Part One

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Chapter One

The Social Context of Question Asking

The precise wording of questions plays a vital role in determining the answers given by respondents. This fact is not appreciated as fully as it should be, even in ordinary conversation. For example, a colleague mentioned that he needed to pick out granite for a kitchen countertop. The only day he could make the trip was the Saturday before Labor Day. Although he called on Friday to make certain the store was open, he arrived at the store on Saturday only to find a sign on the door that said "Closed Labor Day Weekend." When asked if he remembered what question he had asked the clerk at the store, he said, "I asked him what hours he was open on Saturday, and he replied 'Nine to five.'"

This story illustrates the basic challenge for those who engage in the business of asking questions. It illustrates not only the importance of the golden rule for asking questions—Ask what you want to know, not something else—but also, more important, the ambiguities of language and the powerful force of context in interpreting the meaning of questions and answers. Our colleague had unwittingly asked a perfectly ambiguous question. Did the question refer to Saturdays in general or the next Saturday specifically? The clerk obviously interpreted the question as referring to Saturdays in general. Our colleague meant the next Saturday and did not think his question could mean anything else until he arrived at the store and found it closed.

In everyday life, these types of miscommunications happen all the time. Most of the time they are corrected by further conversation or by direct questions that clarify their meaning. Sometimes

they only get corrected when expected behavior does not occur, as was the case when the store turned out to be closed. But the stylized form of question asking used in surveys does not often provide feedback about ambiguities or miscommunications. We must depend on pretesting to weed out ambiguities and to help reformulate questions as clearly as possible—to ask about what we want to know, not something else.

The thesis of this book is that question wording is a crucial element in surveys. The importance of the precise ordering of words in a question can be illustrated by another example.

Two priests, a Dominican and a Jesuit, are discussing whether it is a sin to smoke and pray at the same time. After failing to reach a conclusion, each goes off to consult his respective superior. The next week they meet again. The Dominican says, "Well, what did your superior say?"

The Jesuit responds, "He said it was all right."

"That's funny," the Dominican replies. "My superior said it was a sin."

The Jesuit says, "What did you ask him?"

The Dominican replies, "I asked him if it was all right to smoke while praying."

"Oh," says the Jesuit. "I asked my superior if it was all right to pray while smoking."

Small Wording Changes that Made Big Differences

The fact that seemingly small changes in wording can cause large differences in responses has been well known to survey practitioners since the early days of surveys. Yet, typically, formulating the questionnaire is thought to be the easiest part of survey research and often receives too little effort. Because no codified rules for question asking exist, it might appear that few, if any, basic principles exist to differentiate good from bad questions. We believe, however, that many such principles do exist. This book provides principles that novices and experienced practitioners can use to ask better questions. In addition, throughout the book we present examples of both good and bad questions to illustrate that question wording and the question's social context make a difference.

Loaded Words Produce Loaded Results

Suppose a person wanted to know whether workers believed they were fairly compensated for their work. Asking "Are you fairly compensated for your work?" is likely to elicit a very different answer than asking "Does your employer or his representative resort to trickery in order to defraud you of part of your earnings?" One would not be surprised to find that an advocate for improving the situation of workers asked the second question. Clearly the uses of words like "trickery" and "defraud" signal that the author of the question does not have a high opinion of employers. Indeed, this was a question asked by Karl Marx on an early survey of workers.

Questionnaires from lobbying groups are often perceived to be biased. A questionnaire received by one of the authors contained the following question: "The so-called 'targeted tax cuts' are a maze of special interest credits for narrow, favored groups. Experts agree the complex, loophole-ridden tax code makes it easy for Big Government liberals to raise taxes without the people even realizing it. Do you feel a simpler tax system—such as a single flat rate or a national sales tax with no income tax—would make it easier for you to tell when politicians try to raise your taxes?"

Even an inexperienced researcher can see that this question is heavily loaded with emotionally charged words, such as "so-called," "loophole-ridden," and "Big Government liberal." The authors of this questionnaire are clearly interested in obtaining responses that support their position. Although the example here is extreme, it does illustrate how a questionnaire writer can consciously or unconsciously word a question to obtain a desired answer. Perhaps not surprisingly, the questionnaire was accompanied by a request for a contribution to help defray the cost of compiling and publicizing

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the survey. Surveys of this type, sometimes called frugging (fundraising under the guise) surveys, are often primarily intended to raise funds rather than to collect survey information. The American Association for Public Opinion Research has labeled fundraising surveys deceptive and unethical, but they are unfortunately not illegal.

Wording questions to obtain a desired answer is not the only type of problem that besets survey authors. Sometimes questions are simply complex and difficult to understand. Consider this example from a British Royal Commission appointed to study problems of population (cited in Moser and Kalton, 1972): "Has it happened to you that over a long period of time, when you neither practiced abstinence, nor used birth control, you did not conceive?" This question is very difficult to understand, and it is not clear what the investigators were trying to find out.

The Nuances of Politically Charged Issues

Yet even when there are no deliberate efforts to bias the question, it is often difficult to write good questions because the words to describe the phenomenon being studied may be politically charged. The terms used to describe the area of concern may be so politically sensitive that using different terms changes the response percentages considerably. A question asking about welfare and assistance to the poor from the 1998 General Social Survey (Davis, Smith, and Marsden, 2000) produced quite different opinions.

We are faced with many problems in this country, none of which can be solved easily or inexpensively. I am going to name some of these problems, and for each one I'd like you to tell me whether you think we're spending too much money on it, too little money, or about the right amount. Are we spending too much money, too little money or about the right amount on . . .

	"Welfare"	"Assistance to the Poor"	
	(N = 1,317)	(N = 1,390)	
Too little	17%	62%	
About right	38%	26%	
Too much	45%	12%	
Total	100%	100%	

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Not all wording changes cause changes in response distributions. For example, even though two old examples of questions about government responsibility to the unemployed were worded differently, 69 percent of respondents answered "yes." Perhaps this is because the questions were fairly general. One question, from a June 1939 Roper survey, asked, "Do you think our government should or should not provide for all people who have no other means of subsistence?" (Hastings and Southwick, 1974, p. 118).

A differently worded question, this one from a Gallup poll of January 1938, asked, "Do you think it is the government's responsibility to pay the living expenses of needy people who are out of work?" (Gallup, 1972, p. 26).

Respondents are less likely to agree as questions become more specific, as illustrated by three Gallup questions from May to June 1945:

Do you think the government should give money to workers who are unemployed for a limited length of time until they can find another job? (Yes 63%)

It has been proposed that unemployed workers with dependents be given up to \$25 per week by the government for as many as 26 weeks during one year while they are out of work and looking for a job. Do you favor or oppose this plan? (Favor 46%)

Would you be willing to pay higher taxes to give people up to \$25 a week for 26 weeks if they fail to find satisfactory jobs? (Yes 34%)

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Note that introducing more details—such as specifying actual dollars, specifying the length of the support, and reminding respondents that unemployment benefits might have to be paid for with increased taxes—changed the meaning of the question and produced a corresponding change in responses. In later chapters we will discuss in more detail how wording affects responses, and we will make specific recommendations for constructing better questionnaires.

Questioning as a Social Process

A survey interview and an ordinary social conversation have many similarities. Indeed, Bingham and Moore (1959) defined the research interview as a "conversation with a purpose." The opportunity to meet and talk with a variety of people appears to be a key attraction for many professional interviewers. By the same token, a key attraction for many respondents appears to be the opportunity to talk about a number of topics with a sympathetic listener. We do not know a great deal about the precise motivations of people who participate in surveys, but the tenor of the evidence suggests that most people enjoy the experience. Those who refuse to participate do not refuse because they have already participated in too many surveys and are tired; characteristically, they are people who do not like surveys at all and consistently refuse to participate in them or have experienced bad surveys.

Viewing Respondents as Volunteer Conversationalists

Unlike witnesses in court, survey respondents are under no compulsion to answer our questions. They must be persuaded to participate in the interview, and their interest (or at least patience) must be maintained throughout. If questions are demeaning, embarrassing, or upsetting, respondents may terminate the interview or falsify their answers. Unlike the job applicant or the patient answering a doctor's questions, respondents have nothing tangible to gain

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from the interview. Their only reward is some measure of psychic gratification—such as the opportunity to state their opinions or relate their experiences to a sympathetic and nonjudgmental listener, the chance to contribute to public or scientific knowledge, or even the positive feeling that they have helped the interviewer. The willingness of the public to participate in surveys has been declining in recent years for many reasons, one of which is the tremendous number of poor and misleading surveys that are conducted. It is therefore doubly important for the survey researcher to make sure that the questionnaire is of the highest quality.

Although the survey process has similarities to conversations, it differs from them in several respects: (1) a survey is a transaction between two people who are bound by special norms; (2) the interviewer offers no judgment of the respondents' replies and must keep them in strict confidence; (3) respondents have an equivalent obligation to answer each question truthfully and thoughtfully; and (4) in the survey it is difficult to ignore an inconvenient question or give an irrelevant answer. The well-trained interviewer will repeat the question or probe the ambiguous or irrelevant response to obtain a proper answer. Although survey respondents may have trouble changing the subject, they can refuse to answer any individual question or break off the interview.

The ability of the interviewer to make contact with the respondent and to secure cooperation is undoubtedly important in obtaining the interview. In addition, the questionnaire plays a major role in making the experience enjoyable and in motivating the respondent to answer the questions. A bad questionnaire, like an awkward conversation, can turn an initially pleasant situation into a boring or frustrating experience. Above and beyond concern for the best phrasing of the particular questions, you—the questionnaire designer—must consider the questionnaire as a whole and its impact on the interviewing experience. With topics that are not intrinsically interesting to respondents, you should take particular care to see that at least some parts of the interview will be interesting to them. C01.Bradburn 3/10/04 3:31 PM Page 10 /

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Why Some Sensitive Topics Aren't Sensitive

Beginning survey researchers often worry about asking questions on topics that may be threatening or embarrassing to respondents. For many years, survey researchers believed that their interviews could include only socially acceptable questions. In the 1940s it was only with great trepidation that the Gallup poll asked a national sample of respondents whether any member of their family suffered from cancer. Today surveys include questions about a whole host of formerly taboo subjects, such as religious beliefs, income and spending behavior, personal health, drug and alcohol use, and sexual and criminal behavior.

Popular commentators and those not familiar with survey research sometimes note that they would not tell their best friends some of the things that surveys ask about, such as sexual behavior or finances. The fact that the interviewer is a stranger and not a friend is part of the special nature of the situation. People will disclose information to strangers that they would not tell their best friends precisely because they will never see the stranger again and because their name will not be associated with the information. When you tell a friend about your potentially embarrassing behavior or intimate details about your life, you may worry about the repercussions. For example, Roger Brown, a well-known social psychologist, noted in the introduction to his autobiographical memoir that he deliberately did not have his longtime secretary type the manuscript of the book, although she had typed all his other manuscripts, because he did not want her to be shocked or distressed by the revelations about his personal life. He preferred to have the typing done by someone who did not have a personal connection with him (Brown, 1996). With proper motivation and under assurances of confidentiality, people will willingly divulge private information in a survey interview.

Most respondents participate voluntarily in surveys. They will wish to perform their roles properly, that is, to give the best information they can. It is your responsibility to reinforce respondents' good intentions by designing the questionnaire effectively. If the questionnaire requires respondents to recall past events, the question should give them as many aids as possible to achieve accurate recall. (Techniques for designing the recall type of question are discussed in Chapter Two.)

Dealing with the Social Desirability Bias

In general, although respondents are motivated to be "good respondents" and to provide the information that is asked for, they are also motivated to be "good people." That is, they will try to represent themselves to the interviewer in a way that reflects well on them. Social desirability bias is a significant problem in survey research. This is especially the case when the questions deal with either socially desirable or socially undesirable behavior or attitudes. If respondents have acted in ways or have attitudes that they feel are not the socially desirable ones, they are placed in a dilemma. They want to report accurately as good respondents. At the same time, they want to appear to be good people in the eyes of the interviewer. Techniques for helping respondents resolve this dilemma on the side of being good respondents include interviewer training in methods of establishing rapport with the respondent, putting respondents at their ease, and appearing to be nonjudgmental. (Question-wording techniques that can help reduce social desirability bias are discussed in Chapter Three.)

Viewing the interview as a special case of ordinary social interaction helps us better understand the sources of error in the questioning process. Conversations are structured by a set of assumptions that help the participants understand each other without having to explain everything that is meant. These assumptions have been systematically described by Paul Grice (1975), a philosopher of language. (See Sudman, Bradburn, and Schwarz, 1996, chap. 3 for a full discussion.) According to Grice's analysis, conversations are cooperative in nature and are governed by a set of four maxims that each participant implicitly understands and shares. The maxim of

quality says that speakers will not say anything they know to be false. The maxim of relation indicates that speakers will say things that are relevant to the topic of the ongoing conversation. The maxim of quantity enjoins speakers to make what they say as informative as possible and not to be repetitive. The maxim of manner requires speakers to be clear rather than ambiguous or obscure. If the questionnaire makes it difficult for respondents to follow these maxims, an uncomfortable interaction between the interviewer and respondent can result. Respondents' answers can also be distorted. (The importance of these principles for questionnaire design is discussed in Chapters Four and Five.)

Investigators should try to avoid asking respondents for information they do not have. If such questions must be asked, the interviewer should make it clear that it is acceptable for the respondent not to know. (Particular problems relating to knowledge questions are discussed in Chapter Six.)

The standard face-to-face interview is clearly a social interaction. The self-administered mailed questionnaire or those conducted electronically via the Web are much less of a social encounter, although they are not entirely impersonal. Personal interviews conducted by telephone provide less social interaction than a face-toface interview but more than a self-administered questionnaire. To compensate for the lack of interaction, the self-administered questionnaire, whether paper-and-pencil or electronic, must depend entirely on the questions and written instructions to elicit accurate responses and motivate the respondent to participate in the study. The interviewer does not have the opportunity to encourage or clarify, as would be possible in a face-to-face interview and to some extent in a telephone interview. (Differences among these modes of asking questions are discussed in Chapter Ten.)

Ethical Principles in Question Asking

Discussions of ethical problems in survey research have centered on three principles: the right of privacy, informed consent, and confi-

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dentiality. Survey research is intrusive in the sense that the privacy of respondents is violated when they are selected to participate in the survey and then asked a series of questions. It is critically important to be aware of respondents' right of privacy. Westin (1967, p. 373) defines right of privacy as "the right of the individual to define for himself, with only extraordinary exceptions in the interest of society, when and on what terms his acts should be revealed to the general public." For the purpose of survey research, we would extend Westin's definition to include attitudes, opinions, and beliefs, in addition to actions.

Why the Right of Privacy Is Not Absolute

Several aspects of the right of privacy have implications for the ethics of survey research. First, privacy is not viewed as an absolute right. The interests of society are recognized in extraordinary circumstances as sometimes justifying a violation of privacy, although the presumption is in favor of privacy. Second, the right of privacy with regard to information refers to people's right to control data about themselves that they reveal to others. They can certainly be asked to reveal data about themselves that may be highly sensitive, but they have the right to control whether they voluntarily answer the question. There is no presumption of secrecy about a person's activities and beliefs. Rather, people have the right to decide to whom and under what conditions they will make the information available. Thus, the right of privacy does not prevent someone from asking questions about someone else's behavior, although under some conditions it may be considered rude to do so. The right of privacy does, however, protect respondents from having to disclose information if they do not wish to. And it requires that information revealed under conditions of confidentiality must be kept confidential.

With regard to confidentiality of information, norms may vary from situation to situation. In some cases, such as with medical or legal information, explicit authorization is needed to communicate the information to a third party (for example, "You may tell X"). In

other situations, such as during ordinary conversations, the implicit norm is to permit communication about the contents of the conversation to third parties unless there is an explicit request for confidentiality (for example, "Keep this confidential"). One of the reasons for routine explicit assurance of confidentiality in research interviews is to overcome the natural similarity between research interviews and everyday conversations with strangers, which have the implicit norm of nonconfidentiality.

What's Informed Consent?

The term *informed consent* implies that potential respondents should be given sufficient information about what they are actually being asked and how their responses will be used. The intent is for them to be able to judge whether unpleasant consequences will follow as a result of their disclosure. The assumption is that people asked to reveal something about themselves can respond intelligently only if they know the probable consequences of their doing so. The standards by which procedures for obtaining informed consent are evaluated usually refer to the risks of harm to respondents who provide the requested information or participate in a particular research activity. What it means to be "at risk" thus becomes crucial for a discussion of the proper procedures for obtaining informed consent.

When is consent "informed"? Unfortunately, there does not appear to be agreement on the answer to this question. It is generally thought that the amount of information supplied to the respondent should be proportional to the amount of risk involved. You must ask yourself, then: "How much risk is actually involved in the research? How completely can I describe the research without contaminating the data I am trying to obtain? How much will a typical respondent understand about the research project? If respondents do not understand what I am telling them, is their consent to participate really informed?"

These questions and variations on them plague researchers as they try to define their obligations to respondents.

The Important Role of Institutional Review Boards

Research conducted today within a university or medical research setting that receives support from federal grants requires that protocols for informing research participants about their participation risks and for ascertaining their informed consent must be approved by an Institutional Review Board (IRB) composed of both peers and lay members of the community. Although the motivating force to establish IRBs was to ensure that participants in biomedical experiments or clinical trials were adequately informed about the risks to their health in taking part in the experiment, the review procedures have been extended little by little to include all research involving human participants whether it involves health or not and whether it is supported by the federal government or not. Many IRBs now require review even of pilot tests and focus groups that are intended to pretest a survey instrument prior to its use in the field.

Fortunately, most IRBs have a special procedure to expedite review of protocols for surveys that do not involve sensitive topics or that involve respondents who are not in a special risk category. (Respondents who might be in a special risk category include minors or those participating in drug treatment programs.) In some cases, however, IRBs whose members are not familiar with social research have placed requirements on survey researchers for written consent forms that are more appropriate for biomedical research projects than for population-based surveys. As noted earlier, obtaining an interview requires a delicate negotiation between the interviewers (and researcher) and the selected respondents. The negotiation must balance privacy and confidentiality issues against the benefits of participating in the survey. If the requirements for elaborate signed consent forms become excessive or inappropriate to the risks of participating, participation rates will fall to levels that may not be high enough to justify the research.

Respondents in the vast majority of surveys are not "at risk," where risk is thought of as the possibility that harm may come

to respondents as a consequence of their answering questions. However, some surveys do ask about illegal or socially disapproved of behavior that could constitute a nonphysical risk. In such cases, respondents' answers, if revealed to others, might result in social embarrassment or prosecution. For those surveys extra care is taken to ensure confidentiality and security of the responses.

In other instances a survey may contain questions that will make some respondents anxious and uncomfortable. A recent study asked World War II veterans to respond to questions regarding how their combat experience influenced subsequent attitudes and longterm behaviors (Sudman and Wansink, 2002). Even though the events occurred more than fifty years ago, many individuals chose to skip the section related to their combat experiences. If these studies are being conducted with personal interviews, carefully and thoroughly training interviewers can help remove such anxiety and discomfort. Professional interviewers are excellent at creating an environment in which respondents can talk about personal matters without embarrassment. In fact, this professional, nonjudgmental questioning is one of the ways that survey interviews differ from ordinary conversations. If questions elicit anxiety from respondents for personal reasons, however, the interviewer can do little other than inform the respondent as fully as possible about the survey's subject matter.

Interviewers typically inform respondents of the general purpose and scope of the survey, answering freely any questions the respondents ask. If the survey contains questions that might be sensitive or personal, respondents should be told that such questions will be in the interview schedule and that they do not have to answer them if they do not wish to do so. Written consent is not typically obtained because it is usually clear that participation is voluntary. If the interviewer will have to obtain information from records as well as directly from the respondent—for example, if a respondent's report about an illness must be checked against hospital records—written permission to consult the records must be obtained. For many interviews with minors, written permission from parents or legal guardians must be obtained.

Helping Guarantee Anonymity

Does informed consent imply that the respondent must be explicitly told that participation in the survey is voluntary? Many practitioners feel that informing the respondent of the general nature of the survey and assuring confidentiality make it sufficiently clear that participation is voluntary. In some cases, informing respondents about the general nature of the survey can be as simple as saying, "This survey will ask you about your shopping behaviors" or "We will be asking you about your attitudes toward various leisure activities." To go beyond the ordinary norms of such situations is to raise the suspicions of respondents that something is not quite right about this survey. For example, Singer (1978) found that even a request for a signature reduced the response rate for the questionnaire as a whole. In another study (Wansink, Cheney, and Chan, 2003), a split-half mailing that asked five hundred people to write their name and address on the back of a survey yielded a 23 percent decrease in response.

Under certain circumstances merely asking a question might be harmful to respondents. For example, if you were conducting a follow-up survey of individuals who had been in a drug or alcohol rehabilitation program, the very fact that respondents were approached for an interview would indicate that they had been in the program. If they did not want that fact known to family or friends, any contact and attempt to ask questions might give rise to mental stress. Here problems of privacy, consent, and confidentiality are thoroughly entwined. In such cases it is important to protect the respondents' privacy, to ensure that they will not be "at risk," and to keep information confidential. To do so, great attention must be given to research procedures to ensure the respondent (or his or her relationship with friends, families, or employers) is not harmed.

This attention needs to begin prior to the first attempt to contact respondents and must continue through to the completion of the research.

Except in special cases of some surveys involving substance abuse and other topics collected under a "shield law," individual responses to surveys are not protected from subpoena by law enforcement officials or attorneys if the individuals are involved in a lawsuit. The fact that the researcher has promised confidentiality to the respondents will not protect the researcher from having to produce the individual records if required by legal action. As a matter of prudence, judges often deny requests from attorneys or legal officers for access to individual records, but they balance the requirements of justice in each case against the public good of protecting the confidentiality of research records. The only way researchers can be sure to keep individual data confidential—if it is not protected by a shield law—is to destroy the names and addresses of respondents and any links between the responses and names.

Unless the names and addresses are required for follow-up interviews in a longitudinal study, it is best to destroy as soon as possible any data that could potentially identify the respondent. In some cases, this can also include data on variables that could be used to infer an individual's identity, such as birth dates, treatment dates, and other detailed information. In cases where names and addresses are needed for longitudinal studies, two separate files should be established, one for the names and one for the location data, with a third file containing the code necessary to link the two files. The identifier files can be kept in a separate and secure site that has the maximum protection possible. In one case, there was reason to expect that the identifier files might be subpoenaed and misused in a way that would reveal the identities of all individuals in the file. In this case, the identifier files were kept in a country where they are not subject to U.S. subpoena. The intent of such seemingly exceptional measures is to protect the privacy of respondents by making it as difficult as possible to link individual identifier data with the

substantive data. Besides protecting the trust under which the data were collected, this also helps avoid inadvertent disclosure and makes the cost of obtaining the linked data very high for those who might be fishing for something useful in a legal case.

How Much Do Respondents Need to Know?

Most survey researchers limit themselves to rather general descriptions of the subject matter of the survey. Most respondents' refusals occur before the interviewers have had time to explain fully the purposes of the survey. For the vast majority of sample surveys, the question is not really one of informed consent but, rather, one of "uninformed refusal." Participation in surveys is more a function of the potential respondents' general attitude toward surveys than of the content of a specific survey. Sharp and Frankel (1981) found that people who refuse to participate in surveys are more negative about surveys in general, more withdrawn and isolated from their environment, and more concerned about maintaining their privacy, regardless of the purpose of the survey. Today, refusals may also occur simply because of an increased amount of perceived or actual time pressure.

In sum, it is your ethical responsibility as a researcher to inform the respondent as fully as is appropriate about the purposes of the survey, to explain the general content of the questions, and to answer any questions the respondent may have about the nature of either the scholarship or the sponsorship of the research and how the data will be used. In addition, you should inform respondents about the degree to which their answers will be held confidential. Although you must make every effort to ensure that that degree of confidentiality is maintained, you must not promise a higher degree of confidentiality than you can in fact achieve. Thus, for example, if the conditions of the survey do not allow you to maintain confidentiality against subpoenas, you should not so promise your respondents.

The Research Question Versus the Actual Question Being Asked

In discussing questionnaire development, we must distinguish between the research question and the particular questions that you ask respondents in order to answer the research question. The research question defines the purposes of the study and is the touchstone against which decisions are made about the specific individual questions to be included in the questionnaire. The research question is most often general and may involve abstract concepts that would not be easily understood by the respondents being surveyed. For example, you may want to determine the attitudes of the American public on gun control, the effects of a particular television program on health information and health practices of those who view it, or whether an increase in automation is resulting in an increase in worker alienation.

Articulating the Specific Purpose of the Study

Regardless of whether the purpose of the research is to test a social scientific theory or to estimate the distribution of certain attitudes or behaviors in a population, the procedures for questionnaire construction are similar. First you will need to identify the concepts involved in the research question. Then you will formulate specific questions that, when combined and analyzed, will measure these key concepts. For example, if you are interested in the attitudes of potential voters toward a particular candidate, you will have to decide which attitudes are important for the topic at hand: attitudes about the particular positions the candidate holds, attitudes about the candidate's personality, or attitudes about the candidate's likability. The more clearly formulated and precise the research question, the more easily the actual questions can be written and the questionnaire designed.

The process of trying to write specific questions for a survey helps clarify the research question. When there are ambiguities in

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question wording or alternative ways of wording questions, decisions about formulating questions must be consistent with the original purposes of the survey. Often the purposes themselves may not be very clear and must be further refined before a final choice can be made. For instance, if you were conducting a survey with the purpose of deciding whether a potential candidate should run for a particular office, you might be interested in how much respondents know about the person, what political views they identify with that person, and what they are looking for in a good candidate. In contrast, if you were conducting a survey for a candidate who had already declared her intention to run for office, you might be more interested in what respondents think about the candidate's stand on particular issues and whether they intend to vote for that candidate.

Writing Questions that Relate to the Purpose of the Study

Even when surveys are being conducted on the same topic, very different questions might be asked depending on the specific purpose of the study. For example, most surveys ask about the educational level of the respondent. If, for the purposes of your survey, a grouping of respondents into three or four levels of education will suffice, then a simple question like "What is the highest grade you completed in school?" with three or four response categories may well serve the purpose. If, however, the purposes of your survey require that the educational level of the population be precisely estimated, you would need considerably more detail about education—making distinctions, for example, between degrees granted and years of education started but not completed. Because the way in which questions are asked is intimately tied to the purposes of the survey, there is no "standard" way to ask about personal characteristics, such as education and income. (See the discussion in Chapter Nine.)

As a general rule, when constructing a questionnaire, you must continuously ask "Why am I asking this question?" and must, in each instance, be able to explain how the question is closely related to the research question that underlies the survey. Our training as

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researchers has always led us to believe that more information is good. Unfortunately, it becomes costly if we lose our focus when constructing a survey. The problem usually begins with someone saying, "Wouldn't it be interesting to know. . . ?" The problem is that when the resulting cross-tabs, bar charts, or pie charts are presented, a great deal of time and money has been spent and we may not be much wiser than prior to the research. It is critical to keep focused on the basic research question.

Suggestions for Beginners

The process of writing questions is fun, and well-written questions can quickly engage the interest of the participants. Competition develops among the question writers to see who can come up with the cleverest or most interesting questions. Given our biases toward more information, a game of "Wouldn't it be nice to know?" can quickly ensue, and soon there are many more questions than the budget can afford or than respondents can endure. Too often questionnaire writers are so caught up in the excitement of question writing that they jump rapidly into writing questions before they have adequately formulated the goals of the research and thoroughly understood the research questions. Many questionnaires constructed by inexperienced people look as if the researchers did not know what they were trying to find out until they saw what they had asked.

To develop a good questionnaire, observe the following rules:

- 1. Resist the impulse to write specific questions until you have thought through your research questions.
- 2. Write down your research questions and have a hard copy available when you are working on the questionnaire.
- 3. Every time you write a question, ask yourself "Why do I want to know this?" Answer it in terms of the way it will help you to answer your research question. "It would be interesting to know" is not an acceptable answer.

It is always useful before creating new questions to search for questions on the same topic that have been asked by other researchers. This can justify your questions and provide an important point of comparison. In academic research, using validated scales is critical for research to be publishable in key journals.

Yet satisfactory existing questions are unlikely to cover all the research questions of a study. Most questionnaires consist of some questions that have been used before and some new questions, although even the new questions may be adapted from earlier ones. Using existing questions will shortcut the testing process and may also allow you to compare results across studies. For studies done with similar populations and in similar contexts and where there is no reason to expect changes, using identical questions allows you to estimate response reliability. Over longer time periods or where changes are expected, using the same question permits estimates of trends.

Some researchers have ethical concerns about using another person's questions, but the replicating nature of social science research in general and survey research in particular not only permit but encourage the repetition of questions. Normally, no permission from the originator of the question is required or expected. You may, however, want to communicate with the question originator to learn whether there were any difficulties with the question that were not discussed in the published sources. If you want to use items from a questionnaire that has been copyrighted, permission from the publisher, and probably the payment of a small fee, would be required.

Generally, in any given report, it will be important to acknowledge the source of any questions that are asked. However, researchers are becoming increasingly aware that simply replicating questions might not be so simple as it seems on the surface. Attention must also be paid to the context within which particular questions are asked, since responses to some questions are sensitive to

the context defined by the questions asked prior to them (Schuman and Presser, 1981; Sudman, Bradburn, and Schwarz, 1996). If you are interested in the trend in responses to a question over time, pay particular attention to the preceding questions asked in the studies where the question was previously used. (The order of questions in a questionnaire is discussed in Chapter Ten.) Once you start looking, you will be surprised at the variety of sources that can provide examples of earlier questions on a topic. The two major sources of survey questions are published material and data archives. Although we list a few of the major sources and archives, the list is intended to be suggestive rather than complete. Getting help from an available research librarian or information specialist can be very helpful.

Finding Good Questions from Other Surveys

We assume that a careful literature search has been conducted to help define the research questions. When a reference is a complete book, a copy of the questionnaire will often be included as an appendix. In journal articles, however, the questionnaire will usually be omitted due to lack of space. In this case it is appropriate to write to the author of the study and ask for a copy of the questionnaire. More general sources of questions include the following:

- Gallup, G. H. The Gallup Poll: Public Opinion, 1935–1971. (3 vols.).
- Gallup, G. H. The Gallup Poll. Public Opinion, 1972–1977. (2 vols.)
- Hastings, E. H., and Hastings, P. K. (eds.). Index to International Public Opinion, 1978–1979.
- National Opinion Research Center. General Social Surveys, 1972–2002: Cumulative Codebook.
- New York Times/CBS News polls, as indexed in *The New* York Times Index.

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- Opinion Roundup section of the Public Opinion Polls section of *Public Opinion Quarterly*.
- Robinson, J. P., Rusk, J. G., and Head, K. B. Measures of *Political Attitudes*.

Robinson, J. P., and Shaver, P. R. Measures of Social Psychological Attitudes. (Rev. ed.)

Roper Public Opinion Research Center. Survey Data for Trend Analysis: An Index to Repeated Questions in U.S. National Surveys Held by the Roper Public Opinion Research Center.

Some of the largest American archives of survey research data are listed next. (Refer also to the Appendix for a list of the major not-for-profit survey research labs in North America and Europe.) There will normally be some charge for locating and reproducing questions and results. In addition, government, university, and other nonprofit survey organizations will usually make their questions and questionnaires available to others, even if they have no formal archives.

- Data and Program Library Service, University of Wisconsin, 4451 Social Science Building, Madison, WI 53706
- Institute for Research in Social Science, Manning Hall, University of North Carolina, Chapel Hill, NC 27514

Inter-university Consortium for Political and Social Research, University of Michigan, Ann Arbor, MI 48106 (Institute for Social Research archives are at the same address.)

National Opinion Research Center, University of Chicago, 6030 South Ellis Ave., Chicago, IL 60637

Roper Public Opinion Research Center, 341 Mansfield Road, Unit 1164, University of Connecticut, Storrs, CT 06269

Survey Research Center, University of California, Berkeley, CA 94720

Survey Research Lab, University of Illinois, Champaign, IL 61820

This search for existing questions sometimes becomes tedious and time-consuming, but it is time well spent. Even if you ultimately use only a few existing questions, the search generally helps you sharpen the research question and improve the quality of the new questions that you write.

Consider the following caveats when adapting questions from other sources. Very small changes in wording or in the response categories offered can result in large differences in results. Within a year of each other, three polls (see Figure 1.1) asked representative samples of Americans about who they believed to be the greatest male athlete of the twentieth century (closed-ended), the greatest male or female athlete living at any point in the twentieth century (open-ended), and the greatest active athlete in the world of sports today (open-ended). Although all were taken within one year of each other, there is very little correspondence between the three. This underscores the importance of making certain any questions that are borrowed or replicated from another source specifically identify the issue that is of primary interest to your research question.

Sources of Error in Responses

Since questionnaires are designed to elicit information from respondents, the quality of a question can be measured by the degree to which it elicits the information that the researcher desires. This criterion is called validity. Directly measuring the validity of questions is often difficult and depends on the nature of the question.

Different Types of Questions Have Different Errors

We find it useful to divide questions into the following three groups: (1) those that ask about behavior or facts, (2) those that ask about knowledge, and (3) those that ask about psychological states or attitudes. Behavioral or factual questions ask about characteristics of people, things people have done, or things that have happened

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Figure 1.1. Who is the World's Greatest Athlete?

	NBC News/ Wall Street Journal, Sept. 9-12, 1999 (N = 1,010)	Gallup/CNN/ USA Today, Dec. 20-21, 1999 (N = 1,031)	The Gallup Poll, Aug. 24-27, 2000 (N = 1,019)
	"Which one of the following do you consider to be the greatest American male athlete of the 20th century?" (closed-ended)	"What man or woman living anytime this century do you think was the great- est athlete of the century, in terms of their athletic performance?" (open-ended)	"In your opinion, who is the greatest athlete active in the world of sports today?" (open-ended)
	%	%	%
Michael Jordan	35	23	4
Babe Ruth	13	4	0
Muhammad Ali	11	0	0
Jim Thorpe	11	4	0
Jesse Owens	10	3	0
Jackie Robinson	7	0	0
Jack Nicklaus	2	0	0
Johnny Unitas	1	0	0
Mark McGwire	n/a	9	3
Walter Payton	n/a	2	0
Jackie Joyner-Kersee	n/a	2	0
Tiger Woods	n/a	0	30
Cal Ripken	n/a	0	2
Other	1*	27*	26*
No Opinion, Not Sure, or None	9	26	35

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*1% or less apiece

to people that are, in principle, verifiable by an external observer. That is, behavioral questions concern characteristics, events, or acts that are external to the individual and could be observed by a third party. (To say that they are in principle verifiable does not mean, of course, that it would be easy to verify them or, in some cases, that it is even legal or ethically permissible to verify them, such as with voting records or sexual behavior.)

Questions about knowledge measure respondents' knowledge about a topic of interest or their cognitive skills. In sample surveys, knowledge questions are often combined with attitude or behavior questions to gauge the saliency of an issue or the outcome of a program. Questions that have the form of knowledge questions are sometimes used as disguised attitude questions. More rigorous forms of measuring knowledge, as in knowledge tests, are frequently used to survey schooling outcomes. The field of psychometrics deals with the sophisticated statistical techniques for the reliable and valid measurement of knowledge. Discussion of these techniques is beyond the scope of this book. Researchers interested in the serious measurement of knowledge should consult with a psychometrician in developing their questionnaires.

Questions about psychological states or attitudes are not verifiable even in principle, since states or attitudes exist only in the minds of the individuals and are directly accessible, if at all, only to the individuals concerned. Psychological states or attitudes are not available to an external observer. For behavior, the notion of validity has an intuitive meaning, as the value that would be agreed on by several external observers observing the same event. For attitudes, the intuitive meaning of validity is not clear. Should the measure of validity be what respondents tell about themselves in moments of privacy with their most intimate friends, or should it be what has a strong relationship to actual behavior? The answer lies more in one's theoretical conceptualization of attitudes than in generally agreed-on criteria.

Even though one may not have a clear idea about validity criteria for attitude questions, it is nonetheless certain that differing ways

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of asking questions may produce quite different answers and that questions about some attitudes are more susceptible to questionwording differences than others. We do not yet know the detailed mechanisms that produce such changes, but we are beginning to understand the cognitive processes involved. (See Sudman, Bradburn, and Schwarz, 1996, and Tourangeau, Rips, and Rasinski, 2000, for a more complete discussion.) It is clear, however, that some attitudes are more variable in their measurement than others.

The Difference Between Bias and Variability

In our thinking about these issues, we have used the concept of response effect to include components of bias and variability. Bias refers to an estimate that is either more or less than the true value. Variability is measured by the susceptibility of measurements to differences in question wording. This variability is sometimes called the reliability of a measure, since random errors may arise from the form of the measurement itself (rather than from systematic error due to a sample bias or some other aspect of the measurement instrument).

In order to clarify the sources of response effects, let us look at a particular behavioral question. A common question in surveys is "What was your total family income from all sources last year?" There is a true answer to this question, even though we may never know what it is since even income tax records, assuming that we had access to them, contain their own source of error. However, even though there is a true answer to this question, we may get an erroneous answer because the respondent simply forgot about certain amounts of income, particularly those from less obvious sources (such as dividends from a stock or interest on a savings account), or because the respondent may attribute income to the wrong year.

The incorrect placement of events in a particular time period is called telescoping. In forward telescoping, the respondent includes events from a previous time period in the period being asked about; in backward telescoping, the respondent pushes events backward into a time period previous to the one being asked about. Forward

telescoping typically results in overreporting of events; backward telescoping typically results in underreporting. Both forward and backward telescoping may occur with the same frequency in a survey, so that the two may cancel each other out. However, studies show that forward telescoping is more common, resulting in a net overreporting of the telescoped material in most surveys.

Motivated and Unmotivated Biases

Another form of error would be the deliberate or motivated nonreporting of income that the respondent wishes to conceal—for example, illegal income or income not reported to the IRS. Another source of error arises from the deliberate overstating or understating of income in order to make an impression on the interviewer. Generally this type of error shows in income inflation, but some respondents, particularly in the upper income ranges, may deflate their reported incomes. Yet another source of error stems from the respondent's failure to understand the question in the way the researcher intended. For example, the respondent may fail to report gift income, even though this type of income was intended by the researcher to be included. Finally, respondents may simply be ignorant of some income (perhaps income received by family members) about which they are asked to report.

This rather involved collection of errors can be identified by four basic factors related to response error: memory, motivation, communication, and knowledge. Material may be forgotten, or the time at which something happened may be remembered incorrectly. Respondents may be motivated not to tell the truth because of fear of consequences or because they want to present themselves in a favorable light. Respondents may not understand what they are being asked, and answer the question in terms of their own understanding. Finally, they may just not know the answer to the question, and answer it without indicating their lack of knowledge. In the chapters that follow, these factors and the way they affect the business of asking questions will be explored in greater detail.

Additional Reading

Consult the references listed in this chapter (in the section on "Suggestions for Beginners") for additional examples of questionnaire wordings and their effect on responses. The Polls section of *Public Opinion Quarterly* is especially useful. It summarizes questions on different topics in each issue. In addition, the following readings may be useful.

The Psychology of Survey Response (Tourangeau, Rips, and Rasinski, 2000) and Thinking About Answers (Sudman, Bradburn, and Schwarz, 1996) present conceptual frameworks and extensive scientific evidence for understanding response effects in surveys. They are recommended to the reader who wishes to pursue the conceptualization and literature behind the recommendations given in this book. C01.Bradburn 3/10/04 3:31 PM Page 32

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