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**Context Effects On Abortion Questions: Who Is Inconsistent**

By

Carolyn S. Carlson

Under the Direction of Michael Binford

ABSTRACT

Measuring public opinion on abortion is an ongoing concern for political scientists, mainly because the public does not always exhibit fixed attitudes on such topics. Most citizens express a centrist viewpoint between the pro choice and pro life extremes. These include a small group whose answers to abortion questions are so inconsistent that they give public officials an inaccurate measure of public opinion on this important issue. Inconsistent responses may result from context effects, such as the order in which the questions are asked or the way they are asked. Usually, researchers ask a battery of questions in which respondents say whether they approve of abortion generally and under a variety of circumstances, citing the reasons for which a woman might seek an abortion. This project includes an independent national survey using questions adopted from the General Social Survey. The sample is divided into four experimental groups with different question orders. Based on these findings, the recommended question order would be the one with the general question last and the remaining specific questions in a somewhat random pattern alternating between the so-called "hard" and "easy" individual abortion situations. One of the more surprising findings is that people didn't recognize themselves as subtracting the specific situations from the general question when it was asked first; hardly any said that was what they were doing when they gave inconsistent answers. Otherwise, about an equal number of respondents admitted answering the questions off the top of their heads as those who showed ambivalence by claiming they were deeply committed to their inconsistent responses. The study found most people who inconsistent on abortion are moderates leaning towards pro choice. Also, politically conservative regular church-goers can be just as inconsistent on abortion as the non-religious, non-political, low-educated non-church goers, especially if they are basically pro choice. Without a full understanding of who is generating inconsistent answers on abortion, some researchers may be tempted to eliminate these respondents from their sample. This research should allow them to understand these respondents better and develop better question wording and question orders to reduce their numbers.

INDEX WORDS: Abortion, Public Opinion Surveys, Context Effects, Question Order Effects, Ambivalence, Response Effects, Response Inconsistency

# CONTEXT EFFECTS ON ABORTION QUESTIONS: WHO IS INCONSISTENT

By

CAROLYN S. CARLSON

A Dissertation Submitted in Partial Fulfillment of Requirements for the Degree of

Doctor of Philosophy in Political Science

Georgia State University

2005

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2005

# CONTEXT EFFECTS ON ABORTION QUESTIONS: WHO IS INCONSISTENT

By

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Dedicated to Jan Edward Carlson

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## Chapter I: Introduction

Measuring public opinion on complex and emotional issues such as abortion is an ongoing concern for political scientists, mainly because the public does not always exhibit fixed attitudes on such topics. Pinning down just what the problem is – whether they're being asked the right questions in the right order, whether they're ambivalent on the issue or whether they are simply confused by the questions they are asked – is ultimately important to the nation because the public will decide just what is to be done about the issue of abortion. The judicial branch has weighed in on the issue and the legislative branch has responded. The Supreme Court ruled in *Roe v. Wade* in 1973 that state legislatures could not outlaw abortion based on the reasons a woman sought an abortion but could limit abortions in the third trimester of pregnancy. State legislatures responded with numerous attempts to regulate abortion decisions, as well as to limit government spending on abortion, which the Supreme Court eventually allowed 20 years later. As efforts to limit abortion rights continue, understanding the opinion of the general public on this issue becomes even more important.

Both branches derive much of their power from public support and, indeed, public opinion is the ultimate authority in a democratic system based on popular sovereignty. For this democratic system to take into account the opinions of ordinary citizens, it must have an accurate way to measure it. This is particularly important with an issue such as abortion that generates "single-issue voting," where a significant number of voters choose their elected representatives based on their position on abortion (Cook, Jelen & Wilcox 1992). Researchers, with some degree of accuracy, can report on the numbers of activists who support abortion rights and those who

actively oppose it, as well as the majority of citizens who express a more centrist viewpoint between the two extremes (O'Connor 1996). Among those centrists, however, is a small but important group of people whose answers to abortion questions are so inconsistent that often their opinions are either not counted or are counted in a way that may distort the overall results of the survey, thus giving public officials an inaccurate measure of public opinion on this important issue.

These inconsistent responses may be a result of what is known as context effects – problems that arise because of the context surrounding the questions, such as the order in which they are asked or the way they are asked. Abortion has long been cited as a topic that is vulnerable to context effects, and researchers have found evidence of such in experiments dating back at least 25 years. Partly this is because public opinion on abortion is rarely measured by a single question. Usually, researchers ask a battery of questions in which respondents are asked to say whether they approve of abortion under a variety of circumstances, citing the reasons for which a woman might seek an abortion. Often, researchers will include in the battery of questions one that is considered a general question of support for abortion rights in general – usually couched in terms that indicate that the reasons for abortion are irrelevant because, under *Roe v. Wade,* the government is not allowed to consider the reasons for abortion in restricting access to abortion but is only allowed to consider the point in the pregnancy at which the abortion is sought. There are two things that are at issue in the presentation of this battery of questions: where does the general question of support go – at the beginning of the list or the end – and how are the rest of the questions ordered – from the most severe circumstances to the most casual reasons one might give for abortion, or in a more random mixture of possible reasons for

abortion. Which of these possible question orders produces the most inconsistency among respondents?

Public opinion researchers have offered a number of theories as to why respondents – induced perhaps by prejudicial question orders -- give inconsistent answers. Three are worth exploring: 1) that when asked several specific questions and then a general question, some people will "subtract" the specific situations from the general condition and then give a response to the general question that may conflict with their position on an earlier "subtracted" question; 2) that some people possess independent, and perhaps poorly thought-out attitudes on issues and thus respond off "the top of the head" to the question as it is asked, without considering how their answer correlates with other answers they may have given on similar topics; or 3) that some people have deeply conflicting core values and truly support positions that they recognize – somewhat helplessly – are not logically compatible. The first theory, which has been around from almost 30 years, has been widely cited as the rationale for putting overall evaluation questions first before questions aimed at determining the microdimensions of a line of inquiry. The second is one of several theories that take into account the split second, somewhat off-hand decision making that respondents undergo in the surveying process. The third is a recently offered alternative theory that gives at least some inconsistent survey respondents a little more credit for thoughtfulness in their responses.

This project includes an independent national survey in which respondents were asked a battery of questions about support for legal abortions, adopted from the General Social Survey. The sample is divided into four experimental groups which are each given the battery of questions in a different order – two with the general question first and two with it last, and of the two in each category, one with the rest of the questions mixed and the other with the rest of the

questions arranged in a hierarchical order from the most severe circumstances to the most casual. Those who gave inconsistent answers then are asked two additional questions – an open-ended question requesting an explanation of their thought process and a closed-end question allowing them to place themselves in one of three categories corresponding to the three theories ("which statement most closely matches your thinking"). The resulting groups of respondents were analyzed by their demographics and political knowledge in reference to each other and to the entire sample. The goals are to learn which question order produces the most inconsistent respondents, who these people are and, at least in the case of abortion questions and from the point of view of the respondents themselves, which of these theories comes into play most prominently.

One question order did emerge as the worst offender for producing inconsistent respondents among pro choice leaners – the one where the general question came first followed by the remaining questions in a descending order of severity. The other question orders showed no statistical differences overall or among pro life leaners. The recommended question order would be the one with the general question last and the remaining specific questions in a somewhat random pattern alternating between the so-called “hard” and “easy” individual abortion situations. This recommendation runs counter to the part/whole theory, but this study found little support among the respondents themselves for this theory, which would have the general question come first, before the specific ones.

Indeed, one of the more surprising findings is that people don’t recognize themselves as subtracting the specific situations from the general question; hardly any said that was what they were doing when they gave inconsistent answers. Otherwise, about an equal number of respondents admitted answering the questions off the top of their heads as those claiming they

were deeply committed to their inconsistent responses. Since the literature shows no direct comparison tests, these results will be useful to public opinion researchers in that it explains inconsistency from the respondents' point of view. At least when it comes to questions on an emotionally loaded topic such as abortion, one can expect about half of the respondents to become confused because they are just answering the questions off the top of their heads, while most of the rest are inconsistent because the views they hold are not logically compatible due to deeply conflicting core values.

At least two thirds of those giving inconsistent answers based their responses not on whether they thought the government should consider the reasons for abortion under the various circumstances, but whether they personally thought abortion was justified under those circumstances. More than three-quarters of those giving inconsistent answers considered themselves pro choice in that they supported a woman's right to an abortion for any reason, but they qualified that by basically saying it had to be a good reason and an abortion of convenience wasn't good enough. As one woman who agreed with all the questions except for abortion when the married woman couldn't afford another child, said, "That seemed kind of frivolous. That was no reason and they shouldn't be able to get one for no reason." Another respondent, who objected to abortions for unmarried women who didn't want to get married or married women who just didn't want any more children, said she thought women "should be able to get it (an abortion) for any reason, but it should cost a lot of money. She should also have a logical reason." Generally, the inconsistent respondents generally indicate they have answered the questions using their moral reasoning on the abortion issue, even though the questions ask about their support for the legality of abortions rather than the morality of abortions under the various

circumstances. Since their answers made sense to them, most of the inconsistent respondents did not seem too concerned that their answers were deemed inconsistent.

In addition to asking respondents to explain their inconsistent responses, the study attempts to identify who these respondents most likely will be. Basically, the study found that the inconsistent respondents are generally less religious than the more consistent respondents and are often pro choice conservatives. The pro choice inconsistents were less politically knowledgeable and more likely to refuse to characterize their religious views by an ideological label. An interesting finding from this research is that being a political conservative is a predictor of inconsistency – particularly if the conservative also indicates support for the pro choice position. Conservatives may have made the pro life position a cornerstone of their ideological platform, but there are still some who believe the government should not be involved in the decision to terminate a pregnancy.

These findings could be useful to public opinion researchers looking for ways to maximize their datasets by reducing inconsistent responses with better question orders or question wording. It also is helpful to abortion activists on both sides, but particularly the pro choice side, as this study finds most of the inconsistent respondents basically favored the pro choice position but had trouble articulating their position. Pro choice advocates could use this information to target their educational efforts to those potential supporters whose opinions may not be counted by researchers who throw out inconsistent responses from their dataset before reporting the results.

## Chapter 2: Literature Review

### A. Abortion public opinion

Public opinion on the public policy issue of abortion has been of intense interest since the debate on abortion arose before the 1973 U.S. Supreme Court decision in *Roe v. Wade* that legalized abortion in the United States (Cook, Jelen & Wilcox 1992, Weddington 1993). The way questions on abortion are asked in surveys has been an issue among pollsters and public opinion experts for some time (Hart 1980, Schuman and Presser 1981, Schuman, Presser and Ludwig 1981, Zaller & Feldman 1992, Zaller 1992, Lacy 2001). Abortion has become a particularly important political issue in the decades since *Roe v. Wade*, one that most Americans, even the most politically unaware, have thought about at least some little bit (Cook et al. 1992).

The issue of abortion offers numerous examples of the importance of issue framing, starting with the words used to describe the opposite sides in that debate: pro life and pro choice. Activists in favor of legal abortions thought they had won the debate when the U.S. Supreme Court issued its opinion in *Roe v. Wade* in 1973. Instead, the ruling galvanized a movement determined to outlaw, or at least restrict abortions (Cook 1998; Davis, 1985; O'Connor 1996). Abortion opponents, initially mostly Catholic activists, used the phrase "right-to-life" in their organizational names, but within two years of *Roe v. Wade*, the term of choice had changed to "pro life," with the term first appearing in the name of a legislative action plan issued by a Catholic-affiliated anti-abortion group. Two years later, the pro-abortionists, apparently deciding they were better off appealing to the American public's sense of justice and fair play, began to call their side "pro choice," with the term first appearing in an American Civil Liberties Union

document (O'Connor 1996). Both sides opted for titles emphasizing what they favor, and "each side is emphatic that the label used by the other is a mockery of what it is really up to" (Luker 1984, 2). Their awareness of the power of language has extended beyond titles. For instance, "pro-abortionists (pro choice) typically use language that avoids any suggestion of a human status for the fetus; anti-abortionists (pro life) will regularly use the term 'child,' instead of 'fetus,'" and call abortions "murder" (Davis 1985).

Despite the zeal of activists on both sides of the abortion issue, members of the public remain conflicted in their opinions on the abortion issue. Thus they appear to favor both sides of the argument, depending on when they are asked and how they are asked (Cook, Jelen and Wilcox 1992). Part of the problem is that most people feel "unconstrained by considerations of logic or consistency" (Cook et al. 1992, 13). Instead, they judge the appropriateness of abortion based on the woman's situation. The irony is that the Supreme Court has taken consideration of the reason for abortion out of the government's hands with *Roe v. Wade*, allowing state legislatures to only regulate when abortions can be performed during the pregnancy (barring third trimester abortions) and, with the later decisions of *Webster v. Missouri Reproductive Services* (1989) and *Casey v. Planned Parenthood* (1992), to dictate some of the circumstances surrounding the performance of abortions.

The public, however, believes the reasons a woman seeks an abortion do matter. Indeed, the public has little patience with what it views as abortions of convenience. It generally supports, however, abortions resulting from trauma such as rape, incest, or severe illness for the mother or defects in the fetus (Cook et al 1992). Cook, Jelen and Wilcox, in their 1992 study of public opinion on abortion, contended that activists from both sides are incorrect in claiming that a majority of the public supports their side, despite polls that sometimes show majority support

for their position, because "the opinions of ordinary citizens are much more 'centrist' than activist-level discourse might suggest" (Cook et al 1992, 15).

**B. Attitude formation theory.**

The activists, obviously, have strong preconceived attitudes about abortion, and when questioned in a public opinion survey, simply retrieve those attitudes from memory and give their answers based on their existing evaluation of the issue. The rest of the public, however, have less well-formed attitudes, and when called upon to express their opinions, they have a more elaborate procedure for developing and then answering those questions. Public opinion experts have spent quite a bit of time and effort trying to explain just what that process is and how it works. John Zaller, in *The Nature and Origins of Mass Opinion,* suggests that most people formulate their opinion off "the top of the head," depending on the question asked, based on their general values and predispositions (1992, 39). Views on abortion, for those who don't already know whether they are pro choice or pro life, can be derived by examining one's more basic views on such things as religion, sexual freedom and the role of women in society (Luker 1984). Several studies have shown that respondents sift through a number of general as well as specific thoughts on relevant values and other information before deciding on an answer to a particular question on an issue (Tourangeau, Rips and Rasinski 2000).

In *The Psychology of Survey Response* by Roger Tourangeau, Lance J. Rips and Kenneth Rasinski (2000), an attitude was defined as the catalogue of feelings, beliefs and knowledge one has about an issue. When asked a question about one's attitude towards the issue in the context of a survey, one maps a response to the available answers depending on which of these feelings, beliefs, etc., is most accessible at the time. Some factors that affect accessibility include

instructions included in the survey, previous questions, the wording or framing of the question, the nature of the response choices provided, and the strength of the considerations on one's long-term memory. The Tourangeau, Ripis and Rasinski model for attitude response is part of a larger model of survey response that includes four basic steps: comprehension of the question itself, retrieval of the requested information or the basic considerations necessary for formulate an answer, making a judgment as to one's answer or position and then mapping that position onto the response options offered by the survey. Tourangeau, Rips and Rasinski contend that "responses to attitude questions are inherently unstable because they are based on a sample of relevant material, a sample that overrepresents whatever considerations happen to be accessible when the question is asked" (Tourangeau et al, 2000, 181). Not only will the sample of considerations be different each time a question is asked, the value or weight given to each consideration may differ according to the specific question asked (Tourangeau et al. 2000). With complex issues such as abortion, the variety of considerations that could be brought to mind could be broad indeed, while the time interviewers give a respondent to map their position to a response lasts only a matter of seconds. With little time to reflect, only those with strong predispositions on such issues as abortion are likely to give stable responses.

**C. Theories explaining inconsistencies.**

**1. Question order and the part-whole theory**

Instability has been apparent in responses to surveys on abortion attitudes, particularly when compared over time, but sometimes when compared within the same survey or study (Schuman, Presser and Ludwig 1981, Carlson 2004). Explanations have focused on context effects and these have changed over time. An often studied context effect has to do with question

order, which can be particularly relevant in abortion surveys because most involve multiple questions in which respondents are asked about their level of support for abortion under a variety of circumstances.

To illustrate context or response effects in general, Schuman and Presser (1981) described a well-known experiment from the 1970s regarding opinion towards Soviet journalists in which 37 percent of one-half of a sample of respondents said they would allow Communist reporters in the United States. The other half of respondents were asked first if U.S. reporters should be allowed in Russia. Most favored that idea and, when asked next if Communist reporters should be allowed in the United States, 73 percent agreed. Schuman and Presser said that, when asked only about the Communist reporters, most respondents answered based on anti-Communist sentiment. But when they were asked about the U.S. reporters in Russia first, "a norm of reciprocity is immediately made salient" (Schuman and Presser 1981, 28) and the answer is given based both on the notion of fair play as well as anti-Communist sentiment. Thus, Schuman and Presser concluded, the context of questions, particularly which questions come first and which questions follow, matters in the responses to surveys.

One basic, early theory of question order context effects or response effects is known as the part-whole effect or the subtraction process (McFarland 1981, Schuman, Presser and Ludwig, 1981, Lacy 2001). Under this theory, respondents tend to "subtract" the specific situations from the general condition so that their answer to a general question, when asked last, is different than it would have been had it been asked first or "unprimed." The idea is that agreement with the general condition implies agreement with specific conditions included therein, while the reverse is not necessarily true. Indeed, having agreed with the specific condition, the respondent might feel less constrained to agree with the general condition if asked about it second, while the

respondent who agrees with the general condition first feels obligated to agree with the specific condition when asked about it next.

In a 1981 study specific to the part-whole theory of context effects, Schuman, Presser and Ludwig used two questions on abortion from the General Social Survey. They argued that respondents giving their support to abortion in the first question felt free to subtract that scenario from the second question and thus found it easier to change their position to opposition of the second scenario. Schuman et al. explained their findings using the part-whole theory, although their actual experiment was flawed in that it used two very specific questions instead of a specific and a general question. The specific question, which Alvarez and Brehm (1995) would later call an "easy" question, was: "Do you think it should be possible for a pregnant woman to obtain a legal abortion if here is a strong chance of serious defect in the baby?" The general question, which would be a "hard" question under the Alvarez-Brehm definition, was "Do you think it should be possible for a pregnant woman to obtain a legal abortion if she is married and does not want any more children?"

The part-whole theory, however, has found ample support in other research. McFarland, in the same issue of *The Public Opinion Quarterly*, for instance, reported on an experiment that illustrated support for asking general questions before questions on more specific content because "unprimed responses are probably closer to the respondents' real feelings (McFarland 1981, 213)." Most studies of the part-whole effect have found that placing the specific question first increases the amount of opposite or contrast responses to the general question coming later (Tourangeau et al 2000). One study, however, found less of a contrast effect with the general question coming after three specific questions, presumably because respondents viewed it as summing up the discussion after looking at specific aspects of the issue (Schwarz, Strack & Mai,

1991). In that study, having to do with one's rate of satisfaction with life, there was a marked contrast between the specific and general questions only when the respondents were told to exclude from consideration the specific situations they had already heard about; when told specifically to include them, however, the correlation between the specific and general questions was better even than when the general question had been asked before the specific question (.53 vs. .32, n=50) (Schwarz et al 1991).

**2. Top of their heads theory**

Philip Converse argued, in his groundbreaking "The Nature of Belief Systems in Mass Publics" in 1964, that most people simply did not hold stable, well-defined opinions on major political issues. Their opinions on some issues are often independent of their opinions on other issues and their responses to survey questions often are unstable over time, Converse found. Converse called this instability the result of "nonattitudes," suggesting that the formation of answers to attitude questions is, for many people, a nearly random process (Converse 1964).

More recently, Zaller did not adopt Converse's conclusion that much of the public lacks "meaningful attitudes." Instead, he concluded that "individuals do not typically possess 'true attitudes' on issues … but a series of partially independent and often inconsistent ones" (1992, 93). Zaller said, "Which of these considerations is available at the top of the head at the moment of confronting survey questions determines responses to the questions" (Zaller 1992, 39). Zaller contends that survey respondents often appear to be making up their opinions as they go along. "Given a situation in which people are both internally conflicted and answering questions off the top of their heads, any factor that systematically affects the salience of ideas in people's minds, should also affect their survey responses" (Zaller 1992, 92). Question order and wording can have powerful effects, with survey respondents reacting to the context of the question within the

survey, the order of the alternative answers given, and the wording of the question itself (Zaller and Feldman 1992).

While change in question order can sometimes yield small differences in public opinion, changes in question wording can, and often do produce rather large effects on political opinions (Zaller 1992). "The feeling seems to be that differently worded questions *should* get different answers, since they change either the emotion loading of the issue or, in some cases, what the respondent is being asked about" (Zaller 1992, 33). In fact, the public relies on the context of the question and its particular wording for clues about the issue and what relevant considerations they should be bringing to bear. Zaller called his "top of the head" theory the RAS model, standing for Receive-Accept-Sample, referring to the process by which people receive information, decide whether to accept it and then sample considerations at the moment of answering questions. This model is based on four axioms:

- The more people know about an issue, the more likely they are to receive political messages concerning that issue.
- People resist arguments inconsistent with their political disposition to the extent that they perceive a relationship between the message and their predisposition.
- The more recently a consideration has been called to mind, the less time it takes to retrieve it from memory and bring them to the top of the head for use.
- Individuals answer survey questions by averaging across the considerations that they have brought to the top of their heads when asked the question.

So respondents to a series of abortion questions, under Zaller's theory, would retrieve their most recently considered thoughts on the issue, would resist any implications in the

question wording that goes against their predisposition to the pro choice or pro life side, if they have one, and would answer the question without giving it much greater thought than that.

But when questions on a similar topic are placed together, as abortion questions often are, most respondents try very hard to give logically consistent answers even when the relationship between the questions is not strictly logical (McGuire 1960). "A person tends to minimize logical discrepancies between belief and belief on related issues, and between belief and wish on the same issue," McGuire wrote in *A Syllogistic Analysis of Cognitive Relationships.* The art of asking questions in a survey, therefore, is in the order as well as the wording. Responsible pollsters will use various techniques to minimize the effects of question order, such as rotating the questions, and will select wording that evokes memories of both sides of an issue instead of just one (Hart 1980; O'Neill 1980).

Question order can be as important, therefore, as the actual framing, or wording, of the question in its influence on the respondent's answer. Framing theory helps address how people form judgments based on how an issue is presented to them. Depending on the topic, its importance and its emotional impact, people will use memory-based or on-line methods to link messages with knowledge to form judgments. With the memory-based method, people integrate new information with whatever information they can remember on the subject. The on-line approach suggests that people maintain an evaluation of an issue and judge new information based on whether it reinforces or forces a change in that evaluation (Capella and Jamieson 1997). With either method, the presentation of the issue dictates what memories are activated, or which on-line evaluation is brought to bear. Thus, a question that stresses democratic values, such as justice and fair play, is likely to render a different judgment than a question on same issue that stresses moral values (Graber 1988; Davis 1985). With respect to abortion, for instance, a

question that evokes the rights of the pregnant woman might draw a different response if posed prior to a question that evokes the rights of the fetus than if it were posed only after questions that first awaken values related to the future of the unborn baby.

**3. Deeply conflicting values theory**

For some respondents, however, the problem with giving logically consistent answers may not arise from giving too little consideration to the issue at hand, as could easily be the case described by Zaller's theory, or from reacting to such context effects as the question order implied by the part-whole theory. The problem may be that people are not logical in their actual positions on the issue, particularly one as complex and emotional as abortion. Deeply conflicting core values can lead to support for positions on various aspects of the issue that, when taken as a whole, are not ideologically cohesive. For these people, it's not that they have not thought about the issue but they have thought too much about it.

R. Michael Alvarez and John Brehm, in *Hard Choices, Easy Answers: Values, Information and American Public Opinion* (2002), and in an earlier paper (1995), determined that some survey respondents gave conflicting answers on abortion because of their ambivalence over the issue due to deeply conflicting core values. They also looked at whether new information could help respondents resolve the conflict and found that it, instead, magnified the problem. They distinguished this state of opinion as ambivalence – the idea that "one reason opinions may be variable over time and context is that respondents experience strong, internalized conflict over the choices they are asked to make about policy" (Alvarez and Brehm 2002, 68). They note that one of the distinct routes by which respondents become ambivalent "proceeds from the framing of elites' debates to citizens' understanding of the problem" (Alvarez and Brehm, 148). That some people are profoundly ambivalent over abortion could be

the results, they contend, of the framing of the abortion debate by competing elites who "are equally successful in propagating irreconcilable values across the public (such that many members of the public express support for both) (Alvarez and Brehm, 148)."

But Alvarez and Brehm did not try to identify the people most likely to give ambivalent answers on abortion. While they claim that many people are in this position, they did not try to quantify just how many of the people who give inconsistent answers on abortion fall into this position. Nor did they try to determine if those most ambivalent differed from those respondents who were more consistent and confident in their positions.

**D. Literature on other previous abortion studies**

Just what do we know about the people who give inconsistent answers on surveys? Researchers have found that education, or the lack thereof, influence which respondents are most likely to be influenced by question order effects (Narayan and Krosnick 1996), and that age can also impact response order effects in attitude measurement (Knauper 1999). Another researcher recently looked specifically at question order effects involving public opinion on abortion, but the thrust of that study was to determine the impact of an abortion question on a subsequent question on welfare spending (Lacy 2001).

Tourangeau and Rasinski, in a study first presented in *The Psychology of Survey Response,* tested the stability of attitudes on abortion over time, looking at results from two surveys of the same 499 respondents in the Chicago area, conducted three weeks apart. In this study, they did not ask about reasons for abortion but asked generally about sentiment on the issue of abortion, with questions such as "would you say you are strongly on one side or the other on the abortion issue or would you say your feelings are mixed?" They found that stability

of answers depends upon “the internal consistency of our views about the issue, the extent to which we consider the same information on both occasions, and the extent to which we construe that information in the same way” (Tourangeau et al. 2000, 195). Tourangeau and Rasinski, however, did not disclose any specific demographics about the people in their study who gave inconsistent answers.

## Chapter 3: Earlier studies by author

### A. ABC study

Earlier papers by this author tried to isolate respondents to national surveys on abortion who gave inconsistent responses, in an attempt to identify who they are demographically. These studies looked at the results of queries on abortion in a survey conducted by ABC News and in the 1996 General Social Survey (Carlson 2000, Carlson 2004). In the ABC News poll, fully 25 percent of the respondents gave confused or ambivalent answers, while in the GSS study, about ten percent gave ideologically inconsistent answers to a battery of questions on abortion. Missing from those studies were opportunities to question the respondents on their inconsistencies.

The ABC questionnaire opened with a general presidential approval rating question and then jumped straight into a series of questions about abortion. The first of these questions was a general question on support of abortion as a reproductive choice: "Do you tend to agree or disagree with this statement: a woman should be able to get an abortion if she decides she wants one, no matter what the reason." The next seven questions present a variety of specific situations and asked the respondent to say whether an abortion should be legal in that situation or illegal.

The situations were arranged in the ordered, hierarchical manner of a Guttman scale[1] (Smith 1960). They were, in order:

A. When the woman's life is endangered.

[1] A Guttman scale seeks to measure attitudes by asking a series of questions for which the majority if not all respondents are expected to answer the first question positively, with fewer respondents expected to answer subsequent questions positively. The point is to measure the strength of attitude conviction by determining which respondents answers all or some of the questions positively (Smith 1960). Some argue that Guttman scales are inappropriate for attitude measure because the answers to such questions do not correlate high enough (Robinson 1973). One alternative to a Guttman scale order would be a more random mixture of questions.

B. When the woman's physical health is endangered.

C. When the woman's mental health is endangered.

D. When there's evidence the baby will be physically impaired.

E. When there's evidence the baby will be mentally impaired.

F. When the pregnancy was caused by rape or incest.

G. When the woman is not married and does not want the baby.

The first six items are common scenarios offered as a middle ground in the abortion debate – between no abortion at all and abortion for any reason (O'Connor 1996). They typically are considered legitimate reasons for an abortion and, indeed, received significant majority support in this survey. The final option is a negatively stated situation that pro life advocates have often ridiculed as an immoral use of abortion as birth control (O'Connor 1996). Six of these seven scenarios are what Alvarez and Brehm (1995) would call "easy" questions on abortion – these are circumstances under which most states allowed abortions even before the *Roe v. Wade* decision (Weddington, 1993). The first, general question asking about an abortion "no matter what the reason," and the last scenario, about the unmarried woman not wanting the baby -- are what Alvarez and Brehm called the "hard" questions – situations under which women can now obtain abortions but are seen by pro life advocates as morally objectionable.

Given the above discussion of question order and framing effects, it is not surprising that the majority of respondents answered the first question positively – women should be able to get an abortion when she decides she wants one, without having to give a reason. But, after having heard a series of dire circumstances for abortion, the seventh option of an abortion when the woman is not married and does not want the baby apparently was perceived as morally

questionable. A majority of the respondents said abortions should be illegal under those circumstances. (Table 3.1)

**Table 3.1: Agreement on legality of abortions under various circumstances (in percentages)**

| Question | Legal | Illegal | Total | (N) |
|---|---|---|---|---|
| When mother's life is endangered | 86.6 | 13.4 | 100.0 | (968) |
| When mother's physical health is endangered | 80.9 | 19.1 | 100.0 | (971) |
| When mother's mental health is endangered | 70.6 | 29.4 | 100.0 | (960) |
| When baby is physically impaired | 60.8 | 39.2 | 100.0 | (933) |
| When baby is mentally impaired | 61.7 | 38.3 | 100.0 | (944) |
| When baby is result of rape or incest | 79.7 | 20.3 | 100.0 | (966) |
| When mother is unmarried and does not want the baby | 40.9 | 59.1 | 100.0 | (965) |

An examination of the responses to the any reason question and the unmarried mother question reveals that, while most respondents (84.3%) were consistent in their responses, approximately 15.7 percent of the respondents – enough to shift the majority – gave what could be considered illogical responses to the first question and the eighth question. That almost 16 percent answered one of the questions "wrong" appears to be a result of framing and/or question order effects.

**Table 3.2: Disagreement on pro-choice abortion questions (in percentages)**

| Position | Percent |
|---|---|
| Logical answers (agree/legal and disagree/illegal) | 84.3 |
| Illogical answers (agree/illegal and disagree/legal) | 15.7 |
| Total | 100 |
| (N) | (934) |

**Table 3.3: Abortion should be allowed no matter what the reason by abortion should be legal for unmarried woman who doesn't want the baby (in percentages)**

| | Position On Abortion No Matter The Reason | |
|---|---|---|
| Position on Abortions For Unmarried Women With Unwanted Babies | Agree | Disagree |
| Legal | 74.9 | 5.6 |
| Illegal | 25.1 | 94.4 |
| Total | 100.0 | 100.0 |
| (N) | (486) | (448) |

$X^2$ = 460.88; df = 1; p =.001; G = .96; Somers $D_{yx}$ = .70

Enough people gave consistent answers to make the relationship between the two questions statistically significant, with a chi square of 460.88, with a probability of error at less than one-tenth of one percent. The Somer's $D_{yx}$ measure of association reveals a strong relationship, with a 70 percent chance of reducing our errors of predicting the answer to one question if we know the response to the other. Were it not for framing and question-order effects, one would expect the association to be 100 percent. Of those agreeing that women should be able to demand an abortion without giving a reason, fully 25.1 percent (N = 122) subsequently changed their mind and expressed a belief that it should be illegal for a woman who was unmarried to get an abortion because she didn't want the baby. More puzzling perhaps is the 5.6 percent (N = 25) who disagreed with the proposition that a woman should be able to get an abortion without giving a reason and nevertheless supported abortions for unmarried women who didn't want to have the baby. Perhaps they thought this was better than no reason at all, or perhaps they were just confused. These illogical answers, which still may be the result of

framing, are not predicted by framing theory, which expects positive answers to positively stated questions and not vice versa.

An examination of various demographic factors found that those giving illogical answers were not different from the respondents who gave more consistent answers in terms of gender, race, religion or family income. However, there was a weak, but significant relationship between ideology, the independent variable, and the logical/illogical responses to the two abortion questions, the dependent variable, with a chi square of 7.48 with a probability of approximately 2.4 percent that the observed relationship could occur by chance even if there really was no relationship in the larger population. Liberals appear to be more conflicted about their positions on the abortion question; with fully 20 percent giving illogical answers, compared to 16.9 percent of moderates and 11.6 percent of conservatives. The Somer's $D_{yx}$ measure of association reveals a relatively weak relationship of .08, which is statistically significant at the .006 level, meaning that we that reduce our errors by 8 percent in predicting whether one would give logical or illogical answers to the abortion question, if we know their ideology.

**Table 3.4: Ideology by logic of position on pro-choice questions (in percentages)**

| | Ideology | | |
|---|---|---|---|
| Logic of position on pro-choice questions | Liberal | Moderate | Conservative |
| Logical answers (agree/legal and disagree/illegal) | 80 | 83.1 | 88.4 |
| Illogical answers (agree/illegal and disagree/legal) | 20 | 16.9 | 11.6 |
| Total | 100.0 | 100.0 | 100.0 |
| (N) | (240) | (362) | (302) |

$X^2$ = 7.48, df = 2, p=.024; G = - .20, p=.006 ; Somers $D_{yx}$ = -.08. p=.006

Not surprisingly, education played a role in whether people gave logical or illogical responses to the abortion questions, with those having less than a high school education being significantly more likely to give illogical answers (20.5 percent), compared with 18.4 percent of those with a high school diploma or some college, and only 9.8 percent of those with college degrees and post-graduate study. The relationship between education, the independent variable, and the logic of position on the pro-choice abortion questions, the dependent variable, was statistically significant at the .002 level, with a chi square of 12.56. The association between the two variables also was statistically significant at the .001 level, with a Somer's $D_{yx}$ of -.07, meaning we can reduce our errors by 7 percent in predicting whether respondents give logical or illogical responses if we know their level of education.

**Table 3.5: Education by logic of position on pro-choice questions (in percentages)**

| Logic of position on pro-choice questions | Education | | |
|---|---|---|---|
| | Elementary or High School Dropouts | High School Grads& Some College | College Grads & Post-Graduates |
| Logical answers (agree/legal and disagree/illegal) | 79.5 | 81.6 | 90.2 |
| Illogical answers (agree/illegal and disagree/legal) | 20.5 | 18.4 | 9.8 |
| Total | 100.0 | 100.0 | 100.0 |
| (N) | (73) | (553) | (307) |

$X^2$ = 12.56, df = 2, p=.002; G = -.30, p=.001; Somers $D_{yx}$ = -.07, p=.001

The relationship between education and ideology, as independent variables, and the choice of logical or illogical answers to the pro-choice abortion questions, as the dependent

variable, is even more complicated, however. When controlling for education, one finds the relationship between ideology and logical/illogical positions is only significant for those who have graduated from high school and have some college, so that, among this subgroup of the respondents (a majority at N = 533, out of a total of 934 who answered both abortion questions), the measure of association, Somer's $D_{yx}$, is -.05, meaning that among high school graduates and those with some college, one can reduce one's errors by five percent in predicting whether they gave logical or illogical answers if one knows whether the respondent was liberal or conservative. The chi square for this subgroup's relationship between ideology and logic of position, however, is only 4.3 and is not significant, nor are the chi squares for the other partial tables statistically significant.

**Table 3.6: Logic of Position on Pro-Choice Questions, by Ideology, Controlling for Education (in percentages)**

| | Elementary or High School Dropouts | | | High School Grads & Some College | | | College Grads & Post-Graduates | | |
|---|---|---|---|---|---|---|---|---|---|
| Logic of position on pro-choice questions | Ideology | | | Ideology | | | Ideology | | |
| | Lib | Mod | Cons | Lib | Mod | Cons | Lib | Mod | Cons |
| Logical answers (agree/legal and disagree/illegal) | 70.6 | 76.2 | 81.5 | 78.2 | 79.6 | 86.5 | 85.2 | 90.8 | 93.3 |
| Illogical answers (agree/illegal and disagree/legal) | 29.4 | 23.8 | 18.5 | 21.8 | 20.4 | 13.5 | 14.8 | 9.2 | 6.7 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| (N) | (17) | (21) | (27) | (142) | (221) | (170) | (81) | (119) | (105) |
| $G_p$ = - .20, p =.006 | $X^2$ = .71; df = 2; n.s.; $D_{yx}$ = -.07, n.s. G = -.20; n.s. | | | $X^2$ = 4.3; df = 2; n.s.; $D_{yx}$ = -.05, p = .05 G = -.18, p =.05 | | | $X^2$ = 3.5; df = 2; n.s.; $D_{yx}$ = -.05, n.s. G = -.28, n.s. | | |

Controlling for ideology leaves a somewhat stronger relationship between education and those giving logical answers, than when one controls for education and looks at ideology and logical/illogical answers. The relationship between education and logic of position for ideological moderates, with a chi square of 7.57, is significant at the .02 level. The relationships between education and logic of position for liberals and conservatives, with chi squares of 2.6 and 4.37, however, are not statistically significant. But, with Somer's $D_{yx}$ measures of association at -.10 and -.7, one can reduce one's errors in predicting whether respondents give logical or illogical answers by 10 percent among ideological moderates and 7 percent among ideological conservatives if one knows whether they are high school dropouts, high school graduates or college graduates. The Somer's $D_{yx}$ for moderates was statistically significant at the .003 level, while the measure of association for conservatives was significant at the .03 level.

**Table 3.7: Logic of Position on Pro-Choice Questions, by Education, Controlling for Ideology (in percentages)**

| Logic of position on pro-choice questions | Liberal | | | Moderate | | | Conservative | | |
|---|---|---|---|---|---|---|---|---|---|
| | Education | | | Education | | | Education | | |
| | Drop. | H.S. | Coll. | Drop. | H.S. | Coll. | Drop. | H.S. | Coll. |
| Logical answers (agree/legal and disagree/illegal) | 70.6 | 78.2 | 85.2 | 76.2 | 79.6 | 90.8 | 81.5 | 86.5 | 93.3 |
| Illogical answers (agree/illegal and disagree/legal) | 29.4 | 21.8 | 14.8 | 23.8 | 20.4 | 9.2 | 18.5 | 13.5 | 6.7 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| (N) | (17) | (142) | (81) | (21) | (221) | (119) | (27) | (170) | (105) |
| $G_p$ = - .30, p =.001 | $X^2$ = 2.6; df = 2; n.s.; $D_{yx}$ = -.08, n.s. G = -.24; n.s. | | | $X^2$ = 7.57; df = 2; p = .02; $D_{yx}$ = -.10, p = .003 G = -.38, p =.003 | | | $X^2$ = 4.37; df = 2; n.s.; $D_{yx}$ = -.07, p = .03 G = -.35, p = .03 | | |

Whether their inconsistency is due to the part-whole effect or the subtraction process, as Schuman et al. (1981) suggest; a lack of forethought on the topic, as Zaller (1992) suggests, or a deep ambivalence, as Alvarez and Brehm suggest, the respondents who gave illogical answers to the ABC study appear to be most susceptible to the effects of question order in the framing of the abortion issue in the public opinion survey.

**B. GSS Study**

A simple analysis of the 1996 GSS survey shows that one in ten respondents gave inconsistent and contradictory answers to the seven abortion questions, where the "any reason" question came last and the "hard" and "easy" questions were intermixed. The respondent was asked: "Please tell me whether or not <u>you</u> think it should be possible for a pregnant woman to obtain a <u>legal</u> abortion…

1. If there is a strong chance of serious defect in the baby?
2. If she is married and does not want any more children?
3. If the woman's own health is seriously endangered by the pregnancy?
4. If the family has a very low income and cannot afford any more children?
5. If she became pregnant as a result of rape?
6. If she is not married and does not want to marry the man?
7. If the woman wants it for any reason?

The first six items are common scenarios offered as a middle ground – beyond the extremes of no abortions under any circumstances and abortion on demand -- in the abortion debate (O'Connor 1996). The first, third and fifth scenarios represent what Alvarez and Brehm (1995)

called the "easy" questions on abortion; the second, fourth and sixth options are what Alvarez and Brehm called the "hard" questions. The final "any reason" option – a general question, and also a "hard" one – represents the abortion-on-demand situation that pro choice advocates say should be the norm while pro life advocates have ridiculed as immoral (O'Connor 1996).

**Table 3.8: Agreement on legality of abortions under various circumstances (in percentages) (n=1,625)**

| Question | Legal | Illegal |
|---|---|---|
| *Easy* | | |
| Strong chance of serious defect in the baby | 82.5** | 17.5 |
| Woman's health is seriously endangered | 90.6** | 9.4 |
| Pregnancy is result of rape | 84.1** | 15.9 |
| *Hard* | | |
| Married – wants no more children | 49.7 | 50.3 |
| Low income – can't afford more children | 49.4 | 50.6 |
| Not married | 47.6 | 52.4** |
| Woman wants for any reason | 47.9 | 52.1* |

** indicates *z*-test significant at the $p = .001$ level. * indicates *z*-test significant at the $p = .005$ level.

The GSS study placed respondents in one of four mutually exclusive and collectively exhaustive categories. A "completely pro choice" group consisted of all respondents who answered "legal" to all seven questions, indicating their support for legal abortions in all of the circumstances described (n=648, 39.9%). A "completely pro life" group consisted of those at the opposite end of the spectrum, expressing opposition to legal abortions in all of the situations (n=111, 6.8%). Most pro life advocates are concerned with returning abortion policy to its pre-Roe status, however, so they concede the legality of abortions in at least some of the "easy"

situations (O'Connor, 1996), particularly when the woman's health was seriously endangered. On the other hand, many people who consider themselves to be pro choice draw the line somewhere short of supporting legal abortions "for any reason." For the purposes of the study, both of these nuanced positions were considered "moderate" on abortion policy. Therefore, respondents were placed in a "moderate" category if they felt that 1) while it should **not** be possible for a woman to obtain a legal abortion for "any reason," it should be possible for one or more of the specific reasons offered, and/or 2) it should be possible for a woman to obtain a legal abortion when a woman's own health is seriously endangered by the pregnancy, but it should **not** be possible for one or more of the other specific reasons offered. These respondents (n=708, 43.6%) were considered moderates because there is a likely logical explanation for their positions.

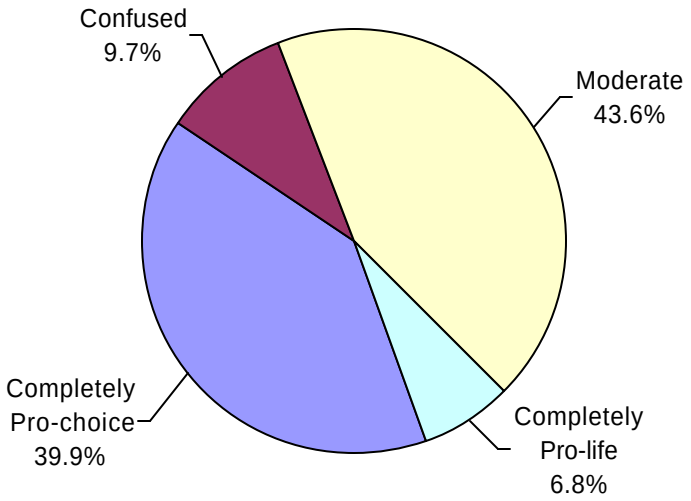


**Figure 1: Abortion Response Categories**. The proportion of respondents falling into each abortion response category.

The remaining category for "confused" respondents included respondents who felt that 1) it should **not** be possible for a woman to obtain a legal abortion for one or more specific

reason(s) offered, but it should be possible for "any reason," or 2) it should **not** be possible for a woman to obtain a legal abortion when her own health is seriously endangered by the pregnancy, but it should be possible for at least one other specific reason offered. Most "confused" respondents said a woman should be allowed to get an abortion for "any reason" but said they thought abortions should not be legal for some other reason (n=131). From the other end of the ideology spectrum, 41 respondents said they opposed legal abortions in the direst circumstance but then approved abortions on at least one other, less dire situation. Appearing in both groups (and thus subtracted from the total of 172) were 14 people who felt abortions should be legal for "any reason" yet illegal when a "woman's health is endangered." That left a total of 158 respondents (9.7%) who were considered confused because there is not likely to be a logical, ideologically cohesive explanation for their positions. Instead of having a strong position on abortion, these people probably fell into one of three categories – they are deeply ambivalent on the topic or thoughtlessly answering the questions off the top of their heads – in either case, their responses were highly influenced by the wording of the question itself, as well as by the placement of the "any reason" question after the other possible scenarios (Alvarez and Brehm 1995, Zaller 1992), or they were simply answering the "any reason" question as if it read "any other reason" (Schuman et al 1981).

An examination of crosstabulations of various demographic factors found significant relationships between the abortion response categories, as dependent variables, and several demographic factors as independent variables, using the Pearson chi-square test – age, education, political views, party identification and religious fundamentalism. The chi-square test did not indicate a significant relationship between the response categories and gender, nor between the response categories and race. The strengths of the relationships were further tested using the

Cramer's *V* symmetric measurement. Cramer's *V* was considered a more appropriate measure of association than Lambda because, in most cases, the independent variable had fewer categories than the dependent variable. Cramer's *V* also is considered more appropriate than the Pearson's coefficient of contingency because the tables here are rather small, and more appropriate than phi because the tables here are larger than two-by-two. Cramer's *V* is based on chi-square with a value that ranges between zero and 1, with zero indicating no association between the row (dependent) and column (independent) variables and values close to 1 indicating a high degree of association between the variables. In the current study, all of the Cramer's *V* measures were considered weak – ranging from .080 to .210 – but were significant to $p<.001$.

A more specific examination was made into the proportions within only the confused category using a Z-test, which is appropriate for measuring whether the difference between two percentages in large samples is truly significant. When the *z*-score for two proportions is high enough, then one can say with some (either 95% or 99%) confidence that the difference between the two is due to the influence of the independent variable on the dependent variable and not simply due to chance or sampling variation. In this study, the *z*-test found some significant differences by age, race, education, party identification and religious fundamentalism.

To examine the relationship between age and the abortion response categories, the sample was divided into quartiles. A significant relationship was present between the age quartiles, as independent variables, and the abortion response categories, as dependent variables, with a chi-square of 31.090 with a probability of less than 1 percent that the observed relationship could occur by chance even if there really was no relationship in the larger population. The Cramer's *V* measure of association reveals a weak relationship of .080, which is statistically significant at the $p<.001$ level. More interesting for this study's purpose is the *z*-test

of significance between the proportions of each quartile in the confused category. Fully 13.3 percent of the youngest quartile fell in the confused category. This proportion was significantly higher than the 7.0 percent of the high-middle age quartile that were confused ($z$=3.074, $p$<.01). It was somewhat higher than the other two higher age quartiles, but the $z$-tests for those differences were not statistically significant.

**Table 3.9: Abortion response categories by age**

| | Age by Quartiles | | | | |
|---|---|---|---|---|---|
| Abortion response category | Youngest | Low-middle Age | High-middle Age | Oldest | Totals |
| Completely pro-choice | 134 (37.9%) | 182 (42.3%) | 227 (45.6%) | 103 (30.3%) | 646 (39.8%) |
| Confused | 47 (13.3%) | 42 (9.8%) | 35 (7.0%)** | 34 (10.0%) | 158 (9.7%) |
| Moderate | 155 (43.8%) | 179 (41.6%) | 199 (40.0%) | 174 (51.2%) | 707 (43.6%) |
| Completely pro-life | 18 (5.1%) | 27 (6.3%) | 37 (7.4%) | 29 (8.5%) | 111 (6.8%) |
| Totals | 354 (100%) | 430 (100%) | 498 (100%) | 340 (100%) | 1622 (100%) |

$X^2$ = 31.090; df = 9; p=.001; Cramer's $V$=.080, $p$=.001
** $z$=3.074, $p$=.01 compared with Youngest quartile

To examine the relationship between education and the abortion response categories, the sample was again divided into quartiles. A significant relationship was present between the education quartiles, as independent variables, and the abortion response categories, as dependent variables, with a chi-square of 84.445 with a probability of less than 1 percent that the observed relationship could occur by chance even if there really was no relationship in the larger population. The Cramer's $V$ measure of association reveals a weak relationship of .132, which is

statistically significant at the $p<.001$ level. Again, we look at the $z$-tests of significance between the proportions of each quartile in the confused category and we find a divide between the most educated quartile and those representing the three-quarters of respondents with less education. Only 5.8 percent of the most educated respondents fell in the confused category. This proportion was significantly lower than each of the lower quartiles -- compared with least educated (12.0%, $z=3.007$), low-moderate educated (11.8%, $z=3.99$) and high-moderate educated (11.1%, $z=2.847$), all significant to $p<01$.

**Table 3.10: Abortion response categories by education**

| Abortion response category | Education by Quartiles | | | | |
|---|---|---|---|---|---|
| | Least educated | Low-moderate educated | High-moderate educated | Most educated | Totals |
| Completely pro-choice | 65 (24.4%) | 157 (33.1%) | 140 (41.1%) | 284 (52.7%) | 646 (39.9%) |
| Confused | 32 (12.0%) | 56 (11.8%) | 38 (11.1%) | 31 (5.8%)** | 157 (9.7%) |
| Moderate | 148 (55.6%) | 233 (49.1%) | 145 (42.5%) | 181 (33.6%) | 707 (43.6%) |
| Completely pro-life | 21 (7.9%) | 29 (6.1%) | 18 (5.3%) | 43 (8.06%) | 111 (6.8%) |
| Totals | 266 (100%) | 475 (100%) | 341 (100%) | 539 (100%) | 1621 (100%) |

$X^2 = 84.445$; df = 9; $p<.001$; Cramer's $V=.132$, $p<.001$
** $z=3.007$ compared with Least educated, $z=3.99$ compared with Low-moderate educated, $z=2.847$ compared with High-moderate educated, all $p<.01$

No significant relationships were discerned between gender and the abortion response categories. The two variables showed no association in the chi-square test or the symmetric measures of association. Also, the proportions of males and females were roughly the same for each response category.

Results were mixed in a examination of race and the abortion response categories. The two variables showed no association in the chi-square test or the Cramer's *V* measures of association. But the proportions of whites, blacks and others in the confused category varied in that significantly fewer whites appeared in the refused column (8.6%) compared with blacks (13.6%, $z$=2.423) or others (16.0%, $z$=2.255). Both differences were significant to the $p$<.01 degree.

To examine the relationship between political views and the abortion response categories, response categories for the self-identified ideology question were collapsed from the original seven-point scale to a three-point scale. To simplify the analysis, respondents identifying themselves as extremely liberal, liberal or slightly liberal were placed in a new "liberal" category, while those identifying themselves as extremely conservative, conservative or slightly conservative were placed in a new "conservative" category. Those who identified themselves as moderate were kept in a "moderate" category. A significant relationship was present between the ideology categories, as independent variables, and the abortion response categories, as dependent variables, with a chi-square of 95.541 with a probability of less than 1 percent that the observed relationship could occur by chance even if there really was no relationship in the larger population. The Cramer's *V* measure of association reveals a weak relationship of .176, which is statistically significant at the $p$<.001 level. But we find most of that relationship falls between ideology and being pro-choice, moderate or pro-life. When looking at the $z$-tests of significance between the proportions of political viewpoint in the confused category, we find they are relatively the same. In other words, neither conservatives nor liberals appear to have a monopoly on confusion when it comes to abortion.

**Table 3.11: Abortion response categories by political views**

| Abortion response category | Collapsed Political Views | | | Total |
|---|---|---|---|---|
| | Liberal | Moderate | Conservative | |
| Completely pro-choice | 228 (56.6%) | 219 (38.4%) | 178 (31.1%) | 625 (40.4%) |
| Confused | 35 (8.7%) | 61 (10.7%) | 47 (8.2%) | 143 (9.2%) |
| Moderate | 133 (33.0%) | 263 (46.1%) | 282 (49.2%) | 678 (43.9%) |
| Completely pro-life | 7 (1.7%) | 27 (4.7%) | 66 (11.5%) | 100 (6.5%) |
| Total | 403 (100%) | 570 (100%) | 573 (100%) | 1546 (100%) |

$X^2$ = 95.541; df = 6; *p*=.001; Cramer's *V*=.176, *p* =.001

To examine the relationship between party identification and the abortion response categories, response categories for the party ID question were collapsed from the original seven-point scale to a three-point scale. To simplify the analysis, respondents identifying themselves as a strong Democrat, a weak Democrat and an Independent leaning to Democrat were placed in a new "Democrat" category, while those identifying themselves as a strong Republican, a weak Republican and an Independent leaning to Republican were placed in a new "Republican" category. Those who identified themselves as Independent were kept in an "Independent" category. Overall, a significant relationship was detected between the party identification categories, as independent variables, and the abortion response categories, as dependent variables, with a chi-square of 21.741 with a probability of less than 1 percent that the observed relationship could occur by chance even if there really was no relationship in the larger population. The Cramer's *V* measure of association reveals a weak relationship of .082, which is statistically significant at the *p*<.001 level. This time, looking at the *z*-tests for the proportions of political viewpoint in the confused category, we find the proportion of Democrats (11.2%) is

significantly greater than the proportion of Republicans (7.8%, $z$=2.105, $p$<.05). In other words, significantly more Democrats are confused on abortion than Republicans.

**Table 3.12: Abortion response categories by party identification**

| Abortion response category | Collapsed Party Identification | | | Total |
|---|---|---|---|---|
| | Democrat | Independent | Republican | |
| Completely pro-choice | 330 (43.5%) | 97 (40.9%) | 211 (35.0%) | 638 (39.9%) |
| Confused | 85 (11.2%)* | 23 (9.7%) | 47 (7.8%) | 155 (9.7%) |
| Moderate | 306 (40.3%) | 99 (41.8%) | 294 (48.8%) | 699 (43.7%) |
| Completely pro-life | 38 (5.0%) | 18 (7.6%) | 50 (8.3%) | 106 (6.6%) |
| Total | 759 (100%) | 237 (100%) | 602 (100%) | 1598 (100%) |

$X^2$ = 21.741; df = 6; $p$=.001; Cramer's $V$=.082, $p$ =.001
* $z$=2.105 compared with Republican, $p$=.05

A variety of religion measurements are available in GSS to examine the relationship between religion and the abortion response categories. Since the abortion debate is particularly relevant to the distinction of fundamentalism vs. liberalism in religious circles (O'Connor 1996), the most appropriate measure for determining the relationship between the two appeared to be the question in which people are asked if they themselves are fundamentalists, moderates or liberals in their religious beliefs. As expected, a significant relationship was present between the fundamentalist, moderate and liberal categories, as independent variables, and the abortion response categories, as dependent variables, with a chi-square of 135.214 with a probability of less than 1 percent that the observed relationship could occur by chance even if there really was no relationship in the larger population. The Cramer's $V$ measure of association reveals a relatively strong relationship of .210, which is statistically significant at the $p$<.001 level. As

expected, most religious liberals were completely pro-choice, while most fundamentalists were completely pro-life or at least moderate. Not surprisingly, the people who consider themselves to be moderate on religion were the most confused on abortion. Significantly more moderates were confused in their answers to the abortion questions (13.1%) compared with fundamentalists (6.8%, $z$=342, $p$<.01) and, to a slightly lesser degree, with those who consider themselves liberals on religion (8.4%, $z$=2.39, $p$<.05).

**Table 3.13: Abortion response categories by religious fundamentalism**

| Abortion response category | How Fundamentalist R Is Currently | | | Total |
|---|---|---|---|---|
| | Fundamentalist | Moderate | Liberal | |
| Completely pro-choice | 127 (25.4%) | 219 (37.2%) | 257 (57.1%) | 603 (39.2%) |
| Confused | 34 (6.8%)** | 77 (13.1%) | 38 (8.4%)* | 149 (9.7%) |
| Moderate | 284 (56.8%) | 250 (42.5%) | 147 (32.7%) | 681 (44.3%) |
| Completely pro-life | 55 (11.0%) | 42 (7.1%) | 8 (1.8%) | 105 (6.8%) |
| Total | 500 (100%) | 588 (100%) | 450 (100%) | 1538 (100%) |

$X^2$ = 135.214; df = 6; $p$ =.001; Cramer's $V$=210, $p$ =.001
** $z$=3.42 compared with Moderate, $p$ <.01
* $z$=2.39 compared with Moderate, $p$ <.05

**C. Thoughts on both studies**

Both studies looked at demographics for those who gave conflicting answers on abortion. The study on the ABC Survey, which only looked at those respondents who supported abortion for "any reason" but then changed their minds when asked about the unmarried woman who didn't want the baby, more liberals gave conflicting answers compared with moderates and conservatives – results that were explainable given that moderates and conservatives were less

likely to support abortion for “any reason” in the first place. Also not surprisingly, education played a role in whether people gave logical or illogical responses to the abortion questions, with those having less than a high school education giving significantly more illogical answers than those who attended or completed college. An examination of other demographic factors found no significant differences in terms of gender, race, religion or family income (Carlson 2000). A look at demographics for respondents to the GSS study found more significant differences between the people considered confused on abortion and those who gave ideologically consistent answers. Specifically, the study found that the 1996 GSS respondents who are most confused on abortion are less likely to be educated, more likely to be young and more likely to be black than white. Moreover, politically, significantly more Democrats are confused than independents. Religiously, those who consider themselves to be moderate in their religious beliefs are more likely to be confused than those who identify themselves as fundamentalists or those who think of themselves as liberal (Carlson 2004).

Neither study, however, could isolate what exactly was causing the confusion. The difference in the size of the “confused” or “illogical” groups seems to indicate that question order may be a significant factor. The ABC Study asked the general “any reason” question first -- evoking what Graber would consider values related to the rights of the pregnant woman and getting what McFarland would call the respondent’s “unprimed” position -- then followed it with a Guttman scale series of questions of de-escalating direness that even most pro life advocates agree are appropriate scenarios for legal abortion, concluding with only one of what Alvarez and Brehm consider the “hard” questions. Perhaps given the choice of questions as well as the order, it should not be surprising that fully 25 percent of those who started out as pro choice ended up giving a pro life answer to the question of whether an unmarried woman should be allowed to

abort her unwanted baby. The GSS seems to have rectified the question order issue by mixing seemingly at random, and by asking an equal number of the "hard" and "easy" questions. It puts the "any reason" question at the end, however, instead of the beginning, as the ABC survey did, thus violating the part-whole theory. Under the subtraction process, some respondents would be subtracting both the "easy" and "hard" specific situations from their position on legal abortions in general so that, when they got to the "any reason" question, they would really be answering the question as if it read "any other reason."

The literature fails to adequately address the issue of what makes at least some respondents give inconsistent answers in the same survey on such a sensitive social issue. It seems most likely that in any given survey on abortion, some respondents get confused when they answer the questions off the top of their heads, as Zaller suggests (1992), some are using the subtraction process (Schuman et al 1981) and others are answering honestly to reveal their own deep conflicts (Alvarez and Brehm 1995). Missing in the literature is research into just how much this happens, under what circumstances or question order this happens, who are the people it happens with and how it impacts the survey results, if at all. Should it be possible to identify this information, public opinion researchers perhaps could predict which respondents will be inconsistent and develop better questions or question orders to minimize their inconsistent responses. As a first step towards filling this gap in the research, this project involves analysis of an abortion survey in which the respondents themselves were asked to explain, as best they could, why they gave the conflicting answers that they gave, and to place themselves in one of three categories corresponding with the theories of how inconsistency occurs. The project also experiments with four question orders – all variations of the ABC survey and GSS survey question orders – in an attempt to determine which is the best one for minimizing inconsistency

without prejudicing the results to one side or the other of the abortion debate. Finally, the project attempts to shed light on the issue of who the inconsistent, or confused, respondents are, demographically.

## Chapter 4: The Survey

The independent survey (see Appendix A) undertaken specifically for this dissertation involved a national sample of 15,000 randomly selected telephone numbers. The sample was randomly divided into four groups with each group being asked the same questions in orders that differed along the lines of the ABC and GSS studies, in an attempt to ascertain the impact of question order on consistency of answers. The survey was conducted by telephone periodically from September 1 through November 19, 2004. A predictive dialer was used to call the randomly selected numbers and hand over live respondents to professional interviewers for questioning. The interviewers asked to speak to someone over the age of 18 and scheduled call-backs if one was not available at the time of the call. Interviewing was halted just before the Thanksgiving holiday, when approximately 200 completed surveys had been collected for each of the four question-order groups. A total of 792 completed surveys had been collected, 90 of which included open-ended responses from "inconsistent" respondents. Care was taken during the interviewing process to ensure that completed surveys were coming from respondents balanced geographically by time zones to reflect the U.S. population. Gender was also monitored but not used as a screening question due to cost. Though the resulting sample was skewed female (roughly 65% female), none of the analysis found significant differences by gender so a weighting scheme was not employed. The sample data also was tested and matched with the General Social Survey results from 2002 as far as age and income breakdowns were concerned (See Appendix C).

A computer-assisted telephone interviewing system was used to ensure that all the questions were asked and that the appropriate skip patterns were used. The telephone survey was executed by Polaris Marketing Research, Inc., of Atlanta, which assigned only senior, experienced interviewers to the project. These interviewers were trained by the researcher, with special emphasis placed on drawing out thoughtful responses to the open-ended question.

Based on the previously discussed literature, the research sought to find the answers to three major research questions. The first refers to the puzzle of question order for the battery of abortion questions, the second deals with the three theories of why respondents give inconsistent answers, while the third seeks to determine the characteristics of the inconsistent respondents to these questions.

**Hypothesis 1:** The order of abortion questions, especially the general, "any reason" question, makes a difference in the number of respondents who answer the questions inconsistently.

**Hypothesis 2:** Respondents who give inconsistent answers are most likely to say they feel strongly about their responses even though they contradict, rather than that they answered the questions off the top of their heads or that they subtracted the specific situations from the general condition.

**Hypothesis 3:** Those respondents answering the questions inconsistently differ significantly in their demographics from those who give more logical, or consistent, answers to the battery of abortion questions.

A number of predictions can be made on the data based on previous research and in anticipation of resolving the major hypotheses. The first several revolve around the question order. Technically, there were four surveys, each with a different, fixed question order. One

question order served as the control group. This group was asked the questions from the GSS, worded exactly the same with one minor exception, adding "or incest" to the question about "pregnant as a result of rape" to make it more closely mirror the common pre-Roe legal exceptions (Weddington 1993). This battery of questions ended with the "any reason" question. One would expect approximately 10 percent of respondents to give contradictory answers, as found in the 1996 GSS survey (Prediction #1). The three experimental groups used the exact same question wording and varied only in question order. One group followed the Guttman scale of the ABC survey by asking the "any reason" question first, followed by the "woman's life endangered question," and then the remaining two "easy" questions followed by the three "hard" questions in an order roughly from the most dire to the least. If respondents followed the same pattern as the ABC survey respondents, as many as 25 percent would end up disapproving one or more of the "hard" scenarios after approving the "any reason" scenario (Prediction #2). Another group would follow the same order as the first except the "any reason" question would come at the end; given the deescalating urgency of the situations given in the questions, one would not expect the "any reason" question, coming last, to receive majority support, unlike the ABC survey (Prediction #3). A third experimental group was asked the same questions in the same order as the control group with one exception: the "any reason" question coming first instead of last. Again, one would expect significantly greater support for this question at the beginning of the battery of questions than one would find at the end (Prediction #4).

Using these four question orders as the dependent variable, one should analyze the results by a variety of factors to determine if one stands out as preferable. The simplest analysis would be to determine which one produces significantly more inconsistent respondents compared with the others (Prediction #5), or barring that, if one or more produce significantly more of the pure

pro life, the moderate pro life or the pro choice respondents (Prediction #6). But determining which question order is optimal must wait until a more thorough examination of the impact of question order – particularly the placement of the "any reason" question -- on those who are inconsistent.

To address the gap in the research identified earlier, following the battery of abortion questions, those respondents who give conflicting answers were asked to explain why they gave the answers they gave. Responses to this open-ended question were captured in .wav files and are analyzed later in this paper. Few respondents, however, were able to explain their thought process or offer more detailed an explanation than "I made a mistake." In anticipation of such a response, the survey followed the open-ended question with a closed-ended one that allowed respondents to place themselves in one of three categories corresponding to the three theories that have been used to explain question order effects. The question follows:

> Some people find it very hard to describe how they came up with their answers. It may be easier for you to say if one of these statements MOST closely matches your thinking. Would you say you were:
> 1. just reacting to the question you when you heard it,
> 2. giving answers that you believe strongly, even though they sort of contradict each other,
> 3. or thinking any reason other than the ones you just heard listed in the previous questions?
> 4. (NOT READ: None of these statements.)

The question about the "any reason" response was asked of the half of the respondents who were asked that question last. The three response options were rotated randomly to avoid a response order effect for the question itself, and interviewers accepted a response of "none of these statements" but did not read that as an option. The point of this question was to allow those respondents who are unable to explain their thought process to place themselves in the category that most closely matches their thinking. Every effort was made to make each option relatively

neutral so that no stigma attached to adopting one over the other. Even so, reflecting the heart of the second major hypothesis, one would expect a certain "good citizen effect" to prevail, prompting more respondents to place themselves in the ambivalent category than admit that they "just reacting to the question" or even subtracting the specific situations from the general condition (Prediction #7).

Also of interest are the answers to the seven abortion questions themselves and how they are impacted by both the question order and by reasons for the inconsistency chosen by the respondents in the self-placement question. Of particular concern, given our hypothesis, is whether the placement of the "any reason" question at the end of the battery of questions contributes inordinately to the respondents' inconsistent answers. The answers to the seven questions are analyzed by question order, then by answer categories and finally by the self-placement categories to search for such an impact.

If there's an impact by question order, it would manifest with the positive responses to the "any reason" question being significantly higher in the two groups where it is asked first (Prediction #8). The answer categories should have an obvious and dramatic impact on all seven abortion questions because, after all, that's what these categories are all about (Prediction #9). Finally, a close look at the abortion question answers by the self-placement categories may have some revealing answers about the respondents in those categories; one might expect, for instance, that those people who agree that they are just reacting to the question when it's asked would be more likely than people identifying themselves as believing strongly in their positions to be heavily influenced by the placement of the "any reason" question at the end instead of the beginning of the question order (Prediction #10). Following this discussion of the impact of the placement of the "any reason" question on inconsistent respondents, coupled with the earlier

discussion of context effects generally, it should be possible to determine which of the four question orders is optimal. More importantly, we should at this point know whether we can reject the null hypothesis and accept Hypothesis 1 that question order does make a difference in the number of respondents who answer the battery of abortion questions inconsistently.

The second hypothesis revolves around the demographics gathered to describe the respondents. Again we can make some interim predictions based on previous research as to what we could expect from each measure.

Respondents also were asked a series of questions designed to ascertain their political knowledge, which is an indicator of political sophistication and, to a certain extent, media exposure (Delli Carpini & Keeter 1993). Delli Carpini and Keeter have suggested a simple five-item knowledge index that will help us ascertain the extent – or lack – of political knowledge possessed by those most inconsistent on the abortion questions. (For exact questions, see survey in Appendix A.) One would expect that many of those who are inconsistent on abortion are likely to score poorly on the political knowledge index (Prediction #11). Those who know more about politics are hardly likely to have avoided information about abortion as a political issue, and therefore are more likely to have worked out their own position on the issue prior to participating in the survey. Alvarez and Brehm, however, indicated that for those people who are truly ambivalent on the issue, additional information only exacerbated the problem. Using the self-categorization of respondents, we may find that the ambivalent respondents actually have relatively high political knowledge compared with those in the other two categories (Prediction #12).

This study compartmentalizes respondents using the same mutually exclusive and collectively exhaustive categories used in the earlier 1996 GSS study (except that the confused

are called inconsistent in this study), and queries respondents on the same demographic questions used in that study. The hypotheses regarding the demographics are that we would find that the inconsistent are more likely to be among the youngest and the least educated respondents (Predictions #13 & #14); that they are less likely to be Republicans, political conservatives, religious fundamentalists or regular church-goers (Predictions #15, #16, #17 or #18); and that their race and gender would not make a difference (Predictions #19 & #20). Analysis of the demographics includes comparisons of those who are inconsistent on abortion vs. those who are consistent, as well as comparisons between the inconsistent who lean towards the pro choice position and those pro choice respondents who are consistent, as well as the pro life inconsistent and the other pro life respondents. The primary methodology for the analysis would be a logit regression, which is appropriate given that the dependent variables are binomial and categorical (inconsistent/consistent, pro choice inconsistent/consistent, pro life inconsistent/consistent). In addition, cross tab analyses are conducted to help determine which respondents would likely be among those who are inconsistent on this issue.

**A. Question Order**

The impact of question order on the survey responses was not as dramatic as in the ABC survey of 1996, but similar to the General Social Survey. Indeed, the control group generated 10.8 percent inconsistent respondents – only slightly more than the proportion of confused respondents produced by the 1996 GSS (9.7%) (Carlson 2000). The control group mimicked the GSS question order, mixing the questions somewhat randomly and then putting the “any reason” question at the end of the battery of abortion questions. The first experimental group, known as GSU1, ranked the abortion questions in a Guttman scale order of severity, starting with the

question about the women's health endangered, followed by the questions about a strong chance of a defect and about rape or incest and then the three "hard" questions about the family not being able to afford more children, the woman not being married and the married woman not wanting more children, ending with the any reason question. This question order produced the least amount of inconsistency, with only 8.5 percent falling in the inconsistent category. This order did produce a depressed number of pro life positions, however, with only 9.0 percent saying no to every question, significantly fewer than the 15.3 percent for the control group ($z=1.931$, $p<.10$) and 15.0 percent for GSU2 ($z=1.844$, $p<.10$).

The second experimental group, called GSU2, followed the ABC survey question order, putting the any reason question first followed by the questions in the same deescalating order of urgency as GSU1. Unlike the ABC survey, which produced 25.1 percent inconsistent respondents, GSU2 produced inconsistency among only 13.5 percent of its respondents (Carlson 2000). Interestingly, of the 27 respondents who produced inconsistent responses in GSU2, 23, or 85.2 percent, of them said yes to the any reason question and then changed their minds as they heard the individual scenarios described in the Guttman scale order. This was by far the largest proportion of pro choice inconsistent produced by any question order (Control 77.3%, GSU1 64.7%, GSU3 79.2%) and made GSU2 the only significant dummy variable in the logit analysis of the respondent demographics, where the reference variable was the control group order (see Table 4.8). GSU2 also produced significantly fewer moderate respondents compared with GSU1, which had the same question order except the any reason question was last instead of first (42.5% vs. 52.8%, $z=2.06$, $p<.05$). The third and final experimental group, GSU3, used the same mixed question order as the control group with one major exception – the any reason question came at the beginning of the survey instead of the end. This placement generated slightly more

inconsistent respondents than the control group – 12.6 percent. It also had significantly fewer moderate respondents than GSU1 (42.6% vs. 52.8%, z=2.013, p<.05), but its proportions were the closest in line with the total survey averages and otherwise with the other question orders.

While there was some distinction between the question orders, the overall difference between the percentages of inconsistent respondents produced by each question order was not statistically significant (see Table 4.1). Note that pro choice includes respondents who answered yes to all seven questions, pro life includes those who answered no to all seven questions and moderate includes those who answered no or don't know to the any reason question and either yes, no or don't know to the more specific questions, as well as a few (n=20) who said yes to the any reason question but refused to give an answer to one or more of the more specific questions.

*Moderates includes those who answered no or don't know to the any reason question and either yes, no or don't know to the

**Table 4.1: Impact of question order on abortion answers (in percentages)**

| Answer category | Total (n) | Control | GSU1 | GSU2 | GSU3 |
|---|---|---|---|---|---|
| Pro Choice (Yes to all) | (217) | 27.1 | 25.6 | 27.5 | 29.5 |
| Pro Life (No to all) | (92) | 13.8 | 9.0 | 13.5 | 10.0 |
| Moderate* | (393) | 48.3 | 56.8 | 45.5 | 47.9 |
| Inconsistent** | (90) | 10.8 | 8.5 | 13.5 | 12.6 |

more specific questions, plus a few (n=20) who said yes to the any reason question but did not answer one or more of the more specific questions.
**Inconsistent includes some (n=70) who said yes to any reason but no to at least one of the other questions, plus those (n=20) who said no to "a woman's life endangered" but yes to at least one of the other questions.

The question order actually had relatively little impact on the answers to all of the questions, including the general any reason question. Respondents in GSU3, the group with a mixed order and the any reason question first, gave significantly more positive responses to one "easy" questions compared with the control group – 80.5 percent for the rape question vs. 69.5 percent (z=2.51, p<.05). As for the any reason question, the two groups that had the question last have fewer positive responses and the two groups that heard it first gave more positive responses,

but the differences were not statistically significant. There was some evidence, however, that placement of the any reason question at the end of the battery of questions increased negative responses, particularly when the questions were ranked by severity of the woman's circumstances. More respondents in GSU1, where the any reason question was asked last and the questions were asked in descending order of severity, offered negative responses to the any reason question than did respondents in GSU3, where the question order was mixed and the any reason question came first (61.8% "no" in GSU1 vs. 51.6% "no" in GSU3, $z=2.03$, $p<.05$). Otherwise, the responses were surprisingly stable despite the question order (see Table 4.2).

**Table 4.2: Agreement with legality of abortion by question order (in percentages)**

| Question | TOTAL | Control | GSU1 | GSU2 | GSU3 |
|---|---|---|---|---|---|
| When mother's health is seriously endangered | 80.1 | 76.8 | 84.4 | 78.0 | 81.1 |
| When strong chance of serious defect in the baby | 64.0 | 63.5 | 62.3 | 61.5 | 68.9 |
| When pregnancy is result of rape or incest | 74.4 | 69.5 | 73.9 | 74.0 | 80.5 |
| When family has very low income, can't afford more | 35.7 | 33.5 | 35.7 | 32.5 | 41.6 |
| When she is not married, does not want to marry | 34.6 | 36.0 | 31.2 | 35.0 | 36.3 |
| When she is married, does not want more children | 33.8 | 35.3 | 31.7 | 32.0 | 35.3 |
| When the woman wants it for any reason | 38.5 | 36.0 | 35.2 | 40.5 | 42.6 |
| Total (n) | (792) | (203) | (199) | (200) | (190) |

**B. Answer categories**

Respondents were divided into four groups according to their answers to the seven abortion questions. Those who answered yes to all seven questions were placed into a group presenting a pure "pro choice" position (n=217). Those who said no to all seven were placed into a pure "pro life" group (n=92). The moderates, who make up the largest group (n=393), for the most part represent some variation on the pro life position, although some would probably

consider themselves pro choice but just not willing to go so far as to support abortion in every circumstance or for any reason. These were respondents who were not uniform in their answers but were not inconsistent, either. They ranged from respondents who said yes to every question except the general any reason question to those who said no to every question except the health endangered question. They included people who said they did not know or could not answer one or more of the specific situation questions. Although it was possible for respondents to be included in this category if they had said no to the health endangered question, only ten of them did (2.5%), although another 30 (7.6%) were unable to answer the question. There were 20 respondents (5.1%) who agreed with the any reason question but were placed in the moderate category because they could not answer one or more of the specific situation questions. The majority of the moderates supported the "easy" questions, while few actually agreed with the "hard" questions.

The moderates differed significantly on many questions from the inconsistent, who tended to be more pro choice in their positions. To make the inconsistent category, respondents had to have answered at least one question in an illogical manner. They are called inconsistent in this study, instead of confused, as in the GSS study, in deference to those respondents who are not necessarily confused but may be ambivalent, with conflicting core values, on the topic of abortion, according to the Alvarez and Brehm theory (2002). From the pro choice perspective, they had to have agreed with the any reason question (n=68) but also disagreed with at least one of the more specific abortion questions. From the pro life perspective, they had to have said no to (n=23) or refused to answer the question about (n=3) a legal abortion when the woman's health was endangered but agreed to a legal abortion in some other, less dire circumstance. Four respondents qualified for the category both ways – disagreeing with a legal abortion when the

woman's health was endangered yet agreeing to legal abortions for any reason -- leaving a total of 90 in the group.[2] These four groups represent a clear delineation in the sample's population. All seven abortion questions are statistically significant at the p<.02 level with large chi square scores (see Table 4.3).

**Table 4.3: Agreement with legality of abortion by answer category (in percentages)**

| Question | TOTAL | Pro Choice | Pro Life | Moderate | Inconsistent |
|---|---|---|---|---|---|
| When mother's health seriously endangered[1] | 80.1 | 100.0 | 0.0 | 89.8 | 71.1 |
| When strong chance of serious defect in baby[2] | 64.0 | 100.0 | 0.0 | 54.7 | 83.3 |
| When pregnancy is result of rape or incest[3] | 74.4 | 100.0 | 0.0 | 75.1 | 85.6 |
| When family has low income, can't afford more[4] | 35.7 | 100.0 | 0.0 | 10.4 | 27.8 |
| When she is not married, does not want to marry[5] | 34.6 | 100.0 | 0.0 | 8.1 | 27.8 |
| When she is married, does not want more[6] | 33.8 | 100.0 | 0.0 | 6.1 | 30.0 |
| When the woman wants it for any reason[7] | 38.5 | 100.0 | 0.0 | 5.1 | 78.9 |
| Total (n) | (792) | (217) | (92) | (393) | (90) |

[1] $X^2$=611.15, df=6, p<.001. [2] $X^2$=392.09, df=6, p<.001. [3] $X^2$=437.25, df=6, p<.001. [4] $X^2$=565.44, df=6, p<.001. [5] $X^2$=592.20, df=6, p<.001. [6] $X^2$=619.22, df=6, p<.001. [7] $X^2$=664.80, df=6, p<.001.

As for how the moderates specifically differed from the inconsistent, significantly more moderates than inconsistents agreed that a woman should be allowed a legal abortion if her health was seriously endangered (89.8% vs. 71.1%, z=4.66, p<.05), while significantly more inconsistents than moderates agreed to the other questions: serious defect (54.7% moderate vs. 83.3% inconsistent, z= 5.00, p<.05), rape (75.1% moderate vs. 85.6% inconsistent, z= 2.14,

[2] For the most part, the inconsistent respondents answered the questions. All 90 Inconsistent respondents answered the any reason question (a respondent who said "don't know" to this question was placed in the moderate category). Among the 20 pro-life confused, only one answered one of the specific questions with a "don't know, no answer, refused" response, and that was the question about a serious birth defect. Among the 70 pro choice inconsistents, 10 percent (n=7) answered "don't know" to the question about married but doesn't want more children, 8.6 percent (n=6) did not answer the question about can't afford more children, 4.3 percent (n=3) said "don't know" about the questions woman's health seriously endangered and the woman not married, 2.9 percent (n=2) did not answer the question about rape or incest and one respondent (1.4%) did not answer the question about serious birth defect. The inconsistents as a group had about the same proportion of "don't know" responses as the total sample on all six of the specific questions.

p<.05), low income (10.4% moderate vs. 27.8% inconsistent, z= 4.34, p<.05), not married (8.1% moderate vs. 27.8% inconsistent, z=5.23, p<.05) and no more children (6.1% moderate vs. 30.0% inconsistent, z= 6.66, p<.05). Three-quarters of the inconsistent respondents (78.9%) agreed that it should be possible for a woman to obtain a legal abortion if she wants one for any reason – that's significantly more than the 38.5 percent of the total sample who agreed to an abortion for any reason (z=8.36, p<.05), not to mention significantly more than the 5.1 percent of the moderates (z=16.15, p<.05) (See Table 4.3).

**C. Open-ended question**

Those who answered the questions in an inconsistent manner were given an opportunity to explain their answers, first with an open-ended question that simply asked what they were thinking when they gave the answers they gave. The question is known as a type of cognitive interview called a "retrospective think-aloud" in which respondents are asked, just after they have provided their answers, to describe how they came up with their answers (Jobe and Mingay 1989). The results were only marginally successful in that almost two-thirds of respondents (n=56) viewed the question as an opportunity, now freed from the confining "yes-no" responses of the abortion questions, to explain their moral philosophy about abortion and despite repeated probes by the interviewers generally ignored attempts to get them to focus on the contradictions in their answers. One typical respondent favored abortion for any reason but opposed abortion for two of the "hard" situations, explaining, "She should have the kid even if she doesn't want to marry the man. Some people can't have kids, so she should be thankful or give it up for adoption. If the abortion is for a good reason like rape, birth defect or death, I think it's OK." As Cook, Jelen and Wilcox learned in their 1992 study, it appears for these respondents that reasons

DO matter, and they matter more than the issue of whether the government should be making the decision ("to obtain a legal abortion…?") or the woman. There was the respondent, quoted earlier, who said she was generally pro choice but objected to legal abortions for women who simply didn't want to marry the father, because she thought "that seemed kind of frivolous, that that was no reason and they shouldn't be able to get one for no reason." Another pro choice inconsistent respondent also demanded good reasons, saying, "She should be able to get it for any reasons, but it should cost a lot of money. She should also have a logical reason." This respondent objected to the reasons of an unmarried woman not wanting to marry the man or a married woman not wanting another child. One respondent said yes to the any reason question but rejected all three of the "hard" scenarios, explaining only that "if there is a good reason, she can get an abortion." One respondent said she didn't know the answer to the question about an abortion for a low income woman who couldn't afford the child and was against an abortion for an unmarried woman who didn't want to marry the father, saying, "I think a woman should have a right to choose but also I think she should be responsible."

One pro life respondent only agreed to abortions in cases of rape and incest, saying he disagreed with abortion when a woman's life was endangered because "I have friends that have been told that their health was at risk and they have been just fine. I also had friends told that their babies had birth defects and their baby was born just fine." Another agreed to abortion for rape and incest or for severe birth defects but objected to abortions when a woman's life was in jeopardy, saying, "I don't think that a pregnancy, with medical care the way it is now, could seriously endanger a woman's life." A third based her objections on personal experience, saying, "I have a sister who has special needs and she would not have been born." One respondent whose answers were all across the board – objecting to abortion when a woman's life was in

danger but not when she was unable to afford more children or married and didn't want any more – said, "All these pregnant girls they don't know what to do. They just go whenever they get pregnant. They don't know what to do. They're still too young."

Only eight respondents acknowledged that the questions asked their opinion on whether the law should allow abortions under the various circumstances, not whether it was morally correct in their opinion for women to have abortions under those circumstances. As one respondent said, "There are certain things I don't want the government to have a part of. If it's my choice to have sex and protect myself, if I become pregnant I also have the choice to keep it, abort it or give it up for adoption." Despite her comments, however, this respondent answered the any reason question yes and still objected to legal abortions for unmarried women who simply did not want to marry the father. The distinction between legal abortions and the morality of abortion was the source of inconsistency for many.

Apparently some viewed the any reason question in the political context, recognizing its framing as the pro choice position on abortion, which they generally support, and then saw the specific scenario questions in a morality context, answering them according to their personal attitudes on the appropriateness of the abortion decision in each situation. One respondent explained her inconsistent answers this way: "I shifted. My core belief is that it is up to the woman, period. It's not up to the government to tell us what to do. But I didn't think that was a good reason for it. I guess I'm mixing up my personal beliefs with what I think of as legal freedom." In fact, the biggest surprise of the open-ended question was that so many respondents paid no attention to the specification of "legal" in the questions, or connected that with the government making the decision on appropriate reasons for abortion – they answered on moral grounds instead of political grounds. The U.S. Supreme Court may have taken the government

out of the business of deciding which reasons for abortion were viable in *Roe v. Wade*, but clearly, at least to this segment of the population, reasons do matter, whether the government has any say or not.

Twenty-two of the 90 inconsistent respondents recognized the inconsistency in their responses and most offered or asked to be able to change one of their responses to correct what they viewed as simply a mistake. Half of the 22 claimed they'd either misunderstood one of the questions – usually the any reason question – or simply refused to say anything beyond acknowledging their error. One respondent intuitively grasped the problem of context effects, saying his answers would have been different had the questions been reversed. This was a generally moderate respondent who had said yes to the any reason question "because you asked that question first. If you would have asked the second question first, I would have answered the first question differently," he said, referring to his answer to the question about a married woman wanting no more children. Another said yes to the any reason question when it was asked first in GSU3 but objected to the woman wanting an abortion because she couldn't afford any more children. He understood the part/whole theory intuitively, explaining his answer to the any reason question by saying, "The question was very general so I gave you a general answer."

Eleven agreed that there was a contradiction in their answers, but stuck by them, saying they reflected how they felt. Asked if she could explain her thinking, one respondent said, "Not really. Generally I support those situations there. The woman's likely to suffer some harm. I believe this strongly." Another respondent acknowledged the mistake, saying, "I should have said 'no' at that point (but) even though it would contradict, I feel strongly." The remaining four respondents had nothing to say about their answers.

The open-ended responses were enlightening in that we learned that most of the respondents did not see their own responses as being inconsistent. They were simply giving their philosophy of abortion as they saw it – mostly from a morality viewpoint. From those who would talk about the discrepancy in their answers we learn that they did not take the inconsistency very seriously, mostly saying simply that they must have made a mistake and asking to change their answer for one or the other, usually the any reason question. Generally, the pro choice inconsistent appear to have recognized the any reason question as the political frame for their general pro choice leaning, but they refused to be tied to a pure pro choice position and adopted, by rejecting some of the "hard" scenarios, a more moderate position.

**D. Self-placement categories**

In anticipation of the difficulty that respondents might have focusing on the issues behind their contradictory answers, a closed-end question was included in the survey that allowed the inconsistent respondents to place themselves in one of three categories corresponding with the three popular theories for why respondents give inconsistent answers in such circumstances. One category, reflecting Zaller's "top of their heads" idea, asked if they were "just reacting to the question when you heard it." Another, based on Alverez and Brehm's ambivalence theory, suggested they might be "giving answers that you believe strongly, even though they sort of contradict each other." And finally, to reflect the traditional "subtraction" theory, was a response given only as an option to the 39 respondents who got the any reason question last, "thinking any reason other than the ones you just heard listed." In the control group and GSU1, where the any reason question was last, only three respondents saw themselves as falling into the subtraction trap – significantly fewer than either of the other two options given to them (7.7 % vs. 30.8% for

just reacting, z=2.59, p<.05, and 7.7% vs. 38.5% for believe strongly, z=3.23, p<.05) (See Table 4.4). Overall, about the same number of people agreed that they had just been reacting to the questions as they were read to them, without giving it deeper thought, as those who agreed that they felt strongly about their positions even though they realized they were somewhat contradictory.

**Table 4.4: Self-placement for inconsistency on abortion questions (in percentages)**

| Theory selected | GSU1 & Control ("Any Reason" asked last) (n=39) | Total Inconsistent (n=90) |
|---|---|---|
| None of these statements apply | 23.1 | 13.3 |
| Just reacting to each question when it was read to me | 30.8 | 41.1 |
| Giving answers I strongly believe though they contradict | 38.5 | 42.2 |
| Thinking any reason other than the ones I just heard | 7.7 | 3.3 |

Looking at the self-placement groups by the question orders groups provides little additional enlightenment. Respondents arrived in the inconsistent column roughly in equal measure from the four question orders and divided themselves in about the same rate among the four options provided by the self-placement question (See Table 4.5).

**Table 4.5: Impact of question order on inconsistent respondents by self-placement (in percentages)**

| Question order | Total Inconsistent | None | Just Reacting | Believe Strongly | Any Other Reasons |
|---|---|---|---|---|---|
| Control: "Any Reason" last, others mixed | 24.4 | 25.0 | 13.5 | 31.6 | 66.7 |
| GSU1: "Any Reason" last, others descending | 18.9 | 33.3 | 21.6 | 10.5 | 0.0 |
| GSU2: "Any Reason" first, others descending | 30.0 | 16.7 | 32.4 | 34.2 | 0.0 |
| GSU3: "Any Reason" first, others mixed | 26.7 | 25.0 | 32.4 | 23.7 | 33.3 |
| Total (n) | (90) | (12) | (37) | (38) | (3) |

How inconsistent respondents answered the abortion questions according to how they categorized their answering methodology provides some insights, however. Looking only at the respondents in the "just reacting" (n=37) and the "believe strongly" (n=38) categories (the other groups were not compared due to their small sizes), one finds that those who said they were just reacting to the questions gave significantly more positive responses than those who said they strongly believed in their contradictory responses to the question about the woman's health being seriously endangered (83.8% vs. 63.2%,. $z=2.02$, $p<.05$) and to the question about the pregnancy being the result of rape or incest (100.0% vs. 76.3%, $z=3.16$, $p<.05$). Those who said they believed strongly in their contradictory answers gave more negative responses to the question about the family having a very low income and not being able to afford more children (76.3% "no" vs. 54.1% "no" for "just reacting", $z=2.02$, $p<.05$).

Most interesting were their responses to the question about whether a pregnant woman should be able to obtain a legal abortion if she wants one for any reason. Those who admitted to simply reacting to questions as they heard them gave more positive responses than those who fell

in the ambivalent category (89.2% vs. 76.3%), although the difference was not significant. But the "just reacting" respondents answered the any reason question positively whether they heard it first or last. Those "just reacting" respondents who heard it last said "yes" to the any reason question at a rate of 84.6 percent – not much lower that the rate of those who heard it first. It was the respondents who said they believed strongly in their contradictory answers who were most influenced by the position of the any reason question in the question order. Significantly fewer of them answered the any reason question positively (56.3%, z=2.71, p<.05, n=16) when the question was asked last than overall (76.3%, n=38) (see Table 4.6).

**Table 4.6: Inconsistent respondents' agreement with legality of abortion by self-placement (in percentages)**

| Question | Total Inconsistent | None | Just Reacting | Believe Strongly | Any Other Reasons |
|---|---|---|---|---|---|
| When mother's health seriously endangered | 71.1 | 58.3 | 83.8 | 63.2 | 66.7 |
| When chance of serious defect in the baby | 83.3 | 66.7 | 89.2 | 81.6 | 100.0 |
| When pregnancy is result of rape or incest[1] | 85.6 | 75.0 | 100.0 | 76.3 | 66.7 |
| When family can't afford more | 27.8 | 25.0 | 37.8 | 18.4 | 33.3 |
| When she's not married, does not want to | 27.8 | 16.7 | 27.0 | 34.2 | 0.0 |
| When she does not want more children | 30.0 | 8.3 | 29.7 | 36.8 | 33.3 |
| When the woman wants it for any reason | 78.9 | 50.0 | 89.2 | 76.3 | 66.7 |
| Total (n) | (90) | (12) | (37) | (38) | (3) |

[1] $X^2$ = 12.714, df =6, p=.05.

There was remarkably little difference in the political knowledge of respondents according to how they placed themselves on the reason for their inconsistency. The largest proportion of those who said they were just reacting (43.2%) scored in the more knowledgeable range (four correct out of five) while the largest proportion of those who said the believed strongly in their answers (34.2%) scored in the somewhat knowledgeable level (two or three

correct out of five). There were no significant differences between those who were just reacting and those who believed strongly in their opinions, as far as their political knowledge scores were concerned. One-third of those who said none of the theories reflected their thoughts scored at the quite knowledgeable level (all five correct, 33.3%, 4 of 12), which was significantly more than the 5.4% (2 of 37) of those who were "just reacting" who scored as quite knowledgeable ($z=2.563$, $p<.05$). (See Table 4.7)

**Table 4.7: Political knowledge index for inconsistent respondents by self-placement (in percentages)**

| Political Knowledge Index | Total Inconsistent | None | Just Reacting | Believe Strongly | Any Other Reasons |
|---|---|---|---|---|---|
| Not Knowledgeable | 25.6 | 41.7 | 21.6 | 21.1 | 66.7 |
| Somewhat Knowledgeable | 30.0 | 16.7 | 29.7 | 34.2 | 33.3 |
| More Knowledgeable | 32.2 | 8.3 | 43.2 | 31.6 | 0.0 |
| Quite Knowledgeable | 12.2 | 33.3 | 5.4 | 13.2 | 0.0 |
| Total (n) | (90) | (12) | (37) | (38) | (3) |

**E. Demographics – Inconsistent/consistent**

A logit analysis of those respondents who were inconsistent on abortion versus those who were consistent using all the demographic material gathered by the survey yielded two significant findings – involving the independent variables of political ideology and religious views. For the logit analysis, the demographic variables were not collapsed but kept in the larger scales with which the data was original gathered – an eight-point scale for church attendance, for instance, seven-point scales for political ideology and party identification, six-point scales for age and education, etc. (See the survey in Appendix A for the response categories). Religious views were coded 1 for conservative, 2 for moderate, 3 for liberal and 4 four "none of these." For

the political ideology variable, the coding ranged from 1 for extremely liberal to 7 for extremely conservative. The question orders were divided into indicator, or dummy variables, with GSU1 as ORDER1, GSU2 as ORDER2, GSU3 as ORDER3 and the control group as the reference category.

The chi square for the logit regression was 24.70, which was significant to $p<.016$. The model correctly predicted 89.56 percent of the cases. The proportional-reduction-in-error statistic indicates that the model saved 8.14 percent of the errors we would have expected to make (Hagle and Mitchell 1992). (See Table 4.8)

**Table 4.8: Logit analysis of the demographic characteristics of inconsistent/consistent respondents to abortion survey**

| | *Model of Inconsistent/Consistent Respondents* | | |
|---|---|---|---|
| *Demographics* | *Overall* | *Pro Choice* | *Pro Life* |
| Ideology | .241**<br>(.101) | .459***<br>(.133) | .049<br>(.196) |
| Party Identification | -.040<br>(.066) | .017<br>(.082) | -.024<br>(.143) |
| Political Knowledge | -.248<br>(.148) | -.365*<br>(.187) | -.017<br>(.300) |
| Religious Views | .327**<br>(.126) | .356**<br>(.173) | .252<br>(.247) |
| Church Attendance | -.091<br>(.060) | .105<br>(.078) | -.112<br>(.129) |
| Age | .086<br>(.091) | .195<br>(.119) | -.162<br>(.189) |
| Education | -.025<br>(.097) | -.010<br>(.124) | -.124<br>(.209) |
| Race | .042<br>(.116) | -.160<br>(.174) | .235<br>(.186) |
| Gender | -.092<br>(.281) | -.183<br>(.355) | .001<br>(.574) |
| Order1 | -.126<br>(.407) | -.260<br>(.527) | .117<br>(.756) |
| Order2 | .527<br>(.363) | 1.066**<br>(.463) | .071<br>(.749) |
| Order3 | .382<br>(.379) | .491<br>(.464) | -.085<br>(.803) |
| Constant | -3.256***<br>(1.029) | -4.506***<br>(1.354) | -2.62<br>(1.972) |
| N | 792 | 350 | 442 |
| Chi-square | 24.70** | 36.26*** | 7.19 |
| % Predicted correctly | 89.63% | 83.95% | 95.84% |
| Proportional reduction in error | 8.13% | 19.73% | 8.38% |

*Note:* Entries in parentheses are standard errors.

*** significant to the .01 level (one-tailed test)

** significant to the .05 level (one-tailed test)

* significant to the .10 level (one-tailed test)

There are several ways to interpret logit coefficients, all having to do with how changes in the significant independent variable would affect the dependent variable while holding other independent variables at their mean. Were one's religious views to change from conservative to saying "none of these terms" described one's religious views – then the probability that one would become inconsistent on abortion would increase by .0846. Another way to look at it would be that refusing to label one's religious views increases the odds that one also would be inconsistent on abortion by a factor of 38.8 percent. The direction for political ideology, however, is just the opposite. Should one change from extremely liberal to extremely conservative, the probability of being inconsistent on abortion would increase by .1155. Another way to look at it would be that being more conservative increases the odds that one also would be inconsistent on abortion by a factor of 27.3 percent. (See Figure 2)

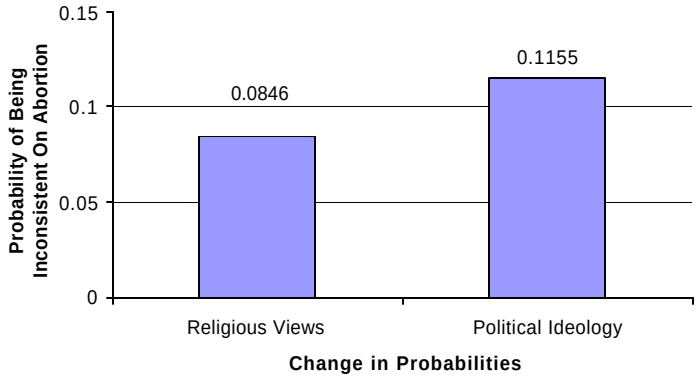


**Figure 2: The effect of religious views and political ideology on whether one is inconsistent on abortion (change in probabilities).** *Note:* Quantities represent changes in probabilities calculated by looking at a minimum to maximum change in these independent variables at their mean values.

The logit analysis, therefore, tells us that religious views and political ideology are the only demographic factors that, overall, differentiate respondents who give inconsistent answers from those whose answers are more logical. A crosstab analysis also found significant

relationships between church attendance, political knowledge and education, as independent variables, and a dependent variable that consisted of the inconsistent category and the other three categories lumped together into a "consistent" category.

Just as the logit analysis found that those respondents who refused to characterize their religious views were more likely to be inconsistent, the crosstab analysis also found evidence that the inconsistent were more likely to be non-religious. Inconsistent respondents were far more likely to attend church only rarely if at all. For church attendance, the GSS question used in the survey utilized an eight-point scale: never, about once or twice a year, several times a year, about once a month, two or three times a month, nearly every week, every week and several times a week. For the purpose of this analysis, this scale was collapsed to three categories: rarely, which included those who responded never or about once or twice a year; occasionally, which included those who responded several times a year, about once a month or two to three times a month and nearly every week, and regularly, which included those who said every week and several times a week. Those who answered that they didn't know were not included in the analysis. The relationship between church attendance as an independent variable and inconsistent/consistent as the dependent variable was significant to the $p<.028$, with a chi square of 7.166. The association between the two variables also was statistically significant at the $p<.03$ level, with a Somer's $D_{yx}$ of -.061, meaning we can reduce our errors by 6.1 percent in predicting whether respondents give logical or illogical responses if we know their level of church attendance. Inconsistent respondents are significantly more likely to say that they attended only rarely (15.2%) rather than occasionally (8.2%, $z=2.39$, $p<.05$) or regularly (9.6, $z=2.002$ $p<.05$). (See Table 4.9)

**Table 4.9: Church Attendance by inconsistent/consistent categories (in percentages)**

| | Church Attendance | | | |
|---|---|---|---|---|
| Answer categories | TOTAL | Rarely | Occasionally | Regularly |
| Consistent | 88.6 | 84.6 | 97.8 | 90.4 |
| Inconsistent | 11.4 | 15.2 | 8.2 | 9.6 |
| Total (n) | (792) | (290) | (219) | (270) |

$X^2$=7.166, df=2, p<.05. Somers $D_{yx}$ = -.061, p<.029.

The crosstab analysis also found a weak relationship between education and political knowledge and whether people gave consistent or inconsistent responses to the abortion questions. For the education measure, respondents were allowed to select from a six-point scale: some high school but did not graduate, graduated high school, some college but no degree, two-year associate degree, four-year college degree, and attended or completed graduate school. For the purposes of this analysis, that scale was collapsed to three points: high school or less using the first two points, some college using the some college and the two-year categories, and college degree or more, using the four-year degree and graduate school categories. The chi square for the relationship between education as an independent variable and inconsistent/consistent as the dependent variable revealed a weak relationship of 5.198, which was significant only to the p<.07 level. The association between the two variables also was statistically significant at the p<.025 level, with a Somer's $D_{yx}$ of .063, meaning we can reduce our errors by 6.3 percent in predicting whether respondents give inconsistent responses if we know their religious views. One in six of those who had a high school degree or less fell into the inconsistent column (14.3%), which was significantly more than the proportion of those with a college degree or more (8.2%, z=2.208, p<.05) but about the same proportion as those with some college under their belts (12.7%). (Table 4.10)

**Table 4.10: Education by inconsistent/consistent categories (in percentages)**

| | Education | | | |
|---|---|---|---|---|
| Answer categories | TOTAL | High School or less | Some college | Degree or more |
| Consistent | 88.5 | 85.7 | 87.3 | 91.8 |
| Inconsistent | 11.5 | 14.3 | 12.7 | 8.2 |
| Total (n) | (792) | (192) | (233) | (268) |

$X^2$=5.198, df=2, p<.074. Somers $D_{yx}$ = -.063, p<.025.

The political knowledge index (Delli Carpini & Keeter, 1993) was derived from five questions to serve as a surrogate for political sophistication and media usage. The questions asked respondents to identify the job of Vice President Dick Cheney, to identify the branch of government with the power to declare laws unconstitutional, to state the correct proportion of Congressional votes needed for a presidential veto override, to say which party was currently in power in the U.S. House of Representatives and to say which party was the more conservative. A four-point index was created by simply counting the number of correct answers, with none correct being not knowledgeable, one to two correct being somewhat knowledgeable, three to four correct being more knowledgeable and all five correct being quite knowledgeable. The relationship between political knowledge as an independent variable and inconsistent/consistent as the dependent variable had a relatively weak chi square of 6.829 which was statistically significant to the p<.078 degree. The association between the two variables also was statistically significant at the p<.03 level, with a Somer's $D_{yx}$ of .056, meaning we can reduce our errors by 5.6 percent in predicting whether respondents give inconsistent responses if we know their level of political knowledge. Those who were quite knowledgeable were significantly less likely to fall

into the inconsistent category (6.7%) compared with those who were not knowledgeable (15.9%, z=2.583, p<.05). (See Table 4.11)

**Table 4.11: Political knowledge by inconsistent/consistent categories (in percentages)**

| | Political Knowledge | | | | |
|---|---|---|---|---|---|
| Answer categories | TOTAL | Not knowledgeable | Somewhat knowledgeable | More knowledgeable | Quite knowledgeable |
| Consistent | 88.6 | 84.1 | 89.1 | 87.6 | 93.3 |
| Inconsistent | 11.4 | 15.9 | 10.9 | 12.4 | 6.7 |
| Total (n) | (792) | (145) | (248) | (234) | (165) |

$X^2$=6.829, df=3, p<.078. Somers $D_{yx}$ = -.056, p <.026.

**F. Demographics -- pro choice inconsistent/consistent**

Since more than three quarters of the inconsistent respondents qualified for the inconsistent category by agreeing with the any reason question, it would seem likely that the inconsistent category as a whole would be more like the pro choice respondents than the pro life respondents, given that only 20 of the 90 inconsistent respondents were essentially pro life in their outlook. To really get at the differences between those who are inconsistent and those who are consistent, therefore, it may be more enlightening to divide the sample into pro choice and pro life subsamples and then compare the pro choice inconsistent respondents with the consistent pro choice respondents, and the pro life inconsistent respondents with their consistent counterparts. For this analysis, the moderates were divided into pro choice and pro life camps and added together with the pure pro choice and pro life respondents. The moderates who said yes to one or more of the so-called “easy” scenarios but no to all of the so-called “hard” scenarios were placed in the pro life camp, on the grounds that the three “easy” scenarios were all situations in which abortions were available in about half of the states prior to *Roe v. Wade*

and the pro life movement, for the most part, aims to turn the clock back to the time prior to the adoption of the *Roe v. Wade* precedent (Weddington 1993). The rest of the moderates – those who had agreed to an abortion in at least one of the "hard" scenarios – were added to the pro choice camp, since those three scenarios would not be possible if *Roe v. Wade* were overturned.

A logit regression involving only the pro choice respondents and their demographic characteristics indeed yielded a much more precise model of the relationship than the regression of inconsistent versus consistent respondents. In addition to political ideology and religious views, political knowledge and one of the question orders showed a significant influence on the dependent variable of pro choice inconsistent/consistent. The chi square for the logit regression was 36.26, which was significant to the $p<.001$ level. The model correctly predicted 83.95 percent of the cases, proportionally reducing our errors by 19.73 percent. (See Table 8)

A change in political ideology for a pro choice person from extremely liberal to extremely conservative – holding all other variables at their mean -- would increase the probability of one being inconsistent on abortion by .3700, while a change in one's religious views from conservative to the belief that ideological labels do not characterize one's religious beliefs would increase the probability of one being inconsistent on abortion by .1212. A change in one's political knowledge from being not knowledgeable to being quite knowledgeable would decrease the likelihood of one's being inconsistent on abortion by .1366. Finally, being asked the abortion questions in the GSU2 order, with the any reason question first and the rest of the questions in the Guttman scale of descending order of severity, increased the likelihood of inconsistency by .1552 compared with the control group, which had the questions asked in random order and the any reason question asked last. Looking at the factor changes in the odds of one being inconsistent on abortion, for a pro choice person to change from extremely liberal to

extremely conservative increases the odds of being inconsistent by a factor of 58.2 percent, and changing one's religious views from conservative toward liberal to refusing to label one's religious views would increase the odds by a factor of 42.8 percent. Going from not politically knowledgeable to quite politically knowledgeable would decrease the odds of inconsistency by a factor of –30.6 percent, while being asked the questions in the GSU2 order instead of the control group order would increase the odds of inconsistency by a whopping 190.3 percent.

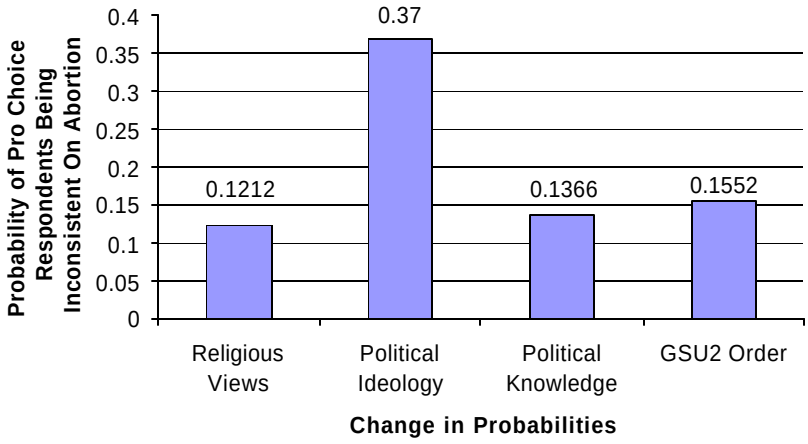


**Figure 3: The effect of religious views, political ideology, political knowledge and question order on whether pro choice respondents are inconsistent on abortion (change in probabilities).** *Note:* Quantities represent changes in probabilities calculated by looking at a minimum to maximum change in these independent variables at their mean values.

The logit analysis gives us a clearer picture of the typical inconsistent respondent: a pro choice conservative who doesn't like to characterize his/her religious views and isn't very politically knowledgeable but who is clearly influenced by question order if the general question precedes the questions that present individual scenarios in an order of increasingly more difficult decisions. This picture can be refined even further with additional analysis through crosstabs.

The crosstab analysis found no significant differences within the inconsistent and consistent pro choice groups by race, age, gender or party identification, but it confirmed the

significant relationships with ideology and religious views. It did not confirm the significant relationship between inconsistent and consistent pro choice groups by political knowledge, but it did find some significant relationships by education levels.

As for ideology, significantly fewer of the pro choice liberals were inconsistent (10.6%) compared with the pro choice moderates (21.3%, z=2.284, p<.05) or the pro choice conservatives (31.7%, z=4.009, p<.05). The relationship between ideology as an independent variable and the pro choice inconsistent/consistent as the dependent variable was significant to the p=.001, with a chi square of 15.859. (See Table 4.12) The association between the two variables also was statistically significant at the p<.001 level, with a Somer's $D_{yx}$ of .191, meaning we can reduce our errors by 19.1 percent in predicting whether pro choice respondents give logical or illogical responses if we know their ideological position.

**Table 4.12: Ideology by pro choice inconsistent/consistent categories (in percentages)**

| | Ideology | | | |
|---|---|---|---|---|
| Answer categories | TOTAL | Liberal | Moderate | Conservative |
| Pro Choice Consistent | 79.8 | 89.4 | 78.7 | 68.3 |
| Pro Choice Inconsistent | 20.2 | 10.6 | 21.3 | 31.7 |
| Total (n) | (341) | (132) | (108) | (101) |

$X^2$=15.859, df=2, p<.001. Somers $D_{yx}$ = .191, p<.001.

Referring to their characterizations of their religious views, pro choice respondents who were least likely to be inconsistent were those who said their religious outlook was liberal (6.1%) compared to those who said their outlook was moderate (18.0% inconsistent, z=2.434, p<.05) or conservative (26.5% inconsistent, z=3.069, p<.05) or who said none of those labels fit their religious viewpoint (26.2% inconsistent, z=3.606, p<.05). (See Table 4.13) The relationship

between religious views as an independent variable and the pro choice inconsistent/consistent as the dependent variable was significant to the p<.003, with a chi square of 13.951. The association between the two variables, however, was not statistically significant.

**Table 4.13: Religious views by pro choice inconsistent/consistent categories (in percentages)**

| Answer categories | TOTAL | Conservative | Moderate | Liberal | None of these |
|---|---|---|---|---|---|
| Pro Choice Consistent | 81.4 | 73.5 | 82.0 | 93.9 | 73.8 |
| Pro Choice Inconsistent | 18.6 | 26.5 | 18.0 | 6.1 | 26.2 |
| Total (n) | (334) | (34) | (111) | (82) | (107) |

$X^2$=13.951, df=3, p<.003. Somers $D_{yx}$ = .026, p=n.s.

A closer look at the interaction between ideology and religious views reveals more about the complexity of the relationship between the two variables for the inconsistent respondents. A crosstab analysis of the entire sample with religious views as the dependent variable and ideology as the independent variable shows strong relationships between the two variables. For the pure pro choice respondents (all answers yes), the relationship had a chi square of 47.088, significant to the p<.001 level. The association between the two variables for pure pro choice respondents was significant at the p=.004 level with a Somer's $D_{yx}$ of -.181, meaning we can reduce our errors by 18.1 percent in predicting the religious views of pro choice respondents if we know their ideology. For pure pro life respondents, the relationship between the two variables was even stronger, with a chi square of 47.955, also significant to the p<.001 level, and a Somer's $D_{yx}$ of -.345, meaning we can reduce our errors by 34.5 percent in predicting the religious views of pro life respondents if we know their ideology. (See Table 4.14)

**Table 4.14: Ideology by religious views for pro choice and pro life purists (in percentages)**

| | Ideology | | | |
|---|---|---|---|---|
| Religious Views | TOTAL | Liberal | Moderate | Conservative |
| Conservative | PC[1] 8.8 | PC 4.6 | PC 5.3 | PC 25.6 |
| | PL[2] 56.5 | PL 0.0 | PL 38.7 | PL 29.4 |
| Moderate | PC 29.2 | PC 18.5 | PC 38.7 | PC 39.5 |
| | PL 18.5 | PL 33.3 | PL 36.4 | PL 13.0 |
| Liberal | PC 33.2 | PC 50.9 | PC 21.3 | PC 9.3 |
| | PL 6.5 | PL 41.7 | PL 0.0 | PL 1.4 |
| None of these | PC 28.8 | PC 25.9 | PC 34.7 | PC 25.6 |
| | PL 18.5 | PL 25.0 | PL 18.2 | PL 17.4 |
| Total (n) | (PC 226) | (PC 108) | (PC 75) | (PC 43) |
| | (PL 92) | (PL 12) | (PL 11) | (PL 69) |

[1] $X^2$=47.088, df=6, p<.001. Somers $D_{yx}$ =-.181, p<.001<.004.
[2] $X^2$=39.590, df=6, p<.001. Somers $D_{yx}$ =-.345, p<.001<.001.

A crosstab analysis of religious views and ideology for the inconsistent respondents, however, shows no such strong interaction between the two variables, reflecting perhaps the underlying problem leading to the inconsistency. Again looking at religious views as the dependent variable and ideology as the independent variable, the chi square for pro choice inconsistent is a low 7.582 which is not statistically significant, with a Somer's $D_{yx}$ measure of association of -.164 that also is not statistically significant. For the pro life inconsistent, the chi square is an even lower 5.365 and the Somer's $D_{yx}$ measure of association of -.178 also is not statistically significant. (See Table 14.5)

**Table 4.15: Ideology by religious views for inconsistent pro choice and pro life respondents (in percentages)**

| | Ideology | | | |
|---|---|---|---|---|
| Religious Views | TOTAL | Liberal | Moderate | Conservative |
| Conservative | PCC[1] 14.8 | PCC 0.0 | PCC 10.0 | PCC 23.3 |
| | PLC[2] 26.7 | PLC 0.0 | PLC 25.0 | PLC 37.5 |
| Moderate | PCC 32.8 | PCC 36.4 | PCC 35.0 | PCC 30.0 |
| | PLC 26.7 | PLC 33.3 | PLC 25.0 | PLC 25.0 |
| Liberal | PCC 8.2 | PCC 18.2 | PCC 0.0 | PCC 10.0 |
| | PLC 6.7 | PLC 33.3 | PLC 0.0 | PLC 0.0 |
| None of these | PCC 44.3 | PCC 45.5 | PCC 55.0 | PCC 36.7 |
| | PLC 40.0 | PLC 33.3 | PLC 50.0 | PLC 37.5 |
| Total (n) | (PCC 61) | (PCC 11) | (PCC 20) | (PCC 30) |
| | (PLC 15) | (PLC3) | (PLC 4) | (PLC 8) |

[1] $X^2$=7.582, df=6, p=n.s. Somers $D_{yx}$ =-.164, p=n.s.
[2] $X^2$=5.365, df=6, p=n.s. Somers $D_{yx}$ =-.178, p=n.s.

Although the crosstab analysis yielded no additional information on the relationship between the pro choice inconsistent and consistent respondents as far as their political knowledge was concerned, it did find some significant differences by level of education in general. Among those who had a college degree or more, only 12.9 percent were inconsistent compared with 24.4 percent of those with some college (z=2.425, p<.05) and 27.2 percent of those with a high school diploma or less education (z=2.691, p<.05). (See Table 4.14) The relationship between education as an independent variable and the pro choice inconsistent/consistent as the dependent variable was significant to p<.014 level with a chi square of 8.553. The association between the two variables was significant at the p<.004 level with a Somer's $D_{yx}$ of -.136, meaning we can reduce our errors by 13.6 percent in predicting whether pro choice respondents give logical or illogical responses if we know their level of education.

**Table 4.16: Education by pro choice inconsistent/consistent categories (in percentages)**

| | Education | | | |
|---|---|---|---|---|
| Answer categories | TOTAL | High School or less | Some college | College degree or more |
| Pro Choice Consistent | 79.8 | 72.8 | 75.6 | 87.1 |
| Pro Choice Inconsistent | 20.2 | 27.2 | 24.4 | 12.9 |
| Total (n) | (347) | (81) | (119) | (147) |

$X^2$=8.553, df=2, p<.014. Somers $D_{yx}$ = -.136, p<.004.

In addition to religious views, the crosstab analysis found some significant relationships between pro choice inconsistent and consistent respondents as far as their church attendance was concerned. A much larger proportion of those pro choice respondents who attend church weekly or more often being among the inconsistent (33.9%) compared with the inconsistent pro choice respondents who only attend occasionally (14.1%, z=2.895, p<.05) or those who never or rarely attend (18.1%, z=2.527, p<.05). (See Table 4.15) The relationship between church attendance as an independent variable and the pro choice inconsistent/consistent as the dependent variable was significant to the p<.009, with a chi square of 9.452. The association between the two variables, however, was not statistically significant.

**Table 4.17: Church Attendance by pro choice inconsistent/consistent categories (in percentages)**

| | Church Attendance | | | |
|---|---|---|---|---|
| Answer categories | TOTAL | Rarely | Occasionally | Regularly |
| Pro Choice Consistent | 80.5 | 81.9 | 85.9 | 66.1 |
| Pro Choice Inconsistent | 19.5 | 18.1 | 14.1 | 33.9 |
| Total (n) | (348) | (193) | (99) | (56) |

$X^2$=9.452, df=2, p<.009. Somers $D_{yx}$ =.075, p=n.s.

The findings regarding religious and the pro choice position are mixed. About the same proportion of pro choice inconsistents characterize their religious views as conservative as refused to label their religious views, but a larger portion of those who attend church regularly were among the pro choice inconsistents. Apparently there's a group of non-religious pro choice partisans who are inconsistent, as well as a group of religious conservatives who are pro choice and inconsistent about it. Inconsistents tend to be less educated, likely to consider themselves politically conservative but they essentially support the woman's right to an abortion as long as it's for a good reason. When the any reason question is asked first, they recognize it as the pro choice call to arms and agree, but when confronted with specific situations in which an abortion might be desired, they give their support based on whether they think the reason is moral and justifiable.

**G. Demographics – pro life inconsistent/consistent**

Only 20 of the 90 inconsistent respondents tended toward the pro life position, while 421 of the 792 total respondents were pro life in their disposition of the abortion questions – either

opposing all reasons for abortions or opposing all of the so-called hard reasons and supporting only the easy reasons – those that were legal excuses for abortion in many states prior to *Roe v. Wade*. A logit regression involving only the pro life respondents yield no significant findings for any of their demographic characteristics. (See Table 4.8 for all three models.)

A crosstab analysis looked at the demographics within the pro life inconsistent group and found no significant differences by age, gender, education, party identification, ideology, political knowledge or religious views. The two demographic categories that were significant to the $p<.05$ level, curiously, were church attendance and race. Only 3.4 percent of the white pro life respondents were inconsistent vs. 13.2 percent of those identifying themselves in the other categories (Hispanic, Native American and mixed race) were inconsistent ($z=2.818$, $p<.05$). The relationship between race as an independent variable and pro life inconsistent/consistent as the dependent variable was significant to the $p<.026$, with a chi square of 9.231. The association between the two variables also was statistically significant at the $p<.06$ level, with a Somer's $D_{yx}$ of .099, meaning we can reduce our errors by 9.9 percent in predicting whether respondents give logical or illogical responses if we know their race. Caution should be taken in interpreting these results, however, due to the small number of cases involved.

**Table 4.18: Race by pro life inconsistent/consistent categories (in percentages)**

| | Race | | | |
|---|---|---|---|---|
| Answer categories | TOTAL | White | Black | Other |
| Pro Life Consistent | 95.5 | 96.6 | 94.9 | 86.8 |
| Pro Life Inconsistent | 4.5 | 3.4 | 5.1 | 13.2 |
| Total (n) | (441) | (357) | (39) | (38) |

$X^2=9.231$, df=3, $p<.026$. Somers $D_{yx} = 099$, $p<.061$.

Also, of those pro life respondents who never or rarely attend church, 9.3 percent were inconsistent vs. 3.3 percent of those who attend church weekly or more often (z=2.214, p<.05). The relationship between church attendance as an independent variable and pro life inconsistent/consistent as the dependent variable was significant only to the p=.081, with a chi square of 6.732. The association between the two variables was statistically significant at the p<.06 level, with a Somer's $D_{yx}$ of -.061, meaning we can reduce our errors by 6.1 percent in predicting whether respondents give logical or illogical responses if we know their level of church attendance.

**Table 4.19: Church Attendance by pro life inconsistent/consistent categories (in percentages)**

| | Church Attendance | | | |
|---|---|---|---|---|
| Answer categories | TOTAL | Rarely | Occasionally | Regularly |
| Pro Life Consistent | 95.5 | 90.7 | 96.6 | 96.7 |
| Pro Life Inconsistent | 4.5 | 9.3 | 3.4 | 3.3 |
| Total (n) | (441) | (97) | (119) | (214) |

$X^2$=6.762, df=3, p<.081. Somers $D_{yx}$ =-.061, p<.081.

## Chapter 5: Conclusions

### A. Question order and the three theories

Both hypotheses – that question order makes a difference in consistency and that the inconsistent differ from the consistent demographically – are upheld by the data, but not all of the predictions made as a result of the literature held true. To review the question order issues first, look at the overall figures for inconsistency. Slightly more than 10 percent of the survey respondents answered the abortion questions in an inconsistent manner (11.4%). None of the four question orders stood out as significantly better or worse in creating inconsistent respondents overall, although one (GSU2) did have a significant impact on the pro choice inconsistent. The control group, which followed the mixed question order of the 1996 General Social Survey with the any reason question asked last, had almost exactly as many inconsistent respondents as predicted in Prediction #1 (10.8% vs. a projected 10.0%), but it was not the group with the least number of inconsistent respondents (See Table 4.1). The smallest proportion of inconsistent respondents was in GSU1, with only 8.5 percent, where the questions were asked in descending order of dire circumstances, starting with the woman's health endangered question first, then the other two "easy" questions followed by the three "hard" questions and ending with the any reason question. This Guttman scale question order also produced the highest number of "no" answers to the general any reason question and the greatest number of "yes" answers to the woman's health endangered question. GSU2 – the group whose question order most closely mimicked the ABC survey by asking the any reason question first, followed by the specific situations in the same order as GSU1 – produced about half as many inconsistent respondents as

the ABC survey had at 13.5 percent (instead of 25.1%, Prediction #2), leading one to speculate that the problem with the ABC survey was a combination of question order and the fact that the survey asked six "easy" questions in a row before springing one last "hard" question on the respondents. GSU2, with the pro-choice any reason question coming first followed by the Guttman scale of individual scenarios, significantly impacted the pro choice inconsistent category. Respondents, apparently influenced by the framing of the first question, would respond positively to the idea of a woman being able to exercise a reproductive choice of abortion at her own discretion without government interference. Usually these respondents agreed with abortion under the first three "easy" scenarios, but began to respond to the "hard" questions with a focus on the moral issue of the woman's decision to abort, and more often viewed one or more of these scenarios as "no good reason." These respondents argued that a woman should be able to have an abortion for any reason, as long as it was a good reason and not a frivolous one. And several considered wanting an abortion because she wasn't married, was married but didn't want more children or couldn't afford the child to be reasons that weren't good enough.

Another prediction had been that more people would say no to the any reason question when the question came last than when it came first in the survey. Overall, that is what happened, although the differences were statistically significant only between GSU1 with the de-escalating order and GSU3 with the mixed order (Prediction #3). While there were more positive answers to the any reason question when it came first than last, the differences were not statistically significant overall (Prediction #2). No question order produced a significantly greater proportion of inconsistent respondents overall (Prediction #5). GSU1, the Guttman scale order with any reason last, produced significantly more moderates than pro life or inconsistent respondents (Prediction #6).

The survey also found no statistically significant difference in answers to the question from a combination of the two groups that had the any reason question last compared with a combination of the two groups that had the any reason question asked first (Prediction #8). There were, however, some statistically significant findings that show a negative impact to placing the general any reason question after the battery of specific abortion situation questions. In GSU1, where the any reason question was asked last and the questions were asked in descending order of severity, significantly more respondents offered negative responses to the any reason question than did respondents in GSU3, where the question order was mixed and the any reason question came first. The position of the any reason question was particularly a problem for those who were inconsistent on abortion – overall, 78.9 percent of the inconsistent category supported the question, although only 66.7 percent supported it when the question came last ($z=2.46$, $p=.05$). It appears that respondents who said they believed strongly in their contradictory answers nonetheless were most influenced by the position of the any reason question in the question order, in that significantly fewer of them answered the any reason question positively when the question was asked last than overall, indicating that perhaps they weren't as dedicated to their positions as they liked to think they were. Respondents who said they were just reacting to the question when it was asked, on the other hand, gave the most positive support of the survey to the any reason question whether it was asked first or last (Prediction #10).

Placing the any reason question last appears to depress the pro choice position in abortion surveys, while placing the woman's health endangered question first in the descending order appears to have the effect of inflating the pro life position compared with the mixed order used in the GSS survey, where the question comes third. GSU1, with the Guttman scale order, got 84.4 percent positive answers for the health endangered question when it was asked first, significantly

more at the $p<.10$ level, than the 76.8 percent for the Control group ($z=1.925$). Support for the health endangered question was also higher than the 81.1 percent support in GSU3, the other mixed order group, although the difference was not statistically significant. So the Guttman scale question order appears to inflate the pro life position in abortion surveys. When the Guttman scale is preceded by the any reason question, as in GSU2, it also adds to the inconsistency among pro choice advocates, according to the logit analysis.

Therefore, it seems clear that the preferred question order should be the mixed order already employed by the GSS survey instead of the Guttman scale order. What is not so clear is whether to place the any reason questions before or after it. Placing it first is supported by the part-whole theory (McFarland 1981, Schuman et al, 1981). But this survey, at least, shows little support for this theory, as far as respondents themselves being able to recognize their use of the technique in answering individual scenario questions followed by a general question. Just because respondents don't realize that's what they are doing, admittedly, doesn't mean that they aren't actually doing it on a subconscious level; it just means that support for the theory is not found in the self-assessment measures conducted here. The any reason question comes first in the one question order, GSU2, that appears significant when tested against the control group in the logit analysis of pro choice respondents only, meaning that significantly more of the pro choice inconsistent can be found in GSU2 compared with the control group, which had the any reason question last. GSU2 also used the Guttman scale order of questions, so it's not clear whether the significant difference arises from the placement of the any reason question or the deescalating nature of the subsequent questions or a combination of the two. Based on the open ended comments, one can presume a degree of framing influence by the placement of the any reason question ahead of the Guttman scale questions that prompts these inconsistent people to

start out in the pro choice arena and end up in what might have been the moderate category if they had been asked the any reason question last. The real question is what is their true opinion? That is particularly hard to ascertain with the inconsistent respondents. Are they truly pro choice respondents who influenced unduly by the deescalating nature of the Guttman scale, or are they moderates who are tricked into making a mistake in their initial response to the any reason question because it was asked first? If the goal is to minimize inconsistency among respondents, then clearly the any reason question would have to be asked last, even though doing so tends to depress the pro choice numbers. It also is contrary to the results of several studies that found that asking the general question after the specific questions influences the answer to the general question (Schuman & Presser 1981, Tourangeau et al 2000). But it does jive with the finding that the general question might seem appropriate as a summary question after several specific questions (Schwarz, Strack & Mai 1991).

Which question order would be most appropriate would depend on the use and goal of the survey. The control group question order, which is based on the GSS survey question order, is probably the best order -- despite somewhat its negative impact on the pro choice position – if the text of the questions cannot be changed. This order appears to minimize confusion by asking the any reason question last and avoids inflating the pro life position by asking the woman's health question in the mixed order instead of the Guttman scale.

GSU1 and GSU2, each employing the Guttman scale and with the any reason question last and first, are flawed and should be avoided. GSU1, with the any reason question last, has a relatively low number of inconsistent respondents but a substantially higher number of moderates; it depresses the pro choice position and inflates the pro life position. GSU2, with the any reason question first, creates the largest proportion of inconsistent responses but has the

Guttman scale questions which disproportionately channel responses away from pro choice position.

GSU3, which is the mixed question order with the any reason question first, would be the ideal question order – rather than the control group order -- according to the traditional part/whole theory because it asks the general question before the specific questions. But, as pointed out in our discussion of the open-ended responses, the inconsistent respondents had a tendency to treat the any reason question using political reasoning and the specific questions using moral reasoning. GSU3 would be best used if the wording of the any reason question were changed to make it a more overtly general abortion support question. If one of the goals of the study is to obtain an idea of general support for abortion in the political context, the question could be "Please tell me whether or not you think a pregnant woman should have access to a legal abortion without having to get permission from the government" or, less overtly, "please tell me whether or not you think it should be possible for a pregnant woman to have access to a legal abortion" or, by simply shortening the GSS question, "please tell me whether or not you think it should be possible for a pregnant woman to obtain a legal abortion if she wants it." By leaving out the "for any reason" or any reference to a reason, you avoid the possibility of tricking someone who is otherwise moderate on abortion into giving inconsistent answers when you go on to ask about specific reasons for abortion. Since it appears that, at least among those who gave inconsistent answers, respondents are answering the specific questions using moral reasoning, it might be advisable to reword the introduction to the specific questions to make it clear that, for these questions, the respondent is expected to give their judgment as to whether an abortion is morally justified under these circumstances.

Returning to the study's first hypothesis -- that the order of abortion questions, especially the general any reason question, makes a difference in the number of respondents who answer the questions inconsistently – the findings support it in subtle ways but not in broad strokes. Overall, one question order does not produce significantly more inconsistent respondents than the others. But GSU2, with the any reason question first followed by the Guttman scale order of specific questions, is significant in the logit regression for pro choice respondents, meaning that the order has a greater impact on the differentiation between inconsistent and consistent pro choice respondents than the recommended control group. Therefore, we can reject the null hypothesis that the question order has no impact on respondent inconsistency.

Looking more closely at the self-placement of the inconsistent respondents, one finds that the expected "good citizen" response wasn't as pronounced as expected (Prediction #7). Respondents were as likely to admit they were just reacting to the question as it was asked as they were to say they believed strongly in their contradictory positions. Perhaps most surprising is that hardly any recognized themselves as answering the any reason question last as if it were "any other reason" (n=3). This portion of the current research was designed to address a gap in the research in that none of the previous studies had actually asked respondents to identify the issue that prompted them to give inconsistent answers. That Zaller's "top of the head" theory resonated with about the same proportion of respondents as the Alvarez and Brehm "sincerely conflicted" theory appears to indicate that neither is wholly descriptive but, instead, each describes what happens with a portion of respondents in a survey setting. They coexist instead of conflict or contradict. Answering off the "top of the head" prompts some people to give inconsistent answers to related questions in the same survey, while conflicting core values prompt a second group of people with deeply ambivalent feelings to give inconsistent answers to

the same related questions in the survey. These findings do not support the part/whole theory, where respondents subtract the situations of specific questions from the whole when asked the general question last rather than first. If such a phenomenon exists, it is a subconscious process, but few respondents recognized it as something they were doing.

Looking ahead to one of the demographic categories as it relates to the self-placement categories, there were no differences among the inconsistent in their political knowledge. Based on the Alvarez and Brehm theory, we had predicted that those who felt strongly about their answers might be more knowledgeable than those who were simply answering questions off the top of their heads. Alvarez and Brehm had found that additional information made deeply ambivalent people even more ambivalent, rather than clearing up the source of their inconsistency. But the survey found no differences in the political knowledge of respondents who said they were just reacting to the questions and those who said they believed strongly in their answers, perhaps indicating that those who believed strongly in their answers have not been inconsistent further by additional political information (Prediction #12).

Asking respondents to explain their inconsistent answers in an open-ended question did not turn out as expected, in that few had any useful explanation. Two-thirds chose to talk about their moral philosophy on abortion, ignoring the question about the conflicting answers altogether, despite promptings by interviewers. About one-quarter recognized that their responses were inconsistent but mostly they failed to analyze their thinking behind the error, other than simply admit that one had occurred. Several did admit, however, that they were just answering the questions as they came up – lending support to Zaller's theory. A couple of respondents appeared to understand the part/whole theory of context effects – one said he had answered the any reason question positively only because it was asked before the specific

questions. Twelve percent, during the open-ended answers, said they felt strongly about the answers they gave – lending support to the Alvarez and Brehm theory.

As for the second hypothesis, however, the study did not find that respondents who give inconsistent answers were most likely to say they felt strongly about their responses even though they contradict, rather than that they answered the questions off the top of their heads or that they subtracted the specific situations from the general condition. Instead, Zaller's "top of the head" theory and Alvarez and Brehm's ambivalence theory resonated equally with respondents, who for the most part did not recognize themselves in the part/whole theory. Therefore, for this hypothesis, we cannot reject the null hypothesis that the ambivalence theory would not resonate more strongly than the other two with respondents.

**B. Demographics**

In an initial attempt to understand the inconsistent respondents better, their responses to the abortion questions themselves were analyzed and compared with the other answer categories – pro life, pro choice and moderate. The analysis revealed the expected dramatic impact (Prediction #9), with an interesting delineation between the two groups identified in this study as moderate and inconsistent. The moderates clearly support the pre-Roe, conservative pro life position of legal abortion in the most dire circumstances but not in the so-called "hard" scenarios, while the inconsistent are far closer to the pro choice position of tolerance for abortion as a reproductive choice even in the "hard" situations (see Table 4.3), with 78.9 percent supporting legal abortion for any reason (vs. 38.5% overall). No such clear delineation is present in the analysis of the abortion responses by the self-placement groups, although there are some interesting developments. Respondents who identified themselves as just reacting to the

questions as they heard them seem to be honestly evaluating an emotional response to the questions – their responses to the three "easy" questions were across the board higher than the sample total, with a significantly greater 100 percent of them agreed to legal abortions for pregnancies resulting from rape or incest, compared with 76.3 percent of those who said they believed strongly in their positions ($z=3.16$, $p<.05$) and with 74.4 percent of the sample total ($z=3.65$, $p<.05$). They were slightly more sympathetic than the total to the scenario about the low income woman who couldn't afford more children and less sympathetic to the scenarios about the single woman who didn't want to marry or the married woman who didn't want more children, but they were dramatically more supportive of the idea of a legal abortion for any reason (89.2%) than the total (38.5%, $z= 6.49$, $p<.05$). Those who said they strongly believed the positions they espoused were significantly less likely than the total sample (as well as the "just reacting" group) to support abortions when the mother's health was seriously endangered (63.2% vs. 80.1% total, $z= 2.67$, $p<.05$), and they, like the "just reacting" group, gave significantly more positive responses to the any reason question (76.3% vs. 38.5% total, $z= 4.91$, $p<.05$). Otherwise, however, their responses mirrored that of the total sample.

The analysis of the traditional demographics of personal characteristics as well as political and religious leanings looked more specifically at the inconsistent respondents versus the other respondents combined, as well as broken down by pro choice and pro life partisans. The prediction regarding the youngest being among the most inconsistent (#13) was not confirmed, neither were the Republicans among the most consistent (#15). Political conservatives, especially those who were pro choice on abortion, actually were more inconsistent than consistent, contradicting prediction #16. Indeed, knowing whether a respondent was a political conservative turns out to be a good predictor that the respondent will be inconsistent on

the topic of abortion; this was dramatically true if the respondent also indicated support for the pro choice position as well as the conservative ideology. Pro choice conservatives appear to be a distinct minority and not a very comfortable one at that. This rare breed appears to lean towards the pro choice position but probably would fit more comfortably in a moderate position if they were simply better skilled at answering survey questions.

Political knowledge, it turns out, was an indicator of inconsistency – those who were quite knowledgeable were significantly less likely to be inconsistent, particularly among those who have a college degree (Prediction #11). Indeed, political knowledge was particularly significant as a predictor of inconsistency for pro choice respondents. According to the logit analysis, going from not politically knowledgeable to quite politically knowledgeable decreased the odds of inconsistency by a factor of -30.6 percent. It is not unexpected that those who have been paying attention to politics are aware of the hot issue of abortion. Likely those who know about politics have thought about the issue of abortion and developed their attitudes on it. Those who know the most about it probably have been paying enough attention to have developed a consistent position that they can convey without inconsistency in a survey setting. It is also not unexpected that political knowledge is only a significant indicator for the pro choice inconsistent and not for the pro life inconsistent, mainly because 78 percent of all the inconsistent are pro choice in their leanings. The number of pro life inconsistents (n=20) in this survey is too small for many significant findings.

Gender, as predicted, did not make a difference (Prediction #20). As for education, significantly more of the least educated respondents were inconsistent (Prediction #14) while the most educated respondents were the least likely to be inconsistent. Religious conservatives as well as religious liberals were among the least inconsistent (Prediction #17) -- the interesting

findings are that those who were inconsistent generally refused to accept an ideological label for their religious viewpoint, opting for the "none of these" response to the question. Again, knowing that a respondent refused to label their religious viewpoint ideologically turned out to be an excellent predictor that they would be inconsistent on abortion, particularly if they also indicated they supported the pro choice position. It is not clear whether these people are non-religious or that they simply don't believe political ideology labels have any place in the religion arena. I believe they are the non-religious because the largest proportion of inconsistent respondents was the segment who rarely or never attended church. Church attendance was the only variable that, in the crosstab analyses, showed significance across all three groups, the overall inconsistent/consistent breakdown as well as both the pro choice and the pro life respondents. Regular church-goers were indeed among the least inconsistent among the overall and pro life inconsistent (Predictor #18), but there were significantly more regular church-goers as well as rare church-goers compared with occasional church-goers among the pro choice inconsistent.

Perhaps the most interesting finding of all is that more than three-quarters of the inconsistent respondents who were basically pro choice in their position on abortion; so few were of the pro life persuasion (n=20) that it was almost impossible to find many significant differences among them. As with the overall inconsistent/consistent analysis, pro life inconsistent respondents were more likely to be inconsistent if they rarely or never attended church. There was one curious finding involving the pro life inconsistent, though. Significantly fewer pro life white respondents, compared with those identifying themselves as multiracial, Hispanic, Asian or Native American, were inconsistent on abortion. This subset of the sample

thus contradicted Predictor #19, although race was not a factor for the pro choice inconsistent. (See Table 5.1 for a summary of the Prediction findings).

As for the third major hypothesis of the study – that those respondents answering the questions inconsistently differ significantly in their demographics from those who answered the questions logically – there appear to be numerous demographic differences between the inconsistent and consistent respondents, particularly those who are of the pro choice persuasion. Therefore we can reject the null hypothesis that there is no difference demographically between the two groups.

**Table 5.1: Predictions Table**

| Prediction Explanation | Prediction | Confirmed? |
|---|---|---|
| 1) % of Inconsistent respondents in Control Group | 10% | 10.8% -- Yes |
| 2) % of Inconsistent in GSU2 (ABC order pattern) | 25% | 13.5% -- No |
| 3) % of support for any reason question in GSU3, when it appears last | Less than 50% | Yes |
| 4) % of support for any reason question in GSU1, when it appears first | More than 50% | No |
| 5) Proportion of inconsistent respondents | No prediction | No differences |
| 6) Proportion of pro life, moderate or pro choice | No prediction | No differences |
| 7) Proportion of a) "believe strongly" to b) "any other reason" to c) "just reacting" self-placement responses | More a & b than c | More a & c than b – No |
| 8) More "yes" answers to any reason question when it appears first | Significant | Not overall but in certain subsets |
| 9) Impact of answer categories on all abortion questions | Significant | Yes |
| 10) Impact of the order of the any reason question on the answers given by the "just reacting" vs. the "believe strongly" groups | "Just reacting" to change answers | More "believe strongly" changed -- No |
| 11) Inconsistent have little political knowledge | Significant | Fewer are quite knowledgeable -- Yes |
| 12) Inconsistent who believe strongly have more political knowledge | Significant | No |
| 13) Younger respondents more inconsistent | Significant | No |
| 14) Lesser educated respondents more inconsistent | Significant | More educated less inconsistent |
| 15) Republicans least inconsistent | Significant | No |
| 16) Political conservatives least inconsistent | Significant | Yes but in the opposite direction |
| 17) Religious conservatives least inconsistent | Significant | Liberals too -- Yes |
| 18) Regular church attendees least inconsistent | Significant | Yes overall but not for among pro choice inconsistent |
| 19) Race not a factor in inconsistency | Not Significant | No for pro life inconsistent, Yes for rest |
| 20) Gender not a difference in inconsistency | Not Significant | Yes |

**C. Final thoughts**

Returning to the three basic theories offered by public opinion researchers to explain conflicting answers in surveys, few people are willing to concede that they "subtract" specific situations from the general condition when asked several specific questions followed by a general question on abortion. Instead, they are about as likely to admit that they possess independent attitudes on issues and thus respond off "the top of the head" to the question as it is asked, as they are to claim that they have deeply conflicting positions that they truly support even though they somewhat helplessly realize their answers are not logically compatible. The latter two theories, it appears from this initial glance, represent equal culprits in the inconsistency among survey respondents. The part/whole theory is not discredited by these findings; it is merely not supported by the conscious recognition of the respondents themselves.

We now have a fairly good idea how much inconsistency is generated and know something about the circumstances in which this inconsistency occurs. Question order does matter. Also, it appears that an equal number of respondents are inconsistent because of a general carelessness in answering the questions off the top of their heads and because of ambivalence in their deeply held moral values regarding abortion that they can't seem to reconcile or adequately explain. Some of these respondents may also be subconsciously reacting to the battery of questions in the manner suggested by the part-whole theory, but few recognized that when queried about it. Transcription of the open-ended questions actually yielded little additional information as to the sources of inconsistency, although it did give some insight into the respondents' thought processes in their answering of the abortion battery of questions in general. One viable conclusion that can be drawn from the open-ended questions is that, despite the actual

wording of the questions, two-thirds of the inconsistent respondents were answering the individual scenario questions based on their personal, moral beliefs on abortion, while they may have answered the more general any reason question using political reasoning, reacting to the framing of the question to give their opinion of the government's role in the abortion debate.

To sum up, the main conclusions one can draw from this research is that abortion surveys that question order must be done with some forethought because it can aggravate inconsistency and influence the outcome of the survey. According to the logit analysis, for those characterized as pro choice inconsistent, the most confusing question order occurred when the any reason question came first followed by the Guttman scale of specific situations – this compared with the control order where the any reason question came last after the specific questions which were mixed. The cross tab analyses found that placing the any reason question last tended to depress the pro choice position overall while the Guttman scale tended to enhance the pro life position compared with the mixed question format. These findings lead to the conclusion that the Guttman scale order for the specific questions should be avoided because it contributes to both inconsistency and a certain amount of prejudice in the results. These findings are mixed on the question of where to put the any reason question. On one hand, putting it first seems only fair to the pro choice side, but putting it last seems to reduce inconsistency. Given that the goal of this project is to find ways to reduce inconsistency, and there is some support in the literature for placing the "any reason" question at the end of the list of specific questions as a summation, the recommendation is to place the any reason question at the end of the battery of questions. However, if the "any reason" question can be rewritten to make it more of a general question specifically referencing the political issue of the woman's access to legal abortions and the specific questions can be introduced acknowledging the use of moral reasoning in their

responses, then the better question order – that doesn't violate the part/whole theory – would be the mixed format for the specific question with the general question first.

As for who is likely to become inconsistent on abortion in a survey situation, this research indicates they are people who are not very religious – they rarely or never attend church and they aren't comfortable describing their religious viewpoints as conservative, moderate or liberal. An interesting finding from this research is that being a political conservative is a predictor of inconsistency – particularly if the conservative also indicates support for the pro choice position. Although it contradicts findings from the earlier ABC study, given that conservatives have made the pro life position one of the strongest positions in their ideological platform, however, this finding shouldn't be too surprising. The most conflicted of respondents would not be the liberals, who are generally supportive of the pro choice position, but those conservatives who nevertheless support pro choice. This is a finding that warrants further research. Little has been written about the plight of the pro choice conservative, apparently because everyone assumed no such animal existed. This research shows that they do and they're as conflicted as one might imagine, given that position on the abortion issue is general seen as one of the litmus tests of the modern conservative ideology (O'Conner 1996). Further research should be conducted to determine just what proportion of conservatives consider themselves to be pro choice and, if possible, how they reconcile the positions.

Other findings warrant further research. The indications from the open-ended responses that respondents where not focusing on the issue of whether abortions should be legal but whether women should seek abortions under the varying circumstances demands further exploration. If the purpose of a survey is to determine support for a public policy position, that may not be what is being measured when the questions ask about legal abortions. Opened-ended

questions asking respondents to explain their positions on the yes-no answers they give to these questions would give a better indication as to whether this was a problem just with the inconsistent respondents queried in this survey or with all of the respondents. If it is a general problem, then perhaps different question wording needs to be developed to emphasize the government's role in the abortion debate – if indeed this is the issue that is being measured by the survey. The question wording could easily be enhanced to make clear the purpose of the question is to determine who decides which reason is good enough for an abortion – the pregnant woman or the government.

The open-ended questions asking respondents to explain why they answered the questions in an inconsistent manner were less than successful in eliciting coherent explanations. Future research should involve more in depth discussions with these respondents – perhaps in follow-up interviews or focus groups – or additional follow-up questions to allow them to express their philosophy on abortion and then address the problem of conflicting answers to the questions. Responses to the closed-end follow-up question placed equal responsibility on Zaller's top-of-the-head theory and Alverez and Brehm's ambivalence theory but gave little support to the part-whole theory. Before discarding the well-established and well-documented part-whole theory, however, further research is warranted into the subconscious nature of this phenomenon.

As a result of the present research, political scientists, policy experts and abortion advocates from both sides of the debate can take away several useful ideas about public opinion on abortion:

- that most of the people who answer questions on abortion in an inconsistent manner are pro choice in their leanings,

- that they generally have a moral philosophy of abortion that would make them more of a moderate on the topic than a pure pro choice partisan,
- that they are just as likely to be deeply conflicted on abortion as to be answering the questions off the top of their heads,
- and that politically conservative regular church-goers can be just as inconsistent on abortion as the non-religious, non-political, low-educated non-church-goer, especially if they are basically pro choice.
- In addition, there is the measurement issue: the order the questions are asked can create inconsistencies in the responses.

Ultimately, a better understanding of public opinion on abortion is important because public opinion guides so much of what public officials do about the issue. Both the legislative branch and the judicial branch, which have had the issue before them almost constantly since *Roe v. Wade* was issued in 1973, depend on public support for their effectiveness. If, under democratic theory, the public is the ultimate authority in a democracy based on the concept of popular sovereignty, then it is important that public opinion be accurately measured. Without a full understanding of who is generating inconsistent answers on abortion, some researchers may be tempted to eliminate these respondents from their sample. This research should allow them to better understand who these respondents are and, perhaps with better question wording and question orders, substantially reduce the numbers who express their opinions on this important issue in an inconsistent manner.

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# APPENDICES

## Appendix A: The Survey

***Introduction:***
Hello. I'm conducting a public opinion research study for academic researchers at Georgia State University. This is NOT a sales call. My name is (interviewer's name) and I work for Polaris Marketing Research Incorporated. Are you over the age of 18?
***If not, ask if someone over the age of 18 is available or if a callback can be scheduled.***

I want to start by asking for your opinion on some public policy options involving abortion. This survey will take an average of five minutes. But first let me assure you that all of your answers will be treated confidentially and we are ethically required to keep all study participants anonymous.

I'm going to give you a series of scenarios and I want you to tell me – yes or no -- whether you think it should be possible for a pregnant woman to obtain a legal abortion under those circumstances.

### Control Group

Please tell me whether or not you think it should be possible for a pregnant woman to obtain a legal abortion…

1. If there is a strong chance of serious defect in the baby?
    1. Yes
    2. No
    3. DO NOT READ Don't know/ No answer/ Refused
2. If she is married and does not want any more children?
    1. Yes
    2. No
    3. DO NOT READ Don't know/ No answer/ Refused
3. If the woman's own health is seriously endangered by the pregnancy?
    1. Yes
    2. No
    3. DO NOT READ Don't know/ No answer/ Refused
4. If the family has a very low income and cannot afford any more children?
    1. Yes
    2. No
    3. DO NOT READ Don't know/ No answer/ Refused
5. If she became pregnant as a result of rape or incest?
    1. Yes
    2. No
    3. DO NOT READ Don't know/ No answer/ Refused
6. If she is not married and does not want to marry the man?
    1. Yes
    2. No

    3. DO NOT READ Don't know/ No answer/ Refused
7. If the woman wants it for any reason?
    1. Yes
    2. No
    3. DO NOT READ Don't know/ No answer/ Refused

**GSU1**

Please tell me whether or not you think it should be possible for a pregnant woman to obtain a legal abortion…

1. If the woman's own health is seriously endangered by the pregnancy?
    a. Yes
    b. No
    c. DO NOT READ Don't know/ No answer/ Refused
2. If there is a strong chance of serious defect in the baby?
    a. Yes
    b. No
    c. DO NOT READ Don't know/ No answer/ Refused
3. If she became pregnant as a result of rape or incest?
    a. Yes
    b. No
    c. DO NOT READ Don't know/ No answer/ Refused
4. If the family has a very low income and cannot afford any more children?
    a. Yes
    b. No
    c. DO NOT READ Don't know/ No answer/ Refused
5. If she is not married and does not want to marry the man?
    a. Yes
    b. No
    c. DO NOT READ Don't know/ No answer/ Refused
6. If she is married and does not want any more children?
    a. Yes
    b. No
    c. DO NOT READ Don't know/ No answer/ Refused
7. If the woman wants it for any reason?
    a. Yes
    b. No
    c. DO NOT READ Don't know/ No answer/ Refused

**GSU2**

Please tell me whether or not you think it should be possible for a pregnant woman to obtain a legal abortion…

1. If the woman wants it for any reason?
    a. Yes
    b. No

   c. DO NOT READ Don't know/ No answer/ Refused
2. If the woman's own health is seriously endangered by the pregnancy?
   a. Yes
   b. No
   c. DO NOT READ Don't know/ No answer/ Refused
3. If there is a strong chance of serious defect in the baby?
   a. Yes
   b. No
   c. DO NOT READ Don't know/ No answer/ Refused
4. If she became pregnant as a result of rape or incest?
   a. Yes
   b. No
   c. DO NOT READ Don't know/ No answer/ Refused
5. If the family has a very low income and cannot afford any more children?
   a. Yes
   b. No
   *c.* DO NOT READ Don't know/ No answer/ Refused
6. If she is not married and does not want to marry the man?
   a. Yes
   b. No
   c. DO NOT READ Don't know/ No answer/ Refused
7. If she is married and does not want any more children?
   a. Yes
   b. No
   c. DO NOT READ Don't know/ No answer/ Refused

**GSU 3**

Please tell me whether or not <u>you</u> think it should be possible for a pregnant woman to obtain a <u>legal</u> abortion…

1. If the woman wants it for any reason?
   a. Yes
   b. No
   c. DO NOT READ Don't know/ No answer/ Refused
2. If there is a strong chance of serious defect in the baby?
   a. Yes
   b. No
   c. DO NOT READ Don't know/ No answer/ Refused
3. If she is married and does not want any more children?
   a. Yes
   b. No
   c. DO NOT READ Don't know/ No answer/ Refused
4. If the woman's own health is seriously endangered by the pregnancy?
   a. Yes
   b. No
   c. DO NOT READ Don't know/ No answer/ Refused

5. If the family has a very low income and cannot afford any more children?
    a. Yes
    b. No
    c. DO NOT READ Don't know/ No answer/ Refused
6. If she became pregnant as a result of rape or incest?
    a. Yes
    b. No
    c. DO NOT READ Don't know/ No answer/ Refused
7. If she is not married and does not want to marry the man?
    a. Yes
    b. No
    c. DO NOT READ Don't know/ No answer/ Refused

***OPEN ENDED QUESTION for all four versions*** *(asked of any respondent who answers yes to any reason but no to any other question, or of a respondent who answers no to "woman's health seriously endangered" but yes to any other question):*

8. You said you thought a woman should be able to obtain a legal abortion if *(insert conflicting answer)*, yet you also said you thought a woman should be *(insert whichever appropriate: allowed to receive a legal abortion if she wants it for any reason or not allowed to receive a legal abortion even if her own health were seriously endangered).* Can you recall what you were thinking when you answered those two questions?"

    **PROBE**: Can you think of any other reason you may have answered those two questions the way you did? (***REPEAT THEIR ORIGINAL RESPONSES AS NEEDED.)***

8.5. *(Asked of everyone asked the open ended question)*. Some people find it very hard to describe how they came up with their answers. It may be easier for you to say if one of these statements MOST closely matches your thinking. Would you say you were:

a. *(DO NOT READ)* None of these statements.
b. *(rotated with next two responses)* just reacting to the question when you heard it.
c. giving answers that you believe strongly, even though they sort of contradict each other.
d. *(only asked when any reason question came last)* thinking any reason other than the ones you just heard listed in the previous questions.

*[READ AS NECESSARY:* You said you thought a woman should be able to obtain a legal abortion if *(insert conflicting answer)*, yet you also said you thought a woman should *(insert whichever appropriate: be allowed to receive a legal abortion if she wants it for any reason or not be allowed to receive a legal abortion even if her own health were seriously endangered)*]

***Political Knowledge Index***

Next are a few questions about the government in Washington. Many people don't know the answers to these questions, so if there are some you don't know, just tell me and we'll go on.

9. Do you happen to know what job or political office is now held by Dick Cheney?
   a. Vice president
   b. Any other office
   c. Don't know, No answer, Refused

10. Whose responsibility is it to determine if a law is constitutional or not? Is it the president, the Congress or the Supreme Court?
   a. Supreme Court
   b. President
   c. Congress
   d. Don't know, No answer, Refused

11. How much of a majority is required for the U.S. Senate and House to override a presidential veto?
   a. Two-thirds majority
   b. Any other proportion
   c. Don't know, No answer, Refused

12. Do you happen to know which party currently has the most members in the House of Representatives in Washington?
   a. Republican Party
   b. Democratic Party
   c. Don't know, No answer, Refused

13. Would you say that one of the parties is more conservative than the other at the national level? Which party is more conservative?
   a. Republican Party
   b. Democratic Party
   c. Don't know, No answer, Refused

***Demographic questions:***

Now I want to ask you a few questions about yourself that will be used strictly for classification purposes.

14. We were just talking about which party was more conservative. Now I want to ask you about the political views that you yourself might hold. How you would place yourself on a seven-point scale where one is extremely liberal and seven is extremely conservative? The scale is
    1. Extremely liberal,
    2. Liberal,
    3. Slightly liberal,
    4. Moderate or middle of the road,
    5. Slightly conservative,
    6. Conservative,
    7. Extremely Conservative.
    8. DON'T READ: Don't know, No Answer, Refused

15. Generally speaking, do you usually think of yourself as a Republican, Democrat, Independent, or what? Would you say you are a
    a. Strong Democrat,
    b. Not very strong Democrat,
    c. Independent but close to Democrat,
    d. Independent (DO NOT READ: neither, don't know or no answer),
    e. Independent but close to Republican,
    f. Not very strong Republican,
    g. Strong Republican,
    h. Other party (DO NOT READ: refused to say)

16. Please stop me when I read the range that includes your age.
    a. 18. to 24
    b. 25 to 34
    c. 35 to 44
    d. 45 to 54
    e. 55 to 64
    f. 65 or older
    g. (DO NOT READ) DK/NA/RF

17. What is the highest level of formal education you have completed?
    a. Some high school but did not graduate
    b. Graduated high school
    c. Some college but no degree
    d. 2-year associate degree
    e. 4-year college degree
    f. Attended or completed graduate school
    g. (DO NOT READ) DK/NA/RF

18. RELIGIOUS VIEWS: When it comes to your religious identity, would you say you are a religious conservative, moderate or liberal, or do none of these describe you?
    a. Conservative
    b. Moderate
    c. Liberal
    d. None of these
    e. (DO NOT READ) Don't Know, Refused

19. ATTENDANCE: How often do you attend religious services?
    a. Never
    b. About once or twice a year
    c. Several times a year
    d. About once a month
    e. Two to three times a month
    f. Nearly every week
    g. Every week
    h. Several times a week
    i. (DO NOT READ) Don't know, No answer

19. RACE: What race do you consider yourself?
    a. White
    b. Black
    c. Asian
    d. Native American
    e. Multiracial/Other
    f. (DO NOT READ) Refused/ No answer

20. *(Interviewer enters; does not ask question*) SEX: What is the respondent's gender?
    a. Woman
    b. Man
    c. Don't know

Those are all my questions. On behalf of researchers at Georgia State University, I thank you for your time. Goodbye.

**Appendix B: Variable Coding**

1. *Ideology*: The seven-point scale used for ideology was extremely liberal, liberal, slightly liberal, moderate or middle of the road, slightly conservative, conservative and extremely conservative. For cross tab analysis, the three liberal positions were collapsed into one category called liberal, moderate or middle of the road stayed the same and the three conservative positions were collapsed into one category called conservative.
2. *Party Identification:* A seven-point scale was used for party identification: strong Democrat, not very strong Democrat, Independent but close to Democrat, Independent, Independent but close to Republican, not very strong Republican and strong Republican. Anyone mentioning another party or refusing to say which party they supported were coded separately as 8, while those saying neither, don't know or giving no answer were placed with the Independents in the 4$^{th}$ spot. For cross tab purposes, the first three categories were combined into a Democrat category, Independents stayed as one category and the three categories mentioning Republicans were combined into one Republican category.
3. *Age:* Respondents were allowed to choose between six age ranges: 18 to 24, 25 to 34, 35 to 44, 45 to 54, 55 to 64 and 65 or older. For cross tabs, the first two ranges were put together, the second two together and the two oldest together.
4. *Education:* Respondents were asked for the highest level of formal education they completed: some high school but did not graduated; graduated high school; some college but no degree; 2-year associate degree; 4-year college degree, and attended or completed graduate school. For cross tabs, the six points were reduced evenly to three: high school or less, some college, and college degree or more.
5. *Religious views:* Respondents were asked to characterize their religious identity, saying whether they were a religious conservative, moderate or liberal or whether "none of these describe you." Interviewers also coded those who refused to answer or said they didn't know. This category was not collapsed for cross tabs.
6. *Church attendance:* There was an eight-point scale for attending religious services: never, about once or twice a year, several times a year, about once a month, two to three times a month, nearly every week, every week and several times a week. For cross tab purposes, the first three categories were collapsed into "never or rarely," the next three were collapsed into "monthly or more often" and the final two were combined into "weekly or more often."
7. *Race:* Respondents could choose between five categories: White, Black, Asian, Native American, or Multiracial/other. For cross tab purposes, Asian, Native American and Multiracial/other were collapsed into one Other category.
8. *Gender:* Interviewers recorded the gender of the respondent at the end of the interviewer. For 2 of the 792 respondents, the gender was indeterminate.
9. *Political Knowledge Index*: The index was six points, from 0 to 5, based on the number of correct answers to the five questions included in the index. For cross tab purposes, the index was collapsed to four points, with 0 and 1 correct answer coded as not knowledgeable, 2 and 3 correct answers coded as somewhat knowledgeable, 4 correct

answers coded as more knowledgeable and 5 correct answers coded as quite knowledgeable. The five questions were:

a. Do you happen to know what job or political office is now held by Dick Cheney?
b. Whose responsibility is it to determine if a law is constitutional or not? Is it the president, the Congress or the Supreme Court?
c. How much of a majority is required for the U.S. Senate and House to override a presidential veto?
d. Do you happen to know which party currently has the most members in the House of Representatives in Washington?
e. Would you say that one of the parties is more conservative than the other at the national level? Which party is more conservative?

**Appendix C: Demographics compared with 1998 GSS**

| **GENDER** | 1998 GSS Study | 2004 GSU Study |
|---|---|---|
| Male | 43.5 | 34.9 |
| Female | 56.5 | 65.1 |
| Total | 100.0 | 100.0 |

| **RACE** | 1998 GSS Study | 2004 GSU Study |
|---|---|---|
| White | 79.1 | 80.1 |
| Black | 14.1 | 10.2 |
| Other | 6.8 | 9.8 |
| Total | 100.0 | 100.0 |

| **AGE** | | | |
|---|---|---|---|
| 1998 GSS Categories | 1998 GSS Percentages | 2004 GSU Categories | 2004 GSU Percentages |
| 20-29 | 17.8 | 18-24 | 6.3 |
| 30-39 | 24.7 | 15-34 | 15.8 |
| 40-49 | 20.8 | 35-44 | 19.4 |
| 50-59 | 14.5 | 45-54 | 22.7 |
| 60-69 | 9.6 | 55-64 | 15.7 |
| 70 or older | 12.6 | 65 or older | 20.1 |
| Total | 100.0 | | 100.0 |

| **Education** | | | |
|---|---|---|---|
| 1998 GSS Categories | 1998 GSS Percentages | 2004 GSU Categories | 2004 GSU Percentages |
| 9th-11th Grades | 14.9 | Some H.S. but did not graduate | 4.3 |
| 12th Grade | 31.0 | Graduated high school | 24.3 |
| 1 year college | 9.8 | Some college but no degree | 21.6 |
| 2 years college | 12.8 | 2-year associate degree | 12.5 |
| 3 years college | 5.3 | 4-year college degree | 23.1 |
| 4 years college | 15.0 | Attended or completed grad. school | 14.2 |
| More than 4 | 11.1 | | |
| Total | 100.0 | Total | 100.0 |