

The Effect of Question Tone and Form on Responses to Open-Ended Questions: Further Data

Mike Brennan and Judith Holdershaw

This paper presents the results of two studies that tested the effects of question tone and form on responses to open-ended questions in face-to-face surveys. The studies compared the effects on length of response (number of words) and number of ideas, of using single neutral questions, questions combining positive and negative cues, and double questions that used different cues. The results suggest that longer responses, and a greater number of ideas, can be elicited by using different cue tones in separate questions rather than combining them in a single long question. For combined questions, the ordering of the cue tones had a pronounced affect on the tone of the ideas elicited, but not on the total number of ideas generated.

Keywords: question tone, question form, questionnaire wording, survey design

Introduction

Open-ended questions are used in questionnaires to solicit opinions or generate ideas. However, while it is widely acknowledged that the wording and form of a question can significantly alter respondents' answers to it, relatively little attention has been paid to the effects such factors may have on open-ended questions. This paper reports the results of two experimental studies which compared the responses generated by different versions of an open-ended question that varied in terms of question tone (i.e., positive, negative or neutral) and form (long or short, separate single questions or combined double questions).

In one of the few studies to examine factors affecting responses to open-ended questions, Engwall (1983) found that the proportion of positive and negative responses to a question varied according to the demographic composition of the respondents, and to the nature of the question asked. The implication that the question itself is an important determinant of the length and content of responses led Gendall, Menelaou & Brennan (1996) to examine the effect that a positive, negative or neutral framing of the same question would have on the tone and quantity of the responses generated. They found that a negative cue produced the most negative responses, a positive cue produced the most positive responses, and a neutral cue produced the most neutral responses.

The findings of Gendall et al (1996) prompted Brennan (1997) to investigate whether a wider range of ideas might be elicited by combining cue tone in open-ended questions. Brennan compared responses to a single cue question (positive, negative or neutral) with a combined (positive and negative) form. He found that, while the combined form generated longer answers (more words) than the single forms, each form produced a similar number of separate ideas. However, the tone of the ideas varied considerably. Both the neutral and combined cues produced more positive ideas than the positive cue, and a similar number of negative ideas as the negative cue. These results are consistent with those of Gendall et al (1996), even though one was a self-completion survey and the other face-to-face.

Brennan's (1997) results suggest that it is better to use a combined (positive and negative) rather than a single cue question, if the objective is to generate the widest range of different

ideas, to generate more ideas per respondent, or to generate longer responses per respondent. However, he called for further research to determine what form a combined question should take to be most effective. For example, is it better to use a negative cue before a positive cue, or vice-versa? Is it better to use a single cue question followed by another single cue question (e.g. positive then negative), rather than a combined cue question? This paper reports the results of two studies that examined these questions.

Method

For both studies, questions were included in the annual Palmerston North Omnibus Survey conducted by third year marketing students at Massey University. Each student was required to undertake four face-to-face interviews, two with males and two with females, from clusters of households around randomly selected starting points within the city boundary. The starting addresses were selected from each of the 19 statistical areas in the city, in proportion to the number of households in each area. Each interviewer was allocated one of four versions of the questionnaire.

The starting addresses were assigned to interviewers in such a way that the four versions of the questionnaire were evenly distributed across the 19 statistical areas. Up to two callbacks were made before replacing a household. Households were selected by means of a random walk, selecting every third household to the right of, but not including, the starting address. Within each household, interviews were held with the male or female (depending on quota) whose birthday was due next.

Study 1 was conducted in 1997, and involved 48 students. From a total of 542 attempted interviews, there were 191 refusals, 31 quota filled, 54 non-contacts and 192 completed interviews. The overall response rate was 40 %.

Study 2 was conducted in 1998, and involved 44 students. From a total of 764 attempted interviews, there were 228 refusals, 70 quota filled, 96 non-contacts and 262 completed interviews. The overall response rate was 39 %.

In each study, each version of the questionnaire was identical up to the experimental question. The preceding questions covered a range of topics, such as grocery shopping, Palmerston North sport and civic affairs, travel and computer use. The experimental open-ended questions followed questions about recent participation in different types of survey.

The interviewers were asked to record the responses to the questions verbatim, with no probing. They were permitted to use neutral prompts, such as "Yes", "mmm", "Uh huh" and were instructed to ask "Anything else?" when the respondent had finished answering.

Questions

Study 1

1. Neutral
"What comments do you have about surveys or opinion polls?"
2. Combined (-/+)
"Now I'd like to ask about the positive and negative aspects of surveys and opinion polls. What objections or concerns do you have, and what benefits or advantages do you see in them?"
3. Double (+/-)
(a) "What benefits or advantages do you see in surveys or opinion polls?"
(b) "What objections or concerns do you have about surveys or opinion polls?"
4. Double (-/+)
(a) "What objections or concerns do you have about surveys or opinion polls?"
(b) "What benefits or advantages do you see in surveys or opinion polls?"

Study 2

1. Neutral (short)
"What comments do you have about surveys or opinion polls?"
2. Neutral (long)
"Now I'd like to ask you for your thoughts about surveys and opinion polls. What comments do you have about surveys or opinion polls?"
3. Combined (+/-)
"Now I'd like to ask about the positive and negative aspects of surveys and opinion polls. What benefits or advantages do you see in them, and what objections or concerns do you have?"
4. Combined (-/+)
"Now I'd like to ask about the positive and negative aspects of surveys and opinion polls. What objections or concerns do you have, and what benefits or advantages do you see in them?"

Results

Study 1

Number of Words Generated

These results suggest that respondents are likely to say (marginally) more, on average, if they are asked two separate differently cued questions than if they are asked a combined two-cue question (see Table 1). It does not appear to matter whether a positive or negative cue is used first.

Table 1. Mean number of words generated by each question form

Treatment	Form/Cue	Number of words	N
1	Neutral	20.2	48
2	Combined (-/+)	17.7	48
3	Double		30
	Positive	12.9	
	Negative	8.7	
	Total	21.6	
4	Double		36
	Negative	11.8	
	Positive	9.9	
	Total	21.7	

Number of Ideas Generated

All four forms of the question generated a range of positive, negative and neutral ideas (see Table 2). However, the double questions generated a greater number of different ideas than either the combined question or the single neutral question. For both versions of the double question, the positive cue generated more positive responses and the negative cue generated more negative responses, as one would expect. But overall, more positive ideas were generated when the positive cue was used first, and more negative ideas were generated when the negative cue was used first. Thus, while the order in which cues were presented had a minimal effect on the total number of ideas generated, it does appear to have affected the tone of the ideas generated.

Table 2. Mean number of different ideas per respondent generated by each question form

Treatment	Form/Cue	Idea			Total
		Positive	Negative	Neutral	
1	Neutral	.65	.66	.33	1.654
2	Combined (-/+)	.63	.88	.38	1.89
3	Double				
	Positive	1.00	.06	.17	1.23
	Negative	.06	.70	.37	1.13
	Total	1.06	.76	.54	2.36
4	Double				
	Negative	.03	.75	.58	1.36
	Positive	.89	.19	.08	1.17
	Total	.92	.94	.66	2.52

Study 2

Number of Words Generated

The results provide some support for the suggestion that longer questions generate longer responses. The long neutral question generated more words, on average, than the short neutral question (see Table 3). Both combined questions produced longer responses than the short neutral question. This difference would appear to be attributable to the relative lengths of the question, rather than due to differences in the cue tones, as the responses to the long neutral question were comparable to those from the combined questions (see Table 3).

The results also suggest that the cue order in a combined cue question may make a difference to the length of response generated. The combined question that used the negative cue first produced substantially longer responses than the combined question that had the positive cue first.

Table 3. Mean number of words generated by each question form

Treatment	Form/Cue	Number of words	N
1	Neutral (short)	13.2	66
2	Neutral (long)	17.3	63
3	Combined (+/-)	16.6	64
4	Combined (-/+)	24.1	65

Number of Ideas Generated

While the long neutral question produced longer responses, on average, than the short neutral question, it did not produce a greater total number of different ideas (see Table 4). The long neutral question did, however, produce more positive ideas.

Among the combined questions, the version that presented the negative cue first not only produced longer responses, but produced more ideas in total. It also produced more positive and more negative ideas than the version that presented the positive cue first. For both versions, more negative than positive responses were reported. This suggests that the order of cues in combined cue questions does not affect the tone of the responses produced. This is in marked contrast to the cue order effect observed for the double questions used in Study 1.

Table 4. Mean number of different ideas per respondent generated by each question form

Treatment	Form/Cue	Idea			Total
		Positive	Negative	Neutral	
1	Neutral (short)	.65	.56	.47	1.68
2	Neutral (long)	.75	.40	.40	1.54
3	Combined (+/-)	.83	.86	.45	2.14
4	Combined (-/+)	.86	1.17	.42	2.45

Discussion

The results of the two studies reported here are consistent with earlier findings that the length, form and cue tone of an open-ended question can have a significant effect on both the length and tone of the responses generated.

While the conclusions drawn from the present study need to be treated with some caution, they suggest that a researcher should:

- Use two separate questions (positive then negative or vice versa), rather than a combined (positive and negative) or single (neutral) question, to elicit longer responses per respondent, or a greater number of different ideas.
- When using double questions, use a positive cue tone first to obtain a higher proportion of positive ideas overall; use a negative cue tone first to obtain a higher proportion of negative ideas overall.

An important point is that, if two separate questions are used, the order in which the different cue tones are presented might not affect the number of different ideas generated, but is likely to affect the tone of the different ideas generated. This effect was not apparent with the combined questions, where similar results were obtained regardless of whether the positive or negative cue tone was presented first.

In a previous paper, Brennan (1997) queried whether the effects of a combined cue question compared with a single cue question were due to the cue tones or a function of the length of the questions. The combined cue question was about three times the length of the single cue question, and others (e.g., Sudman & Bradburn 1982, p50) have suggested that longer questions elicit longer responses than shorter questions. In this study, a comparison of the long and short form of the single neutral question in Study 2 lends some support to this view. The long version did produce longer responses, and a slightly higher number of positive ideas. However, the short version produced a slightly higher number of negative and neutral ideas, and more ideas overall.

As in earlier studies in this series, caution is required when generalising from these results. They were obtained from face-to-face interviews, so the analyses are based on interviewers' records of what respondents said. Clearly, interviewer quality could affect the results. Further

research is needed to determine whether similar results would be obtained in self-completion questionnaires. While a comparison of results from face-to-face (Brennan 1997) and self-completion (Gendall, Menelaou & Brennan 1996) found strikingly similar results for single cue tone questions (see Brennan 1997), this similarity needs to be confirmed for the question forms examined in this paper.

Other obvious limitations are the relatively small sample sizes, and in particular, the fact that the questions only involved a single topic. However, the consistency of the results across a small series of studies does at least draw attention to the need to carefully consider the form, sequencing, length and cue tone when formulating open-ended questions.

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Mike Brennan is a Senior Lecturer and Judith Holdershaw was a Research Assistant in the Department of Marketing, Massey University, Palmerston North, New Zealand.