

If the Answer Was "People Who Have AIDS Get Much Less Sympathy Than They Deserve", What Was the Question?

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Respondents' interpretations of two survey questions were examined by questioning them about the process by which they arrived at their answers and their understanding of key components of the questions. This process revealed a range of interpretations for each question and its constituent components, and some respondents chose to interpret each question in a way that allowed them to express a strongly held opinion on the subject (AIDS or the unemployed). These results re-emphasise that researchers should not automatically assume that the questions they ask are the ones respondents answer. Failure to recognise this fact may have serious implications for decision makers using survey results and for the emphasis being placed in research on data analysis rather than data quality.

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Introduction

Most researchers acknowledge that respondent misunderstanding or misinterpretation of questions is a potential source of bias in survey research. Typically, questionnaire designers address this problem by "piloting" their questionnaires before the final versions go into the field to ensure that the questions are clear and unambiguous. However, Belson (1981, 1986, 1986a) and West and Babe (1986) have clearly shown that normal piloting methods do not prevent survey questions from being misunderstood or misinterpreted.

Belson (1981) developed and tested 29 survey questions on a sample of 265 respondents using a "double interview" procedure. These 29 questions were more trouble-prone than would typically be the case, since known difficulties were built into each one. Nevertheless, these difficulties were representative of those often found in survey questions and, on average, the proportion of respondents interpreting a question within permissible limits of what was intended was only 29%. For eight of the test questions the percentage within permissible limits was only 16%, and the highest score for any question was 58%. The study left no doubt that respondents can and do misinterpret survey questions, often quite seriously.

On the basis of this evidence Belson formulated 15 hypotheses about the factors and processes that seemed to lie behind the question misinterpretations he had detected. For example, Belson hypothesised that when respondents find it difficult to answer a question they are likely to modify it in such a way that it becomes easier to answer; that if a broad term or concept is used in a question, respondents are likely to interpret it less broadly; and that respondents may overlook part of a question under certain circumstances. Belson recommended that these hypotheses be regarded as tentative principles for guiding question design, but also proposed a procedure for pre-testing survey questions.

West and Babe (1986) used the pre-testing method proposed by Belson (the double-back pre-test) to test respondents' understanding of 11 survey questions, all of which had previously

been used in commercial market research surveys. They found varying degrees of misinterpretation and misunderstanding for all but one of the 11 questions tested, and confirmed that normal piloting techniques did not detect many of the respondent misinterpretations that occurred.

A number of other researchers have demonstrated the importance of question wording in surveys (Labaw 1980; Schuman & Presser 1981; Kalton & Schuman 1982; Converse & Presser 1986; Gendall & Hoek 1990). However, despite the emergence of some generalisable insights, researchers are still a long way from establishing a theory of question wording. In fact, the general tendency over the last twenty years has been to ignore the issue of question wording and the meaning of questions and to concentrate instead on the development of increasingly powerful analytical techniques and their application to larger and larger data bases.

In practice, most questionnaire designers use a mixture of experience, intuition, judgement and common-sense "rules" to write what they believe will be clear, unambiguous questions. They deal with any problems revealed by normal piloting methods and then proceed on the assumption that the questions which respondents answer are the same as those which they (the designers) intended to ask. This paper reports the findings of a study which re-emphasises that this is not necessarily a reasonable assumption and that, at worst, incorrect conclusions can be drawn from the responses to questions with no apparent deficiencies in their wording.

Method

The vehicle for this research was the 1989 Palmerston North Household Omnibus, which is conducted annually by students from the Marketing Department of Massey University. The survey area covers households within the Palmerston North city boundary, and the sample is based on clusters of four interviews (two with males, two with females, 15 years of age or older) around randomly-selected starting points. Substitutions are made for households where an interview is refused or where no contact can be made after three attempts. The response rate for the 1989 Omnibus was 57%, representing 640 completed interviews.

One question in this survey involved a series of attitude statements concerning current social issues, including the following two statements:

"People who have AIDS get much less sympathy from society than they ought to get"

"Compulsory military training would be good for young unemployed people".

Respondents were asked whether they agreed or disagreed with these statements. The next question in the questionnaire attempted to determine each respondent's interpretation of one of these statements by asking the following:

"I would like to check one of the questions I have just asked you for the person who designed this questionnaire. Sometimes questions are not worded as well as they could be and it is helpful to find that out."

What I want you to do is to think back to the question that asked whether you agreed or disagreed with the statement.

(Either AIDS statement or compulsory military training statement)

In your own words, exactly what did you think that statement meant and how did you arrive at your answer?"

Approximately half of the sample (325) were questioned about the AIDS statement and half (315) about the compulsory military training statement. Each group was also asked additional questions about their understanding or interpretation of specific components of the statement concerned. This procedure is the modification of Belson's "double interview" technique, which he recommends as a practical method of pretesting survey questions (Belson 1986, 1986a).

Results

Within each subsample the majority of respondents agreed with the statement tested. This is shown in Table 1.

On the face of it, these results suggest a strong endorsement of both propositions. However, subsequent analysis of responses to the intensive questioning procedure revealed that the situation was not as straightforward as it may seem.

AIDS Question

One hundred and sixty five respondents from the sample of 325 questioned about the meaning of the AIDS statement were able to articulate their understanding of what was intended by the question. (The remaining respondents either gave unhelpful answers [48] or answers which justified their original response [112]. The reasons for this are discussed later in this section.) The meanings which these 165 respondents attributed to the AIDS statement were grouped into five categories, as shown in Table 2.

Table 1. Overall Response to Attitude Statements

Statement	Agree %	Disagree %	Don't Know %
People with AIDS get much less sympathy from society than they ought to get	62	20	18
Compulsory military training would be good for young unemployed people	66	31	2

Table 2. Interpretations of the AIDS statement

Interpretation	Respondents Offering Explanations	
	n	%
Are people less sympathetic towards AIDS victims (than victims of other fatal diseases) because:		
They forget that some of them have contracted the disease through no fault of their own?	49	30
They consider it's their own fault?	23	14
They fear or misunderstand AIDS?	15	9
Do people with AIDS get a fair go?	39	24
Should people with AIDS get more sympathy?	18	11
Other*	21	13
Total	165	100

*Other included: Should we feel sorry for people with AIDS?; Do people with AIDS expect to get more sympathy?; Is the AIDS issue understood by the general public?; People with AIDS don't get much sympathy; People with AIDS get picked on; Society should look after people with AIDS; Society blames people who get AIDS.

Just over half of the respondents (53%) understood the AIDS question to be asking them to agree or disagree with the proposition that people are less sympathetic towards AIDS victims than the victims of other fatal diseases because they either forget that some of them could have contracted the disease through no fault of their own, because they consider that AIDS victims have only themselves to blame, or because they fear or misunderstand the disease.

Here are some of the interpretations that fell into these categories:

"Because someone has AIDS rather than, say, cancer, they don't get as much sympathy because people think they must be a homosexual, a drug addict or promiscuous and feel they deserve what they got."

"Most people don't think of the haemophiliacs and jump to the conclusion that an AIDS victim must be a homosexual or drug addict, so those like haemophiliacs don't get as much sympathy from people as they should."

"The public misunderstand both the disease and the way in which it is caught and tend to stereotype those who catch it."

"There are some people who got AIDS through their own fault and there are those people who got it through no fault of their own, and they are all put in the same category."

"People are scared of AIDS and as a result have less to do with those who do have AIDS."

Although it can be argued that the relatively subtle differences in these interpretations are important, all three options do convey the general idea that the question being asked was along the lines of *"Do you agree that there is something about AIDS or AIDS victims which causes people to be less sympathetic about those with the illness than they should be?"* This could be regarded as a reasonable interpretation of the question.

However, about a quarter of respondents interpreted the question as *"Do people with AIDS get a fair go?"* or *"Are people with AIDS victimised?"*; about 10% thought the question meant *"Should people with AIDS get more sympathy?"*; and the remaining 13% had a variety of interpretations, including *"Should we feel sorry for people with AIDS?"*, *"Do people with AIDS expect to get more sympathy?"* and *"Is the AIDS issue understood by the general public?"* Clearly these respondents misunderstood the intent of the question.

Table 3. Interpretations of who was meant by "people who have AIDS"

Interpretation	Respondents Offering Explanations	
	n	%
All sufferers including haemophiliacs, children and other innocent victims	155	50
Homosexuals, prostitutes, drug users, promiscuous people	105	34
Sufferers who contracted the disease through blood transfusions	26	9
People with full-blown AIDS, not just HIV antibodies	14	5
Other*	7	2
Total	307	100

*Other included: Men 40-50 years; Males 20-30 years, lower-middle income bracket; HIV positive patients; kids through birth.

For the majority of the 160 respondents who did not (or could not) explain what the AIDS statement meant, the reason was that they were more concerned with justifying their answer than explaining it. Many of these respondents had disagreed with the statement earlier in the interview and in doing so had taken the opportunity to express their strong disapproval of homosexuals, drug users and sexually promiscuous people. In other words, these respondents had deliberately reinterpreted the question to allow them to express their own opinion, and for them the "correct" meaning of the question was irrelevant. This conclusion was confirmed when these respondents were asked who they thought was meant by people who had AIDS. Many of them admitted that they had confined their judgement to those they disapproved of. Respondents' interpretations of who was meant by "people who have AIDS" are shown in Table 3.

Half of the respondents interpreted "people who have AIDS" as all AIDS sufferers, including haemophiliacs, children and other innocent victims. However, a third of the sample only included homosexuals, prostitutes, drug users or sexually promiscuous people in this category. By implication these were all undesirable members of society. A small proportion of respondents (9%) only thought of people who had contracted AIDS through blood transfusions or thought of people with AIDS in terms of those with full-blown AIDS, not just HIV antibodies (5%). In other words, there were at least four distinct and different interpretations of the group being referred to by the question.

Compulsory Military Training Question

Two hundred and seventy three of the 315 respondents questioned about the meaning of the compulsory military training question were able to explain their understanding of what was meant by the question. Their responses are summarised in Table 4.

Table 4. Interpretations of compulsory military training statement

Interpretation	Respondents Offering Explanations	
	n	%
Do you agree that military training would be 'good' for young unemployed people?	191	70
Should young unemployed people have to do some military training whether they want to or not?	54	20
Should young unemployed people do something in return for the benefit?	15	9
Other*	13	5
Total	273	100

*Other included: We should have compulsory military training in New Zealand; Bringing back compulsory military training would solve the unemployment problem; The unemployed don't want to work; Compulsory military training is an alternative to unemployment; Young unemployed people are uncouth and need training.

Most respondents (70%) understood the question to be asking whether they agreed that compulsory military training would be "good" for young unemployed people. About 20% of those questioned placed more emphasis on the element of compulsion implied, and interpreted the question as *"Should young unemployed people have to do some military training whether they want to or not?"* A few respondents (5%) assumed the question was implying that the young unemployed should do something in return for their unemployment benefit, and a similar proportion gave a variety of other interpretations including *"Bringing back compulsory military training would solve the unemployment problem"* and *"The unemployed don't want to work"*.

Among many respondents there was evidence of considerable prejudice against "young unemployed people", who were frequently characterised as lazy, undisciplined, poorly motivated and lacking in respect for their elders. Under these circumstances it is not surprising that 66% of the sample agreed with the statement. On the other hand, some respondents saw this unfavourable view of the young unemployed as being implicit in the question posed and disagreed with the statement because they disagreed with this view.

Some examples of the range of interpretations of the compulsory military training statement are as follows:

"Do you agree that ...

"Military training would keep young unemployed people off the streets, stop them being lazy, keep them fit and give them an incentive to look for work?"

"Compulsory military training would teach the young unemployed discipline, which would help them get jobs?"

"Young unemployed people should be made to take part in military training regardless of whether they want to or not?"

"Unemployed young people must undertake a period of military training to receive the dole?"

Interpretations of the concept of "military training" varied widely among respondents. A third of the sample assumed that military training involved basic army training for three to six months; a further third assumed it involved discipline and physical exercise; the remainder assumed that military training involved either training in "life skills", training for combat or warfare, army training plus trade skills, or some other activity (see Table 5). It could be argued that basic army training and discipline and physical exercise convey essentially the same idea, but there was a clear emphasis among some respondents on discipline and physical activity as opposed to other aspects of army training.

When respondents were asked how old they assumed "young unemployed people" were, many gave an age range - "15 to 18" or "16 to 25". These responses are summarised in Figure 1. This figure represents the proportions of respondents who mentioned a particular age specifically or within an age range (for example, 50% of respondents either mentioned 16 years of age or gave an age range that included 16 years).

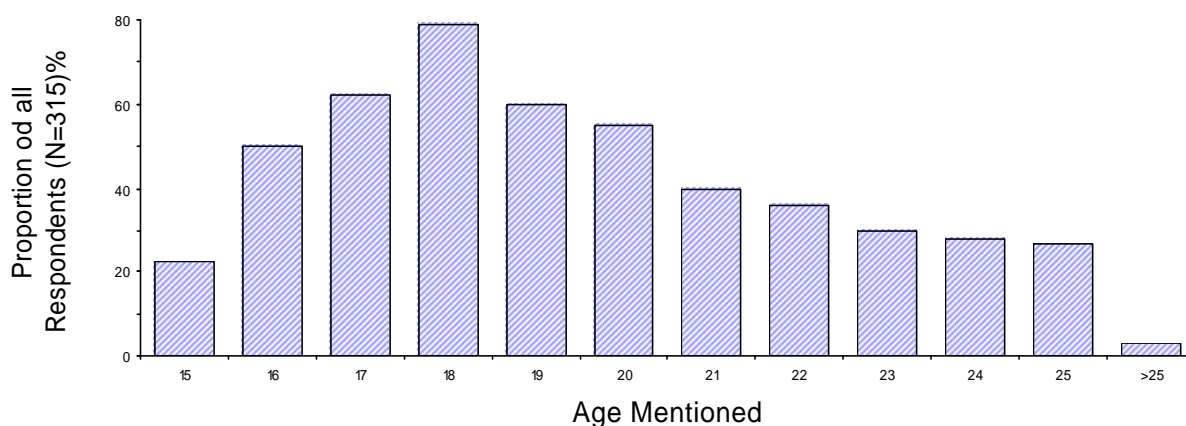
The ages mentioned by respondents ranged from 15 to 25 (only 4% were outside this range, all over 25), and the distribution of assumed ages peaked at 18. At least half of those questioned put the age of young unemployed people between 16 and 20, but more than 20% assumed that "young" referred to people in their early to mid twenties.

Table 5. Interpretations of what "military training" would involve

Interpretation	Respondents Offering Explanations	
	n	%
Basic army training for 3 to 6 months	104	34
Discipline and physical exercise	103	34
Training in "life skills"	33	11
Training for combat or warfare	31	10
Army training plus trade skills	15	5
Other*	17	6
Total	303	100

*Other included: service in the armed forces; soldiering; military suppression of people demanding their rights; non-combat training.

Figure 1. Interpretations of how old "young unemployed people" were



Discussion

Respondents' interpretation of a survey question invariably depends on their interpretation of its constituent parts. This may seem self-evident but, as this and other studies have shown, the way in which respondents interpret part of a question may alter completely the way in which they answer the whole question.

For the AIDS question the key element was the interpretation of "people who have AIDS". As a consequence, respondents who answered this question essentially answered one of two quite different questions:

"Do you think innocent AIDS victims get less sympathy than they deserve?"

or

"Do you think homosexuals, prostitutes, drug users and other undesirable people with AIDS get less sympathy than they deserve?"

Responses to the compulsory military training question depended on respondents' attitudes towards the unemployed. At one extreme respondents who believed the unemployed were lazy and disrespectful were strongly in favour of their idea of military training; that is, plenty of discipline and physical effort. At the other extreme, respondents who believed the statement implied that the unemployed were lazy and disrespectful, disagreed with it because they rejected this fundamental premise (regardless of whether they might have agreed that some form of military training might be good for young unemployed people).

This study also provides support for several of Belson's hypotheses about the way in which respondents interpret survey questions. Respondents in this study modified both statements to make them easier to answer, some narrowly interpreted broad concepts like "people with AIDS" or "military training", while others widened concepts like "young unemployed people". Some respondents overlooked part of a question, some distorted a question to fit their own situation or experience, and some respondents answered what they regarded as the "spirit" of a question rather than its actual words. All of these phenomena were suggested by Belson.

Most significantly, however, many respondents used the survey questions as a way of expressing their opinions on two important social issues regardless of their understanding of the question asked. In the AIDS question these respondents took the opportunity to express their disapproval of homosexuals, prostitutes, drug users and the sexually promiscuous; in the compulsory military training question they took the opportunity to express their disapproval of the unemployed. The implication is that, even when respondents understand the questions survey designers write, there is no guarantee that they will answer them in preference to questions of their own which they regard as more important or more interesting.

What are the implications of these findings? First, it is clear that, in taking the results of opinion polls which use the sort of questions analysed in this study at face value, public opinion can be misinterpreted. This would not be too serious if all these polls were used for was to generate interesting copy for daily newspapers. Unfortunately, in New Zealand at least, this is not the case. The government and its agencies are increasingly using the results of these kinds of surveys to determine public policy. The consequences of basing this policy on misunderstood public opinion are potentially serious.

Second, in some cases misinterpretation of public opinion may compromise the achievement of desirable social goals. For example, a campaign to increase public sympathy for AIDS victims might be less than successful if those responsible were not aware that sympathy will vary depending on the degree to which people believe the victims of AIDS are responsible for their own fate. As far as the New Zealand public is concerned there are two distinct groups of AIDS victims, the "innocent" and the "guilty", and different approaches would be required to generate sympathy for each group.

Third, and perhaps most important, this study highlights the critical question of data quality. Sophisticated analytical techniques such as factor analysis, cluster analysis and various types of multidimensional scaling are now routinely applied to survey data. But no amount of multivariate analysis can improve the quality of the original survey responses. Yet accuracy in survey research is usually taken for granted by those who undertake sophisticated analyses of survey data. As this study has shown, this can be a dubious assumption.

References

- Belson WA (1981). *The design and understanding of survey questions*. Aldershot, England: Gower.
- Belson WA (1986). *Validity in survey research*. London: Gower.
- Belson WA (1986a). Respondent understanding of survey questions. *Polls*, 3 (4), 1-13.
- Converse JM & Presser S (1986). *Handcrafting the standardised questionnaire*. New Delhi, India: Sage Publications.
- Gendall P & Hoek J (1990). A question of wording. *Marketing Bulletin*, 1, 25-36.
- Kalton, G & Schuman H (1982). The effect of the question on survey responses: a review. *Journal of the Royal Statistical Society*, 145 (1), 42-57.
- Labaw PJ (1980). *Advanced questionnaire design*. Cambridge, MA: Abt Books.
- Schuman H & Presser S (1981). *Questions and answers in attitude surveys*. New York: Academic Press.
- West SJ & Babe W (1986). *The understanding of survey questions*. Report No.44, Market Research Centre, Massey University, New Zealand.

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