

# Do Unbalanced Scales Influence the Respondent's Opinion?

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## Abstract

The data of this study come from two sets of national surveys conducted in the three regions of Belgium in 1989 and 1991. The study gives evidence of the effect of an unbalanced scale with negatively worded statements about ethnic minorities on the respondent's opinion at the end of the scale. Respondents who were not involved in the issue were most likely to be effected by the information in the preceding statements. The position on the attitude toward ethnic minorities and the level of formal education had additional effects of the same order. The effect is measured by the increase of "no opinion" on a positively worded statement at the end of the scale. After exclusion of competing explanations, the effect is ascribed to the informative function of an unbalanced scale whereby an image of reality is induced.

## 1 Introduction

The occasion of this study is the repeated finding of extremely high numbers of respondents who declared that they had no opinion on an attitude item placed at the end of an unbalanced scale containing fifteen attitude items about ethnic minorities and racism. The three independent sample surveys were conducted in the three Belgian regions after the 1991 general elections. The numbers of respondents having no opinion on the item "*Muslim families are, in general, very hospitable*" (the Hospitable Muslim item) ranged from 31 to 43 percent (see Table 1). In three earlier surveys in 1989, in the same populations, the numbers of respondents who maintained that they had no opinion on exactly the same statement were less than 2.5 percent. Such large differences in no opinion are very uncommon, except in some split-ballot experiments with "Don't Know" filters (Schuman and Presser, 1981: 116-125).

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In this study, I will argue that the substantial increase in "no opinion" on the Hospitable Muslim item in the 1991 surveys is a context effect produced by the preceding unbalanced scale with negatively worded items. None of the competing explanations considered could account for such large effects.

Question-wording experiments have shown that response alternatives may inform the respondents about the researcher's knowledge of, or assumptions about, the range of opinions or behaviours in the population (Schwarz and Hippler, 1987; Schwarz, 1988; Billiet, 1991; Hippler and Schwarz, 1992). It seems reasonable to assume that the respondent also derives information about the researcher's assumed opinion or about reality from an unbalanced list of statements. This may happen particularly in the case of scale items that are intended to measure attitudes towards ethnic minorities. Such items generally contain information about the characteristics and typical behaviour of the "outgroups". In the case of an unbalanced scale of this kind, the respondent not only may make inferences about the opinion of the researcher but also may form an opinion about the characteristics and typical behaviour of the outgroups. For both reasons (an assumed opinion or an induced image of reality), a respondent with ambivalent or weak attitudes will be confused if inconsistent information is provided at the end of an unbalanced scale.

## 2 Method

### 2.1 Data

The data in this study come from several national surveys we have conducted. In April 1989, we were asked by the Belgian Government to organize a national survey on ethnocentrism. About 1,600 interviews were conducted by trained interviewers<sup>2</sup> at the end of 1989 in the three regions of Belgium (Brussels, Flanders, and Wallonia). The questionnaire contained a balanced scale with items about ethnic minorities (Billiet et al., 1990).

After the 1991 General Election, a national survey on voting and political attitudes was set up.<sup>3</sup> We conducted 2,691 interviews in the Flemish region and 281 interviews in Dutch in Brussels in December 1991 and in the early months of 1992.<sup>4</sup> Similar surveys with the same questionnaire were organized in Wallonia

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<sup>2</sup>The training program is explained in an earlier study published by *Public Opinion Quarterly* (Billiet and Loosveldt, 1988).

<sup>3</sup>The Flemish part of the survey (N=2,691) was conducted by the Inter-University Centre for Political Opinion Research (I.S.P.O.). The research group consists of J. Billiet (General Supervisor), M. Swyngedouw (Research Director), and A. Carton (Field Supervisor) with offices at the Katholieke Universiteit Leuven. The project was part of the National Social Research Programme and was directed by the Belgian Science Policy Office.

<sup>4</sup>The Flemish speak Dutch. The population of Brussels is nearly 85 percent French-speaking.

(1,425 interviews) and Brussels (376 interviews among the French-speaking residents).<sup>5</sup> The questionnaire of the 1991-92 surveys on political attitudes contained an unbalanced scale on ethnocentrism that included the same negatively worded statements as in the prior survey.

In each survey, a two-stage sample with equal probabilities of selection of the elementary sampling units was used.<sup>6</sup> The samples were representative for the population of 18-74 years old. In the present study, I will use the data from the Flemish region, but I will also refer to the other regions since the same effect also occurred there.

Let us look carefully at the two scales (see Appendix). The first eleven items of the 1989 scale were intended to measure the attitude towards outgroups; the others were items about ethnic superiority and segregation. Items 89\_1, 89\_4, 89\_6, 89\_10, and 89\_11 are the core items of an unidimensional scale that measures the attitude towards "outgroups" (the NEGOUT scale: Cronbach alpha = .80). This attitude expresses the feeling of being threatened by the presence of immigrants. The set of statements as a whole is balanced by the positively worded Items 89\_3, 89\_5, 89\_7, and 89\_9, which were added to the scale in order to measure acquiescence (Ray, 1979). The positively worded Item 89\_7 is the one in which we are interested, since it was used unchanged at the end of the scale of 1991.

The five core items of the NEGOUT scale were all at the beginning of the 1991 instrument. Items 91\_7, 91\_8, and 91\_9 form a subset of ethnic-superiority items. Five other items are included for purpose of comparative research with other studies (Kühmel and Terwey, 1990). Since we had to compromise in order to reduce the number of items in the 1991 instrument, only two opposite (positive) worded items were included (Item 91\_10 and 91\_15).

The first positive statement the respondents heard was Item 91\_10: "The presence of different cultures is an enrichment to our society". It is similar to Item 89\_12 that followed a mix of positive and negative items in the 1989 balanced scale. In the three samples, there were only minor differences in "no opinion" on these items (about 4 percent in 1991 and less than 1 percent in 1989).

Item 91\_15, an unambiguous, positively worded item about the "problematic" ethnic minority was placed at the end of the scale (the Hospitable Muslim item). Surprisingly, and contrary to the responses on the same item in the surveys of

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<sup>5</sup>The Walloon part was conducted by a research team of the Université Catholique de Louvain. Members are A. Frogner (General Supervisor), A. Aish-van Vaerenberg, and S. Van Diest.

<sup>6</sup>In the first stage, the municipalities were selected at random. In the second stage, a random sample of respondents was selected from the national population registers. The response rates are 65 percent in the Flemish survey, 57 percent in the Walloon survey and about 45 percent in the survey in Brussels. The low response rate in Brussels is a.o. caused by defective sampling frames and by the high proportion of respondents who could not be contacted for several reasons (sickness, move, and deceased). The numbers of non contacts are much lower in the two other regions.

1989 (Item 89\_7) in the three regions, an extremely large number of the respondents declared that they had no opinion on this statement (see Table 1).

## **2.2 Hypotheses**

An observation can hardly be called a hypothesis. The hypothetical nature of this study lies in the interpretation of an observation and in the expectations about the conditions that facilitate a significant increase of "no opinions" to a statement that expresses a favourable characteristic of an ethnic minority group at the end of an unbalanced list of clearly unfavourable expressions. What produced the increase of "no opinion"?

First, the attitude toward Muslim guest workers may have changed substantially between 1989 and 1991. This hypothesis can be tested since we have the same measurements (the five core items) in the 1989 and 1991 surveys.

Second, differences in the instruments, other than the aspect of balanced/unbalanced may be responsible for the effect. Inspection of the two questionnaires and inspection of the "no opinion" on the other items can provide a decisive answer here.

Third, the differences may be due to the position of the item in the balanced or in the unbalanced scale. If that case, two different cognitive processes that are derived from the information accessibility theorem can be hypothesized. The information accessibility theorem states that the inclusion of easily accessible information is common practice in the process of question answering unless that information is excluded by conversational norms of task requirements. Information that has been provided or used most recently, as in answering previous questions, is usually the most accessible (Schwarz and Strack, 1990; Strack, 1992: 25-26).

One cognitive process deals with the attribution of an opinion to the researcher. Respondents who are sensitive to self-presentational concerns when responding use the information provided by the unbalanced scale to make inferences about the opinion of the researcher. They may start to avoid presumably unusual or even undesirable answers (Schwarz and Bienas, 1987; Schwarz, 1988). These respondents become confused when they meet an apparently opposite-worded statement about the same attitude object.

The other cognitive process concerns an induced image of reality. Respondents who have no direct experience with ethnic minorities in their everyday life and who have no crystallized ideas about the issue can also form an opinion about the characteristics and typical behaviour of the outgroups on the basis of information provided by the preceding items. Here the items in an unbalanced scale inform the respondent about "reality", as has been shown in experiments with response scales (Schwarz and Hippler, 1987; Billiet et al. 1991). This, too, may give rise to

confusion if clearly (and stereotyping) inconsistent information comes at the end of the unbalanced scale.

For both reasons (an assumed opinion of the researcher or an induced image of reality), the "no opinion" alternative is a way of handling confusion when answering a question with inconsistent information. From this perspective, the increase in "no opinion" on the last item of the 1991 scale is an indicator for the confusion provoked by the information in the preceding items. Inspection of the respondents who are most susceptible to the effect is an indirect way to test this hypothesis.

Indeed, the chance of being influenced by the assumed researcher's opinion and the tendency to avoid undesirable responses is most likely among respondents who have no crystallized attitude towards the "foreign worker" issue or among those who have no extreme pro or con positions on the subject. In other words, the respondents who have a weak attitude, i.e. respondents for whom the issue is not really important, and the moderate respondents would be most influenced by the unbalanced scale. It is also reasonable to assume that respondents who have little a priori information about the issue are more sensitive to the supply of one-sided information by an unbalanced scale and to the inconsistent information at the end. For these reasons, three factors seem important as conditions for the increase in "no opinion": (1) specific attitude strength, which is closely related to crystallization (Schuman and Presser, 1981: 262-264); (2) attitude extremity; and (3) the degree of formal education as a proxy variable for the disposal of information. These three factors are not independent of each other, since it is known that respondents with moderate positions and the less educated (less informed) are more likely to have weak attitudes (Schuman and Presser, 1981: 242; Krosnick and Abelson, 1992). In the 1989 survey, we found that the respondents with a moderate position on the NEGOUT scale were most likely to consider the immigration issue as not important (Billiet et al., 1990: 181). For that reason, the test supposes a model with the three factors and the response variable (percent of "no opinion" on Item 91\_15).

However, the testing of that model cannot give a definite answer about which of the two interpretations of confusion is the most likely (an assumed opinion of the researcher or an induced image of reality). Indeed, both interpretations lead to the same expectations about the three factors (specific attitude strength, attitude extremity, and degree of formal education). We may arrive at a decision about the acceptability of one interpretation over the other by comparing the "no opinion" responses of the two positively worded items in the 1991 survey (Item 91\_10, and 91\_15) with their equivalents in 1989 (Item 89\_12, and 89\_7). The Hospitable Muslim item is clearly a statement about the characteristics and typical behavior of the outgroups about which the respondent could in principle, have information. The other item (91\_10, and 89\_12) is more abstract and deals with an imaginary

state of society. If the confusion is produced by an induced image of reality, then we may expect the effect in the Hospitable Muslim item and not in the other one.

### 2.3 Measurement

Attitude strength was measured by two questions: (1) an open question about the reasons for voting placed directly after the question about the respondent's actual vote in the 1991 General Election; (2) a closed question in which the respondent had to choose five reasons from a list of 27. The closed question was not asked of respondents older than 65 years of age. The analysis is applied to the sample of respondents between 18 and 64 years of age ( $N = 2,460$ ). According to the open question, about 5 percent of the respondents mentioned the policy toward foreigners as the main reason for their vote (mostly the right-wing "Vlaams Blok" of which more than 50 percent gave that reason). About 30 percent of the respondents selected the policy towards immigrants as a reason in the closed question (40.2 percent of the respondents with a pronounced positive attitude vs. 37 percent of the respondent on the negative side of the scale). The respondents with weak attitudes are those who did not mention the foreigners (or immigration) issue either in the open or in the closed question.

The degree of formal education also has three levels: (1) no secondary education; (2) secondary education (vocational or academic high school level); (3) higher education (college, university, or non-university higher education).

In the 1991 survey, the attitude toward ethnic minorities ("foreigners", "guest workers", or nearly always "Muslims") was measured by a subset of seven items that were selected by confirmatory factor analysis from the entire scale (Billiet, 1993).<sup>7</sup> The selected items are four of the items of the NEGOUT scale (Items 91\_1, 91\_2, 91\_3, 91\_4) and three items in the other part of the scale (Items 91\_6, 91\_12 and 91\_13). The new scale (named OUTGR\_1) met the criterion of internal consistency very well (Cronbach alpha = .90). Inspection of the meaning of the items shows that the scale still meant "feeling threatened by the presence of immigrants or guestworkers".

However, some problems may arise with that scale. It is very likely that the second part of the items were affected by the information in the first set of items, at least if our hypothesis about the context effect in an unbalanced scale is correct. And is this not what we expected? As a consequence, a number of respondents that

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<sup>7</sup>In the first step, an exploratory factor analysis was performed on a random part of the sample ( $n = 700$ ). Afterwards, the measurement model was tested by confirmatory factor analysis in another random part of the sample ( $N = 1,397$ ). The measurement model was tested with LISREL 7, using the polychoric correlations and the weighted asymptotic covariance matrix for the estimations of the parameters and the standard errors (Jöreskog, 1989). The scale items were weighted by regression weights in order to reproduce the latent variable as closely as possible in the cumulative scale.

"really" had a moderate negative attitude towards outgroups would be classified as pronounced negative if we use the full scale (OUTGR\_1). This may disturb the conclusion about the relation between attitude extremity and "no opinion". For this reason, an alternative measurement of attitude extremity based on the first set of items (the Items 91\_1 to 4) is proposed for a second step in the analysis. That scale is named OUTGR\_2 (Cronbach alpha = .82), and it is divided into three categories of about the same amount as with the other scale.

In this study, the response distributions of the two scales are divided into three categories: about 22 percent with a pronounced positive attitude, 66 percent with a moderate attitude, and about 22 percent with a pronounced negative attitude.

### 3 Results

Let us start with a closer view of the response distributions on the Hospitable Muslim item in the 1989 and 1991 surveys. In the Dutch-speaking region as in the French-speaking and the bilingual regions, the response distributions on the "hospitable" item in the two periods show significant differences (prob. < .001). In line with the hypothesis, the increase of "no opinion" is smallest in the region in which the respondents had more contacts with Muslims in everyday life (Brussels) and in which more respondents felt that the "foreign worker" issue was really important. However, we will first examine the other hypotheses.

Are the differences in no opinion due to substantial changes in the attitude towards ethnic minorities between 1989 and 1991? As I have noted, the same five items of the NEGOUT scale appeared in the 1991 survey. Using these five items, the latent class structure of these five items was compared in simultaneous analyses for the two periods (Clogg and Goodman, 1984, 185; McCutcheon, 1987; Hageaars, 1990; Loosveldt, 1993). A model in which the latent class probabilities are set equal cannot be rejected ( $L^2=49.6$ ;  $df=37$ ; prob = .12). There is strong evidence in the data that the attitude toward ethnic minorities itself (pro/con) remains unchanged in spite of an increase in attitude strength in the period of the general elections. It is unlikely that this affected the "no opinion" alternative in the Hospitable Muslim item since respondents who conceive the guestworker issue as important are less sensitive to the "no opinion" option (Billiet, 1992: 21).

Is the increase of respondents who declare that they had no opinion on the Hospitable Muslim item produced by alterations in the research instrument? Apart from the number and the wording of items in the scales, there are, indeed, other differences between the instruments of 1989 and 1991. In 1989, there was no direct statement telling the respondents they could have no opinion in the introduction of the scale. However, that statement was present in four of the preceding questions in which a quasi "no opinion" filter was offered to the

respondents. The "no opinion" option was not printed on the questionnaires, but the interviewer was instructed to accept and record it. In 1991, an explicit statement appeared in the introduction of the scale and the "no opinion" option was printed on the questionnaires but not on the response cards (Carton et al., 1993). This made no difference for the respondents, but it could have made a difference for the interviewers.

Table 1: Response distributions on the item "Muslim families are in general very hospitable" in the 1989 and 1991 surveys (percentages).

Response alternatives	Flanders		Wallonia		Brussels <sup>8</sup>	
	1989	1991	1989	1991	1989	1991
Completely agree	18.1	6.3	16.4	11.6	20.3	14.2
Agree	22.7	23.9	21.4	22.6	28.6	26.0
Neither agree nor disagree	48.2	23.8	45.2	18.3	30.7	20.9
Disagree	5.7	5.1	6.0	4.6	12.3	7.3
Completely disagree	2.9	1.9	2.7	2.5	7.1	0.1
No opinion	1.8	39.1	2.3	43.0	1.0	31.1
Total (N)	664	2,685	518	1,416	423	438

It is unlikely that these alterations in the instrument caused the excessive increase in "no opinion" in the last items. The effect of these alterations can be estimated by the shifts in "no opinion" on the other items of the scale. In the 1989 survey in Flanders, "no opinion" was in the range of 0.2 to 2.4 percent. This went up to a range of 2.6 to 6.6 percent in the 1991 survey, except for Item 91\_5 (13.6 percent) and the Hospitable Muslim item (39.1 percent). Nearly the same is true for the other regions. The number of no opinions on Item 91\_5, which is a mixture of an opinion and a factual observation, rose to 18.6 percent in the Walloon survey, but with the exception of Item 91\_15 all other items in the 1991 surveys had "no opinion" responses in the range of 1.5 to 7.8 percent. We may conclude that the alterations did not produce the shifts in the last item of the scale. There must be another reason for the disproportionate increase of no opinions.

Since the competing explanations fail, it is safer to attribute the increase in "no opinion" to the one-sided information in the prior part of the unbalanced scale. A more positive argument comes from the results of the multivariate analysis of the

<sup>8</sup> The 1991 sample for Brussels contains 376 French-speaking and 281 Dutch-speaking (Flemish) respondents. Since in the population (Brussels) the proportion (estimated) of Dutch-speaking Belgians is about 17%, a random number of 64 Flemish respondents was added to the French-speaking sample in order to match the distribution in the population.



data of the Flemish region. Log-linear factor-response models were tested with the odds ratio "no opinion" vs. opinion on the "hospitable" item as a response variable (R) and with attitude strength (S), level of education (E), and attitude toward outgroups (O) as explanatory factors (Upton, 1978).<sup>9</sup> Because of the large number of observations in the sample, the Bayesian Information Criterion (B.I.C.) was used for the selection of the most acceptable model (Raftery, 1986).<sup>10</sup>

In a first step, the full attitude extremity scale (OUTGR\_1) was used. The model selected is given on the bottom of Table 2, which gives the (squared) multiplicative effect parameters and the z-scores of the that model.<sup>11</sup>

Table 2: The squared multiplicative effect-parameters ( $\beta^2$ ) and the z-scores (standardized additive parameters) of the selected factor-response model (OUTGR\_1).

Effect	$\beta^2$	z-score	Effect	$\beta^2$	z-score
S <sub>2</sub> R <sub>2</sub>	.806	-3.442	E <sub>1</sub> R <sub>2</sub>	1.164	1.976
O <sub>1</sub> R <sub>2</sub>	.739	-3.467	E <sub>2</sub> R <sub>2</sub>	.993	-.079
O <sub>2</sub> R <sub>2</sub>	1.120	1.538	E <sub>3</sub> R <sub>2</sub>	.864	-1.442
O <sub>3</sub> R <sub>2</sub>	1.205	1.825			

Model: SR,OR,ER,(SOE). Selected with the Bayesian Information Criterion.  $L^2 = 25.87$ ;  $df = 12$ ;  $p = .011$ . Sample size = 2,446.

The model contains the associations between the response variable ("no opinion") and each of the factors, attitude strength (SR), attitude toward outgroups (OR), and level of education (ER). No three-way interactions were included in the

<sup>9</sup>In factor-response models, only the associations and interactions in which the response variable is included are considered. The associations and interactions between the factors (SOE) need not to be tested and are included in all the models. In this way, the 167 possible hierarchical models can be reduced to only 20. Since the models are hierarchical, the three-way interaction term SOE includes the terms S, O, E, SO, SE, and OE.

<sup>10</sup>The B.I.C. is equivalent to  $L^2 - (\log N) \cdot df$ . As with Akaike's Information Criterion (A.I.C.), the model that minimizes the B.I.C. is selected. All models were scanned with LOGSCAN (Daemen, 1986). In this study, the B.I.C. is preferred to the A.I.C. because it prevents inflation of significant small effects that may occur in large samples (Sakomoto et al., 1982; Raftery, 1986; Bollen, 1989: 279; Swyngedouw, 1992)

<sup>11</sup>The meaning of the indices: R<sub>1</sub> = opinion; R<sub>2</sub> = no opinion; S<sub>1</sub> = weak attitude; S<sub>2</sub> = strong attitude; O<sub>1</sub> = positive; O<sub>2</sub> = moderate; O<sub>3</sub> = negative; E<sub>1</sub> = low education; E<sub>2</sub> = medium; E<sub>3</sub> = high.

model. As was expected, having a strong attitude on the issue of "foreign workers" decreases the odds ratio "no opinion"/opinion on the average (geometric) by about 20 percent. This conclusion comes from the interpretation of the squared multiplicative effect parameter of attitude strength ( $S_2R_2$ ).<sup>12</sup> This is reflected in the average drop of ten points in the probabilities (percentages) of no opinions over all the combined categories of the two other factors (level of education and attitude toward outgroups).

As was expected, the more highly educated were less likely to choose the "no opinion" option than the two other categories. The opposite holds for the less educated, who were more likely to do so. The respondents who had secondary education (high school level) are in between the two other categories. They were slightly less likely than the more highly educated and more likely than the less educated to belong to the "no opinion" category.

The attitude toward outgroups has a moderating impact on "no opinion" if the respondent has a positive attitude toward outgroups. Taking a moderate or a negative position on that attitude makes little difference, but it is surprising and unexpected that the respondents with a pronounced negative attitude seem to be slightly more prepared to say "no opinion" on the Hospitable Muslim item ( $O_3R_2 > O_2R_2$ ). Why are the respondents with a pronounced negative attitude towards the attitude object not more likely to give a substantial answer and say "not agree" on that item? Is it because, in the context of the first part of the scale, a number of them who have in fact a moderate attitude start to agree with the negatively worded statements, and are consequently classified as "pronounced negative"?

If this is the reason, then the replacement of OUTGR\_1 by OUTGR\_2, which contains only the first set of items, would change the parameter estimates of the effect of attitude extremity on "no opinion". Indeed, we will obtain a more valid classification of the respondents into the moderate and pronounced negative categories, and the likelihood of "no response" on the Hospitable Muslim item of those who are pronounced negative will decrease. Let us see what happens. The parameters of the selected model are in Table 3.

The model with OUTGR\_2 contains the associations between the response variable and each of the three factors. Having a strong attitude on the issue still decreases the likelihood of having "no opinion" with a slightly smaller amount as before. The conclusion about the effect of the level of education remains nearly unchanged. However, as was expected, those with a pronounced negative attitude towards immigrants are less likely to declare that they have no opinion than the respondents with a moderate attitude ( $O_3R_2 < O_2R_2$ ).

<sup>12</sup>In log-linear factor-response models with a dichotomous response variable, a squared multiplicative parameters ( $\beta^2$ ) expresses the amount of increase ( $\beta^2 > 1$ ) or decrease ( $\beta^2 < 1$ ) of the odds ratio between the categories of the response variable ( $R_2/R_1$ ) as a result of belonging to one particular category of an explanatory factor and not to the other categories (Agresti, 1990).

Table 3: The squared multiplicative effect-parameters ( $\beta^2$ ) and the z-scores (standardized additive parameters) of the selected factor-response model (OUTGR\_2).

Effect	$\beta^2$	z-score	Effect	$\beta^2$	z-score
S <sub>2</sub> R <sub>2</sub>	.824	-3.011	E <sub>1</sub> R <sub>2</sub>	1.208	2.350
O <sub>1</sub> R <sub>2</sub>	.800	-2.563	E <sub>2</sub> R <sub>2</sub>	.992	-.106
O <sub>2</sub> R <sub>2</sub>	1.192	2.353	E <sub>3</sub> R <sub>2</sub>	.836	-1.692
O <sub>3</sub> R <sub>2</sub>	1.050	.445			

Model: SR,OR,ER,(SOE). Selected with the Bayesian Information Criterion.  $L^2 = 21.9$ ;  $df = 12$ ;  $p = 0.04$ . Sample size = 2,424

Table 4: No opinion on the "hospitable" item (R) by attitude strength (S), attitude toward outgroups (O) (OUTGR\_2), and level of education (E) (percentages and totals of each cell)\*

Education	Outgroup	Attitude strength			
		Weak		Strong	
Lower	Positive	36.6	(114)	28.4	(49)
	Moderate	50.0	(450)	36.9	(148)
	Negative	43.1	(214)	28.8	(76)
Secondary	Positive	32.2	(93)	24.5	(69)
	Moderate	41.4	(323)	32.5	(139)
	Negative	38.4	(62)	29.7	(73)
Higher	Positive	28.6	(133)	21.4	(87)
	Moderate	37.3	(220)	28.8	(94)
	Negative	34.4	(18)	26.0	(15)

\* Percentages estimated under the factor-response model selected with the Bayesian Information Criterion: SR,OR,ER,(SOE).

The probabilities (percentages) of "no opinion" estimated under the hypothesis that the model holds in the population are in Table 4. The probability of having no opinion on the Hospitable Muslim item ranges from 21.4 percent among those who had a strong attitude, an education of at least high school level, and a positive attitude towards immigrants to 50 percent among the less educated with a weak and moderate attitude.

## **4 Discussion**

The hypotheses about the effects of attitude strength, the position on the attitude, and level of education on the "no opinion" option of the Hospitable Muslim item were derived from a social cognition view on the balanced vs. unbalanced scale dispute. The informative function of the unbalanced scale was held responsible for the substantial increase of "no opinion" on an opposite-worded item at the end of the scale. This was interpreted as a way of responding to confusion as a result of cognitively dissonant information. The exclusion of two competing explanations and the non-rejection of the hypotheses support the plausibility of this explanation. We may conclude that an unbalanced scale can influence the respondent's opinion on an issue.

The most likely explanation is that the respondents were confused after they had formed an idea about reality and about the researcher's opinion and that the "no opinion" option is easily accepted by the interviewer because of the printed categories on the questionnaire (not on the response cards). However, the relative impact of the two kinds of information, about the researcher's opinion or about the characteristics of immigrants, is not clear as yet. The tested model did not permit differentiation between respondents who were sensitive to self-presentational concerns or respondents who were eager to learn from the information in the scale items. We may arrive at a conclusion by comparing the "no opinion" responses of the two positively worded items in the 1991 surveys with their equivalents in the 1989 surveys. As was noted, the Hospitable Muslim item, a statement about the characteristics and typical behavior of the outgroups, has substantial increases of no opinion in the three regions. The other item about the enrichment of the presence of different cultures (Item 91\_10) was the first positive item the respondents had heard after nine negatively worded items. The number of respondents saying that they had no opinion is about 4 percent in the three samples. If the attribution of an opinion to the researcher is of equal importance as the induced image of reality, then there might be no reason for the lack of confusion in that item. Since the confusion appeared only with the Hospitable Muslim item, we may conclude that it is mainly produced by an induced image of reality.

Contrary to intuition, it is often reported that attitude strength (intensity, importance, and certainty) are found not to differentiate respondents who show response effects from those who do not (Krosnick and Schuman, 1988). It is apparent from the present study that the importance of a specific attitude object for the respondent significantly moderates a response effect. Our team has already found this to be the case on two other occasions, namely in the cases of acquiescence and of the "forbid-allow" effect (Billiet, 1992; Waterplas et al., 1988). The discussion is still open.

## Appendix: Attitude scales in the two surveys

*Attitude toward outgroups and ethnic superiority items in the 1989 survey, Flanders (Belgium), N = 644.*

In the last thirty years, a lot of immigrants have come to Belgium. The following statements that you might have already heard expressed are about that issue. They concern with Turks, Moroccans, and other non-European immigrants. Please tell me whether you completely agree, agree, neither agree nor disagree, disagree or completely disagree. Use Card nr. 16 to answer. We want your personal opinion.

- 89\_1: Belgium shouldn't have brought in guestworkers (44. % agree; 0.3 % no opinion).
- 89\_2: Foreign workers have a lot of children because they don't know any better (29.1 % agree; 0.3 % no opinion).
- 89\_3: Moroccan families have a lot of children because the family is very important to them ( 66.0% agree; 0.6% no opinion).
- 89\_4: In general, immigrants are not to be trusted (25.2% agree; 0.6% no opinion).
- 89\_5: When you get to know the Turks better, they generally turn out to be friendly people (51.5% agree; 2.1% no opinion).
- 89\_6: Foreign workers endanger the employment of Belgians (41.7% agree; 0.2% no opinion).
- 89\_7: *In general, muslim families are very hospitable (40.8% agree; 2.4% no opinion).*
- 89\_8: The religion of the Muslims is a threat to the culture of the West (31.8% agree; 0.9% no opinion).
- 89\_9: Foreign workers are brought to Belgium to do the dirty work (74.8% agree; 0.9% no opinion)
- 89\_10: Guest workers come here to exploit our Social Security (57.2% agree; 0.3% no opinion).
- 89\_11: In some neighbourhoods, government is doing more for immigrants then for the Belgians who live there ( 31.8% agree; 1.1% no opinion).

- 89\_12: Contacts with foreigners are often very fascinating and enriching (70.6% agree; 0.6% no opinion).
- 89\_13: Other people still have something to learn from our own people (71.8% agree; 1.1% no opinion).
- 89\_14: Generally speaking, the white race is superior to other races (22.5% agree; 0.3% no opinion).
- 89\_15: We have to take care that we keep our people pure and fight mixture with other people (37.5% agree; 0.5% no opinion).
- 89\_16: It's better that people from different races have as little contact as possible (20.0% agree; 0.3% no opinion).

*Attitude toward outgroups and ethnic superiority items in the 1991 survey, Flanders (Belgium), N = 1691.*

The following questions concern immigrants by which we understand primarily Turks and Moroccans. please tell me whether or not you agree with the following statements. Use Card nr. 29 to answer. If you have no opinion at all, just say so. ("No opinion" not printed on the Card.)

- 91\_1: Belgium shouldn't have brought in guestworkers (38.2% agree; 2.0 % no opinion).
- 91\_2: In general, immigrants are not to be trusted (24.3% agree; 3.3% no opinion).
- 91\_3: Foreign workers endanger the employment of Belgians (37.4% agree; 1.7% no opinion).
- 91\_4: Guest workers come here to exploit our Social Security (55.0% agree; 1.6% no opinion).
- 91\_5: In some neighbourhoods, government is doing more for immigrants then for the Belgians who live there (41.5% agree; 13.6% no opinion).
- 91\_6: Muslims are a threat to our culture and customs (37.6% agree; 6.6% no opinion).
- 91\_7: We have to take care that we keep our race pure and fight mixture with other races (31.1% agree; 2.9% no opinion).
- 91\_8: Generally speaking, the white race is superior to other races (14.5% agree; 2.8% no opinion).
- 91\_9: It's better that people from different races have as little contact as possible (14.7% agree; 2.6% no opinion).
- 91\_10: The presence of different cultures is an enrichment to our society (54.5% agree; 4.2% no opinion).
- 91\_11: Immigrants should adapt their life style more to that of the Belgians (84.7% agree; 0.9% no opinion).
- 91\_12: If the number of jobs decreases, the guest workers should be sent back to their own countries (44.0% agree; 2.1% no opinion).

- 91\_13: The participation of immigrants in any political activity in Belgium should be forbidden (46.9% agree; 3.1% no opinion).
- 91\_14: Guest workers have to marry among their own (30.8% agree; 2.9% no opinion).
- 91\_15: *In general, muslim families are very hospitable (30.2% agree; 39.1% no opinion).*

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