LEADING QUESTIONS: A CATEGORIZATION SYSTEM

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Marketing researchers agree that questionnaire design and specifically, leading questions, can be a significant contributor to total error in survey research. In challenges to research, leading questions are often a central issue. Interestingly, marketing literature on leading questions is mostly circular and lacking in a framework to identify and a process to remedy leading questions. This article focuses on: (a.) current treatment of leading questions and pitfalls of existing definitions; (b.) a synthesis of types of leading questions grounded in semiotics literature which leads to; (c.) a categorization of dimensions in which questions can be assessed to identify and remedy any leading nature of the question; and (d.) a new definition of a leading question. The value of the categorization lies in providing a framework allowing marketing researchers to better comprehend, diagnose and treat leading questions.

INTRODUCTION

A leading question, or a question that "gives the respondent a strong cue or expectation as to how to answer," have long been recognized as a significant source of error in survey research (Burns & Bush, 2010, p. 309). Surveys are designed to understand the truth about the views and the behaviors of people who can ultimately improve societal well-being. Leading questions can misdirect marketing actions that are based on the results of surveys. For example, in an attempt to illustrate the trendiness of Levi's jeans, the company ran an advertisement stating that ninety percent of college students say Levi's 501 are "in" on college campuses. What the ads failed to reveal, however, is that the research question gave students a list of things from which to choose and Levi's 501 was the *only* blue jean listed. Other items listed were: 1960's-inspired clothing, Lycra/spandex clothing and so on (Utts, 2004, p. 45), allowing little opportunity to call anything other than Levi's "in." While short-term gains may result from such an ad, in the long-run Levi's misses opportunities to better know how consumers perceive their products and to more significantly differentiate the brand from competitors.

It has been well-documented that the media themselves and even the ivory-towered university system, long viewed as the last oracle of truth, is subject to creating research to suit the interests of well-heeled contributors (Goldberg, 2002; Crossen, 1994; Soley, 1995). People are deeply skeptical of reported research results because they fear the researchers are not asking the right questions and may be manipulating the wording of questions to get the responses they want (Mann & Dionne, 2003). Why shouldn't they be skeptical? Beyond the creation of more skeptical consumers, distortion on a brand's marketing strategy can occur due to leading questions that misdirect the actions of the brand.

Years ago, Raymond (1977) noted how questioning can bias respondents. Indeed, in what became one of the most controversial FTC cases regarding advertising claims, one of the significant points made to question the research supporting the FTC's position was based upon leading questions (Jacoby & Szybillo, 1995). Opposing experts in the case each made credible arguments (Stewart, 1995) but it was clear there was disagreement, even among highly expert researchers, as to whether the questions were leading. This led Preston (1992) to write that we need greater clarity in our survey methods issues such that at least experts may agree on proper/improper methods.

While there may be suspicion that leading questions were used, rarely does a final user of survey research see the actual questions used to collect the information upon which the user may base his or her decision. In their review of six decades of published research about how consumers view advertising, Calfee and

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Ringold (1994, p. 250) noted that the possibility of leading questions used in the studies was a limitation on the validity of the published research yet there was *no way to determine the extent of this as the questions themselves are missing from the published research (*italics added). For a specific example, consider the following question taken from an actual survey conducted by the *National Tax Limitation Committee*: "Do you feel that limiting taxes by law is an effective way to stop the government from picking your pocket every payday?" In their discussion of this single question, Churchill and Iacobucci (2005, p. 250) surmise that "what is especially unfortunate is that it is unlikely that the questions themselves accompanied the report to Congress. Rather, it is more likely that the final report provided a summary such as 'Ninety percent of the citizens favor limiting taxes.'" While there are clear directives in the research literature that leading questions are sources of error, as noted above, researchers are given paltry guidance when it comes to identifying leading questions and/or knowing how to remedy potentially leading questions.

The purpose of this article is to provide researchers with a tool to assist in this very task—a categorization of mechanisms by which questions can be assessed to determine if the question is leading. The categorization system allows a systematic review process for questionnaires, to help identify, and ultimately eliminate, leading questions.

This categorization system helps researchers to identify leading questions before conducting research, thus eliminating many problems. The categorization presented gives guidance to researchers, yielding survey questions that more accurately tap into the phenomena of interest to the researcher, while reducing the systematic bias that comes with leading questions. Our categorization strives to pinpoint those elements within the question itself that cause it to be leading. The major categories are (1) question content, (2) question structure and (3) question context. These three categories are broken into more specific sub-categories, allowing the researcher to carefully review their own work to spot leading questions, allowing them to identify and eliminate the root cause of the question's leading quality. While we do not intend our approach to be used sequentially or as a checklist, we do suggest that researchers examine all three elements (question structure, content and context) on a question-by-question basis. The reality is that it may be efficient for the researcher to approach the examination process sequentially, but care should be given to return through the process if any changes are made. The process holistically allows the researcher to apply discernment to the question using the categorization in situ. In the next sections, we identify the problems with current definitions of leading questions and present a categorization of mechanisms by which leading questions are created. We conclude with a new definition of leading questions that resolves the problems with current definitions.

PROBLEMS WITH CURRENT DEFINITIONS

A review of marketing research and public opinion-related texts on the subject reveals the following: most define a leading question in terms of its impact on the respondent rather than in terms of some aspect of the question itself. In terms of the familiar S-O-R (Stimulus, Organism, Response) paradigm, this approach attempts to define the "S" (question) in terms of the interpretation by the "O" (respondent's reading of questioner's intent) or in terms of the "R" (answer given by respondent). Note that the definitions that follow do not state that some quality of the "S" makes it leading; it is defined only in terms of the respondent's interpretation or the eventual answer given. So the definitions are circular. Simply put, current definitions state that a question is leading if it leads.

A review of definitions (see Table 1) illustrates that most fall into one of two groups: (1.) those that emphasize the organism and (2.) those that emphasize the response. Those emphasizing the organism ("O") employ terminology referencing human perceptions or other internal, cognitive responses. For example, the respondent may interpret the question as a *clue* (Malhotra & Peterson, 2006) or an *indication* (Churchill & Iacobucci, 2005) as to what answer is desired. The respondent also may perceive the question as a *suggestion* (Aaker, Kumar & Day, 2001) or *expectation* (Burns & Bush, 2010). Again, it should be noted that

TABLE 1:
A Sample of Definitions of Leading Questions

SOURCE	DEFINITIONS OF "LEADING" OR "LOADED" QUESTIONS	S-O-R EMPHASIS
McDaniel & Gates, 1991	Influence people to respond in a manner that does not accurately reflect their positions.	R
Zaltman & Burger, 1975	Make it easier for the respondent to react in a certain way.	R
Rubenstein, 1995,	Influences or cues the respondent to some desired response.	R, O
Gallup & Rae, 1940	Worded in such a way as to bias the response.	R, S included
Moser & Kalton, 1972	By its content, structure or wording, leads the respondent in the direction of a certain answer.	R, S included
Gawiser, 1994	Use language and structure to push the respondent to a specific position.	R, S included
Young, 1994	Phrased in such a way that respondent answers are influenced by the question wording.	R, S included
Mangione, 1995	Written in such a way as to force people to answer in one direction or another.	R, S included
Malhotra & Peterson, 2006	One that clues the respondent to what the answer should be.	O
Churchill & Iacobucci, 2005	Framed to give the respondent an indication about how he or she 'should' answer.	O
Aaker, Kumar & Day, 2001	Clearly suggests the answer to the respondent	O
Zikmund & Babin, 2007	Suggests or implies certain answers	O
Tull & Hawkins, 1980	Suggest what the answer should be or indicate the researcher's own point of view	O
Burns & Bush, 2010	Worded or structured in such a way as to give the respondent a strong cue or expectation as how to answer	O, S included
Warwick & Lininger 1975	Content, structure, or wording-push the respondent in the direction of a certain answer by implication or suggestion	O,S included

these definitions of a leading question do not focus on characteristics of the question itself, but, rather, are one step removed from the question, and place emphasis on the mental responses to, or interpretations of, the question.

Those definitions emphasizing the response ("R") are even one more step removed from the question. These definitions indicate that to be leading, the question must not only trigger an internal cognition, but also a reaction. Now the question *pushes* (Gawiser & Will, 1994) or *influences* the respondent (Rubenstein 1995). The subject is *led* (Moser & Kalton, 1972) or even *forced* (Mangione, 1995) to a specific answer.

Several definitions do mention the question itself. We are told that something about the *wording* (Gallup & Rae, 1940) or *language* (Gawiser & Will, 1994) allows the question to lead. Others state that it is the *phrasing* (Young, 1994) or *structure* (Moser & Kalton, 1972) that moves a question into the "leading" category. One of the better definitions tells us that by the question's content, structure, or wording the respondent is pushed in the direction of a particular answer (Warwick & Lininger, 1975). While these definitions do raise the issue of question wording or structure, they in no way indicate what wording or which structures are culpable. All questions contain wording; all questions have structure. Telling the reader that the problem lies in some unidentified thing within the structure or wording of these particular questions is not helpful. These definitions acknowledge that the question is the root of the problem while simultaneously avoiding any attempt to narrow or delineate the issue so as to aid the researcher in identifying a leading question. Simply stated, these definitions are not operational: they do not specify the problem in such a way as to facilitate a solution.

Some would argue that a respondent-based approach to the definition of "leading" is warranted in which the respondent's interpretation is central to the definition. While this perspective holds theoretical weight, it is fruitless from a research process perspective. Informing the researcher that "leadingness" is based on perception means only one thing from a process point of view: prior to conducting a study, the researcher should conduct a pre-study for each question to learn how each question is perceived. The results of the pre-study should be used to revise questions into non-leading questions. At this point, the researcher should proceed with traditional pretesting of the new questionnaire. After again revising the questions as a result of the pretest, the researcher is ready to collect data. Some have suggested when "the stakes are high," (Dillman, Smyth & Christian, 2009) an even more laborious method should be applied, such as those methods reviewed by Presser, et al. (2004): cognitive interviews, behavior coding, response latency, vignette analysis, formal respondent debriefings, experiments and statistical modeling. What is needed is a structured review protocol allowing the researcher to detect potentially leading questions *a priori* in a reasonably efficient fashion. The only practical approach is to develop a system for inspection of the "S" (the question itself – its wording and context) that will assist the researcher in isolating the leading aspects of the "S" so as to improve the question prior to conducting the survey.

TOWARDS A SOLUTION: THEORETICAL FOUNDATIONS

The answer to why leading questions are so prevalent after being scrutinized for years is deceptively simple: there is not just a single pathway for making a question "leading." We are seeking a unidimensional definition of a multidimensional construct. The question, "You ran the red light, didn't you?" is leading because it contains (a.) the complete answer desired, plus (b.) a direct request for assent. On the other hand, the question, "Should the state ignore the principles of the Bible, which is the law of God and morality, by legalizing murder by abortion?" provides a self-contained argument for the answer desired. Both questions lead, but they do so via application of differing techniques. To sort out the problem of "what is a leading question?" is to categorize the variety of overarching ways in which a question may lead.

The issue of categorization is a common one within any field of scientific inquiry. In fact, it has been said that "partitioning is the foundation of analysis" (Kerlinger, 1973, p. 137). Others go even further, claiming that "ordering, classification, or other grouping of the objects or phenomena under investigation" may be the most important phase of any scientific inquiry (Carper & Snizek, 1980, p. 65). We present in the next section such a classification of the phenomena.

The Semiotics of Leading Questions

In the field of semiotics, a well-developed system exists for organizing and studying meaning (Mick, 1986). The field of semiotics posits there are three distinct functional components to a complete symbol system, or the way in which language patterns and experiences are formed to create meaning. The

components are syntactics (how signs work together to create meaning), semantics (what the signs mean together) and pragmatics (how is communication affected by context). These components translate nicely to pinpoint three broad dimensions of a question that may convert a question into a leading question. The *question structure* – such as beginning with "Isn't it true that…" – can convert virtually any question into a leading question. The actual *question content* – such as the facts inserted into the question – may make a question leading. Additionally, the way in which the question is asked, the *question context/delivery* – such as the tone of voice or the body language of the questioner that invites agreement – can create a leading question. In the following section, we illustrate the theoretical underpinning of question structure, content and context using a foundation in semiotics, and we provide examples to demonstrate how these three distinct dimensions may be used to create leading questions.

Question Structure as Syntactics

The *structure* of the question may cause the question to lead, as in: "Wouldn't you agree that greater expenditures on digital marketing lead to greater sales growth?" Notice that this question has not introduced facts that may affect the respondent. Rather it is the structure of the question – the presence of the preparatory phrase "Wouldn't you agree" – that cues the respondent to deliver the desired affirmative response. This category of Leading Question parallels the semiotic category of "syntactics." Syntactics explains how individual signs—in this case, single English words—operate together to form more complex meanings, such as complete questions (Morris, 1938). Syntactics represent the formal structural/grammar rules of the entire sign system. These rules are such that certain *question structures* will lead the respondent because they are understood by both questioner and respondent as a request for a specific response.

Question Content as Semantics

To illustrate how question *content* may create a leading question, consider the example: "Studies show that greater spending on digital marketing leads to greater sales. Do you favor higher or lower spending on digital marketing?" In this example, certain facts (or purported facts) are presented in such a way as to make the question leading. A purported fact – greater spending on digital marketing – is used to lever the respondent in the direction of favoring higher spending on digital marketing. Within our classification system, *question content* focuses on the facts, as well as purported facts or implications of fact, forming the building blocks of any question. Semantics focus on the meaning of a collection of signs. The facts in the example above are the signs or symbols containing the elemental kernels of meaning within the question. Such facts, as the semiotician would say, are the fundamental symbols that contain meaning (Peirce, 1931).

Question Context as Pragmatics

The *context* of the question may also make it leading. Imagine the exact same words delivered in two different contexts. First, "greater spending on digital marketing leads to greater sales," delivered in a business meeting. This would not even be perceived as a question, but as a declarative statement. Now, imagine the exact same words spoken at a meeting hosted by a major digital marketing firm in which banners and other signage show the firm as the event sponsor. The context openly asks for agreement. Pragmatics specifically focuses upon intent, occasion and inflections (Stalnaker, 1972). In semiotics terminology, pragmatics recognizes how the delivery of a message may create meaning not inherent in the speaker's words alone, but in the intonation, volume, expression, pitch and sound quality of the voice. Unlike semantics, with a focus upon words as they stand in a vacuum, so to speak, pragmatics looks at communication in context (Fotion, 1995). The parallel of *pragmatics* within our categorization is *question context*, pointing out that the totality of the questioner's *delivery*, which incorporates the non-verbal and general context of the setting, greatly impacts the question's meaning.

There is one more point to be made here, and it is the key to understanding the classification system: the three leading mechanisms may be used in any combination; a single question might leverage all three. Therefore, the

classification we propose is not a classification of leading *question*s: it is a classification of the very mechanisms causing the question to lead. Rarely will a leading question make use of only a single mechanism.

Proposed Categorization

An inspection of the extant literature combined with the authors' own experiences yielded many questions held out as examples of "leading." Our categorization is created by examination of the key dimensions that give rise to meaning of a question which stem from semiotics. The result is a categorization consisting of three primary mechanisms and a total of 12 sub-mechanisms. See Table 2.

Question Structure Mechanisms

We should note that within the discussion of *question-structure*-based leading questions, our example questions will often employ facts. The reader may wonder why these questions are not covered in our category of *question-content*-based leading questions. The answer is that we wish to give realistic examples and very few questions are fact-free and, as we have noted previously, most leading questions make use of more than one leading mechanism.

In the first section of our categorization, we place the focus on those characteristics of question *structures* that create leading questions. We discuss five mechanisms that may be used to create leading questions based up the structure of the question.

(1.) Includes answer. The simplest way to create a leading question is by including the answer within the question itself. The root of such a question is a declarative statement. Then, some twist converts the statement into a question that simply asks for agreement with the declarative. "The product worked well, didn't it?" is an example of this question form. Almost any question seeking acknowledgement of or agreement with a declarative statement is leading. Examples include "isn't it true," or "wouldn't you agree," or "isn't it possible that" or ending with, "correct?"

There may be many variations on this theme. One version purports to provide a memory aid, such as, "Have you seen any Buick commercials featuring Tiger Woods?" This question tells the respondent that Tiger Woods *is* in Buick commercials. Another variation: "Is Brand Y the best brand on the market?" In these questions, the substance of the answer is contained within the question. If this substance originates anywhere other than inside the respondent's head, the question is probably a leading question.

Non-leading versions of these questions eliminate the "answer," creating a more open question structure. "What color was the light when you went through the intersection?" "Have you seen any commercials for automobiles?" and "In your opinion, what is the best brand on the market?" all eliminate the specific, desired response to the question. *Some would refer to this as a "funneling technique" where respondents are moved from the general (to eliminate any cognitive cue that could trigger a specific response) to the specific. For example, relative to automobile commercials, a second question may be "Can you recall any auto brand names advertised in those commercials?"*

(2.) *Logic.* Rather than coming out and stating an answer, it is also possible to steer the respondent to an answer by logic or apparent logic. This question structure includes information that leads the respondent towards some answer by making one response appear the most reasonable or by making other responses seem foolish. "During the Greyhound bus drivers' strike, there was a good deal of violence. Do you support unions when strikers resort to violence?" (Rubenstein, 1995, p. 215.) is an example. Another question structure using logic is to make a statement that leads in one direction then requests a "choice," even though the selection has effectively already been made for them. For example, "Studies show that greater spending on digital marketing leads to greater sales growth. Do you favor digital marketing spending, or should digital marketing spending be lowered in spite of this fact?"

(3.) Presumption. There are many ways to insert a presumed fact into a question, then use any reply as evidence of the respondent's support of the presumption. If the question is, "How fast was the car going when it went

TABLE 2:
Leading Question Mechanisms, Elements and Examples

CATEGORY	EXPLANATION	EXAMPLE
Step 1: Examine Question Structure	Common ways to make the FORM of the question leading include crafting a question that: 1. **Includes the answer** in the question. 2. Uses **logic** or apparent logic to steer the respondent to an answer (parallel examples). 3. **Presumes the truth** of an answer, or the truth of something logically leading to an answer. 4. **Avoids** allowing the respondent to provide a possible answer; false choice. 5. May be answered only as **Yes/No**.	*"Wouldn't you agree that greater expenditures on digital marketing lead to greater sales growth?"*
Step 2: Review Question Content	Common ways to use FACTS to make a question leading would be to include: 1. **Unsupported assertions** presented as facts. 2. **Supported facts** (or points *presented* as supported) presented in an unbalanced fashion in which facts that might justify an answer are avoided and facts that support others are provided. 3. **Loaded words**/broadly held beliefs which generate an emotional/cognitive impetus towards an answer.	"*Studies show that greater spending on digital marketing leads to greater sales. Do you favor higher or lower spending on digital marketing?"*
Step 3: Evaluate Question Context	Common ways to use DELIVERY OR CONTEXT to make a question leading include: 1. Make respondents **aware of the desired outcome** of, or "purpose" for, the survey. 2. Make respondents **aware of the sponsor.** 3. Use **preceding questions** to set up assumptions in the mind of the respondent. 4. Use **non-verbal cues.**	Meeting hosted by a major digital marketing firm in which the message is delivered that, "*Greater spending on digital marketing leads to greater sales*."

Repeat the examination of questions if changes were made at each step.

through the yield sign?" (Loftus, 1979) some respondents will jump to the conclusion that the car went through the yield sign, whether they witnessed such a thing or not. The earmark of these presumption questions is that the content is inserted in such a way so as to not draw attention to itself. Rather than showcasing the content for the respondent's consideration as in the above "logic" questions, it is delivered in a fashion that invites the respondent to gloss over its presence and respond as if the content was already established fact.

(4.) Avoidance. Just as including information may bias a question, so may excluding information. But the more common way for avoidance to bias a question is by disallowing certain responses. Like one-sided positions stated in the question itself, response options may also be leading if they are one sided. Questions which limit response options in one direction or another may lead a respondent and yield a biased response.

In a closed ended question, consider: "Which of the following best describes your intention to

buy product X?" followed by the options, "Very Likely, Somewhat Likely, Neither Likely nor Unlikely, Not Likely to Buy." By using an unbalanced scale, there are fewer "unlikely" response options than "likely" categories. The result is that the measured level of intention to purchase will be higher than the true level (Foddy, 1993). It should be noted that in some special circumstances, such as in customer satisfaction surveys, an unbalanced scale is often used to develop finer discrimination at the upper end of the scale when there is a priori knowledge that most respondents will use the upper end of the scale. Still, many researchers argue, for reasons given above, that "don't know" or "no opinion" options should always be provided (Payne, 1951).

A variation on the avoidance theme is the "false choice" question. This form presents limited options as if they were the only options. A respondent might be asked, "Should we continue to increase our funding for Medicare annually, or should Medicare be replaced with a more fiscally sound program?" Many options are available that are not mentioned within the question, such as keeping Medicare and not increasing funding, or keeping Medicare and reducing funding By avoiding any such mention, the question is framed to suggest that the two options suggested are the only two available.

(5.) The Special Case of Yes/No. Many non-attorneys, and survey researchers in particular, are surprised to learn that the "yes/no" question is particularly suspect of being leading in a court of law. The definition of a "leading question" found in *Black's Law Dictionary* begins as a researcher might expect: "(a) question that suggests the answer to the person being interrogated." Then the definition adds the twist surprising to most researchers: "esp., a question that may be answered by a mere 'yes' or 'no'" (Black's Law Dictionary, 2000, p. 719). The Texas Supreme Court developed its definition of the leading question in 1891 and still sees fit to apply that definition today. There, the court stated that a classic leading question is one that contains a "group of facts" and may be answered by a simple "yes" or" no" (*Lott v. King*, 1891).

These definitions make it clear that researchers should always be suspicious of the "yes/no" question. This type of question invariably triggers both structure issues and content issues. The form of the question is such that it invites, or, at the very minimum permits, acquiescence to the question. As the Texas court suggests, a single syllable forms a complete response to the question. The form is such that all information is supplied by the questioner rather than the respondent. The respondent does not supply facts, s/he merely assents or declines.

As the definitions above mention, "yes/no" questions invariably include facts or purported facts. These facts may suggest the answer, again inviting yea-saying. This combination of potential yea-saying form plus potentially suggestive facts is always dangerous. The "yes/no" question is *structured* to ask the respondent to agree/disagree with specific question *content*.

However, not every "yes/no" question is leading. Not every "yes/no" question constitutes an attorney's attempt to interject his/her version of the facts. "Isn't it true that a fire caused by the lithium ion battery from your company's cell phone injured the plaintiff?" is a "yes/no" question presented in a leading fashion. However, the "yes/no" question, "Did any injury occur?" would not be considered leading in most circumstances.

A "yes/no" question is only objectionable for the exact same reason any other question would be objectionable: because it involves a biasing technique. So long as the answer to the question is a function of the witness' knowledge, not a function of the question, it is not a leading question and no objection should be sustained (Murphy, 1993). A "yes/no" question should be evaluated in the exact same manner as any other question to determine if it is leading. The mere fact that it is in a "yes/no" format does not immediately transform it into an improper, leading question (Mueller & Kirkpatrick, 2004). But it should immediately trigger the researcher's heightened scrutiny for both structure-based and content-based biases.

Question Content Mechanisms

(1.) Unsupported Assertions / Hypotheticals. Perhaps the most common approach to leading

via facts is the use of the unsupported assertion. "Some people say President Jimmy Carter was incompetent. Do you agree or disagree?" is a good example because it seems fairly innocuous (Rubenstein, 1995, p. 215). It is almost beyond doubt that SOME people think that any one of our previous Presidents was incompetent: the statement needs no support. Equal weight is placed on both alternatives: the respondent is asked to agree OR disagree. However, there is little doubt that we would get a very different response with this different—and equally leading—phrasing of the question: "Some people say President Jimmy Carter was one of our finest Presidents. Do you agree or disagree?" More to the point, a neutral phrasing, "How would you rate Jimmy Carter as a President: excellent, above average, average, below average or poor" would draw a response different from either of the leading versions that include an unsupported assertion.

A very similar approach substitutes a hypothetical for the unsupported fact. "Would you vote for someone who had forced public employees to join a labor union or be fired?" shows how the technique is used (Bradburn & Sudman, 1988, p. 63). In that example, a "fact" was not stated; no claim was made in the example that any public employees have ever actually been forced to join a union. It does not state the fact, but merely implies it. However, the impact is essentially the same.

(2.) Supported Facts. This is very similar to the above category, but goes one step further by inserting some level of support for the purported fact. The example in the section above could be modified to: "Recent surveys prove that a majority of Americans say President Jimmy Carter was incompetent. Do you agree or disagree?" Here, surveys provide *support* for the assertion about what "Americans say." This inclusion yields a question even more leading than the "unsupported" form. The use of the word "prove" further exacerbates the problem by signaling that the purported fact is beyond question.

(3.) Loaded Words/Broadly Held Beliefs. Certain words evoke such a powerful affective response – at least within a specified time, place and audience– that they would be better avoided in a survey instrument. The first ones that come to mind include: "disaster", "pollution", "zealot", "terrorist", "abortion," "pedophile" and "gun control." However, many words/phrases have the potential to bias a response. "Don't you think the New Deal dictatorship should stop persecuting business?" (Gallup & Rae, 1940, p. 96) or "Do you want union officials, in effect, to decide how many municipal employees you, the taxpayer, must support?" are representative examples (Bradburn & Sudman, 1988, p. 63).

A particular type of loaded word deserving special attention is the all-inclusive term – all, every, totally, etc. Just as standardized test-takers are wary of all-inclusive terms, many survey respondents recoil at all-inclusives as well. A classic example of the use of an all-inclusive term is "Do all cats have four legs?" (Payne, 1951, p. 160). While a correct conceptual answer may be "yes," a technically correct answer is "no." Very few ideas that may be expressed in English words have, literally, zero exceptions. Therefore, when a question makes use of an all-inclusive term, that question comes with a built-in validity issue. Is the respondent giving an answer based on their breadth of experience in the real world? Or is the answer limited to a narrow logical function dictated by the use of an all-inclusive? The only way to resolve the issue is by asking further, non-leading questions. Clearly, the simpler fix is to avoid the use of all-inclusives in the first place.

Similar to the loaded word is the broadly held belief. Within a given cultural milieu, it may be almost unacceptable to question certain conclusions. Questions that include references to these cultural touchstones are automatically suspect. Here are a few classic examples:

- Should the state ignore the principles of the Bible, which is the law of God and morality, by legalizing murder by abortion?
- As the Founding Fathers gave us the right to bear arms, don't you agree that…?
- Are you opposed to groups that give comfort to terrorists?

A closely related approach is to substitute a popular or respected figure for the belief, implicitly or explicitly stating the figure

supports a particular position. The question, "Do you support the star wars technology backed by former President Ronald Reagan?" makes use of this approach (Rubenstein, 1995, p. 216). Both the loaded words and broadly held beliefs approaches insert encoded arguments into the question. The bias is not made explicit in a denotative fashion, but via a connotative pathway. The proverbial "man from Mars", or a stranger unfamiliar with the cultural context, would not recognize such questions as leading. But those in touch with the culture and the mood of the responding population will discern the leading quality of such questions.

Question Context Mechanisms

(1.) Aware of Desired Outcome. As the respondent has little or no stake in the survey, it may not be uncommon for the respondent to wish to please the interviewer or survey sponsor. A preface that even in the smallest way hints at the specific purpose for the survey, the desired results or intended applications may create a context that will sway some respondents. The auto service manager who prefaces his/her request for a customer satisfaction survey by noting that dealers are evaluated and rewarded based upon the surveys would more likely get favorable results from sympathetic customers.

(2.) Aware of Sponsor. This is closely related to the above. The key distinction occurs in the mind of the respondent. S/he must make a logical leap from the identity of the sponsor to the outcome desired by the sponsor. Once that leap has been made, the impact is quite the same. However, it is perfectly possible that some respondents may reach an unanticipated conclusion and be led in some direction other than the one the sponsor anticipates. Survey research conducted to try to determine problems or sources of consumer dissatisfaction, for example, would be foiled by respondents seeking to please the identified sponsor with positive ratings.

(3.) Preceding Questions as Set-up. This is illustrated in the widely-referenced case of *Frisch's v. Shoney's* (1985). There, the debate revolved around the Frisch's exclusive rights to use the "Big Boy" designation within a particular geography. When restaurants called "Shoney's Town and Country" opened, Frisch's objected. They claimed that the Shoney's name was so notoriously associated with "Big Boy" that mere use of "Shoney's" within Frisch's exclusive territory constituted an infringement.

The survey instrument used in the subsequent litigation repeatedly used the term "Big Boy" in the text of the questions. By the time the respondent reached the instrument's critical question, asking if Shoney's was a "Big Boy" restaurant, s/he had heard "Big Boy" repeated six times within just the last few questions. The court concluded that this repeated hammering "set up" the respondent to find an association between "Shoney's" and "Big Boy." The verbiage of the preceding questions had predetermined the answer (*Frisch's v. Shoney's*, 1985).

Bartels (2003), referring to context as "framing effects," illustrates the impact of a preceding question on the response to a subsequent question. Citing a 1950 study, half of a national sample was asked: "Do you think the United States should let Communist newspaper reporters from other countries come in here and send back to their papers the news as they see it?" The other half of the sample was asked the same question but only after being asked whether, "A Communist country like Russia should let American newspaper reporters come in and send back to America the news as they see it." Without this preceding question, 36% of the sample agreed that we should let Communist reporters report the news as they see it. But, when asked this same question but *with* the preceding question, 73% of the sample agreed (Bartels, 2003).

(4.) Non-Verbal Cues. There is a dense literature on the use and interpretation of non-verbal cues. (A bibliography of 75 entries may be found at http://www.flc.kyushu-u.ac.jp/~michel/serv/intcult/lit-nonverbcomm.html.) The *Journal of Nonverbal Behavior* is currently in its 32nd volume. This literature will not be reviewed here. Suffice to say that the questioner's delivery may influence the respondent such that a questioner must be cognizant of vocal and physical expression.

A New Definition

Having explained our categorization and its rationale, we present a new definition of a leading question. As stated previously, existing definitions are circular with a focus on the outcome of the respondent's answer and whether that answer was one in the desired direction of the questioner. It is only by looking at all three dimensions that one may develop an all-inclusive approach to leading questions. This allows us to propose a more complete definition of a leading question: *A leading question is an interrogative expression containing a mechanism potentially capable of systematically biasing responses. Those mechanisms may operate via any one of, or combination of, three pathways: biasing structure, biasing content and/or biasing context.*

While the dimensions of the categorization are not intended for a researcher to examine sequentially, it may be beneficial for the researcher in terms of not knowing where to start to first examine the structure of a question, second to review the content of the question and third to evaluate the context of the question. Once this process is complete, it may be necessary, if changes were made, to revisit and reevaluate each dimension.

DISCUSSION

We have attempted to take a disparate literature and provide a structure to help us better understand an area that is an everyday problem for survey researchers. In our proposed categorization we have identified 12 elements of the three dimensions that are used to create leading questions. No doubt, there are other possible dimensions and some of our present categories certainly could be broken down into another level of subcategories. The key elements provide a description of what we found that has been discussed in the literature to date, coupled with our own experiences. They are certainly not the only approaches possible. Creative people will always be able to craft new approaches. We look forward to others refining not only our categorization but our proposed definition and examples.

We have been critical of the literature. In no way do we mean to impugn the foundational classic works such as that by Payne, Sudman, Bradburn, Schumann, Presser and others. Their work is and will continue to be regarded as classic and required reading for researchers. Rather, our criticism lies in that we, as researchers and academics, stopped with the classic foundations. We see our role as tying many of their previous contributions together in a unified manner in an effort to move us toward a clearer understanding of a significant problem in survey research.

In terms of future research, a categorization allows us to move past simple eyeballing and take a more scientific structured approach towards dealing with leading questions. By providing a structure, a categorization suggests an approach towards research on the effects of leading questions as called for by Presser, et al. (2004). Breaking the broad concept of "leading questions" into distinct categories allows for systematic investigation. In the tradition of Schuman and Presser (1981), exploration should be conducted evaluating the impact of the three mechanisms identified in our categorization. Do they produce differing effects? What methods are best for remedying these mechanisms? Thus, in the short term, a categorization gives a disciplined approach to identifying leading questions and a structured rationale for improving them. In the longer term, it provides a research pathway for understanding the nuances of leading questions and eliminating their impact.

Some may wish to explore the relative importance of the different mechanisms, wondering if some types of leading questions may be more problematic than others. The current authors do not find this to be a high-priority research avenue. Any leading technique may be so damaging as to render invalid the results of an entire survey. If the question "tips the researcher's hand," causing the respondent to believe she knows the answers desired, the results are called into question in toto. Other applications of the very same technique may be so slight as to not only go unnoticed, but as to have a negligent impact on results. Similarly, any technique may be applied in a fashion so artful as to sway responses while not causing alarm bells to ring

in any respondent's head. Any one may also be applied in so ham-fisted a fashion as to bias no one. It is not the specific technique that is of import, it is the application. While this is our current viewpoint, we welcome discussion and exploration on this topic.

Future research should also examine what methods are being used by research practitioners to screen for leading questions. What heuristics are practitioners using to screen questions? We recommend a "market test" of our categorization will prove useful in both evaluating and revising the categorization.

Finally, our intent here has not been to provide the definitive treatise on leading questions. We are still far from understanding how to properly word questions in survey research. If nothing else, the classic debate between Jacoby and Szybillo (1995) and Stewart (1995) validates this lack of consensus. Rather, our intent is to call attention to an area that is at the core of marketing survey research yet has not seen much research effort since the classics referred to earlier.

In our initial survey about the challenges with leading questions, we asked the degree to which respondents agreed with this statement, "It would be helpful to market researchers if they had a typology of the types of leading questions and suggestions on how to remedy each." The highest level of agreement across questions was found in this question about leading questions. Our hope is that our manuscript will stimulate marketing scholars' interests on a topic that is widespread and troublesome. Our categorization provides a useful tool to help avoid, or at least lessen experts disagreeing (Sudman, 1995) on a topic where they should not have to do so and also reduce what has been called our "scandalous record of avoidable errors" (Preston, 1992) in our collective efforts at discovery.

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