



Universiteit
Leiden
The Netherlands

Public opinion without opinions? Item nonresponse and (the absence of) substantive opinions in public opinion surveys

Maat, J. van de

Citation

Maat, J. van de. (2019, September 17). *Public opinion without opinions? Item nonresponse and (the absence of) substantive opinions in public opinion surveys*. Retrieved from <https://hdl.handle.net/1887/76853>

Version: Not Applicable (or Unknown)

License: [Licence agreement concerning inclusion of doctoral thesis in the Institutional Repository of the University of Leiden](#)

Downloaded from: <https://hdl.handle.net/1887/76853>

Note: To cite this publication please use the final published version (if applicable).

Cover Page



Universiteit Leiden



The following handle holds various files of this Leiden University dissertation:
<http://hdl.handle.net/1887/76853>

Author: Maat, J. van de

Title: Public opinion without opinions? Item nonresponse and (the absence of) substantive opinions in public opinion surveys

Issue Date: 2019-09-17

PUBLIC OPINION WITHOUT OPINIONS?

*Item Nonresponse and (the Absence of) Substantive Opinions
in Public Opinion Surveys*

ISBN: 9789083013756

NUR: 100

Cover illustration: Bas van der Schot

Cover design: proefschriftenprinten.nl

Layout and printing: proefschriftenprinten.nl

© Jannine van de Maat, Leiden 2019. All rights reserved. No part of this thesis may be reproduced without prior permission of the author.



Universiteit
Leiden

Public Opinion Without Opinions?

Item Nonresponse and (the Absence of) Substantive Opinions
in Public Opinion Surveys

PROEFSCHRIFT

ter verkrijging van
de graad van Doctor aan de Universiteit Leiden,
op gezag van Rector Magnificus prof.mr. C.J.J.M. Stolker,
volgens besluit van het College voor Promoties
te verdedigen op dinsdag 17 september 2019
klokke 11.15 uur

door

Janna van de Maat
geboren te Rijssen in 1985

Promotoren

Prof. dr. Joop J.M. van Holsteijn

Prof. dr. Rudy B. Andeweg

Promotiecommissie

Prof. dr. Jelke G. Bethlehem

Prof. dr. Galen A. Irwin

Prof. dr. Geert Loosveldt, Katholieke Universiteit Leuven

Dr. Tom Louwerse

Dr. Ineke A.L. Stoop, Sociaal en Cultureel Planbureau

Acknowledgements

If someone would have told me at the start of my PhD project that it would take ten years to finish, I probably would not have started it. But ‘life is what happens while you are busy making other plans’, as John Lennon sang. The road was long and winding, but the finish line is near.

Over the years, a number of people contributed to my dissertation. I want to thank my supervisors Joop van Holsteijn and Rudy Andeweg for their patience and invaluable feedback. Thank you for all your insights, but more importantly for the personal support in both life and career choices.

My gratitude goes out to the LISS Panel (CenterData), the EenVandaag Opiniepanel (particularly Petra Klapwijk and Nina Hoette) and Team Vier (particularly Remco Frerichs and Jelle Rhebergen) who helped collect the original data for my survey experiments. It is not an exaggeration to say that this dissertation would not exist without their help. I would also like to thank Jelke Bethlehem, for his input on the graphical presentation of my data, and Bas van der Schot, for allowing me to use his cartoon for the cover.

The first years of my PhD project were spent at the Institute of Political Science at Leiden University. I thoroughly enjoyed being part of the Institute as a PhD student and lecturer. What I value the most about this time is not the acquired knowledge and academic skills, albeit valuable, but the network of PhD students and colleagues I was and in many ways still am a part of. A special thanks to Cynthia, Fransje, Lotte, Luzia, Tim, Tom and Wouter for being great colleagues and friends. Tim and Wouter: thank you for being my paranymphs and assisting me in jumping over the final hurdles.

The dissertation was finished while working as a Methodologist at the Netherlands Institute for Social Research (Sociaal en Cultureel Planbureau, SCP). I would like to thank Ineke and Jaco for employing me in my dream job. Ineke, thank you for

giving me time and input to finish this dissertation. Thanks to the colleagues at the SCP, particularly in the Methodology section, for your support.

I would like to thank my family and friends for encouraging me all these years and for not nagging much about the (lack of) progress. The 'p'-word is not forbidden anymore!

Finally, the three loves of my life. Orson and Egon, I hope I made you proud. I am glad I can spend more time with you, now that the PhD is finished. And I promise I will finally finish your baby photobooks.

Joost, even though I doubt you will ever read this book, I could not have finished it without you. You encouraged me, took care of the boys when I needed to write, were always positive and believed in me. As a fundamental member of team J&J, I would like to dedicate this thesis to you.

Contents

	Acknowledgements	5
	List of Figures	11
	List of Tables	15
CHAPTER 1	Introduction	17
1.1	Abstract	19
1.2	Surveys in the Public and Political Debate	19
1.3	Defining Public Opinion and Surveys	21
1.4	Public Opinion and Surveys in a Democracy	25
1.5	Rise and Dominance of Surveys	28
1.6	Problems in Survey Research	31
1.7	Research Question	33
1.8	Outline of the Book	36
CHAPTER 2	Doing Surveys and Question Design Effects	37
2.1	Introduction	39
2.2	Methodological Issues in Doing Survey Research	39
2.2.1	Potential Survey Methodological Problems	39
2.2.2	Question Design (Effects)	41
2.3	Answering Survey Questions	42
2.3.1	How Do Respondents Answer Survey Questions?	43
2.4	Survey Results 1: Nonresponse in (Web) Surveys & Missing Data	46
2.4.1	Unit Nonresponse in Surveys	47
2.4.2	Item Nonresponse	49
2.4.3	Item Nonresponse in Web Surveys	50
2.4.4	Missing Data	51
2.5	Survey Results 2: Distribution of Opinions	54

CHAPTER 3	Hypotheses on Non-Substantive Response Options	55
3.1	Introduction	57
3.2	Hypotheses for All Survey Experiments	57
3.2.1	Question Design and Level of Item Nonresponse	57
3.2.2	Question Design, Missing Data and Distribution of Opinions	58
3.2.3	Question Design and Question Content	59
3.2.4	Question Design and Response Categories	60
3.3	Specific Hypotheses for Individual Experiments	60
3.3.1	Response Time	61
3.3.2	Break-offs	62
 CHAPTER 4	 Data and Methods	 65
4.1	Introduction	67
4.2	Experimental Research Designs	67
4.3	Survey Experiments	68
4.4	Internet Surveys and Panels	70
4.4.1	Choice of Panels and External Validity	71
4.5	Issue Selection	73
4.6	Question Design	74
 CHAPTER 5	 The Don't Know Option	 77
5.1	Introduction	79
5.2	Theoretical Reflection	79
5.3	Hypotheses	80
5.4	Data and Methods	81
5.5	Results	86
5.5.1	Item Nonresponse	86
5.5.2	Response Time	89
5.5.3	The Overall Distribution of Opinions – Towards Public Opinion	91
5.5.4	Question Content	98
5.5.5	Number of Response Categories & Neutral Response Category	101
5.6	Conclusion	104
 CHAPTER 6	 The Filter Question	 107
6.1	Introduction	109
6.2	Theoretical Reflection	109
6.3	Hypotheses	111
6.4	Data and Methods	112
6.5	Results	115

6.5.1	Item Nonresponse	115
6.5.2	Distribution of Opinions – Towards Public Opinion	124
6.5.3	Question Design in Practice	132
6.5.4	Question Content and Item Nonresponse	135
6.5.5	Number of Response Categories & Neutral Response Category	138
6.5.6	Question Design and Break-Offs	142
6.6	Conclusion	144
CHAPTER 7	The Follow-Up Question	147
7.1	Introduction	149
7.2	Theoretical Reflection	150
7.3	Expectations	154
7.4	Data and Methods	156
7.5	Results	160
7.5.1	Permissive and Directive Opinions	160
7.5.2	Directive Opinions and Question Content	164
7.5.3	Distribution of Opinions – Towards Public Opinion	166
7.6	Conclusion	169
CHAPTER 8	Comparing Survey Experiments (Conclusions I)	173
8.1	Introduction	175
8.2	Theoretical Reflection	175
8.3	Hypotheses	177
8.4	Data and Methods	178
8.5	Results	179
8.5.1	Item Nonresponse	179
8.5.2	Distribution of Opinions	182
8.5.3	Differences in Question Content and Panels	185
8.6	Conclusion	188
CHAPTER 9	Discussion and Implications (Conclusions II)	191
9.1	Non-Substantive Response Options and Survey Results: A Summary of Findings	194
9.2	Implications and Recommendations	195
9.3	Limitations of the Study	197
9.4	Avenues for Future Research	199
	Bibliography	201

APPENDIX A	Questionnaires (in Dutch)	221
	I) Nederlandse Vragenlijst Experiment 1 (DK / Weet Niet)	222
	II) Nederlandse Vragenlijst Experiment 2 (Filtervraag)	227
	III) Nederlandse Vragenlijst Experiment 3 (Vervolgvrage)	235
APPENDIX B	More Analyses Response Time	245
APPENDIX C	Additional Analyses, Tables and Figures	251
	I) Additions to Chapter 5: Don't Know	253
	II) Additions to Chapter 6: Filter Question	272
	III) Additions to Chapter 7: Follow-Up Question	297
	IV) Additions to Chapter 8: Comparing Survey Experiments	303
	Dutch Summary	305
	Curriculum Vitae	311

LIST OF FIGURES

FIGURE 1.1	Opinion Poll mentions in U.S. news and wires	20
FIGURE 1.2	Types of Survey Error	32
FIGURE 2.1	Beatty, Herrmann, Puskar & Kerwin's (1998, p. 410) Response Model for Item Nonresponse	49
FIGURE 5.1	Survey Question Variations	85
FIGURE 5.2	Average Item Nonresponse Rate (in Percentages)	86
FIGURE 5.3	Average Response Time per Variant for All Survey Questions	90
FIGURE 5.4	Distribution of Opinions Self-Placement European Unification	92
FIGURE 5.5	Distribution of Opinions Lowering Welfare Benefits	92
FIGURE 5.6	Distribution of Opinions Ova Freezing	92
FIGURE 5.7	Distribution of Opinions Surrogate Motherhood	93
FIGURE 5.8	Distribution (%) of Opinions Same-Sex Adoption With and Without Item Nonresponse	94
FIGURE 5.9	Distribution (%) of Opinions Developmental Aid With and Without Item Nonresponse	95
FIGURE 5.10	Distribution (%) of Opinions UN Power With and Without Item Nonresponse	96
FIGURE 5.11	Distribution (%) of Opinions Surrogate Motherhood With and Without Item Nonresponse	97
FIGURE 6.1	Average Item Nonresponse (%) Resulting from Filter Questions	116
FIGURE 6.2	Average Item Nonresponse (%) Resulting from DK Option	116
FIGURE 6.3	Average Total Item Nonresponse (%)	119
FIGURE 6.4	Distribution of Opinions Self-Placement Euthanasia	124
FIGURE 6.5	Distribution of Opinions Gulden	125
FIGURE 6.6	Distribution of Opinions Libya 2	125
FIGURE 6.7	Distribution of Opinions PVV	126
FIGURE 6.8	Distribution (%) of Opinions MORTGAGE INTEREST DEDUCTION With and Without Item Nonresponse	128
FIGURE 6.9	Distribution (%) of Opinions INVOLVEMENT NETHERLANDS IN LIBYA With and Without Item Nonresponse	129

FIGURE 6.10	Distribution (%) of Opinions PVV SUPPORT GOVERNMENT With and Without Item Nonresponse	130
FIGURE 6.11	Results Seven Variants for PVV Support Government – All Respondents	134
FIGURE 6.12	Results Seven Variants for PVV Support Government – PVV Voters	134
FIGURE 6.13	Drop-Outs (%) per Survey Questionnaire Variant	142
FIGURE 6.14	Drop-Outs (%) Filter Question Variants	143
FIGURE 6.15	Drop-Outs (%) No Filter and Forced Choice Variants	144
FIGURE 7.1	Survey Question Variations	159
FIGURE 7.2	Average Rate Directive and Permissive Opinions (%)	161
FIGURE 7.3	Average Rate Directive and Permissive Opinions (%) – Excluding Item Nonresponse	162
FIGURE 7.4	Distribution of Opinions NATO in Syria	167
FIGURE 7.5	Distribution of Opinions Non-Dutch Nationality	168
FIGURE 7.6	Distribution of Opinions Burqa Ban	169
FIGURE 8.1	Model for Non-Substantive Response Options and Survey Outcomes	176
FIGURE 8.2	Average Item Nonresponse Rate (%) of Individual Non-Substantive Response Options	180
FIGURE B.1	Item Response Times for Four Questionnaire Variants	249
FIGURE C.1	Distribution of Opinions Self-Placement Income Differences	253
FIGURE C.2	Distribution of Opinions Self-Placement Euthanasia	254
FIGURE C.3	Distribution of Opinions Self-Placement Foreigners	254
FIGURE C.4	Distribution of Opinions Self-Placement European Unification	255
FIGURE C.5	Distribution of Opinions Old-Age Pension	255
FIGURE C.6	Distribution of Opinions Lowering Welfare Benefits	256
FIGURE C.7	Distribution of Opinions Same-Sex Adoption	256
FIGURE C.8	Distribution of Opinions Ova Freezing	256
FIGURE C.9	Distribution of Opinions Number of non-Dutch	257
FIGURE C.10	Distribution of Opinions Illegal in Netherlands	257
FIGURE C.11	Distribution of Opinions Developmental Aid	257
FIGURE C.12	Distribution of Opinions UN Power	258
FIGURE C.13	Distribution of Opinions Role Queen	258
FIGURE C.14	Distribution of Opinions Surrogate Motherhood	258
FIGURE C.15	Distribution (%) of Opinions Old-Age Pension With and Without Item Nonresponse	260
FIGURE C.16	Distribution (%) of Opinions Lowering Welfare With and Without Item Nonresponse	261

FIGURE C.17	Distribution (%) of Opinions Same-Sex Adoption With and Without Item Nonresponse	262
FIGURE C.18	Distribution (%) of Opinions Ova Freezing With and Without Item Nonresponse	263
FIGURE C.19	Distribution (%) of Opinions Number of non-Dutch With and Without Item Nonresponse	264
FIGURE C.20	Distribution (%) of Opinions Illegal in Netherlands With and Without Item Nonresponse	265
FIGURE C.21	Distribution (%) of Opinions Developmental Aid With and Without Item Nonresponse	266
FIGURE C.22	Distribution (%) of Opinions UN Power With and Without Item Nonresponse	267
FIGURE C.23	Distribution (%) of Opinions Role Queen With and Without Item Nonresponse	268
FIGURE C.24	Distribution (%) of Opinions Surrogate Motherhood With and Without Item Nonresponse	269
FIGURE C.25	Distribution of Opinions Self-Placement Income Differences	274
FIGURE C.26	Distribution of Opinions Self-Placement Euthanasia	275
FIGURE C.27	Distribution of Opinions Self-Placement Foreigners	275
FIGURE C.28	Distribution of Opinions Self-Placement European Unification	276
FIGURE C.29	Distribution of Opinions Lowering Welfare	276
FIGURE C.30	Distribution of Opinions Same-Sex Adoption	277
FIGURE C.31	Distribution of Opinions Non-Dutch Nationality	277
FIGURE C.32	Distribution of Opinions Mortgage Interest Deduction	278
FIGURE C.33	Distribution of Opinions Pension Funds	278
FIGURE C.34	Distribution of Opinions Gulden	279
FIGURE C.35	Distribution of Opinions King	279
FIGURE C.36	Distribution of Opinions Maxima's Father	280
FIGURE C.37	Distribution of Opinions Libya 1	280
FIGURE C.38	Distribution of Opinions Libya 2	281
FIGURE C.39	Distribution of Opinions Cabinet	281
FIGURE C.40	Distribution of Opinions PVV	282
FIGURE C.41	Distribution (%) of Opinions WELFARE With and Without Item Nonresponse	284
FIGURE C.42	Distribution (%) of Opinions SAME-SEX ADOPTION With and Without Item Nonresponse	285
FIGURE C.43	Distribution (%) of Opinions NON-DUTCH NATIONALITY With and Without Item Nonresponse	286

FIGURE C.44	Distribution (%) of Opinions DEVELOPMENTAL AID With and Without Item Nonresponse	287
FIGURE C.45	Distribution (%) of Opinions MORTGAGE INTEREST DEDUCTION With and Without Item Nonresponse	288
FIGURE C.46	Distribution (%) of Opinions PENSION FUNDS With and Without Item Nonresponse	289
FIGURE C.47	Distribution (%) of Opinions GULDEN With and Without Item Nonresponse	290
FIGURE C.48	Distribution (%) of Opinions KING With and Without Item Nonresponse	291
FIGURE C.49	Distribution (%) of Opinions MAXIMA'S FATHER With and Without Item Nonresponse	292
FIGURE C.50	Distribution (%) of Opinions LIBYA ¹ With and Without Item Nonresponse	293
FIGURE C.51	Distribution (%) of Opinions LIBYA ² With and Without Item Nonresponse	294
FIGURE C.52	Distribution (%) of Opinions CABINET With and Without Item Nonresponse	295
FIGURE C.53	Distribution (%) of Opinions PVV With and Without Item Nonresponse	296
FIGURE C.54	Distribution of Opinions Lowering Welfare	298
FIGURE C.55	Distribution of Opinions Same-Sex Adoption	299
FIGURE C.56	Distribution of Opinions Non-Dutch Nationality	299
FIGURE C.57	Distribution of Opinions Developmental Aid	300
FIGURE C.58	Distribution of Opinions Softdrugs	300
FIGURE C.59	Distribution of Opinions Weed Permit	301
FIGURE C.60	Distribution of Opinions Burqa Ban	301
FIGURE C.61	Distribution of Opinions NATO in Syria	302
FIGURE C.62	Average Total Item Nonresponse (%)	303

LIST OF TABLES

TABLE 1.1	Techniques for the Expression and Assessment of Public Opinion	23
TABLE 3.1	Summary of Hypotheses	64
TABLE 4.1	(Internet) Panel Characteristics a)	72
TABLE 4.2	Question Design Characteristics	75
TABLE 4.3	Question Design Applied to Example	76
TABLE 5.1	Hypotheses	81
TABLE 5.2	Descriptive Statistics Subgroups LISS Panel	83
TABLE 5.3	Response Rates	84
TABLE 5.4	Overview of DK Alternatives a)	85
TABLE 5.5	Item Nonresponse (%) of Individual Items	88
TABLE 5.6	Item Nonresponse (%) for Themes a)	99
TABLE 5.7	Item Nonresponse (%) of Individual Items – Ranked to Number of Response Categories	102
TABLE 5.8	Use of the Neutral Response Category (%)	104
TABLE 6.1	Hypotheses	111
TABLE 6.2	Descriptive Statistics Subgroups EenVandaag Opiniepanel	113
TABLE 6.3	Response Rates	114
TABLE 6.4	Experimental Conditions and Safety Nets for Item Nonresponse	115
TABLE 6.5	Filtered Out Item Nonresponse (%) of Individual Items	120
TABLE 6.6	Total Item Nonresponse (%) of Individual Items	122
TABLE 6.7	Real Outcome versus Outcome Variant 3A – ‘... Do you think the PVV will stop supporting the government?’	133
TABLE 6.8	Filtered Out Item Nonresponse (%) – Ranked with Variant 1A	136
TABLE 6.9	Total Item Nonresponse (%) – Ranked with Variant 1A	137
TABLE 6.10	DK Item Nonresponse (%) of Individual Items – Ranked to Number of Response Categories	139
TABLE 6.11	Use of the Neutral Response Category (%)	141
TABLE 7.1	Previous Application of Follow-up Questions by Gallup	152
TABLE 7.2	Descriptive Statistics of Demographic Characteristics	157
TABLE 7.3	Response Rates	157

TABLE 7.4	Experimental Conditions and Safety Nets for Item Nonresponse	158
TABLE 7.5	Directive Opinions (%) Individual Survey Questions	163
TABLE 7.6	Directive Opinions (%) and Question Content	165
TABLE 8.1	Hypotheses for Comparative Analyses	177
TABLE 8.2	Overview of Comparison Questionnaire Variants and Panels	178
TABLE 8.3	Mean, Mode and Standard Deviation of Self-Placement Items in the Non-Filter Variants	182
TABLE 8.4	Mean, Mode and Standard Deviation of Self-Placement Items in the Filter Variants	183
TABLE 8.5	Modes of the Non-Self-Placement Items	184
TABLE 8.6	Item Nonresponse (%) in the Implicit DK Variants	185
TABLE 8.7	Item Nonresponse (%) in the Explicit DK Variants	186
TABLE 8.8	Item Nonresponse (%) in the Weak Filter, Implicit DK Variants – Total Item Nonresponse versus Filtered Out	186
TABLE 8.9	Item Nonresponse (%) in the Weak Filter, Explicit DK Variants – Total Item Nonresponse versus Filtered Out	187
TABLE B.1	Response Time for Individual Questions	247
TABLE B.2	Significance Between-Variants-Differences in Average Response Time	248
TABLE C.1	Significance of Differences in Means Self-Placement Items	255
TABLE C.2	Significance of Differences in Distribution of Opinions Other Items	259
TABLE C.3	Mean, Mode and Standard Deviation of Self-Placement Items	270
TABLE C.4	Significance Between-Variant-Differences in Item Nonresponse (Themes)	270
TABLE C.5	Significance Between-Variant-Differences in Use of Neutral Response Category	271
TABLE C.6	DK Item Nonresponse (%) of Individual Items	272
TABLE C.7	Mean, Mode and Standard Deviation of Self-placement Items	283
TABLE C.8	Directive Opinions (%) Individual Survey Questions – Excluding Item Nonresponse	297