CHAPTER 5

PLASTICITY

Just as every stimulus has a context, so has every question. This chapter takes a look at how the context and wording of questions can influence judgment and decision making.

In some cases, offering the same choice in two different contexts can lead to very different answers. For example, suppose you were faced with the following choice:

<table>
<thead>
<tr>
<th>Alternative A:</th>
<th>A 100 percent chance of losing $50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternative B:</td>
<td>A 25 percent chance of losing $200, and a 75 percent chance of losing nothing</td>
</tr>
</tbody>
</table>

Which alternative would you choose? (see Item #2 of the Reader Survey for your answer). If you are like 80 percent of the people asked by Paul Slovic, Baruch Fischhoff, and Sarah Lichtenstein (1982b), you prefer Alternative B. Most people are “risk seeking” when it comes to losses; that is, they prefer to risk a relatively large loss (in this case, $200) rather than suffer a sure loss with the same expected value (a 25 percent chance of losing $200 has the same expected value as a sure loss of $50 because both alternatives yield the same expected return over the long run).

A moment’s reflection will reveal that something is wrong here, though. If people were always risk seeking when it came to losses, then insurance companies would be out of business. The insurance industry is based on people’s willingness to pay a sure loss (a “premium”) in order to avoid a larger but uncertain loss. Do people behave differently when sure losses are dressed in the language of insurance? How would people choose between Alternative A and Alternative B if a sure loss of $50 were presented as an insurance premium that protected against the potential of losing $200?

Slovic, Fischhoff, and Lichtenstein found that in this case, 65 percent of their respondents preferred the sure loss of $50. Perhaps because insurance premiums highlight the potential for large losses, or perhaps because they invoke a social norm to act prudently, people prefer to pay a premium rather than risk a larger loss. In any event, it is clear that the very same choice leads to a different preference when it is cast in terms...
of insurance. When a sure loss is presented as an insurance premium, most people become “risk averse” rather than risk seeking; they prefer a sure loss to the risk of losing a larger amount.

Slovic, Fischhoff, and Lichtenstein (1982b) found a similar reversal of preferences when people were given a choice between paying $5 or facing a 1 in 1000 chance of losing $5000. Although only two people out of every five preferred to pay $5 in the context of a simple preference, roughly two out of three preferred the sure loss when it was presented as an insurance premium. The same effect has also been documented across a range of situations by John Hershey and Paul Schoemaker (1980) (see Table 5.1).

ORDER EFFECTS

How people answer questions can also be influenced by the ordering of questions or response alternatives. Usually these effects are fairly small, but in some cases they can be substantial. For instance, if two questions concern the same topic and there is a need on the part of respondents to appear consistent, then answers to the second question can be pulled in the direction of answers to the first.

In their book *Questions and Answers in Attitude Surveys*, Howard Schuman and Stanley Presser (1981) illustrated this effect with results from a survey on freedom of the press. Schuman and Presser asked a random sample of American adults the following two questions:

1. Do you think a Communist country like Russia should let American newspaper reporters come in and send back to America the news as they see it?
2. Do you think the United States should let Communist newspaper reporters from other countries come in and send back to their papers the news as they see it?

Roughly half the respondents were asked these questions in the order above, and the remainder were asked the questions in reverse order.

Schuman and Presser found that when respondents were first asked about American reporters, 82 percent said that American reporters should be allowed to report freely from Communist countries. Consistent with this answer, nearly 75 percent of the respondents also granted that Communist reporters should be allowed to report freely within the United States. On the other hand, when respondents were first asked about Communist reporters, only 55 percent approved of giving Communist reporters free license in the United States. In this case, presumably to remain consistent and avoid showing a double standard, only 64 percent of the respondents said that American reporters should be allowed into Communist countries (closer to 55 percent than 82 percent). Thus, a different ordering of the very same questions produced a marked change in the answers.

Answers can also be influenced by the order in which response alternatives are presented. Response-order effects are usually slight, and they rarely occur when questions involve very brief dichotomous choices (such as “agree” or “disagree”) or fairly large sets of alternatives. One of the most common response-order effects is a recency effect, in which the same answer is chosen more frequently when it appears as the last alternative in a series.

Schuman and Presser (1981) found a moderately strong recency effect in two variations of a question on divorce. They asked approximately half the respondents in a national opinion poll the following question: “Should divorce in this country be easier to obtain, more difficult to obtain, or stay as it is now?”

In response to this question, 23 percent of the respondents said that divorce should be made easier, 36 percent said that it should be made more difficult, and 41 percent said it should stay as is (see Figure 5.1).

The remaining respondents were asked the same question, except that the order of the last two response alternatives was inverted: “Should divorce in this country be easier to obtain, stay as it is now, or be more difficult to obtain?”

In this case, 26 percent of the respondents said that divorce should be made easier, 29 percent favored the status quo, and 46 percent said that it should be made more difficult. In both variations of the question, the most popular response was the last alternative mentioned.

### TABLE 5.1

<table>
<thead>
<tr>
<th>Probability</th>
<th>Loss, $</th>
<th>Sure Loss, $</th>
<th>% Preferring Sure Loss</th>
<th>% Preferring Sure Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>.001</td>
<td>10,000</td>
<td>10</td>
<td>54</td>
<td>81</td>
</tr>
<tr>
<td>.01</td>
<td>10,000</td>
<td>100</td>
<td>46</td>
<td>66</td>
</tr>
<tr>
<td>.01</td>
<td>100,000</td>
<td>1000</td>
<td>37</td>
<td>76</td>
</tr>
<tr>
<td>.10</td>
<td>10,000</td>
<td>1000</td>
<td>29</td>
<td>59</td>
</tr>
</tbody>
</table>

Note: As the two far right columns in this table show, 20 to 40 percent more people prefer a sure loss in the context of an insurance premium than in the context of a pure gamble. This data comes from a study by John Hershey and Paul Schoemaker (1980).
Should divorce in this country be easier to obtain, more difficult to obtain, or stay as it is now?

More difficult

Stay as it is now

Easier

Should divorce in this country be easier to obtain, stay as it is now, or be more difficult to obtain?

More difficult

Stay as it is now

Easier

FIGURE 5.1
In both versions of this question on divorce, respondents favored the last response alternative. (Based on data from a national survey conducted by Howard Schuman and Stanley Presser, 1981.)

cally produce marginal changes of less than 30 percent ("marginals" are the percentage of respondents giving each answer). When respondents know fairly little about an issue, however, they are more easily influenced by these variations. And when respondents know virtually nothing about an issue, a certain percentage will show the ultimate form of plasticity; depending upon how the question is asked, some portion will offer an opinion on a topic about which they have no real opinion. Such opinions are called, appropriately enough, "pseudo-opinions."*

One of the earliest studies to explore the prevalence of pseudo-opinions was published in 1946 by Eugene Hartley. In a survey of several hundred college students, Hartley found that more than 80 percent were willing to rate Danireans, Pireneans, Wallonians, and 32 other nationalities in terms of "social distance" (a widely used index of how close people feel to each other). The catch was that there is no such thing as a Danirean, Pirenean, or Wallonian—Hartley simply invented these nationalities in order to see how many students would pretend to have an opinion about them.

The next year, *Time* magazine publicized a similar poll that asked respondents about a piece of fictitious legislation called the Metallic Metals Act:

Which of the following statements most closely coincides with your opinion of the Metallic Metals Act?

(a) It would be a good move on the part of the U.S.
(b) It would be a good thing but should be left to individual states.
(c) It is all right for foreign countries but should not be required here.
(d) It is of no value at all.

Even though there was no such thing as a Metallic Metals Act, 70 percent of the respondents gave an opinion. Forty-one percent favored leaving the Metallic Metals Act to individual states, 15 percent thought it would be a good U.S. move, 11 percent felt it should not be required, and 3 percent said the act had no value at all (Gill, 1947, March 14).

The same article also discussed the results of a survey in which respondents were asked: "Are you in favor of or opposed to incest?" (in the 1940s, the word "incest" was not as well known as it is today). Of the respondents who expressed an opinion, two-thirds said they were opposed to incest and one-third said they favored it.

**PSEUDO-OPINIONS IN POLITICAL AFFAIRS**

After reviewing research on pseudo-opinions—including several experiments of their own—Schuman and Presser (1981) concluded that the problem, while significant, was not as serious as earlier studies had suggested. In their own survey work, only a third or a fourth of the respondents offered pseudo-opinions in response to questions about obscure legislation. Other researchers have found similar results (Bishop, Oldendick, Tuchfarber, & Bennett, 1980).

Although pseudo-opinions offered by 25 to 35 percent of all respondents may not appear serious, it is important to remember that in many democracies (including the United States), 30 percent of the public can elect a president. Political controversies are often decided by margins of only a few percent, and as a result, pseudo-opinions can decisively influence political affairs. Moreover, if respondents who know very little about an issue are added to those who have never heard of it, the percentage of pseudo-opinions frequently constitutes an absolute majority.

Pseudo-opinions are particularly common in judgments concerning foreign and military policy, where strong social pressures to express an
opinion often collide with low levels of political involvement or awareness. For instance, consider these examples of American "political illiteracy," taken from Plous (1989, March):

- A 1988 Gallup poll of American adults found that almost half did not know that the country with a government policy of apartheid was South Africa, and three-fourths could not name four countries that officially acknowledged having nuclear weapons.
- A 1985 survey of college students found that 45 percent could not name the two cities on which nuclear weapons have been dropped.
- According to a 1979 government survey reported in the New York Times, 40 percent of high school seniors mistakenly thought that Israel was an Arab nation.
- A 1983 Washington Post article, entitled "El Salvador Is Not In Louisiana," reported that three-fourths of the respondents in a national poll did not know the location of El Salvador (the title of the article was taken from an answer provided by one of the respondents).
- Other polls have shown that 68 percent of those surveyed were unaware that the United States has no means of defending itself from incoming ballistic missiles, and 81 percent falsely believed that U.S. policy was to use nuclear weapons against the Soviet Union only if the U.S.S.R. attacked first with nuclear weapons.

This level of political illiteracy tremendously complicates the interpretation of public opinion toward foreign and military policies. For example, what does support for Israel mean if Israel is mistaken for an Arab country? What does support for the Strategic Defense Initiative mean when thousands of people believe that the United States can already defend itself against ballistic missiles? For such political judgments to be comprehensible, true opinions must first be separated from pseudo-opinions.

FILTERING OUT PSEUDO-OPINIONS

Historically, most public opinion surveys have used "unfiltered" questions. No effort has been made to exclude respondents who lack an opinion, and response options have not explicitly included categories such as "no opinion" or "don't know." Increasingly, though, survey researchers have realized the usefulness of "filters." Filters are designed to weed out respondents who have no opinion on a given topic.

There are several ways in which filtering is usually accomplished. In some polls, respondents are first asked whether they have heard or read anything about a particular issue. If they reply affirmatively, they are asked for their opinion; if not, they are asked about different issues. Other polls begin by asking respondents whether they have thought much about an issue, or even more directly, whether they have formed an opinion on the topic. Yet another filtering technique is to explicitly mention "no opinion" or "don't know" as response alternatives.

Filters are generally effective in screening out pseudo-opinions. In some cases, though, they run the risk of biasing survey results. For example, "don't know" responses tend to be negatively correlated with educational level or interest in certain issues. If relatively uneducated or uninterested respondents are filtered out, survey results may not be representative of the population as a whole.

To assess the effects of filtering, Schuman and Presser (1981) conducted a number of experimental polls comparing filtered and unfiltered questions. Based on their findings, they concluded that most filters (1) shift at least one-fifth of the respondents from expressing an opinion to answering "don't know"; (2) do not significantly affect the relative proportion of respondents who give a particular answer (for example, the proportion who say "yes" versus "no"); and (3) do not strongly affect the correlation between answers to one question and answers to another.

For instance, the following pair of questions, which appeared in an American national survey in 1974, yielded results typical of those found by Schuman and Presser:

**Unfiltered Version:** "The Arab nations are trying to work for a real peace with Israel. Do you agree or disagree?"

- Agree [17 percent]
- Disagree [60 percent]
- Don't Know (volunteered) [23 percent]

**Filtered Version:** "The Arab nations are trying to work for a real peace with Israel. Do you have an opinion on that? (If yes) Do you agree or disagree?"

- Agree [10 percent]
- Disagree [45 percent]
- No opinion [45 percent]

Even though the filtered version drew 22 percent more "no opinion/don't know" responses than the unfiltered version, the ratio of disagreement to agreement remained fairly similar in both versions (about four respondents disagreeing for every one agreeing).

Of course, this similarity does not mean that the effect of filtering is unimportant. Suppose, for example, that a devious pollster wants to show that an absolute majority of the public disagrees with the statement: "The Arab nations are trying to work for a real peace with Israel." In that case, the pollster might ask the question without filtering it first.
On the other hand, if a pollster wants to show the lowest absolute level of agreement, then the filtered version would be a better choice. This kind of manipulation has been responsible for more than a few sensational headlines.

INCONSISTENCY: THE HOBOGOBLIN OF ATTITUDES

Plasticity in choices and opinions is closely related to attitudinal inconsistency. Whereas plasticity usually refers to a discrepancy in how people answer two versions of the same question, inconsistency refers to a discrepancy between two related attitudes (attitude-attitude inconsistency) or between an attitude and a corresponding behavior (attitude-behavior inconsistency). One of the most striking demonstrations of attitude-attitude inconsistency was published in 1960 by James Prothro and Charles Grigg.

Prothro and Grigg were interested in whether Americans would support specific applications of popular democratic principles. At the time of the study, these principles were accepted by the vast majority of Americans. For example, the principles included:

1. Public officials should be chosen by majority vote.
2. Every citizen should have an equal chance to influence government policy.
3. The minority should be free to criticize majority decisions.

After Prothro and Grigg outlined these general principles, they derived 10 specific statements that either illustrated or contradicted the principles, such as:

If an admitted Communist wanted to make a speech in this city favoring Communism, he should be allowed to speak.

or:

In a city referendum, only people who are well informed about the problem being voted on should be allowed to vote.

Then Prothro and Grigg asked a random sample of registered voters in Ann Arbor, Michigan, and Tallahassee, Florida, whether they agreed or disagreed with each of the 10 derived statements.

What they found was surprising. Respondents failed to reach a 90 percent consensus on any of the 10 statements, and more often than not, their judgments about specific applications of democracy were inconsistent with widely accepted democratic principles. For example, 51 percent of the respondents endorsed the antidemocratic idea that only well-informed people should be permitted to vote, 79 percent said that only taxpayers should vote, and only 44 percent felt that a bona fide member of the Communist Party should be allowed to publicly advocate Communism. Commenting on the irony of these results, Prothro and Grigg (1960, p. 293) concluded: "Assuming that the United States is a democracy, we cannot say without qualification that consensus on fundamental principles is a necessary condition for the existence of democracy."

Although this study provides an extreme example of attitude-attitude inconsistency, subsequent research has confirmed the findings of Prothro and Grigg. Attitudes about abstract propositions are often unrelated to attitudes about specific applications of the same propositions. When it comes to specific applications, there are invariably complicating factors: situational constraints, other principles that present conflicts, and so forth. As the next section shows, research on attitude-behavior inconsistency suggests that abstract attitudes also bear little relation to specific actions.

ON THE ROAD AGAIN

In 1930, Richard LaPiere, a Stanford University sociologist, began traveling the United States with a young Chinese couple. For two years, LaPiere and the couple swept across the country, visiting a total of 184 eating establishments and 67 hotels, auto camps, and tourist homes. Despite the intense anti-Chinese prejudice that prevailed in those days, LaPiere observed racial discrimination only once in 251 encounters. In fact, LaPiere judged that his companions were received with "more than ordinary consideration" on 72 occasions. Based on this experience, LaPiere concluded that one would never suspect the American people of being prejudiced against the Chinese.

Yet prejudice was very apparent at the level of abstract opinion. Six months after visiting each establishment, LaPiere sent the proprietors a survey that asked, among other things: "Will you accept members of the Chinese race as guests in your establishment?" With persistence, LaPiere was able to obtain responses from 81 restaurants and cafes, and 47 hotels, auto camps, and tourist homes. Of the 128 respondents, 118 indicated that they would not accept Chinese guests (nine said that it would depend upon the circumstances, and one woman from an auto camp replied affirmatively, stating that she had hosted a Chinese gentleman and his wife during the previous summer—LaPiere's friends!). LaPiere also obtained identical results from a sample of 128 establishments that were located in similar regions of the country but had not been visited by the Chinese couple: 118 negative responses, 9 conditional responses, and 1 affirmative response (see LaPiere, 1934, for further details). These findings suggest that people can hold abstract opinions which have little or nothing to do with their actual behavior.
Three years after LaPiere published his study, Stephen Corey (1937) published an experiment that arrived at similar conclusions. Corey was interested in the relation between attitudes toward cheating and behavioral measures of cheating. He measured attitudes toward cheating by asking 67 college students to fill out several attitude scales concerning their opinions about cheating. These scales appeared to be anonymous, but in fact, Corey used a secret system of markings to identify individual respondents. In this way, he was able to elicit candid opinions that could later be related to actual measures of cheating.

The way Corey measured cheating was to administer five weekly true-false examinations to the students, secretly score each exam, return the unmarked exams to the students, and ask students to score their exams and report the grades. The total discrepancy between the scores students reported and their actual scores constituted the measure of cheating (the average cheating amounted to roughly two questions per 40- to 45-item exam).

What Corey found is that the correlation between attitudes and behavior was almost exactly zero. The attitudes students had about cheating apparently bore no significant relation to their own tendency to cheat. What did correlate significantly with cheating was test performance; the number of exam points that students missed correlated .46 with cheating. According to Corey (1937, p. 278): "Whether or not a student cheated depended in much greater part upon how well he had prepared for the examination than upon any opinions he had stated about honesty in examinations."

A PARABLE FOR OUR TIMES

In 1973, John Darley and Daniel Batson published a contender for the all-time most vivid demonstration of attitude-behavior inconsistency. Darley and Batson were interested in the factors that determine whether people will help someone in trouble. Their subjects were seminary students en route from one building to another to give either a speech about jobs at which seminary students would be effective, or a speech on the parable of the Good Samaritan (a biblical injunction to help those in need). An experimental assistant told the students that these speeches should be three to five minutes in length and would be recorded by another assistant. Then, as students made their way to the appropriate building, they were confronted with someone who appeared to need help. Darley and Batson wanted to see if helping was related to (a) whether the student was about to give a speech on the virtue of giving help and (b) how much of a hurry the student was in to get where he was going.

In the high-hurry condition of the experiment, the experimental assistant looked at his watch and suddenly said to the student: "Oh, you're late. They were expecting you a few minutes ago. We'd better get moving. The assistant should be waiting for you so you'd better hurry. It shouldn't take but just a minute." In the intermediate-hurry condition, the experimental assistant said: "The assistant is ready for you, so please go right over." And in the low-hurry condition, the experimental assistant announced: "It'll be a few minutes before they're ready for you, but you might as well head on over. If you have to wait over there, it shouldn't be long."

In order to get from one building to the other, each student had to pass through an alley, and in that alley Darley and Batson had placed a shabbily dressed man who sat slumped in a doorway, head down, eyes closed, motionless. As the seminary student went by, the man coughed twice and groaned without lifting his head. If the student stopped to ask if something was wrong, or if the student offered to help, the man acted startled and said somewhat groggily:

"Oh, thank you [cough]. . . . No, it's all right. [Pause] I've got this respiratory condition [cough]. . . . The doctor's given me these pills to take, and I just took one. . . . If I just sit and rest for a few minutes I'll be O.K. . . . Thanks very much for stopping though.

If the student insisted on taking the man into the building, the man accepted whatever help was offered and thanked the student for taking the trouble to be of assistance. Then, once the student left, the man rated the student on the following five-point scale:

0 = Failed to notice the man as possibly in need at all
1 = Perceived the man as possibly in need but did not offer aid
2 = Did not stop but helped indirectly (e.g., by telling someone about the man)
3 = Stopped and asked if the man needed help
4 = After stopping, insisted on taking the man inside the building

Darley and Batson (1973) found that students in a hurry were much less likely to offer help than were students not in a hurry, but that giving a speech on the parable of the Good Samaritan did not significantly influence whether students offered help. In fact, in several cases a seminary student en route to give a talk on the parable of the Good Samaritan literally stepped over the man in the alley so as not to be late! These results dramatically illustrate that abstract opinions—in this case, about the importance of helping people in need—can be at extreme variance with actual behavior.

INCONSISTENCY REVISITED

Are attitudes and behaviors usually this discrepant? In 1969, a psychologist named Allan Wicker published a research review that suggested the answer is yes, and in doing so, he dealt a major blow to attitude
research. As the basis for his review, Wicker located 46 studies in which attitudes and corresponding behaviors were measured on separate occasions. The participants in these studies ranged from college students to insurance agents to industrial employees to maternity ward patients, and they numbered in the thousands. Likewise, the attitude topics ranged from public housing to football to civil rights activities and beyond.

After reviewing all 46 studies, Wicker (1969, p. 65) concluded that “it is considerably more likely that attitudes will be unrelated or only slightly related to overt behaviors than that attitudes will be closely related to actions.” According to his findings, the correlation between attitudes and behavior often approached zero, and only in rare cases did it exceed .30. Indeed, two years after his initial review, Wicker (1971) went even further and suggested that it might be desirable to abandon the very idea of attitudes.

As you can imagine, these conclusions did not sit well with attitude researchers, and before long, a “revisionist” school was born. Adherents to the revisionist school argued that attitudes are consistent with behavior, provided certain conditions are met. These conditions include the following: (1) All measures of attitudes and behaviors must be carefully chosen to be as valid and reliable as possible; (2) whenever feasible, multiple items should be used to assess attitudes and behaviors; (3) to avoid intervening variables, attitudes and behaviors should be measured closely together in time; and (4) attitudes should match behaviors in terms of the action performed, the target of the action, the context in which the action occurs, and the time at which the action takes place.

In a 1977 literature review, Icek Ajzen and Martin Fishbein demonstrated the importance of several of these conditions. Ajzen and Fishbein classified attitude-behavior relations reported in more than 100 studies according to whether the attitudes and behaviors had high, partial, or low correspondence in terms of the target and action specified. In almost every instance in which the attitudes and behaviors were low in correspondence, Ajzen and Fishbein found no significant correlation between the two. On the other hand, attitudes and behaviors were always correlated at least .40 when they were measured appropriately and corresponded well in their targets and actions. In other words, if an attitude concerned a particular action directed at a particular target, then the attitude predicted that behavior fairly well. If the target of an attitude did not match the target of a behavior, however, attitude-behavior consistency was unlikely. Ajzen and Fishbein argued that LaPiere (1934) had observed low attitude-behavior consistency because the target of attitudes in his study (i.e., Chinese people in general) was far more general than the target of behaviors (i.e., a particular Chinese couple).

CONCLUSION

There is a wonderful Russian proverb that characterizes many of the findings discussed in this chapter. The proverb, as paraphrased by famous Russian émigré Alexander Rivilis, runs roughly like this: “Going through life is not so simple as crossing a field.” When applied to judgment and decision research, the proverb might be rephrased: “Measuring an attitude, opinion, or preference is not so simple as asking a question.”

Attitudes, opinions, and choices are often surprisingly plastic. In many cases, the wording of a question significantly influences the answers people give. Consequently, it is worth paying close attention to the structure and context of questions. Chapter 6 illustrates this point with a discussion of several ways in which subtle changes in wording can affect judgment and decision making.