greater extent than currently is?
   a. Support
b. Oppose

5. Do you support or oppose that in a new Constitution will be a provision for ballot cast by the voters to carry equal weight throughout the country?
   a. Support
   b. Oppose

6. Do you support or oppose that in a new Constitution will be a provision so that a certain proportion of voters can demand that a referendum be held on a certain issue?
   a. Support
   b. Oppose

Official version - Icelandic

1. Vilt þú að tillögur stjórnlagaráðs verði lagðar til grundvallar frumvarpi að nýrri stjórnarskrá?
   a. Já, ég vil að tillögur stjórnlagaráðs verði lagðar til grundvallar frumvarpi að nýrri stjórnarskrá.
   b. Nei, ég vil ekki að tillögur stjórnlagaráðs verði lagar til grundvallar frumvarpi að nýrri stjórnarskrá.

2. Vilt þú að í nýrri stjórnarskrá verði náttúruauðlindir sem ekki eru í einkaeigu lýstar þjóðareign?
   a. Já
   b. Nei

3. Vilt þú að í nýrri stjórnarskrá verði ákvæði um þjóðkirkju á Íslandi?
   a. Já
   b. Nei
4. Vilt þú að í nýrri stjórnarskrá verði persónukjör í kosningarum til Alþingis heimilað í meira mæli en nú er?
   a. Já
   b. Nei

5. Vilt þú að í nýrri stjórnarskrá verði ákvæði um að atkvæði kjósenda alls staðar af landinu vegi jafnt?
   a. Já
   b. Nei

6. Vilt þú að í nýrri stjórnarskrá verði ákvæði um að tiltekið hlutfall kosningarbærra manna geti krafist þess að mál fari í þjóðaratkvæðagreiðslu?
   a. Já
   b. Nei

Statement version - Icelandic

1. Tillögur stjórnlagaráðs eiga að vera lagðar til grundvallar frumvarpi að nýrri stjórnarskrá.
   a. Já, tillögur stjórnlagaráðs eiga að vera lagðar til grundvallar frumvarpi að nýrri stjórnarskrá.
   b. Nei, tillögur stjórnlagaráðs eiga ekki að vera lagar til grundvallar frumvarpi að nýrri stjórnarskrá

2. Í nýrri stjórnarskrá eiga náttúruauðlindir sem ekki eru í einkaeigu að vera lýstar þjóðareign.
   a. Já
   b. Nei

3. Í nýrri stjórnarskrá á að vera ákvæði um þjóðkirkju á Íslandi
   a. Já
b. Nei

4. Í nýrri stjórnarskrá á að heimila persónukjör í kosningum til Alþingis í meira mæli en nú
   er.
   a. Já
   b. Nei

5. Í nýrri stjórnarskrá á að vera ákvæði um að atkvæði kjósenda alls staðar af landinu vegi
   jafnt.
   a. Já
   b. Nei

6. Í nýrri stjórnarskrá á að vera ákvæði um að tiltekið hlutfall kosningarbæðra manna geti
   krafist þess að mál fari í þjóðaratkvaðagreiðslu.
   a. Já
   b. Nei

Balanced version - Icelandic

1. Ertu fylgjandi eða andvíg(ur) því að tillögur stjórnlagaráðs verði lagðar til grundvallar
   frumvarpi að nýrri stjórnarskrá?
   a. Ég er fylgjandi því að tillögur stjórnlagaráðs verði lagðar til grundvallar frumvarpi
      að nýrri stjórnarskrá.
   b. Ég er andvíg(ur) því að tillögur stjórnlagaráðs verði lagðar til grundvallar
      frumvarpi að nýrri stjórnarskrá.

2. Ertu fylgjandi eða andvíg(ur) því að í nýrri stjórnarskrá verði náttúruauðlindir sem ekki
   eru í einkaeigu lýstar þjóðareign?
   a. Fylgjandi
   b. Andvíg(ur)
3. Ertu fylgjandi eða andvígu(ur) því að í nýrri stjórnarskrá verði ákvæði um þjóðkirkju á Íslandi?
   a. Fylgjandi
   b. Andvígu(ur)

4. Ertu fylgjandi eða andvígu(ur) því að í nýrri stjórnarskrá verði persónukjör í kosningum til Alþingis heimilað í meira mæla en nú er?
   a. Fylgjandi
   b. Andvígu(ur)

5. Ertu fylgjandi eða andvígu(ur) því að í nýrri stjórnarskrá verði ákvæði um að atkvæði kjósenda alls staðar af landinu vegi jafnt?
   a. Fylgjandi
   b. Andvígu(ur)

6. Ertu fylgjandi eða andvígu(ur) því að í nýrri stjórnarskrá verði ákvæði um að tiltekkið hlutfall kosningarbærra manna geti krafist þess að mál fari í þjóðaratkvæðagreiðslu?
   a. Fylgjandi
   b. Andvígu(ur)
Appendix B

Question 7 to 9 – English version

Note that the Icelandic version was used in the study

Do you have strong or weak opinions when it comes to the matters of the Constitution which are subject to the referendum in October?

- Very strong
- Rather strong
- In average strong or weak
- Rather weak
- Very weak

How much or little have you introduced yourself to the matters of the Constitution which are subject to the referendum in October?

- Very much
- Rather much
- In average much or little
- Rather little
- Very little

How likely or unlikely are you to vote on election-day about the matters of the Constitution?

- Very likely
- Rather likely
- In average likely or unlikely
- Rather unlikely
- Very unlikely
Question 7 to 9 – Icelandic version

Telur þú þig hafa sterkar eða veikar skoðanir þegar kemur almennt að málefnum stjórnarskráinnar sem kosið verður um í lok október?

- Mjögg sterkar
- Frekar sterkar
- Í meðallagi sterkar eða veikar
- Fremur veikar
- Mjögg veikar

Hversu mikið eða lítið hefur þú kynnt þér almennt málefni stjórnarskráinnar sem kosið verður um í lok október?

- Mjögg mikið
- Frekar mikið
- Í meðallagi mikið eða lítið
- Frekar lítið
- Mjögg lítið

Hversu líklegt eða ólíklegt er að þú kjósir á kjördag um málefni stjórnarskráinnar?

- Mjögg líklegt
- Frekar líklegt
- Í meðallagi líklegt eða ólíklegt
- Frekar ólíklegt
- Mjögg ólíklegt