# The Effect of Question Wording on Public Support for Government Spending

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May, 1988

GSS Methodological Report No. 54

This study was supported by a grant from the NORC directors' fund. I would like to thank Bruce Spencer and Robert Michael for making this support available. I would also like to thank Tom W. Smith for his technical help and substantive suggestions. A version of this paper was presented at the Annual Meeting of the Midwest Political Science Association in Chicago, Illinois, April 14-16, 1988.

## Abstract

Past attempts at explaining the effect of question wording on responses to survey questions have stressed the ability of question wording to persuade and influence the respondent, resulting in attitude change. This paper promotes an alternative view, which is that even small changes in wording often shift the meaning of the question and thus affect the way the respondent thinks about the issue. Analyses of question wording experiments on the 1984, 1985, and 1986 General Social Surveys were conducted to examine the effect of wording changes on public support for various types of government spending. Consistent wording effects were found across the three years. An examination of the effects of wording changes and of their interaction with respondent individual differences led to two conclusions: (1) even minor wording changes can alter the meaning of a survey question, and (2), this effect is not limited to individuals with lower levels of education or with less stable attitudes.

Question wording is perhaps the most troublesome and least well understood of all the survey context elements. Schuman and Presser (1981) state that the wording problem is "idiosyncratic and probably ineluctable" (p. 257), suggesting inherent problems in language itself. A belief widely held by survey research practitioners is that "...where people lack reliable standards of judgment and consistent frames of references, they are highly susceptible to the implications of phrases, statements, innuendoes or symbols of any kind that may serve as clues to help them make up their minds" (Rugg and Cantril, 1944, pp. 49). Consistent with this position, the prevailing psychological model of wording effects stresses the power of question wording to persuade and influence the respondent, resulting in attitude change. This model has led researchers in the past to examine the differential influence of question wording on respondents who were presumed to lack such standards and consistency, i.e., those with low levels of education or who have unstable attitudes (Schuman and Presser, 1981).
I contrast this view of question wording effects with a view developed from the cognitive literature, which is that even small changes in wording may shift the meaning of the question thus affecting the way the respondent thinks about the issue in a survey.

Recent developments in cognitive psychology have focused upon phenomena which may shed new light on the relationship between question wording and survey responding. These phenomena concern theories and findings about the mental organization of knowledge, beliefs, and attitudes and the formation and reporting of judgments in response to an external stimuli such as a survey questions. Both cognitive and

social psychologists have been concerned with how people mentally represent objects and ideas and about which of the contents of memory are retrieved in response to external stimuli (Rosch, 1975; Rummelhart and Ortony, 1977; Cantor and Mischel, 1977; E. Smith, 1984; Judd and Krosnick, in press; Fiske and Kinder, 1981; Sears, Huddy and Schaffer, 1986; Tourangeau and Rasinski, in press). This phenomenon has relevance for the problem of question wording. If wording can influence the way a respondent thinks about an issue, it may also affect the mental material (i.e., knowledge, beliefs, attitudes and feelings) the respondent brings to bear upon the issue (Tourangeau & Rasinski, in press), or the dimensions which the respondent uses to evaluate the issue (Medina & Shoben, 1988), thus affecting responses to the issue. If variations in wording evoke different mental material, or result in the use of different evaluative dimensions, then even subtle wording variations may have a substantial impact upon responses.

The cognitive models generally assume that even people with low levels of education or those whose attitudes are unstable have some mental organizational structure of topical information (Judd and Milburn, 1980; Judd, Krosnick, and Milburn, 1981). The models also emphasize the process of attitude acquisition and expression, focussing on psychological operations involved in responding to a stimulus and the influence of characteristics of the stimulus on the operations. One attempt to apply such a cognitive process model to the task of responding to an opinion survey suggests that question wording may influence interpretation, retrieval, judgment, or reporting processes of a response to a survey question (Tourangeau and Rasinski, in press).

Smith provides an example of how question wording may influence the retrieval stage of the attitude measurement process in a recent analysis of a question wording experiment included in the 1984 General Social Survey (T. Smith, 1987). He found that respondents were more likely to endorse government spending for "the poor" than for "welfare". One explanation Smith gives for this difference is that when the term "welfare" is encountered respondents may call to mind associations about mismanaged and wasteful welfare programs and about undeserving recipients, resulting in a negative evaluation. On the other hand, when the term "the poor" is encountered respondents may call to mind those who are truly needy in our society, resulting in a positive evaluation.

## Interaction effects of wording

In their past attempts to study the effect of question wording on survey responses, proponents of the attitude change model have often examined the interaction of wording variations with respondent characteristics presumed to be indicators of susceptibility to influence. One of these characteristics is the respondents's education level. The standard prediction is that respondents with low levels of education will be more greatly influenced by persuasive aspects of wording variations than those with higher levels of education (Schuman and Presser, 1981).

Others have stressed the importance of the strength and stability of the respondent's attitude toward an issue as a factor moderating question wording (and other survey context) effects (Cantril, 1944; Converse, 1964; Schuman and Presser, 1981; Judd and Krosnick, 1982).

The position on attitude stability is similar to that on education. The assumption is that if a respondent's attitude toward an issue is stable the respondent is less likely to be influenced by the particular wording of a question on that issue, while respondents with unstable attitudes are assumed to be more easily influenced by wording changes (Schuman and Presser, 1981).

The cognitive view of question wording effects leads to predictions that are different from those based on the attitude change view. The cognitive view leads to the prediction that wording will interact with the way a respondent's belief system about an issue is organized. For example, if education influences the way a person thinks about certain social issues (Schuman and Presser, 1981; Judd and Milburn, 1980; G. Bishop, Hamilton, and McConahay, 1980) then wording variations may not only affect those with less education, as suggested by the attitude change position, but may affect responses of those with higher levels as well. This may occur either because those with higher levels of education have more highly differentiated ways of thinking about issues, or because their ideas have become structured in certain way due to the influence of education.

A respondent's political ideological position may also indicate a number of things about the way a respondent approaches a survey question on a political issue. Ideology may be an indicator of attitude strength or stability (Conover and Feldman, 1981; Sears, Lau, Tyler, and Allen, 1980), the way a respondent organizes his or her political thinking (Kerlinger, 1985; Judd and Milburn, 1980) or some combination of thinking and feeling (Sears, Huddy, and Schaffer, 1986).

To the extent that a change in question wording activates the beliefs and feelings associated with one's political ideological position it may also influence the responses of the different ideology groups. Thus, wording may influence the responses of political ideologues, whose political attitudes are more likely to be stable, rather than (or as well as) affecting the responses of political moderates, whose political attitudes who are less likely to be stable.

Gender is a third characteristic on which individuals may differ with respect to opinions on political issues (Shapiro and Mahajan, 1986). Men and women may have different cognitive structures on political issues because of different vested interests, developmental differences (Gilligan, 1977, 1982; Furby, 1986), or different experiences (Sears, Huddy, and Schaffer, 1986). These differences may also result in differential attitude stability for some issues. The three variables--education, political orientation, and gender--are not exhaustive of the characteristics that could indicate differences in the way respondents think and feel about political issues. However, they represent a starting point and will be enough to test the hypothesis that question wording interacts with cognitive factors to influence responses.

## Method

Since 1973 the General Social Survey has included questions that ask the public to evaluate government spending policies. These "spending items" have played an important role in tracking public support for government fiscal involvement in defense, aid to minorities, education, foreign aid, and various other programs.

Recently, there has been some concern that the wording of the questions may have affected public support for the different programs (T. Smith, 1984).

Because the wording of the original set of questions was uneven, with some worded in a terse manner (e.g., space exploration, welfare) and others worded in a manner suggesting that a positive outcome would result from increased spending (e.g., improving and protecting the environment, halting the rising crime rate), question wording experiments were conducted in the 1984, 1985, and 1986 General Social Surveys to examine the influence of wording on responses. The experiments were conducted using the split-ballot technique in which respondents were assigned at random to variations in question wording. The issues, the original wording version, the different wording variations, and the years in which the different versions appeared, are shown in Figure 1.

<Insert Figure 1 about here>

For most of the items (space exploration, the environment, health, cities, education, Blacks, highways and bridges, social security, mass transportation, and parks and recreation) the wording variation consisted of placing a verb indicating a positive outcome before the spending issue. However, for other items (crime, drug addiction, defense, foreign aid, and welfare) the wording of the issue was substantially different. Versions 1 and 2 appeared in each of the three years. Version three appeared only in the 1984 survey. The full set of fifteen issues appeared only in 1984. In 1985 and 1986 only the first eleven issues appeared.

Hypotheses. In the following sections I present an analysis of the 1984, 1985, and 1986 spending item question wording experiments. To better understand the manner in which question wording influences responses I have included three individual difference variables in the analysis, education level, political ideology, and gender. If the standard assumptions about the impact of question wording hold, the effect of wording should be greater for respondents with lower levels of education and for political moderates. Since there is no reason to expect gender differences in susceptibility to wording influence there is no reason under the standard assumptions to expect gender differences due to wording variations.

In contrast to the standard assumption, the cognitive model predicts that responses of respondents with higher levels of education or with established political views may also be affected by wording changes. Similarly, it may be that women and men will respond differently to the wording manipulations depending upon differences in the way they think about the issues addressed in the questions. The two positions on question wording are not mutually exclusive and there is no reason why this research could not find evidence for both positions.

## Results

A three-category response variable was used with each of the spending items. Respondents were asked to say if they thought the country is spending too much money, too little money, or about the right amount of money on each of the issues. Multinomial logit analysis was used to examine the effect of question wording and

individual differences on the responses to each of the spending items.

For the response variable, one contrast compared the number of favor responses (spending "too little") with the number of middle responses (spending "about right") while a second contrast compared the number of oppose responses (spending "too little") with the number of middle responses (spending "about right"). The small number of respondents who gave a "don't know" or similar response to a particular spending item were excluded from the analysis for that item. For those issues in 1984 in which both the positive enhancement and the wording change manipulations were present one contrast examined the effect of changing the wording while another contrast examined the effect of the positive enhancement.

Measures of education level and political ideology were trichotomized for the analysis. For the education variable the following procedure was used. Respondents who reported education up to, but not including, four years of high school were given a score of "1" on the education variable. Respondents who reported twelve years of education (i.e., a high school graduate) were given a score of "2", and respondents who reported attending at least some college were given a score of "3". This procedure split each year's sample into roughly three equal parts. In the analyses the group with the lowest level of education was compared with the other groups. One education contrast compared college educated respondents with respondents who had not graduated high school. Another education contrast compared high school graduates with respondents who had not graduated from high school.

Self-reported political ideology was trichotomized using the

following procedure. Respondents who reported that they were very, somewhat, or slightly conservative were given a score of "1". Respondents who reported that they were political moderates were given a score of "2", and respondents who reported that they were very, somewhat, or slightly conservative were given a score of "3". In the analyses one contrast compared political liberals with moderates while another contrast compared political conservatives with moderates.

For each analysis I report the relevant logit coefficients, the standard errors, and the significance levels based on a Z statistic formed by dividing the coefficient by the standard error. If results are similar and significant across the three years I report average statistics. With three individual difference variables there are many possible interactions of question wording and various combinations of the individual difference variables. To simplify exposition I present only the main effects of wording and the simple interactions of wording and each individual difference variable. Main effects and interactions of individual differences, as well as higher order interactions of wording and combinations of individual differences were included in the analysis but are not presented in the results. As suggested by the GSS codebook (GSS, 1986, p.556) I used the weight variable to correct problems with form randomization procedures. All frequencies and parameter estimates reported in the following sections take these weights into account. Table 1 presents a summary of all the relevant effects.

<Insert Table 1 about here>

Effect of wording changes. For five of the issues the wording

manipulation consisted of using different labels for the issue. Three of the five issues showed significant effects for label change across all three years. These issues, and the main effects of wording version, are shown in Table 2. The following analysis examines these main effects and the interaction of wording version with respondent individual differences.

<Insert Table 2 about here>

Considering first the crime issue, more support was found for halting crime than for law enforcement (average logit coefficient, .177; average standard error, .058; $p<.01$). In the 1984 survey there was a bigger difference in the percentage of college educated respondents saying we are spending too little on halting or reducing crime than on law enforcement (75.1% vs. 53.5%) compared to those with a high school education (68.6% vs. 65.3%; logit coefficient, .246; standard error, .097; $p<.05$). The group with less than a high school education was affected by the wording changes in a manner similar to the college-educated group (70.7% vs. 50.2%), however, the difference between this group and the high school graduates was not tested for significance.

Label changes also affected responses to the question about drug addiction across all three years. When the question was worded as spending for "dealing with drug addiction" more respondents said we were spending too little than when the question was worded as spending for "drug rehabilitation" (average logit coefficient, .193; average standard error, .054; $p<.001$). In the 1985 survey, conservative respondents were less likely to say we are spending to little on "drug

rehabilitation" (43.9%) than on "dealing with drug addiction" (67.9%) compared to moderate respondents ("drug rehabilitation", 64.0% , "dealing with drug addiction", 65.5%; logit coefficient, .266; standard error, .074; $p<.001$).

Finally, label changes affected responses to the question about welfare across all three years, a replication of Smith's (1987) finding. More respondents said we were spending "too little" for "assistance to the poor" than for "welfare" (average logit coefficient, .640; average standard error, .051; $p<.001$). Men and women differed in their support for this issue depending upon the wording in both the 1985 and 1986 surveys. Men were less supportive than women of spending for welfare, with 17.5% of men versus 21.7% of women in 1985 saying too little is spent and 18.6% of men and 26.4% of women giving this response in 1986. In contrast, men and women were about equally supportive of spending on assistance for the poor, with 66.6% of men and 64.0% of women in 1985 saying too little is spent in 1985 and 62.2% of men and 53.2% of women giving this response in 1986 (average logit coefficient testing this interaction for 1985 and 1986, .098; average standard error, .049; $p<.05$). The 1986 survey also showed differences in responses to the welfare wordings for different education groups. High school graduates were less likely to endorse spending for "welfare" than the college group (18.3% vs. 23.5%), but were more likely to endorse spending for "assistance to the poor", than the college group (64.8% vs. 57.3%, logit coefficient -.182; standard error, .075; $p<.05$).

Smith (1987) has argued that the different wordings for the

welfare question may bring different associations to respondents' minds, actually changing the stimuli to which they are responding. The results of the crime and drug addiction wording changes suggests that this process is not limited to the welfare issue. When a respondent thinks about law enforcement he or she may be thinking primarily about policemen, which may call up a host of both positive and negative associations (e.g., crime prevention, safety, traffic and parking tickets, corruption) resulting in an the overall lowered level of support. Conversely, the reference to halting crime are likely to bring to mind a set of positive beliefs about a safer society, thus resulting in a higher level of support. For the drug addiction issue the wording "dealing with drug addiction" seems to suggest taking positive steps while the wording "drug rehabilitation" may suggest a particular group, drug addicts, for whom a generally negative stereotype exists.

Effect of positive enhancement. Two of the six issues in which the wording change consisted of the placement of a positive verb before the noun describing the program showed significant changes across the three years. These were spending for cities and spending on Blacks. Results are presented in Table 3.

<Insert Table 3 about here>

Considering first the result for spending for cities, when the question was worded as spending for "assistance to big cities" fewer respondents said we were spending too little in each of the three years than when the question was worded as spending for "solving the problems of big cities". Each of the logit coefficients capturing these

differences were significant (average logit coefficient comparing the "too little" response with the "about right" response across the three years is .424, average standard error is .046; $p<.001$).

Significant interactions between wording variation and individual difference factors were found in two cases. In the 1985 survey when the question was worded as "assistance to big cities" 48.4 percent of conservative respondents said that we spend too much money and 36.2 percent said we spend about the right amount of money, a difference of 12.2%. This difference was less for moderate respondents ("too much", 42.4%; "about right", 37.6%, a difference of 4.8%). When the question was worded as "solving the problems of big cities" both conservative and moderate respondents were more favorably inclined toward increased spending, and the differences between the two groups was smaller. For this wording of the question 19.7 percent of conservative respondents said too little was spent and 40 percent said that the right amount was spent, a difference of 20.3 percent, while 13.8 percent of moderate respondents said too little was spent and 38.3 percent said about the right amount was spent, a difference of 24.5 percent. The logit coefficient capturing this interaction was significant (coefficient, 152; standard error, .073; $p<.05$).

In the 1984 survey the difference in the number of college-educated respondents who said we were spending too little money on "assistance to big cities" as opposed to "solving the problems of big cities" (17.9% vs. 51.0%) was greater than the difference for respondents with less than a high school education (30.0% vs. 49.3%; logit coefficient, -.152; standard error, .051; $p<.01$). Both of these

interactions show that wording changes are not restricted to those with low levels of education or with unstable attitudes.

A similar but not as dramatic main effect of wording was found for the question about spending for Blacks. When the question was worded as spending for "assistance to Blacks" fewer respondents said we were spending too little money in each of the three years than when the question was worded as spending for "improving the conditions of blacks". The logit coefficients capturing these differences were significant (average logit coefficient comparing the "too little" response with the "about right" response is .142, average standard error is .041; $p<.001$). Conservative respondents were also more likely to say we were spending too much on "assistance to blacks" as opposed to "improving the conditions of blacks" (35.5% vs. 21.5%) relative to moderate respondents ("too much", 27.7%; "too little", 20.0%; logit coefficient, .134; standard error, .064; $p<.05$).

An examination of the wording variations for these two issues suggests that even minor changes in wording may be enough to induce respondents to think about issues differently. The interaction of wording and education on support for cities may indicate that slight wording variations change the associations that come to the minds of those respondents who are most capable of making subtle distinctions; i.e., those with more education. The interaction of wording and ideology on support for cities and for Blacks suggests that the terse wordings in version two may have evoked "symbolic" reactions to cities and Blacks, in which responses were based on affect, stereotypes, prejudices, and values (Sears, Lau, Tyler, and Allen, 1980; Kinder and

Sears, 1985), resulting in less overall support. Conversely, the inclusion of a positive verb may draw the respondent's mind away from generalities and toward specific instances associated with problems of cities and Blacks, and toward remedies for these problems. That conservative respondents were less likely to endorse spending for these two issues in the terse version supports this interpretation, since conservatives are less likely to respond positively to symbolic associations attached to such labels as big cities or Blacks (Kinder and Sears, 1981; Conover and Feldman, 1981).

Table 4 shows that even minute wording changes can significantly affect support for spending. For the issues discussed it is not too hard to imagine that the inclusion of a positive verb may have altered the meaning of the spending items. It is less easy to imagine that this is the case for the enhancements presented in Table 4. Yet, these enhancements also had a significant effect on support for spending on space exploration, the poor, and social security. Since the enhancement version for these issues was only used in the 1984 experiment the generality of this effects cannot be assessed.

<Insert Table 4 about here>

When the space exploration question was worded as spending for "space exploration programs" or "space exploration" more respondents said we were spending too much money than when the question was worded as spending for "advancing space exploration " (logit coefficient, .094, standard error, .043; $p<.05$). When the question about the poor was worded as "assistance to the poor" significantly fewer respondents said we were spending too little money than when the question was

worded as "caring for the poor" (logit coefficient, .292; standard error, .094; $p<.01$). Similarly, significantly less support was reported for "social security" than for "protecting social security" (logit coefficient, .134, standard error, .040; $p<.001$). None of the interactions of wording variation with individual differences were significant. Thus, it seems that the wording effects for these three items can be attributed to the increased persuasiveness of the wording with the positive verb, though it is interesting that the different groups or respondents were equally influenceable.

Significant interactions of wording and individual differences for two other issues also offer some support for the differential influenceability hypothesis. While no main effect of wording version was found for the question about highways and bridges asked in the 1984 survey, politically moderate respondents were more likely to say we are spending too little for "improving the condition of highways and bridges" than were conservative respondents (55.2% vs. 47.6%; logit coefficient, .097; standard error, .049; $p<.05$). The two groups professed roughly equal support for the terse wording of this item (49.4% conservatives saying "too little"; 48.9% of moderates saying "too little"). Also in 1984, the group with less than a high school education was more likely to say we are spending too little on "improving mass transportation" than on "mass transportation" (35.8% vs. 25.5%) relative to the college-educated group (32.4% vs. 45.6%, logit coefficient, .113; standard error, .057; $p<.05$). However, in the 1985 survey, moderates were less likely to endorse spending for "improving and protecting the environment" than for "the environment"

(56.5% vs. 66.8%) relative to conservative respondents, whose endorsement of spending was not affected by the wording (54.0% vs. 55.1%; logit coefficient, .190; standard error; .068; $p<.01$).

## Discussion

The evidence may be interpreted as supporting both the standard attitude change position on question wording and the cognitive position. However, the preponderance of support seems to be for the cognitive position. Equivocal support was found for the position that wording changes influence responses primarily through persuasion and attitude change. The finding that the inclusion of a positive verb, apparently inconsequential to the meaning of the issue, increased support for space exploration, aid to the poor, and social security may be interpreted as bolstering this position. However, recent research in cognitive psychology has shown that meaning is highly dependent upon context (Anderson and Shifrin, 1980) and that even small changes in wording may affect the dimensions respondents use to evaluate an issue (Medin and Shoben, 1988). These findings suggest that even such apparently inconsequential wording changes may alter the meaning of the question for the respondent and may affect the approach the respondent takes in formulating his or her response or the mental material associated with that approach. The finding that wording differentially affected the responses of political moderates and those with low levels of education provides some support for the attitude change view, however, these effects were generally not limited to these groups and were inconsistent across issues.

Most of the evidence supports the view that question wording

influences the way respondents think about an issue and the beliefs and affective associations they bring to bear in responding to an issue. The first general piece of support for this position comes from the observation that in several instances the enhancements seem to suggest different ways of thinking about the government programs. Thus, wordings such as "assistance to big cities" and "assistance to Blacks" are likely to conjure up different images and feelings than wordings like "solving the problems of big cities" and "improving the conditions of blacks".

The second piece of evidence comes from the interaction of wording with characteristics of respondents, if one is willing to assume that these characteristics reflect different ways respondents think or feel about political issues. While I have asserted that the question wording effects are due to wording-induced changes in the way respondents interpret an issue, and in the thoughts and feelings respondents bring to bear upon the issue, I have provided only indirect evidence for this assertion. Subsequent work remains to be done to directly demonstrate this assertion. One way to obtain such evidence is to follow the procedure used by Smith (1987) and to examine correlates of other attitudes with responses for the different wording versions. Another method may be to ask respondents to report on their thinking processes after they answer the question. This latter method has been used with some success by Bishop (1986) and by Tourangeau and Rasinski (1988) as a method for eliciting cognitive material brought to bear on a question.

The results from the present study suggest that even small wording

changes can influence the way people approach issues in surveys. The cognitive approach to understanding question wording seems promising because it holds the potential for eventually talking about question wording effects at a greater level of specificity. Before the effect of wording is completely understood more work needs to be done to determine how different people interpret issues, what thoughts and feelings are brought to mind, which dimensions are used to evaluate different issues, and how wording influences these thoughts, feelings, and dimensions.

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Figure 1. Wording Variations, 1984, 1985, and 1986.

Are we spending too much, too little, or about the right amount on...

| VERSION 1 (original) 1984, 1985 and 1986 | VERSION 2 1984, 1985 and 1986 | VERSION 3 1984 only |
|---|---|---|
| Space exploration program | Space exploration | Advancing space exploration |
| Improving and protecting the environment | The environment | Improving and protecting the environment |
| Improving and protecting the nation's health | Health | Improving and protecting the nation's health |
| Solving the problems of the big cities | Assistance to big cities | Solving the problems of the big cities |
| Halting the rising crime rate | Law enforcement | Reducing crime |
| Dealing with drug addiction | Drug rehabilitation | Reducing drug addiction |
| Improving the nation's education system | Education | Improving the nation's education system |
| Improving the condition of Blacks | Assistance to Blacks | Improving the condition of Blacks |
| The military, armaments and defense | National defense | Strengthening national defense defense |
| Foreign aid | Assistance to other countries | Helping other countries |
| Welfare | Assistance to the poor | Caring for the poor |

Figure 1 (Cont.): Wording Variations, 1984 Only.

Are we spending too much, too little, or about the right amount on...

| VERSION 1 (original) 1984, 1985 and 1986 | VERSION 2 1984, 1985 and 1986 | VERSION 3 1984 only |
|---|---|---|
| *Highways and bridges | Highways and bridges | Improving the condition of highways and bridges |
| *Social Security | Social Security | Protecting Social Security |
| *Mass Transportation | Mass transportation | Improving mass transportation |
| *Parks and recreation | Parks and recreation | Improving parks and recreation |

Note: Issues marked with a "*" were included only in 1984

Table 1: Summary of Effects

| | Year | | |
|---|---|---|---|
| | 1984 | 1985 | 1986 |
| **Effect of enhancement** | | | |
| Space exploration | V | NA | NA |
| Environment | -- | I | -- |
| Health | -- | E | -- |
| Cities | V,E | V,I | V |
| Crime | E | NA | NA |
| Drug addiction | -- | NA | NA |
| Education | I | -- | -- |
| Blacks | V | V,I | V |
| Defense | S | NA | NA |
| Foreign aid | -- | NA | NA |
| Welfare | V | NA | NA |
| Highways and bridges | V,I | NA | NA |
| Social security | V | NA | NA |
| Mass transportation | E | NA | NA |
| Parks and recreation | -- | NA | NA |
| **Effect of label change** | | | |
| Crime | V,E | V | V |
| Drug addiction | V | V,I | V |
| Defense | I | I,E | V |
| Foreign aid | -- | V,E | V,I |
| Welfare | V | V,S | V,S,E |

V Main effect of version
S Interaction of version and sex
I Interaction of version and ideology
E Interaction of version and education

Table 2: Effect of Wording Changes on Crime, Drug Addiction, and Welfare Spending Items.

CRIME

| | | Halting rising crime rate | Law enforcement |
|---|---|---|---|
| | YEAR | | |
| | 1984 | 69.3 | 56.5 |
| % saying "too little" is spent | 1985 | 67.3 | 57.8 |
| | 1986 | 66.8 | 52.9 |

DRUG ADDICTION

| | | Dealing with Drug Addiction | Drug Rehab-ilitation |
|---|---|---|---|
| | YEAR | | |
| | 1984 | 64.4 | 49.4 |
| % saying "too little" is spent | 1985 | 66.6 | 58.0 |
| | 1986 | 60.7 | 56.3 |

WELFARE

| | | Assistance to the poor | Welfare |
|---|---|---|---|
| | YEAR | | |
| | 1984 | 64.1 | 25.2 |
| % saying "too little" is spent | 1985 | 65.2 | 19.8 |
| | 1986 | 62.8 | 23.1 |

Table 3: Effect of Wording Changes on Assistance to Cities and Blacks.

CITIES

| | | Assistance to big cities | Solving problems of big cities |
|---|---|---|---|
| | YEAR | | |
| | 1984 | 21.3 | 52.0 |
| % saying "too little" is spent | 1985 | 20.8 | 45.7 |
| | 1986 | 17.7 | 48.2 |

BLACKS

| | | Assistance to Blacks | Improving conditions of Blacks |
|---|---|---|---|
| | YEAR | | |
| | 1984 | 26.5 | 36.0 |
| % saying "too little" is spent | 1985 | 28.2 | 33.7 |
| | 1986 | 27.8 | 36.5 |

Table 4: Effect of Wording Changes on Space Exploration, Aid to the Poor, and Social Security Spending Items.

SPACE EXPLORATION

| | | Space exploration | Advancing space exploration |
|---|---|---|---|
| | YEAR | | |
| % saying "too much" is spent | 1984 | 44.2 | 39.3 |

WELFARE

| | | Assistance to the poor | Caring for the poor |
|---|---|---|---|
| | YEAR | | |
| % saying "too little" is spent | 1984 | 64.1 | 69.6 |

SOCIAL SECURITY

| | | Social Security | Protecting Social Security |
|---|---|---|---|
| | YEAR | | |
| % saying "too little" is spent | 1984 | 53.2 | 68.2 |