

SURVEYS AS COMMUNICATION:
IT'S NOT JUST WHAT YOU ASK, BUT HOW YOU ASK IT

By

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A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Communication

2011

ABSTRACT

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As survey rates decline, survey researchers must consider the factors leading to reductions in response rates, especially the respondent's survey-taking experience. This research sought to study the effects of question type and involvement on a number of outcomes of survey participation. Respondents participated in an online survey experiment about one of four issues (universal health care, same-sex marriage, copyrighted music file-sharing, or space exploration) in one of two question formats (open- or closed-ended). Regression analysis was used to test the effect of these variables on time to complete the survey, feelings of self-expression, fatigue, survey enjoyment, willingness to endorse a related campaign, and willingness to participate in a future survey. Results demonstrate that using open-ended survey questions may increase the self-expression of the respondent. This increase in self-expression may lead to more survey enjoyment and a greater willingness to participate in future surveys. This study also found that asking open-ended survey questions may interact with self-expression to increase the willingness of the respondent to endorse a campaign related to the topic covered in the survey. While neither outcome- nor value-relevant involvement appeared to have strong effects on variables of interest, topic appeared to have an important role. Implications of these findings and considerations for future research are discussed.

This dissertation is dedicated to the two most important men in my life - my husband, Shane, and my dad. To Shane, thank you for encouraging and allowing me to fulfill my dreams, bringing laughter into my life when I most needed it, giving me the gift of time to work on this research, and being my very best friend. To my dad, thank you for teaching me three important life lessons that allowed me to write this dissertation: 1) anything is possible with a good plan, 2) people need to be heard, and 3) when you fall down, get up, and walk it off. I love you both.

ACKNOWLEDGMENTS

During my graduate school experience, I have been blessed to be surrounded by talented, bright, caring people who have shaped how I see the world. My sincere gratitude goes to Dr. Tim Levine for sharing countless hours not only advising but mentoring. You have taught me important lessons about research, teaching, and life for which I am eternally grateful. I am in awe of your ability to balance brilliance with friendliness, science with creativity, and your talent for seeing any given issue from a number of perspectives. It has been my honor to be your advisee.

Thank you to my guidance committee members for sharing your time, support, positivity, and expertise. To Dr. Dan Bergan, thank you for teaching me about field experiments, supporting my ideas, showing me how to turn them into scientific studies, and providing me with countless learning opportunities. To Dr. Hee Sun Park, thank you for helping me learn statistics, being supportive along the way, and always finding new ways to provide teachable moments. To Dr. Stan Kaplowitz, thank you for designing a wonderful course on social attitudes with valuable assignments, articles, books, and discussions; the ideas we discussed in your class led to the creation of this study.

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Introduction

“For more than 75 years, sample surveys have remained a remarkably useful and efficient tool for learning about people’s opinions and behaviors” (Dillman, Smyth & Christian, 2009, pg. 1). Organizations of all types use surveys to create programs, policies, and communication campaigns, as well as develop business, fundraising, or customer service strategies, to name only a few purposes. Some researchers, such as George Gallup, have viewed surveys as a forum to facilitate “scientific democracy,” while others have proposed that survey results have the potential to shape politician’s policy stances on social issues (Hogan, 1997). While surveys serve a critical role in generating policy decisions and new knowledge, today’s survey researcher faces a problematic era of declining survey rates. Potential respondents are more willing than ever to decline to participate, and social norms reinforce that it is perfectly acceptable to say no (Dillman, Smyth & Christian, 2009). As a result, collecting data to solve critical issues becomes increasingly more difficult.

One approach to solving this problem is to gain a better understanding of respondents’ experience during the survey process. Schwarz (1999) explains that survey participation is a communication process that relies on norms of conversational conduct. If we look at surveys in this way, as a two-way process of communication between the survey sponsor and the respondent, the understanding of surveys extends beyond seeing a survey as a mere data collection method. In fact, it is likely, under some conditions, the very act of participating in a survey may transform the respondent’s attitudes and, in some cases, actual behaviors (Morwitz, 2005). If researchers ask questions in ways and about topics that elicit an unfavorable response, the respondent may come to associate unfavorable feelings with survey participation. Therefore,

the objective of this study is to improve the understanding of the respondent's survey experience and determine the attitudinal and other related outcomes that arise during the survey process. The premise is that improving respondents' survey-taking experience will lead to desirable outcomes including increased participation rates. Yet, in order to improve the survey-taking experience, we must first understand the relationships among various factors that may lead to survey enjoyment.

Background

Surveys of the public have been the source of extensive examination and scrutiny. One line of literature, primarily in political science, suggests the lack of stable attitudes among members of the electorate (Converse, 1964). In addition, some scholars have concluded that during surveys, respondents rely on the most salient considerations available to them at the time, and use these considerations to express an attitude (Zaller & Feldman, 1992). As a result, surveys of the public may not measure true, well-formulated, stable attitudes, but rather the changing considerations accessible to people at the time of the survey (Zaller & Feldman, 1992).

The marketing literature on the mere measurement effect builds on the notion that attitudes may not exist at the time of the survey, finding that the act of participating in a survey (or participation in repeated surveys over time) can alter the thoughts and behavior of the respondent (Morwitz, 2005). According to the mere measurement effect, the act of survey participation may cause respondents to form judgments that may not have evolved in the absence of a survey (Dholakia & Morwitz, 2002; Feldman & Lynch, 1988). The mere measurement effect has been shown to increase purchase intentions and brand loyalty (Borle, Dholakia, Singh & Westbrook, 2007; Dholakia & Morwitz, 2002; Fitzsimons & Morwitz, 1996), increase voting behavior (Greenwald, Carnot, Beach & Young, 1987), and increase health behaviors such as

blood donations, registration in blood drives (Godin, Sheeran, Conner & Germain, 2008), dental flossing, and consumption of non-fatty foods (Levav & Fitzsimons, 2006).

From the social psychology and survey methodology literature, the effects of the questions themselves are studied. Scholars have focused on question wording, question order, and context effects (Tourangeau, Rips & Rasinski, 2000; Schwarz, 1996, 1999; Schuman & Presser, 1981). Additionally, the value of open- compared to closed-ended questions has received considerable attention. However, when scholars compare open- and closed-ended questions, they typically assess the quality and validity of the responses acquired (Ivis, Bondy & Adlaf, 1997; Kealy & Turner, 1993; Schuman, 1966), length (Dillman, Sinclair & Clark, 1993; Herzog & Bachman, 1981), or expense (Dillman, 1978).

Given the potential for surveys to shape respondent's attitudes and subsequent behaviors, it seems critical to understand the role of question types used in surveys on other attitudes. Of particular interest is the use of open- versus closed-ended question types. Typically, researchers consider the use of open- and closed-ended questions based on their research question, and the cost and time required to collect, code, and analyze the data. When we think of using question types in this way, based on our resources and research needs, the respondent becomes a means to an end - a mere data conduit. However, as Schwarz (1999) describes, respondents rely on norms of conversational conduct when participating in a survey, making the survey process akin to a two-way form of communication. If we think of surveys as a channel through which a survey sponsor communicates with the respondent, and vice versa, it becomes important to ask, what are the attitudinal and other related outcomes that arise from using open- versus closed-ended questions? This research attempts to answer this question.

Specifically, this research attempts to demonstrate how question type is related to time spent answering survey questions, feelings of fatigue, feelings of self-expression, enjoyment of survey participation, subsequent behavior, and intent to participate in future surveys. It is also argued that involvement with the topic plays an important role in the time spent participating and self-expression. A new model with familiar variables is proposed to explain outcomes of participating in open- compared to closed-ended surveys.

Toward a Theory of Survey-taking Outcomes

Open- Versus Closed-ended Questions

Open- and closed-ended questions are different in many regards. Closed-ended questions provide a set of potential options from which the respondent may choose. These question types elicit the potential for a host of negative effects including satisficing, question order, and context effects (Tourangeau, Rips & Raskinski, 2000). However, survey researchers have treated closed-ended questions as the preferred choice (Greer, 1991). Data from closed-ended questions are easier to collect, code, and analyze compared to open-ended questions, making this question type the favored choice among survey researchers (Greer, 1991 citing Schuman & Presser, 1981).

Although more cumbersome than closed-ended questions, open-ended questions provide numerous benefits. Most importantly, open-ended questions provide more information compared to their closed-ended counterparts. In answering an open-ended question, the respondent is not restricted to a response by the options provided. Rather, the respondent can answer the question according to his/her interpretation of the question. In this way, open-ended questions do not suffer restriction in range problems that may be present in closed-ended questions (Tourangeau, Rips & Rasinski, 2000). Also, open-ended questions do not present opportunities for the

respondent to be biased by the order of response options, as these options are not provided (see Schwarz, Hippler, and Noelle-Neuman 1992, and Schuman and Presser, 1981 for additional discussion of response order effects).

Also, open-ended questions allow the respondent to answer questions in his/her own words – providing him/her a “voice” in the survey process (Schuman, 1966). As a result, open-ended questions have been used when the respondent and surveyor are especially different in “education, cultural characteristics, or life chances” (Schuman, 1966, pg. 218). Thus, open-ended questions allow the respondent to express his/her thoughts, feelings, or attitudes in his/her own way – unlimited by predetermined language and categories created by the investigator.

Time Spent Answering Questions

When answering open-ended questions, the respondent must read and consider the question and its meaning, then formulate his/her own response, and write this response onto the survey. Conversely, with a closed-ended question, the respondent is provided with the response options. In this case, the respondent still needs to read and consider the question and its meaning, but rather than generate a response, he/she chooses from a set of pre-selected options. Usually, the respondent need only check a box or circle a response – not write down the entire answer in his/her own words.

Responding to closed-ended questions is easier for the respondent than responding to open-ended questions (Mitchell & Carson, 1989). Responding to open-ended questions requires more effort on the part of the respondent than responding to closed-ended questions. Open-ended questions require the respondent to generate a response, unassisted by pre-determined categories provided by the researcher, and transfer this response onto the survey in his/her own words.

Thus, responding to open-ended questions should take more time than responding to closed-ended questions (H1).

Self-expression and Value Expressive Attitudes

Even though open-ended questions may take more time to complete, the respondent may find value in sharing his/her thoughts in his/her own words. Sjoberg (1954) studied public opinion about participating in surveys among people from high and low socioeconomic areas and found that not only did respondents believe people should be asked their opinions but, on average, people like to be interviewed. Eighty-three percent of high socioeconomic participants, and 70% of low socioeconomic participants reported a belief that “people should be asked their opinions about social and economic problems” (Sjoberg, 1954, pg. 424). He also found that 52% of high socioeconomic participants liked to be interviewed, while only 28% did not, and 38% of low socioeconomic participants liked to be interviewed, while 26% did not (Sjoberg, 1954).

Heberlein and Baumgartner (1978) conducted a meta-analysis on factors affecting mail survey response rates. They found that salience of the survey topic (defined as those topics covering important and current behaviors or interests of the respondent) was significantly and positively correlated with response rates. The studies deemed highly salient (N = 112) had a 77% return rate, while the low salience studies (N = 43) had only a 44% return rate. A subsequent study by Goyder (1982) replicated these findings, again, concluding that issue salience had a significant effect on mail survey return rates. These results suggest that the desire to express an attitude about a topic might serve an important purpose in the survey process.

Specifically, the question type employed in a survey and the resulting time spent answering the question may affect the respondent’s feelings of self-expression. Previous research

has found that expressing one's personal attitude on a topic may serve an important purpose. According to Katz's (1960) functional view of attitudes, attitudes serve four primary functions: "the *adjustive function* of satisfying utilitarian needs, the *ego-defensive function* of handling internal conflicts, the *value-expressive function* of maintaining self-identity and of enhancing the self-image, and the *knowledge function* of giving understanding and meaning to the ambiguities of the world around us" (Katz, 1960, pg. 204). A respondent's self-expression, an ability to share an attitude in one's own words, is linked to the value-expressive function.

Values are "abstract principles that people consider to be guiding principles in their life" (Maio & Olson, 2000, pg. 249 citing Rokeach, 1973 and Schwarz, 1996). Examples of values include helpfulness, opportunity, and freedom. According to Katz (1960), when a person shares an attitude linked to his/her personal values, the individual experiences satisfaction. "[The value-expressive] function is central to doctrines of ego psychology which stress the importance of self-expression, self-development, and self-realization" (Katz, 1960, pg. 170).

Katz (1960) specified two primary conditions in which the value expressive function of attitudes can be aroused. First, an environmental cue or stimulus that is linked to the attitude must be made salient. For example, a student is strongly opposed to an increase in school tuition and opposes paying a public university to receive a college education. The student is a member of a local group on campus that is discussing the recent news from the university to increase tuition in the upcoming school year. According to Katz (1960), the environmental cue (discussion of the tuition increase) will arouse the student's attitude toward opposition of the new tuition rate, regardless of the university's rationale.

Second, the value-expressive function of the attitude will be aroused when the individual's ability to express his/her attitude in the recent past has been precluded (Katz, 1960). If the student from the earlier example was denied the opportunity to express his/her views about the tuition increase that occurred in the previous school year, the value-expressive function of his/her attitude about the university's tuition increase would become aroused. As a result, this student would be likely to seek opportunities to express his/her attitude about the issue. When respondents have an opportunity to express their attitude on a topic, which they care about and have previously felt unheard, they fulfill a need for self-expression.

Open-ended questions may provide exactly this type of opportunity. They provide the respondent with an outlet for sharing his/her attitude in his/her own words, while closed-ended questions restrict attitude expression to the options provided by the researcher. Plus, being able to share one's thoughts in his/her own words, without the fear of social sanctions, may allow the individual an opportunity to express his/her true self.

Psychologists have noted that individuals have multiple senses of self (Goffman, 1959; Jung, 1953). These senses of self include public and inner selves, and the inner self may reside in one's unconscious ego (Bargh, McKenna & Fitzsimons, 2002 citing Goffman, 1959 and Jung, 2002). Literature on the self-concept suggests these selves may be categorized as ideal (desired), ought (required), or actual (existing) (Bargh, McKenna & Fitzsimons, 2002 citing Higgins, 1987). Another type of self, the true self, suggests a difference between the public, inner, and actual selves (Bargh, McKenna & Fitzsimons, 2002 citing Rogers, 1951). The true self is the inner self a person possesses, but does not show in public life. It may exist at a conscious or unconscious level. In either case, the individual has a strong need to express his/her true self

(Bargh, McKenna & Fitzsimons, 2002). The ability to express one's true self is important in establishing and reaffirming one's individual identity (Bargh, McKenna & Fitzsimons, 2002).

Open-ended surveys provide a unique opportunity for the individual to express his/her true self. Because surveys are anonymous, the individual does not need to fear social sanctions for his/her response. In particular, online surveys should reduce demand effects and fear of social sanctions for sharing one's inner self. In an online survey, the respondent does not receive feedback for his/her response. Because of this anonymity, the respondent should feel more comfortable expressing his/her true self when answering open-ended survey questions. If this is the case, we predict two relationships. **As the respondent spends more time answering survey questions, he/she should experience greater feelings of self-expression (H2). Also, respondents should indicate greater self-expression after responding to open-ended survey questions compared to closed-ended survey questions (H3).**

In addition to providing the respondent with an outlet for expressing one's true self, studies in psychology, education, political science, and survey methodology have found numerous benefits arising from the act of self-expression. In particular, these studies point to the importance of writing as a means to facilitate self-expression. This relationship between self-expression and writing is particularly interesting because it suggests benefits that are transferrable to open-ended surveys.

Writing may allow people to "understand their experiences and themselves" (Pennebaker & Seagal, 1999, pg. 1243). By writing, people cognitively process and organize their thoughts, feelings, and experiences using language (Pennebaker & Seagal, 1999; Shumacher & Nash,

1991). The writing process forces people to integrate, differentiate, and organize ideas, values, and information (Pennebaker & Seagal, 1999; Schumacher & Nash, 1991).

As a result of writing, individuals reap positive benefits. Some of these benefits may include improvements in physical health (Pennebaker & Seagal, 1999), mental health (Pennebaker & Segal, 1999), emotional intelligence (Wing, Schutte & Bryne, 2006), life satisfaction (Wing, Schutte & Byrne, 2006), and learning (Shumacher & Nash, 1991). Positive effects are found for writing about a variety of topics including personal extreme traumas (Pennebaker & Seagal, 1999), imaginary traumas (Greenberg, Wortman & Stone, 1996), positive events with emotion regulation cues (Wing, Schutte & Bryne, 2006), non-extreme events such as attending college (Spera, Buhrfiend, & Pennebaker, 1994), and through more general topical essays in college courses (Shumacher & Nash, 1991). Plus, in at least one study, writing about personal events has been found to increase participant's intent to participate in an additional study (Pennebaker, 1997).

In addition to positive effects from writing, the mere measurement effect also posits that survey participation can have desirable outcomes. As mentioned earlier, the mere measurement effect suggests the act of survey participation may shape or alter respondent's attitudes and behaviors (Morwitz, 2005). By participating in a survey, the respondent cognitively processes questions asked and shares his/her thoughts, behaviors, or attitudes through his/her response (Fitzsimons & Shiv, 2001). As a result of this cognitive processing and response generation, the respondent may think about a topic in a new way, consider a perspective he/she had not considered, and/or form an opinion on a topic he/she had not considered previously (Dholakia & Morwitz, 2002; Feldman & Lynch, 1988). Additionally, the survey process can increase the

salience of the survey topic for the respondent (Levav & Fitzsimons, 2006). For example, in a survey about dental flossing, a respondent may be asked to consider the benefits of flossing and his/her current behaviors. After processing information provided, questions asked, and his/her responses, he/she may decide to begin flossing more frequently (Levav & Fitzsimons, 2006). In fact, the mere measurement effect has found such outcomes for flossing (Levav & Fitzsimons, 2006) and a host of other behaviors mentioned previously.

Plus, at their very heart, surveys are about generating self-expression from the respondent. Sure, researchers want to know about habits and behaviors (e.g., How often do you exercise?). However, surveys also want to know about respondents' values, attitudes, and opinions (e.g., How important is exercising to you?). When researchers ask respondents to share their thoughts in an open-ended format, they may enhance the opportunity for self-expression. No matter how much time a researcher spends crafting the comprehensive list of closed-ended response options or how accurate the linguistic features of the options may be, the provided responses can never be a respondent's "own words." As a result, the ability for closed-ended surveys to achieve true self-expression are limited. Therefore, when open-ended surveys provide a means for a respondent to share his/her thoughts in his/her own words, and especially through writing, we would expect these respondents will be more likely to engage in a related behavior compared to respondents who complete a closed-ended survey. For example, **if respondents participate in an open-ended survey about a social issue, we would expect as self-expression increases, respondents should be more likely to sign-on to a related campaign (H4).**

Involvement

Involvement should also affect the time spent responding to a survey and feelings of self-expression. Involvement is broadly defined as “the extent to which an individual cares about a particular topic” (Oskamp & Schultz, 2005, pg. 229). While the involvement construct has been widely studied in the area of persuasion research, various researchers have defined and operationalized involvement in different ways. In particular, Johnson and Eagly (1989) specify distinctions between value-relevant and outcome-relevant involvement.¹

Value-relevant involvement refers to “the motivational state induced by an association between an activated attitude...” and an individual’s enduring values (Johnson & Eagly, 1989, pg. 293; Johnson & Eagly, 1990). Johnson and Eagly (1989) assert that value-relevant involvement, typically, is measured by a subject’s self-reports and has been studied, primarily, using social policy issues (Johnson & Eagly, 1989). Through meta-analysis, Johnson and Eagly (1989) found that high value-relevant involvement prevented persuasion from occurring, which aligns with earlier findings related to the effect of ego involvement on persuasion.

In fact, the value-relevant involvement construct evolved from ego involvement, a key component of Sherif and Hovland’s (1961) Social Judgment Involvement Theory (SJIT). Ego involvement refers to an attitude that is a defining component of one’s sense of self or values (Sherif & Hovland, 1961). According to SJIT, attitudes fall along a continuum, and the

¹ Impression relevant involvement, a third type of involvement, links a subject’s attitude to a desire to make “a favorable impression on others” (Johnson & Eagly, 1989, pg. 293). Impression relevant involvement is not directly applicable to this study for a number of reasons: respondents to a survey are typically anonymous, may not experience a need to defend their positions in an identifiable setting, and are not communicating with an interviewer because the study is online. Therefore, impression-relevant involvement is not likely to occur in the current study, and I do not elaborate on its role in the persuasion literature.

persuasiveness of incoming messages are dependent on where the message falls relative to reference points along one's attitude continuum. For any given issue, an individual has a reference point, or anchor, which is one's own attitude. Along the attitude continuum, the individual also has latitudes of acceptance, which encompass all positions the individual finds acceptable, latitudes of rejection, which encompass all positions the individual finds unacceptable, and latitudes of noncommittal, which include all positions the individual finds neither acceptable nor unacceptable (Sherif & Hovland, 1961).

When a person receives a persuasive message, it is placed on his/her attitude continuum and evaluated relative to the anchor (his/her own attitude) and the latitudes of acceptance, rejection, and noncommittal. Messages within one's latitude of acceptance tend to increase persuasiveness, while those within one's latitude of rejection tend to decrease persuasiveness (Sherif & Hovland, 1961). SJIT states that people with low ego involvement will have larger latitudes of acceptance and non-committal and smaller latitudes of rejection, while people with high involvement will have larger latitudes of rejection and smaller latitudes of noncommittal and acceptance (Sherif & Hovland, 1961). Thus, SJIT predicts that as ego involvement increases, attitude change becomes less likely to occur, making persuasion more difficult. While SJIT, itself, has resulted in many conflicting findings in the literature (Oskamp & Schultz, 2005), the ego involvement concept has received ample attention in studies of persuasion and has been closely linked to value-relevant involvement (Johnson & Eagly, 1989).

Another type of involvement includes outcome-relevant, which links a subject's attitude to his/her "purposive aspects of the self" (Johnson & Eagly, 1989). The more relevant an outcome is to the subject's current goals, the greater his/her outcome-relevant involvement

should be, while the less relevant an outcome to the subject's current goals, the less his/her outcome-relevant involvement should be (Johnson & Eagly, 1989). Typically, outcome-relevant involvement is manipulated by altering the likelihood that subjects will be affected or unaffected by some outcome (e.g., in the present or distant future, at the subject's school or a distant school). Primarily, outcome-relevant involvement has been studied using college student issues (Johnson & Eagly, 1989). For example, researchers have created outcome-relevant involvement by manipulating whether the university proposes to institute comprehensive exams as a graduation requirement (Johnson & Eagly, 1989).

Outcome-relevant involvement is similar to the issue involvement construct, which is a key variable in Petty and Cacioppo's (1981) Elaboration Likelihood Model (ELM) (Johnson & Eagly, 1989). According to the ELM, when a person is highly involved with a topic or issue, he/she experiences greater motivation to process an incoming message or engage in high levels of elaboration. As the amount of elaboration increases, the individual employs a central processing approach. Central processing is an effortful, careful, and cognitive approach to evaluating content and features of messages, communicators, and other elements of a persuasive attempt. Conversely, when involvement is low, the individual experiences less motivation to process the message and engages in low levels of elaboration. As the amount of elaboration decreases, the individual employs a peripheral processing approach. Peripheral processing is less effortful, deliberate, and cognitive, using heuristics and cues to make judgments (Petty, Cacioppo, & Goldman, 1981).

In a test of the ELM, Petty, Cacioppo, and Schumann (1983) conducted a 2 x 2 x 2 factorial experiment with 160 undergraduate students in which they manipulated involvement

(high vs. low), argument strength (strong vs. weak), and source (celebrity vs. non-celebrity) to test these variables' effects on attitude toward a product and cognitive considerations. They found that high involvement subjects relied on central processing and were affected by argument quality in forming an attitude toward the product. Thus, high involvement increases persuasion when the argument is strong (Johnson & Eagly, 1989). Conversely, low involvement subjects relied on peripheral processing and were affected by source cues to form an attitude toward the product (Petty, Cacioppo & Schumann, 1983).

While much work has been devoted to understanding the role of involvement in persuasion, there remains an important potentially confounding variable in studies; that is, outcome- and value-relevant involvement appear to be confounded with knowledge of the topic used in the study (Park, Levine, Kingsley-Westerman, Orfgen & Foregger, 2007; Johnson & Eagly, 1989). Studies measuring value-relevant involvement tend to use real social issues, for which subjects are likely to possess at least some degree of knowledge, while studies manipulating outcome-relevant involvement tend to use fictitious or hypothetical scenarios, for which subjects are unlikely to possess knowledge (Park et al., 2007; Johnson & Eagly, 1989). As a result, typically, value-relevant involvement has been studied as attitude change, while outcome-relevant involvement has been studied as attitude formation (Park et al., 2007; Johnson & Eagly, 1989).

Cho and Boster (2005)'s work to develop measurement scales for the various involvement constructs led to the conclusion that outcome relevant-involvement was highly correlated with information seeking. They also found that value-relevant and outcome-relevant involvement were highly correlated with attitude extremity (Cho & Boster, 2005). Taken

together, these results suggest that the effect of involvement on persuasion is not as straightforward as one might hope, and studies should seek to parse out the effects of knowledge from the effects of involvement; the current study included.

An important distinction also exists between previous work and the current study. Typically, researchers employ designs that test the effect of involvement on persuasive outcomes while also manipulating messages and/or argument strength. In these cases, the predictions posed by SJIT and ELM have not always held (e.g., Park et al., 2007). However, in the current study, neither the persuasive power of specific messages nor the strength of arguments is of interest. Objective surveys should present respondents with the opportunity to express their views on either side of an issue in an anonymous context. Surveys should not attempt to persuade respondents to adopt any particular position.

Also, it is also argued that many social issues, which surveys commonly address, are likely to activate an individual's values *and* concern about outcomes. Take for example the issue of health care. It is likely an individual may have high value-relevant involvement as the issue links his/her attitude with values of equality for access to care, opportunity for people to live free from pain or disease, or freedom to choose a physician. At the same time, the issue of health care may activate outcome-relevance as the same survey may seek to determine whether an individual is willing to pay some additional amount in taxes to fund a new health care proposal, or whether the individual believes a health care proposal will improve (or harm) his/her current levels of service.

Public transportation is another example of an issue likely to activate value- and outcome-relevant involvement among people. It is likely that value-relevant involvement may

cause people to support a policy about public transit based on values of equality of employment opportunity for people with disabilities or stewardship of the environment, while others may oppose a policy based on values of limited government and free-market enterprise. For some people, public transportation may be outcome-relevant if they personally rely on public transportation, provide rides to people who could use public transit if it was available, or are unable to afford an additional amount in taxes to fund expanded routes or service hours.

Given the potential that many social issues (and especially surveys about these issues) are likely to activate more than one type of involvement at a time, it becomes important to understand the potential for differential effects of each type of involvement on attitudes. Of particular interest to the current study are the effects of value- and outcome-relevant involvement on the relationship between time spent answering a survey and feelings of self-expression.

There are a number of reasons to believe that as value-relevance increases, the relationship between time spent answering a survey and feelings of self-expression will strengthen. First, as mentioned earlier, Katz (1960) suggests that individuals experience feelings of self-expression, particularly when they have an opportunity to express their attitude about an issue closely linked to their values, and when they have previously felt unheard. For reasons stated previously, a number of social issues are likely to activate a person's values. Also, it is expected that, often, people do not have a forum to express their views on many social issues on which surveys collect data. Furthermore, SJIT suggests that when people's attitudes are closely linked to their values, value-relevant involvement increases, and the individual should be less persuaded by incoming messages. This reduction in persuasion suggests that individuals with strong values about an issue may be better able to develop counterarguments to messages (i.e.,

they are able to refute messages that are discrepant with their own attitude or values). Also, because value-relevant involvement studies have been thought of as attitude change studies, this suggests that a number of people already possess attitudes on topics addressed; they have given the issue at least some thought, which should provide the survey respondent with more arguments or content to include in his/her response. **As a result, as value-relevant involvement with a survey topic increases, the respondent should spend more time answering the survey questions, resulting in greater feelings of self-expression (H5a).**

Additionally, ELM research suggests that high outcome-relevant involvement may cause individuals to spend more time processing incoming messages, or in the current study – spend more time thinking about and carefully answering survey questions. The results of Cho and Boster's (2005) meta-analysis also suggest that outcome-relevant involvement significantly correlates with attitude extremity and information seeking. Thus, it is likely that as outcome-relevant involvement increases, and individuals experience a stronger association between their attitude and a personal goal, they should also spend more time expressing their views on an issue. **Therefore, as outcome-relevant involvement with a survey topic increases, the respondent should spend more time answering the survey questions, resulting in greater feelings of self-expression (H5b).**

While predictions are put forth regarding the effects of outcome- and value-relevant involvement, a research question remains: **Which type of involvement, or particular combination of outcome- and value-relevant involvement, will create the strongest relationship between time spent answering the survey and feelings of self-expression (RQ)?**

Because previous research does not offer an explicit answer, this study will seek to provide an initial look at the proposed question.

In summary, when involvement with the topic addressed in a survey is high, "...the cost of responding may be reduced, and personal input to the study may be judged by the respondent as more important" (Heberlein & Baumgartner, 1978, pg. 458). Many surveys (and issue topics) are not limited to activating only value- or outcome-relevant involvement. Therefore, the current investigation assesses the effect of both types of involvement, as well as combinations of the two, on the relationship between time spent answering a survey and feelings of self-expression. Also, in this study, outcome- and value-relevant involvement are treated as continuous variables to retain degree information and allow the possibility that involvement may exist in different forms and amounts given the issue covered in a survey (using approaches similar to Park et al., 2007, and Cho and Boster, 2005).² Finally, to ascertain the unique effects of involvement - separate from knowledge about a particular issue - we control for knowledge about the particular topic addressed in the survey.

Fatigue

One concern with open-ended questions is the potential for respondent fatigue. Fatigue is "[t]he awareness of a decreased capacity for physical and/or mental activity due to an imbalance in the availability, utilization, and/or restoration of resources needed to perform activity"

² Antil (1984) argues for involvement to be treated as a continuous variable based on the variations of the construct among different individuals/topics and the potential of increased consistency among scholars who use involvement in their studies.

(Aaronson et al., 1999, pg. 46). Often, fatigue is defined by the subjective experience of the individual (Aaronson et al., 1999).

Fatigue has been thought of as one of the factors leading to survey non-response (de Heer & Israels, 1992). As the burden of the survey or fatigue increases, the respondent is less likely to participate (Bogen, 1996). Open-ended surveys have been presumed to be especially prone to generating respondent fatigue (Bogen, 1996).

Bogen (1996) conducted a literature review on the effect of questionnaire length on response rates and concluded the literature is mixed and somewhat inconclusive. While some studies provide evidence that increased survey length leads to greater fatigue and lower response rates, other studies seem to suggest the opposite. Bogen (1996) finds the literature to be disproportionately represented by mail surveys, and many studies to be wrought with poor measurement and confounding of variables.

Galesic and Bosnjak (2009) sought to improve upon previous studies by manipulating the length of a web survey (10, 20, or 30 minutes) and studying its effect on participation and quality of responses to open-ended questions. Their results demonstrated a negative relationship between survey length and willingness to participate in a survey. When respondents were told the survey would be 10 minutes long 75% continued with the survey, but only 63% continued when the survey length was stated to be 30 minutes (Galesic & Bosnjak, 2009). Galesic and Bosnjak (2009) also found a negative relationship between quality of responses to open-ended questions and survey length. As survey length increased, they found that the quality (length) of the responses to open-ended questions decreased. These results suggest the following: **In general,**

the more time a respondent spends answering a question, the more fatigue he/she should feel (H6).

However, the experience of fatigue could be mitigated by the opportunity to express an attitude in the respondent's own words and on a topic that is relevant to the respondent. To the author's knowledge, no studies, to date, have specifically looked at the effect of feelings of self-expression on respondent fatigue in the context of a survey. Yet, the literature on value-expressive attitudes suggests that some respondents may find value in communicating their views. Some people may be seeking an outlet to share their attitudes and express their feelings on a topic. When this is the case, the respondent should not experience burden from increased length of a survey due to open-ended questions. Rather, the respondent should be energized by sharing his/her attitude. **Thus, the greater the respondent's feeling of self-expression the less fatigue he/she should report (H7).**

Survey Enjoyment

Fatigue and self-expression should also affect the extent to which the respondent enjoys participating in the survey. Fatigue is a negative emotion or an aversive state (Charlton, n.d.). It is perceived by the brain as a signal of exhaustion and a need to cease activity and rest (Charlton, n.d.). Previous research has shown that fatigue results in more negative attitudes toward the task at hand. Kumashiro and Nagae (1984) found that as workers' self-reported feelings of fatigue increased, their attitude toward their jobs became less favorable.

Similar effects should be realized in a survey context. Fatigue may cause respondents to tire of the survey, to wish to cease participation, and to enjoy the survey less. **Therefore, the**

more fatigue a respondent experiences, the less he/she should enjoy participating in the survey (H8).

However, as noted earlier, fatigue could be combated by a chance to express an attitude. Swan, Trawick, and Carroll (1981) collected descriptive data on respondents' ratings of their survey experience after completing a questionnaire in a restaurant setting. They found that among 340 respondents, 87% stated they liked the opportunity to express an opinion. Also, a large majority (92%) of respondents indicated a belief the survey was conducted so that the restaurant could find out how to please its customers (Swan, Trawick & Carroll, 1981). When respondents experience value in sharing their thoughts in a survey, they should feel energized, rather than fatigued. **In this case, greater feelings of self-expression should result in more enjoyment participating in the survey (H9).**

Intent to Participate in Future Surveys

Respondent enjoyment or displeasure with the survey should affect the resulting attitude toward participating in future surveys. In fact, Rogelberg et al. (2001) studied the effect of a general attitude toward surveys on intent to participate in future studies. The authors found that the more positive one's attitude toward surveys, the greater one's willingness to participate in future surveys.³ This finding should apply in a more specific sense. **More survey enjoyment should result in an increase in one's intent to participate in future studies by the same survey sponsor (H10).**

³ It is important to note, the Rogelberg et al.'s (2001) study asked questions about attitudes toward surveys after conducting a specific survey, making it difficult to ascertain whether they were measuring a general attitude toward surveys or a specific, salient attitude toward the recently completed survey.

Model

When a respondent participates in an open-ended survey in which he/she is highly involved and has previously felt unheard, he/she experiences greater feelings of self-expression. These feelings of self-expression off-set the fatigue he/she feels from the increased time to complete the survey and may increase the likelihood of engaging in a related behavior, such as signing on to a campaign. These feelings of self-expression make the survey enjoyable. Feelings of survey enjoyment increase the respondent's intent to participate in future surveys by the same sponsor.

Closed-ended questions should also create a similar effect as involvement increases. However, because the time spent answering the survey will be less in a closed-ended format, so too should the feelings of self-expression and the likelihood of signing on to a campaign as a result of self-expression. In turn, while the respondent will also report feelings of survey enjoyment and an intent to participate in future surveys, the open-ended survey should elicit stronger positive attitudes than the closed ended survey.

However, we would expect different outcomes among subjects with low involvement when different questions types are employed. In the closed-ended condition compared to the open-ended condition, respondents will spend less time answering a survey, and they will report lower levels of fatigue. Additionally, because they have less involvement with the issue in the survey than their high involvement counterparts, they will also report lower levels of self-expression. As a result, their attitude toward the survey will be neutral to slightly unfavorable. They are also likely to report neutral to slightly unlikely intent to participate in future surveys and sign on to a campaign.

In the open-ended condition, as respondents' level of involvement decreases, we would expect the same relationships among the variables. Yet, we would expect the relationships to be stronger. Respondents with low levels of involvement will not spend as much time answering questions as respondents with high involvement, but they should spend slightly more time in the open-ended compared to closed-ended condition due to the nature of the responses requested. As a result, as involvement decreases, respondents to the open-ended survey compared to closed-ended survey will experience greater fatigue. Although open-ended respondents compared to closed-ended respondents may experience more self-expression, because the topic is not one they care about, it is likely this effect of self-expression will not be enough to off-set their fatigue. As a result, as involvement decreases, respondents to the open-ended survey compared to respondents to the closed-ended survey are likely to like the survey less, report a lower intent to participate in future surveys, and be unwilling to sign on to a related campaign. Figure 1 provides the predicted path model.

Method

This study employed a 2 x 4 experimental design. The independent variables were question type (open- and closed-ended) and topic (universal health care, same-sex marriage, copyrighted music file-sharing, and space exploration). Within each topic, outcome- and value-relevant involvement were treated as measured, continuous variables. To ensure variation on involvement, a number of issue topics were pilot tested. The four topics that exhibited the greatest variation were used as topics for the open- and closed-ended surveys, creating eight conditions. The dependent variables were time spent answering the survey, fatigue, feelings of self-expression, enjoyment of the survey, willingness to sign on to a campaign, and intent to

participate in a future survey. In addition, a number of variables were controlled including attitude toward the issue, knowledge of the survey topic, willingness to communicate, conservatism, age, ethnicity, and gender.

Sample

Participants ($N = 400$) were Michigan State University undergraduate students enrolled in communication courses (50 participants per cell).⁴ Respondents were between the ages of 18 and 40 ($M = 20.16$, $SD = 1.98$), and were primarily female (67%). The majority of respondents were White (78%), while 8.50% were Asian, 8.25% were Black, 2.5% were multi-racial, 1% were Hispanic, 1% were Arab, 0.50% were a non-listed race, and 0.25% were Pacific Islander.⁵

Tables 1 and 2 display descriptive statistics of the sample for all variables of interest.

Procedure

Participants were randomly assigned to one of eight experimental conditions through an online survey. This format was selected for three reasons. First, Dillman, Smyth, and Christian (2009) suggested that respondents tend to provide more detailed responses to open-ended survey questions when they are provided through a web survey compared to a paper and pencil format.

⁴ Completion rates varied by condition. The following were the total number of incomplete responses for open-ended surveys by topic: universal health care (12), same-sex marriage (5), space exploration (6), music file-sharing (6). Incompletes for the closed-ended conditions included: universal health care (0), same-sex-marriage (6), space exploration (2), and music file-sharing (2). Inspection of these cases demonstrated that most people, whether in an open- or closed-ended condition, did not complete any questions or only completed the first question, then ended the survey. Only a couple people completed half the survey before stopping.

⁵ Although this study had a high number of Asian respondents, they were evenly dispersed throughout conditions.

Therefore, a web-based survey was selected to strengthen the open-ended question inductions.⁶ Second, the online format provided greater consistency in timing survey completion. The survey host automatically times participation from the time the survey link is accessed until the time the survey is closed. Third, given the sample is college undergraduates, which is a technologically savvy population that lives online (Howe & Strauss, 2000), we can assume they are used to expressing themselves in an online format.

After consenting to participate, each respondent was asked ten questions on one issue topic in either a closed- or open-ended format; these questions served as the experimental induction. Ten questions were thought to be ample to induce induction effects without agitating respondents and causing a reduction in survey completion rates. Questions in both the open- and closed-ended conditions were identical. The only differences were that the closed-ended condition had response options provided and included the following statement: “Please select the answer that best represents your views.” In the open-ended condition, a response box was provided for the respondent to type his/her answer and included the following statement: “Please provide a response that best represents your views.” At the end of each open-ended question, respondents were asked to “Please explain.” The questions used in the induction are provided in Appendix A. Following the experimental induction, all respondents were asked a series of closed-ended questions to measure dependent and control variables of interest. Variables were asked in the following order after the manipulation: outcome-relevant involvement, value-relevant involvement, attitude toward survey topic, willingness to sign on to a campaign, feelings

⁶ It is assumed that any individual differences due to typing proficiency among participants will be randomly dispersed throughout the conditions.

of self-expression, fatigue, survey enjoyment, willingness to participate in future surveys, knowledge about survey topic, writing apprehension, conservatism, demographics; time was automatically recorded. Correlations among all continuous variables are provided in Table 3.

Additionally, the topics of the surveys varied (i.e., topic was a random effect).⁷ Four different survey topics were used, which were pilot tested for variation on value- and outcome-relevant involvement among respondents. The four topics used in the survey were universal health care, same-sex marriage, copyrighted music file-sharing, and space exploration. Questions for each topic were taken from existing surveys (e.g., The Roper Center, The Pew Forum on Religious and Public Life, and Gallup).

At the conclusion of each survey, respondents were thanked for their time. Once all responses were collected, each respondent was sent a debriefing message via e-mail to let him/her know the true purpose of the survey.⁸

Measures

A dummy variable for survey type was created. Closed-ended surveys were treated as the baseline. Open-ended surveys were dummy coded as 1, with closed-ended surveys coded as 0.

Outcome-relevant involvement was measured as a continuous level variable using the question and scale created by Park et al. (2007). Outcome-relevant involvement was

⁷ The disadvantage of varying topics is inconsistency in survey wording between studies of different topics. However, the advantage to varying topics is that the study presents a stronger test of the effects of open-ended and closed-ended inductions, as well as the ability to enhance external validity by looking at whether hypothesized predictions hold across a variety of topics which public opinion surveys seek data.

⁸ The survey process took approximately two months to collect all responses.

operationalized as the average response to a four-item Likert-type scale. Respondents were asked to consider an issue topic and how it might affect them personally. Then, respondents were asked to indicate their agreement with four items using a scale ranging from 1 (strongly disagree) to 7 (strongly agree). An example item is “Universal health care would affect me personally.”

Appendix B provides this scale. This scale had a Cronbach’s alpha coefficient of .89. Higher scores reflect greater outcome-relevant involvement ($M = 3.76$, $SD = 1.50$).

Value-relevant involvement was measured as a continuous level variable. Value-relevant involvement was operationalized as the average of subject’s answers to a four-item scale, combining features of the question used by Park et al. (2007) and scales used by Cho & Boster (2005). Respondents were asked to consider an issue topic and how it fits with their values. Then, respondents were asked to indicate their agreement with four items using a scale ranging from 1 (strongly disagree) to 7 (strongly agree). An example item is “My attitude toward universal health care is based on my core values.” Appendix C provides this scale. This scale had a Cronbach’s alpha of .88. Higher scores reflect greater value-relevant involvement ($M = 3.70$, $SD = 1.40$).

Time spent answering the survey was measured as a continuous level variable.⁹ Time was operationalized as the number of seconds from when the respondent opened the first page of the survey until the time when the respondent exited the survey, signaling completion. Higher scores reflected more time spent answering the survey ($M = 1134.29$, $SD = 853.87$).¹⁰

⁹ Subjects were not told they were timed during the study to prevent a demand effect.

¹⁰ Seven times were excluded. These times indicated 12 to 36 hours to complete the survey. This possibility seemed highly unlikely. If respondents failed to select the “done” button on the last

Fatigue was measured with a modified version of the Piper Fatigue Scale (Piper et al., 1998). The original scale consists of 11 semantic differential pairs each measured on a 10-point scale. Higher scores indicate greater subjective feelings of fatigue. Subjects rate the degree to which they are now feeling: strong/weak, refreshed/tired, awake/sleepy, able to concentrate/unable to concentrate. Appendix D provides all items in this scale. As recommended by Dillman, Smyth, and Christian (2009), to decrease respondent burden, the ranges of scales used throughout a survey should be consistent. Therefore, the scale range was altered from a 10- to a 7-point scale to maintain consistency in the survey's design. This scale had a Cronbach's coefficient α of .91 ($M = 3.72$, $SD = 0.98$).

Feelings of self-expression were measured with three items asking subjects to report their feelings of self-expression during the survey. Respondents were asked three questions based on their subjective ratings of their survey-taking experience using a scale ranging from 1 (not at all) to 7 (a great deal). An example item includes, "How much did you feel like you shared your thoughts?" Appendix E provides all items used. This scale had a Cronbach's coefficient α of .90. Higher scores reflect greater feelings of self-expression ($M = 4.97$, $SD = 1.26$).

Enjoyment of the survey was measured with three questions regarding the respondent's subjective ratings of his/her experience. Respondents rated their enjoyment on a scale from 1 (not at all) to 7 (a great deal). An example question includes, "How much did you enjoy completing the survey?" Appendix F provides all items used. One item proved to be a poor measure of enjoyment; this item was "How much did you dislike participating in the survey?"

page of the survey and either opened another window to surf the web or left their computer running, the timer on the survey would continue to run. Because these scenarios seemed highly likely, these outliers were removed from the dataset.

After removing this item, the enjoyment scale had a Cronbach's coefficient α of .85. Higher scores reflect more enjoyment ($M = 3.99$, $SD = 1.40$).

Willingness to sign on to a campaign was treated as a dichotomous variable. Based on their response to an attitude toward the topic question, respondents were asked whether they would be willing to sign on to a campaign as a supporter or opponent of the issue in the survey. For example, if the respondent indicated he/she supported universal health care, he/she was provided with the following statement and question. We are creating a list of people who support universal health care to share with decision-makers. May we add your name to this list? "Yes" responses were coded as 1, and "No" responses were coded as 0 (Yes = 45.25%).

Intent to participate in a future survey was measured with a modified version of MacKenzie, Lutz, and Belch's (1986) intention to purchase scale consisting of three items measured using a seven-point semantic differential scale. Respondents were asked: What is the probability that you will take another survey conducted by (The Gillens Group) if they are to contact you again: likely/unlikely, probable/improbable, possible/impossible. This scale had Cronbach's alpha coefficient of .95. Higher scores indicate a greater intent to participate in future research ($M = 4.45$, $SD = 1.48$).

Attitude toward the topic was controlled. Attitude was measured with two items. Respondents were asked to indicate to what extent they oppose/support and do not favor/favor the issue topic in the survey using a 7-point semantic differential scale. This scale had a Cronbach's alpha coefficient of .95. Higher score reflect a more favorable attitude toward the topic ($M = 4.75$, $SD = 1.65$).

Respondents indicated knowledge about the topic of the survey subjectively. While there are differences between subjective knowledge (what the respondent thinks he/she knows) and objective knowledge (what the respondent actually knows), in some conditions objective knowledge may be significantly correlated with subjective knowledge (Carlson, Vincent, Hardesty & Bearden, 2009). In a meta-analysis, Carlson et al. (2009) found an overall significant correlation between objective and subjective knowledge ($r = .37$) as well as for societal issues ($r = .36$) and public goods ($r = .65$). Strategies to enhance the accuracy of subjective ratings include, using multiple indicators and framing the question in terms of a comparison between the respondent's knowledge and an expert's knowledge on the topic (Carlson et al., 2009). Therefore, subjective knowledge was measured with three items using a 7-point scale ranging from 1 (none) to 7 (a great deal). An example item includes, "Compared to an expert on the topic, please rate your knowledge on universal health care. Appendix G provides this scale. This scale had Cronbach's alpha coefficient of .92. Higher scores indicated higher ratings of subjective knowledge ($M = 2.73$, $SD = 1.26$).

Writing apprehension, an additional non-demographic variable, was controlled. Writing apprehension is a general fear of communicating through writing (Daly & Miller, 1975). Akin to communication apprehension, it is a general trait anxiety about writing either within or outside of a classroom. The fear of writing causes people to avoid writing whenever possible, and, typically, those with writing apprehension select employment that requires as little writing as possible (Daly & Miller, 1975). In part, this study seeks to study the effect of writing responses to open-ended questions on attitudes; therefore, it is possible that when an individual has writing

apprehension, he/she may report unfavorable attitudes toward the survey due to trait anxiety, not the manipulations in the study.

Writing apprehension was measured using a modified version of Daly and Miller's (1975) 5-point scale, ranging from strongly agree (1) to strongly disagree (5) and consisting of 20 items for use outside of the classroom. To decrease respondent burden and maintain consistency with the current survey, respondents were asked to indicate the degree to which each statement describes them using a 7-point scale ranging from 1 (does not describe me at all) to 7 (describes me exactly). Examples of items include: "I avoid writing;" "I look forward to writing down my ideas;" "I don't seem to write as well as most other people." Appendix H lists all items in this scale. This scale had a Cronbach's alpha coefficient of .94. Higher scores reflect greater writing apprehension ($M = 3.57$, $SD = 1.10$).

Conservatism was also controlled in the analysis. Previous research suggests people with conservative ideologies may engage in structured decision-making, while people with liberal ideologies have an easier time engaging in cognitive tasks that involve ambiguity, complexity, and novelty (Amodio, Jost, Master, & Yee, 2007). Open-ended questions are less structured than closed-ended questions. Plus, open-ended questions require the respondent to deal with ambiguity when they must form their own answer, complexity when they must integrate ideas, and novelty in determining how to respond in their own words. Closed-ended responses may be easier for conservatives than liberals to answer. Using the same conservative measure as used by Amodio et al. (2007), respondents indicated their conservatism on a semantic differential scale ranging from -5 (extremely liberal) to +5 (extremely conservative). Higher scores reflect more conservatism ($M = -0.39$, $SD = 2.45$).

Demographics were also measured. Age was treated as a continuous variable ($M = 20.16$, $SD = 1.98$). Sex was dummy coded so that males served as the baseline; females were coded as 1 (Females = 67%). Race was dummy coded so that White respondents served as the baseline. Black was coded as 1, with all other values coded as 0. Hispanic was coded as 1, with all other values coded as 0. Asian was coded as 1, with all other values coded as 0. Pacific Islander was coded as 1, with all other values coded as 0. Native American was coded as 1, with all other values coded as 0. Arab was coded as 1, with all other values coded as 0. Multi-racial was coded as 1, with all other values coded as 0. Other was coded as 1, with all other values coded as 0.

Results

Pilot Test

A pilot test was conducted with ($N = 54$) Michigan State University students enrolled in communication courses to identify issue topics likely to vary on outcome- and value-relevant involvement. The average pilot test respondent was a 22 year old ($SD = 1.17$) female (63%). Fourteen topics were pilot tested (See Table 4). To select topics, the websites of polling firms (e.g., The Roper Center, The Pew Forum on Religious and Public Life, and Gallup) were reviewed. Popular topics listed on these sites were selected, such as same-sex marriage, the economy, and immigration policy. Many of the topics listed on these polling firms' websites are likely to be high on one or both types of involvement for many respondents. Therefore, topics likely to be low on both types of involvement were added to the list, such as space exploration and congressional term limits.

As a result of the pilot test, four topics were selected for the main study. Universal health care was deemed high on both outcome-relevant involvement, ($M = 5.31$, $SD = 1.29$), $t(53) =$

7.46, $p < .001$, and value-relevant involvement, ($M = 5.06$, $SD = 1.49$), $t(53) = 5.27$, $p < .001$. Space exploration was deemed low on both outcome-relevant involvement, ($M = 2.85$, $SD = 1.62$), $t(53) = -5.20$, $p < .001$, and value-relevant involvement, ($M = 2.81$, $SD = 1.69$), $t(53) = -5.20$, $p < .001$. Same-sex marriage was deemed low on outcome-relevant involvement, ($M = 2.21$, $SD = 1.33$), $t(53) = -9.85$, $p < .001$, and high on value-relevant involvement, ($M = 5.03$, $SD = 1.88$), $t(53) = 4.02$, $p < .001$. Copyrighted music file-sharing was deemed high on outcome-relevant involvement, ($M = 4.86$, $SD = 1.47$), $t(53) = 4.31$, $p < .001$, and low on value-relevant involvement, ($M = 3.39$, $SD = 1.70$), $t(53) = -2.64$, $p < .05$. Figure 3 displays scores on value- and outcome-relevant involvement for each issue topic.

Main Study

A manipulation check was conducted on respondent's involvement with the four issues selected for the main study. Universal health care was high on outcome-relevant involvement, ($M = 4.75$, $SD = 1.21$), $t(99) = 6.19$, $p < .001$, however, not significantly high on value-relevant involvement, ($M = 4.19$, $SD = 1.11$), $t(99) = 1.68$, $p = .10$. Space exploration was deemed low on both outcome-relevant involvement, ($M = 3.56$, $SD = 1.30$), $t(99) = -3.39$, $p < .01$, and value-relevant involvement, ($M = 3.08$, $SD = 1.36$), $t(99) = -6.77$, $p < .001$. Same-sex marriage was deemed low on outcome-relevant involvement, ($M = 2.59$, $SD = 1.23$), $t(99) = -11.51$, $p < .001$, however, not significantly high on value-relevant involvement, ($M = 4.27$, $SD = 1.39$), $t(99) = 1.91$, $p < .06$. Copyrighted music file-sharing was not significantly high on outcome-relevant involvement, ($M = 4.14$, $SD = 1.33$), $t(99) = 1.03$, $p = .31$, and low on value-relevant involvement, ($M = 3.23$, $SD = 1.31$), $t(99) = -5.89$, $p < .001$. The results suggest regression toward the mean (Campbell & Stanley, 1963), as some issues did not produce levels of

involvement that significantly differed from neutral. However, the overall pattern of mean involvement scores aligned with the pilot test results.

Hypothesis 1 predicted that open-ended questions should take more time to answer than closed-ended questions. OLS regression was used to analyze the relationship among the variables. Table 5 provides the results. As predicted, open-ended questions took more time to answer than closed-ended questions ($\beta = .44, t = 9.26, p < .001$, two-tailed). Thus, the data were consistent with hypothesis 1.

Hypothesis 2 predicted as the respondent spends more time answering survey questions, he/she should experience greater feelings of self-expression. OLS regression was used to analyze the relationship among the variable. Table 6 provides the results. Contrary to this prediction, as time spent answering survey questions increased, the respondent's feelings of self-expression did not change significantly ($\beta = -.22, t = -0.71, p = .48$, two-tailed). Although predictions were not put forth, attitude toward the topic in the survey ($\beta = .14, t = 2.63, p < .01$, two-tailed) appeared to increase feelings of self-expression. Therefore, the data were not consistent with hypothesis 2.

Hypothesis 3 predicted respondents would indicate greater self-expression after responding to open-ended survey questions compared to closed-ended survey questions. OLS regression was used to analyze the relationship among the variables. Table 6 provides the results. As predicted, respondents indicated significantly greater feelings of self-expression after responding to open- compared to closed-ended survey questions ($\beta = .11, t = 1.99, p < .05$, two-tailed), controlling for other covariates. Thus, the data were consistent with hypothesis 3.

Hypothesis 4 predicted that open-ended surveys would increase self-expression, thus, increasing the likelihood of signing on to a campaign. Logistic regression was used to analyze

the relationship among the variables. Table 7 provides the results. A significant interaction was found between survey type and self-expression ($b = .45$, $z = 2.33$, $p = .02$, two-tailed), controlling for other covariates. In open-ended surveys, as self-expression increased, a respondent's probability of signing on to a campaign increased by 13%. This effect was not present in closed-ended surveys. Thus, the data were consistent with hypothesis 4.

Two hypotheses were posed for the effect of involvement. Hypothesis 5a predicted as value-relevant involvement with a survey topic increases, the respondent should spend more time answering survey questions, resulting in greater feelings of self-expression. OLS regression was used to analyze the relationship among the variables. Table 6 provides the results for value-relevant involvement. Value-relevant involvement and time did not interact to increase feelings of self-expression ($\beta = .09$, $t = 0.24$, $p = .81$, two-tailed), controlling for other covariates. Hypothesis 5b predicted as outcome-relevant involvement with a survey topic increases, the respondent should spend more time answering survey questions, resulting in greater feelings of self-expression. Also, outcome-relevant involvement and time did not interact to increase feelings of self-expression ($\beta = .40$, $t = 0.96$, $p = .34$, two-tailed), controlling for other covariates. Table 6 provides the results for outcome-relevant involvement. Thus, the data were not consistent with either hypothesis 5a or 5b. That is, the effect of involvement on self-expression did not vary with time spent answering a survey.

A research question was also posed: Which type of involvement, or particular combination of outcome- and value-relevant involvement, will create the strongest relationship between time spent answering the survey and feelings of self-expression? Interactions were tested using OLS regression. The effect of value-relevant involvement on self-expression was

found to be significant using a one- but not two-tailed test ($\beta = .35, t = 1.77, p = .078$, two-tailed), providing support by conventional standards. Therefore, as value-relevant involvement increases, one's feelings of self-expression in a survey may also increase. However, outcome-relevant involvement does not seem to effect self-expression, nor does any particular combination of outcome- and value-relevant involvement or the effect of time spent responding to a survey. These analyses are presented in Table 6.

Hypothesis 6 predicted the more time a respondent spends answering a survey, the more fatigue he/she should feel. OLS regression was used to analyze the relationship among the variables. Table 8 provides the results. Contrary to this prediction, as time spent answering a survey increased, the respondent's feelings of fatigue did not change significantly ($\beta = .07, t = 1.56, p = .12$, two-tailed), controlling for other covariates. Therefore, the data were not consistent with the sixth hypothesis; time spent responding to a survey did not affect feelings of fatigue. However, increases in attitude ($\beta = -.15, t = -3.00, p < .01$, two-tailed) and knowledge ($\beta = -.14, t = -2.91, p < .01$, two-tailed) about the topic in the survey appeared to decrease fatigue, while increases in writing apprehension ($\beta = .12, t = 2.46, p < .05$, two-tailed) increased fatigue significantly.

Hypothesis 7 predicted the greater the respondent's feeling of self-expression the less fatigue he/she should report. OLS regression was used to analyze the relationship among the variables. Table 8 provides the results. As self-expression increased, fatigue significantly decreased ($\beta = -.21, t = -4.27, p < .001$, two-tailed), controlling for other covariates. The data were consistent with hypothesis 7.

Hypothesis 8 predicted the more fatigue a respondent experiences, the less he/she should enjoy participating in the survey. OLS regression was used to analyze the relationship among the variables. Table 9 provides the results. As fatigue increased, enjoyment significantly decreased ($\beta = -.29, t = -6.62, p < .001$, two-tailed), controlling for other covariates. The data were consistent with hypothesis 8.

Hypothesis 9 predicted greater feelings of self-expression should result in more enjoyment participating in the survey. OLS regression was used to analyze the relationship among the variables. Table 9 provides the results. As self-expression increased, enjoyment significantly increased ($\beta = .36, t = 8.38, p < .001$, two-tailed), controlling for other covariates. The data were consistent with hypothesis 9.

Hypothesis 10 predicted more survey enjoyment should result in an increase in one's intent to participate in future studies by the same survey sponsor. OLS regression was used to analyze the relationship among the variables. Table 10 provides the results. As enjoyment increased, willingness to participate in a future survey significantly increased ($\beta = .47, t = 9.72, p < .001$, two-tailed), controlling for other covariates. The data were consistent with hypothesis 10.

Although specific hypotheses were not put forth, the effect of open- compared to closed-ended survey questions was tested on the variables in the model, controlling for other covariates. Open-ended questions significantly increased self-expression ($\beta = .11, t = 2.26, p < .05$, two-tailed) and had a marginally significant effect on fatigue ($\beta = .09, t = 1.86, p = .06$, two-tailed). Open-ended questions did not have a statistically significant effect on enjoyment ($\beta = -.03, t = -.61, p = .54$, two-tailed), but significantly decreased one's intent to participate in future surveys

by the same sponsor ($\beta = -.44, t = -2.22, p < .05$, two-tailed).¹¹ Other tests included the effect of self-expression ($\beta = .14, t = 2.17, p < .05$, two-tailed) and a potential interaction between survey type and self-expression ($\beta = .33, t = 1.56, p = .12$, two-tailed) on intent to participate in a future survey.

Because the data did not display statistically significant predictions for time and involvement, path modeling was not conducted. The purpose of the previously mentioned models was to create a visual of how the variables in this study might fit together. Because the data were not consistent with some of these predictions, the models are not consistent with the data.

Discussion

The purpose of this study was to determine the relationships among various factors that may lead to survey enjoyment. By understanding these relationships, researchers may better understand the respondent's survey experience and the outcomes that arise from survey participation. Of particular interest to this study was to learn whether researchers can ask questions in ways and about topics that elicit a (un)favorable response and, if so, to understand the effects of doing so.

This study had several interesting findings that conformed to predictions and others that were contrary. The findings suggest that open-ended surveys significantly increase a respondent's perceived self-expression. Although self-expression may increase enjoyment of

¹¹ After testing the effect of question type on intent to participate in future surveys by topic, only the topic of space exploration generated a statistically significant effect; the effect was negative. This finding provides evidence that asking open-ended questions about topics people don't care about can decrease people's intent to participate in future surveys.

survey participation and intent to participate in a future survey, open-ended surveys do not appear to interact with self-expression to create significant levels of survey enjoyment. In fact, open-ended surveys appear to have a negative main effect on intent to participate in a future survey. This finding suggests the type of questions employed have important implications for survey researchers. Also, the role of self expression in the survey process appears to have important implications for future participation. In particular, the fact that self-expression in surveys can increase enjoyment, which can increase intent to participate is incredibly important given the trend in declining survey rates.

One way to increase felt self-expression is to ask about topics related to the respondent's values. This effect is not surprising given Katz's (1960) functional of attitudes and Roger's (1951) conceptualization of the true self, both of which posit one's need to express his/her core values. A somewhat surprising finding was the lack of a statistically significant effect of outcome-relevant involvement on self-expression, coupled with the negative signs for Beta coefficients in regression models and the negative correlation with intent to participate in future surveys. Taken together, it appears as though people may not find value in discussing social issues that may impact them. Rather, respondents enjoy expressing their values.

Because the statistical effect of value-relevant involvement was marginal ($p = .07$), and the topics used in the main study were not as extreme on involvement as in the pilot test, issue topics were assessed. Inspection of mean scores by issue topic demonstrates same-sex marriage ($M = 5.48$, $SD = 1.19$) generated more self-expression than universal health care ($M = 4.79$, $SD =$

1.30), space exploration ($M = 4.62$, $SD = 1.22$), or music file-sharing ($M = 4.97$, $SD = 1.20$).¹²

Therefore, the particular effect of the issue topic used in the survey should be considered.

The issue of same-sex marriage is unique to the other topics used in this study in many ways. First, many people feel the issue of same-sex marriage is related to their values and may not necessarily have an effect on them. In fact, same-sex marriage created the greatest discrepancy between value- ($M = 4.27$, $SD = 1.39$) and outcome-relevant involvement ($M = 2.59$, $SD = 1.23$) compared to the other issue topics. Plus, same-sex marriage may not be an issue many people would feel comfortable expressing their true views about to others in a social setting. People may conceal parts of their true selves when they fear social sanctions for stating their innermost thoughts and feelings about a topic (Bargh, McKenna & Fitzsimons, 2002). Plus, when people are given the opportunity to express their thoughts on an issue related to their values, and on which they have previously felt unheard, they may fulfill a need for self-expression (Katz, 1960). Thus, a survey about a socially sensitive, value-related topic such as same-sex marriage may provide respondents an outlet for sharing their innermost thoughts on a topic that is not frequently or openly discussed using an anonymous tool, for which people can avoid the fear of social judgment. When the topic of a survey is a sensitive, social issue, surveys may provide an outlet for respondents to fulfill a need for self-expression. Further testing of this possibility is needed. Future studies may consider studying topics related to race, disability, and gender. Additionally, studies may consider including questions related to whether/how often

¹² OLS regression was also conducted to confirm differences between issue topic on self-expression controlling for other variables; the results confirmed same-sex marriage created more self-expression than the other issue topics.

people have expressed their true thoughts on this issue prior to the current survey. Asking such questions may provide additional evidence of the opportunity for surveys to provide a unique opportunity for self-expression that may not exist in normal discourse.

Also, this survey found that self-expression in an open-ended survey increases the likelihood of signing on to a campaign. A caveat to this finding should be noted. Respondents were asked to sign on to a campaign that advocated his/her “side” of the issue. That is, the campaign’s purpose aligned with the respondent’s support or opposition of an issue. However, when alignment occurred, people who experienced greater self-expression in an open-ended survey were more likely than those in the closed-ended survey condition to add their name to a campaign.

This finding has important implications for political and social campaigns. This approach, asking for campaign endorsements within the context of a survey, may suggest an efficient way to stimulate public support. Some people might argue this is simply a foot-in-the-door or cognitive dissonance reduction approach. By asking people to take a survey first, then sign on to a campaign, or asking people whether they support or oppose an issue, then asking that person to provide evidence by adding his/her name, the survey provides a means to employ one of these traditional campaign approaches. However, the current findings suggest that engaging people in the survey process may increase willingness to endorse a campaign due to self-expression that occurs within the survey. By allowing people to share their voice in their own words, surveys may be able to send an implicit message that this campaign cares about “you” and what you really think. When people find value in being able to express their true

thoughts, the campaign may become another outlet to continue to express their attitude through another means – adding their name as an endorser.

Although the data supported several of the predicted effects, they failed to detect support for the effect of time. Time did not affect self-expression or interact with either type of involvement to affect enjoyment. These findings suggest variables, other than time, affect self-expression. In fact, in regression analysis, knowledge and attitude toward the survey topic had a significantly positive relationship with self-expression. Therefore, self-expression appears to occur as a result of being able to talk about issues one supports, not as a result of spending more time sharing thoughts and opinions.

This study had a number of limitations. First, this study did not assess the effect of a potentially important personality variable, self-monitoring. Self-monitoring is one's control over his/her verbal or nonverbal expressive acts (Snyder, 1974). Individuals who are high self-monitors intentionally control their verbal and nonverbal expressions and behaviors according to situational cues; whereas, low self-monitors more freely express their thoughts and emotions across situations (Snyder, 1974). The survey context may provide high self-monitors with the opportunity to express their true self without concern for social appropriateness, especially in the context of an online, open-ended, anonymous study. However, self-expression in a survey may not be sufficient to encourage high self-monitors to engage in a behavior such as adding their name to an endorsement list, especially if they believe doing so would not be socially acceptable. Future studies may consider the role of self-monitoring on variables such as self-expression, enjoyment, willingness to engage in behaviors (e.g., signing on to a related campaign), and intent to participate in future surveys.

Second, the current study did not address the issue of impression-relevant involvement and only focused on value- and outcome-relevant involvement. Not including impression-relevant involvement is a limitation because many surveys are conducted over the phone or face-to-face. The presence of an interviewer may create pressure for the respondent to consider social norms and the impression his/her responses may make on the interviewer, thereby limiting the self-expression that occurs in the context of the survey. Additional studies may seek to parse out the effect of the presence or absence of an interviewer on self-expression, especially when the nature of the survey topic is value-relevant and socially sensitive.

Finally, this study failed to fully create the expected manipulations for involvement. While the assumption is that regression toward the mean occurred in this study as opposed to an unintended effect of the manipulation, future studies should consider including an off-set control group to measure involvement, attitude, and knowledge toward the issue. This additional element would provide evidence that differences in involvement scores from pre- to post-tests are a result of respondents' scores moving closer to the population mean and not from the manipulation that occurred in the context of the survey.

Conclusion

As researchers, we need to consider the impact our surveys have on our respondents. If we ask questions in ways and about topics that elicit an unfavorable response, we may be contributing to the problem of declining survey rates. However, as demonstrated in this study, when we can generate increases in a respondent's self-expression, we create opportunities for beneficial survey outcomes. Some of these positive effects of self-expression include increasing behavioral outcomes of endorsing a campaign, increasing enjoyment of the survey experience,

and increasing willingness to participate in a future survey by the same sponsor. Thinking about the respondent as merely a unit of data can be easy to do in the midst of busy schedules and work overload. However, when we step back and critically analyze how the respondent might feel about his/her participation and the opportunities we are providing for that individual to express his/her true thoughts, we may consider the survey process differently. Surveys communicate information; what and how we ask matter.

Table 1

Descriptive Statistics for Continuous Variables by Condition (N=50 participants per cell)

Variable	Health care		Same-sex marriage		Space exploration		Music	
	Closed <i>M</i> (<i>SD</i>)	Open <i>M</i> (<i>SD</i>)	Closed <i>M</i> (<i>SD</i>)	Open <i>M</i> (<i>SD</i>)	Closed <i>M</i> (<i>SD</i>)	Open <i>M</i> (<i>SD</i>)	Closed <i>M</i> (<i>SD</i>)	Open <i>M</i> (<i>SD</i>)
Time	756.40 (400.52)	1623.54 (1025.18)	820.22 (482.57)	1542.22 (993.98)	796.10 (555.39)	1440.00 (950.50)	713.63 (361.75)	1406.82 (1021.08)
Age	20.36 (3.37)	20.16 (1.42)	20.56 (2.20)	20.12 (1.80)	20.12 (1.72)	19.82 (1.38)	20.25 (1.82)	19.86 (1.31)
OR Involve	4.64 (1.20)	4.87 (1.22)	2.47 (1.27)	2.71 (1.18)	3.45 (1.19)	3.67 (1.40)	4.20 (1.31)	4.04 (1.40)
VR Involve	4.09 (1.14)	4.29 (1.10)	4.16 (1.40)	4.38 (1.37)	3.07 (1.16)	3.09 (1.55)	3.27 (1.31)	3.21 (1.34)
Attitude	4.17 (1.55)	3.97 (1.88)	5.50 (1.60)	5.19 (2.07)	4.67 (1.42)	4.76 (1.33)	4.53 (1.30)	5.21 (1.38)
Express	4.44 (1.41)	5.14 (1.09)	5.31 (1.19)	5.65 (1.17)	4.65 (1.26)	4.59 (1.18)	4.93 (1.27)	5.01 (1.15)
Enjoy	3.77 (1.41)	3.77 (1.13)	4.54 (1.34)	4.41 (1.46)	4.04 (1.19)	3.55 (1.54)	4.01 (1.52)	3.87 (1.32)
Fatigue	3.91 (0.96)	3.86 (0.97)	3.35 (0.75)	3.53 (0.96)	3.61 (0.98)	4.03 (1.16)	3.65 (0.89)	3.93 (0.97)
Intent	4.31 (1.32)	4.29 (1.51)	5.03 (1.32)	4.62 (1.35)	4.63 (1.48)	3.73 (1.51)	4.60 (1.54)	4.41 (1.46)
Willing	.50 (.51)	.48 (.50)	.68 (.47)	.57 (.49)	.44 (.50)	.42 (.50)	.28 (.45)	.26 (.44)
Know	2.87 (1.10)	2.53 (1.27)	3.23 (1.24)	3.08 (1.16)	2.64 (1.16)	2.29 (1.35)	2.60 (1.40)	2.60 (1.15)
Writing App.	3.08 (1.12)	3.45 (0.93)	3.44 (1.06)	3.72 (1.13)	3.64 (1.06)	3.89 (0.96)	3.64 (1.10)	3.71 (1.11)
Conser.	-0.76 (2.75)	0.42 (2.24)	-0.64 (2.41)	-0.82 (2.43)	-0.18 (2.71)	-0.48 (2.31)	-0.32 (2.50)	-0.32 (2.12)

Table 2

Descriptive Statistics for Categorical Variables by Condition (N=50 participants per cell)

Variable	Health care		Same-sex marriage		Space exploration		Music	
	Closed N (%)	Open N (%)	Closed N (%)	Open N (%)	Closed N (%)	Open N (%)	Closed N (%)	Open N (%)
Sex								
Female	33 (66%)	29 (58%)	41 (82%)	31 (62%)	38 (76%)	30 (60%)	32 (64%)	35 (70%)
Male	17 (34%)	21 (42%)	9 (18%)	19 (38%)	12 (24%)	20 (40%)	18 (36%)	15 (30%)
Race								
White	38 (76%)	39 (78%)	37 (74%)	45 (90%)	41 (82%)	36 (72%)	36 (72%)	40 (80%)
Black	3 (6%)	3 (6%)	6 (12%)	1 (2%)	3 (6%)	6 (12%)	6 (12%)	5 (10%)
Hispanic			1 (2%)		1 (2%)		1 (2%)	1 (2%)
Asian	5 (10%)	6 (12%)	4 (8%)	3 (6%)	3 (6%)	7 (14%)	4 (8%)	2 (4%)
Pacific Islander							1 (2%)	
Arab		1 (2%)	1 (2%)				1 (2%)	1 (2%)
Multiracial	3 (6%)	1 (2%)	1 (2%)		2 (4%)	1 (2%)	1 (2%)	1 (2%)
Other Race	1 (2%)			1 (2%)				

Table 3

Correlations Among Variables

	Value- relevant Involve	Outcome- relevant Involve	Self- express	Enjoy	Fatigue	Time	Intent	Willing
Value- relevant Involve	1.00							
Outcome- relevant Involve	.17***	1.00						
Self- express	.25***	-.04	1.00					
Enjoy	.27***	.02	.46***	1.00				
Fatigue	-.18***	.07	-.25***	-.45***	1.00			
Time	.05	-.04	.04	-.02	.08	1.00		
Intent	.12*	-.12*	.22***	.47***	-.33***	-.02	1.00	
Willing	.27***	-.04	.18***	.23***	-.10*	-.04	.20***	1.00

Table 4

Means, Standard Deviations, and Mean Differences for Topics used in Pilot Test (N=54)

Topic	Outcome Relevant Involvement	M_{Δ} (value = 4)	Value Relevant Involvement	M_{Δ} (value = 4)
	M (<i>S.D.</i>)		M (<i>S.D.</i>)	
Public transportation	3.68 (1.65)	-0.32	2.61 (1.54)	-1.39***
Tuition	5.94 (1.42)	1.94***	3.86 (1.78)	-0.14
Abortion	3.10 (1.54)	-0.90***	5.29 (1.71)	1.29***
Copyrighted music file-sharing	4.86 (1.47)	0.86***	3.39 (1.70)	-0.61*
Marijuana	3.01 (1.75)	-0.99***	3.73 (1.92)	-0.27
Genetically modified food	4.49 (1.62)	0.49*	3.90 (1.77)	-0.10
Same-sex marriage	2.21 (1.33)	-1.79***	5.03 (1.88)	1.03***
Space exploration	2.85 (1.62)	-1.15***	2.81 (1.69)	-1.19***
Global warming	4.93 (1.63)	0.93***	4.36 (1.83)	0.36
War in Afghanistan	4.01 (1.48)	0.01	4.82 (1.44)	0.82***
Universal health care	5.31 (1.29)	1.31***	5.06 (1.49)	1.06***
Economy	6.02 (1.40)	2.02***	4.01 (1.83)	0.01
Congressional term limits	3.43 (1.49)	-0.57**	2.84 (1.58)	-1.16***
Immigration	3.17 (1.81)	-0.83**	4.15 (1.70)	0.15

* $p < .05$, ** $p < .01$, *** $p < .001$

Table 5

OLS Regression Results for Effect of Survey Type on Time Spent Answering Survey

Variable	Time (in seconds)		β
	b	$s.e.$	
Survey Type (<i>baseline = closed-ended</i>)			
Open-ended	742.88***	80.26	.44
Controls			
Attitude	19.29	25.98	.04
Knowledge	8.74	32.54	.01
Writing Apprehension	-5.66	38.06	-.01
Conservativism	5.30	17.11	.02
Age	-4.80	20.59	-.01
Sex (<i>baseline = male</i>)			
Female	43.87	86.18	.02
Race (<i>baseline = White</i>)			
Black	-2.54	150.38	-.08E-2
Hispanic	-193.36	394.00	-.02
Asian	140.86	143.29	.05
Pacific Islander	-31.16	786.28	-.002
Arab	-98.08	394.71	-.01
Multi-racial	634.07*	251.14	.12
Other race	46.47	556.12	.004
Constant	713.98		
F	6.86***		
Adj. R^2	.17		
N	393		

* $p < .05$; ** $p < .01$; *** $p < .001$, two-tailed

Table 6

OLS Regression Results for Effects of Survey Type, Time, and Value- and Outcome-relevant Involvement on Self-expression

Variable	Self-expression		
	<i>b</i>	<i>s.e.</i>	β
Survey Type (<i>baseline = closed-ended</i>)			
Open-ended	.28*	.14	.11
Time (in seconds)	-.03E-2	.04E-2	-.22
Value-relevant Involvement	.32 ^a	.18	.35
Outcome-relevant Involvement	-.03	.18	-.04
Outcome-relevant Involvement x Time	.01E-2	.01E-2	.40
Value-relevant Involvement x Time	.03E-3	.01E-2	.09
Outcome- x Value-relevant Involvement	-.02	.05	-.17
Outcome x Value-relevant Involvement x Time	-.02E-3	.04E-3	-.30
Controls			
Attitude	.11**	.04	.14
Knowledge	.10	.05	.10
Writing Apprehension	-.04	.06	-.04
Conservativism	-.01	.03	-.02
Age	-.04	.03	-.06
Sex (<i>baseline = male</i>)			
Female	-.11	.13	-.04
Race (<i>baseline = White</i>)			
Black	.26	.23	.05
Hispanic	-.53	.61	-.04
Asian	-.38	.23	-.08
Pacific Islander	1.36	1.23	.05
Arab	-.24	.61	-.02
Multi-racial	-.19	.40	-.02
Other race	.76	.87	.04
Constant	4.04***	1.03	
<i>F</i>	2.84***		
Adj. R^2	.09		
<i>N</i>	393		

* $p < .05$; ** $p < .01$; *** $p < .001$; ^a = .078, two-tailed

Table 7

Logistic Regression Results for Effect Survey Type and Self-expression on Willingness to Sign-on to a Campaign

Variables	Willingness to Sign-on to a Campaign					
	Model 1		Model 2		Model 3	
	Logit	s.e.	Logit	s.e.	Logit	s.e.
Survey Type (<i>baseline=closed-ended</i>)						
Open-ended	-2.43*	1.00				
Self-expression	.05	.12	.53**	.16	.04	.13
Survey Type x Self-expression	.45*	.19				
Controls						
Attitude	.26***	.07	.16	.10	.39**	.12
Knowledge	.32***	.09	.25	.13	.49**	.14
Writing Apprehension	-.04	.11	.02	.16	-.11	.16
Conservativism	-.10*	.05	-.11	.08	-.10	.06
Age	.05	.06	.00	.11	.08	.07
Sex (<i>baseline = male</i>)						
Female	.03	.24	-.06	.34	.04	.37
Race (<i>baseline = White</i>)						
Black	-.99*	.44	-.88	.66	-1.29	.66
Hispanic	-.31	1.18			-.25	1.56
Asian	.01	.40	-.04	.58	.14	.59
Pacific Islander						
Arab	-.63	1.04				
Multi-racial	-.06	.68	1.37	1.30	-.80	.83
Other race	-.61	1.48				
Constant	-3.24*	1.54	-4.51	2.53	-4.68*	2.08
Log Likelihood	-240.63		-115.37		-114.24	
N	399		194		195	

*p<.05; **p<.01; ***p<.001

Omitted scores had perfect predictions and were dropped.

Table 8

OLS Regression Results for Effects of Time and Self-expression on Fatigue

Variable	<i>b</i>	Fatigue <i>s.e.</i>	β
Time (<i>in seconds</i>)	.08E-3	.05E-3	.07
Self-expression	-.16***	.04	-.21
Controls			
Attitude	-.09**	.03	-.15
Knowledge	-.11**	.04	-.14
Writing Apprehension	.11*	.04	.12
Conservativism	-.01	.02	-.04
Age	-.01	.02	-.01
Sex (<i>baseline = male</i>)			
Female	.14	.10	.07
Race (<i>baseline = White</i>)			
Black	-.43*	.17	-.12
Hispanic	-1.48**	.46	-.15
Asian	-.15	.17	-.04
Pacific Islander	1.11	.91	.06
Arab	-.57	.46	-.06
Multi-racial	.31	.29	.05
Other race	1.31*	.64	.10
Constant	4.86***		
<i>F</i>	6.20***		
Adj. R^2	.17		
N	393		

* $p < .05$; ** $p < .01$; *** $p < .001$, two-tailed

Table 9

OLS Regression Results for Effects of Fatigue and Self-expression on Enjoyment

Variable	Enjoyment		
	<i>b</i>	<i>s.e.</i>	β
Fatigue	-.42***	.06	-.29
Self-expression	.39	.05	.36
Controls			
Attitude	.05	.04	.06
Knowledge	.18***	.05	.16
Writing Apprehension	-.07	.05	-.05
Conservatism	-.01E-1	.02	-.02E-1
Age	.04	.03	.05
Sex (<i>baseline = male</i>)			
Female	.27*	.12	.09
Race (<i>baseline = White</i>)			
Black	-.10	.21	-.02
Hispanic	.24	.57	.02
Asian	.38	.20	.08
Pacific Islander	.76	1.12	.03
Arab	.72	.56	.05
Multi-racial	.15	.36	.02
Other race	-1.67*	.80	-.08
Constant	2.17**	.79	
<i>F</i>	16.85***		
Adj. R^2	.37		
N	400		

* $p < .05$; ** $p < .01$; *** $p < .001$, two-tailed

Table 10

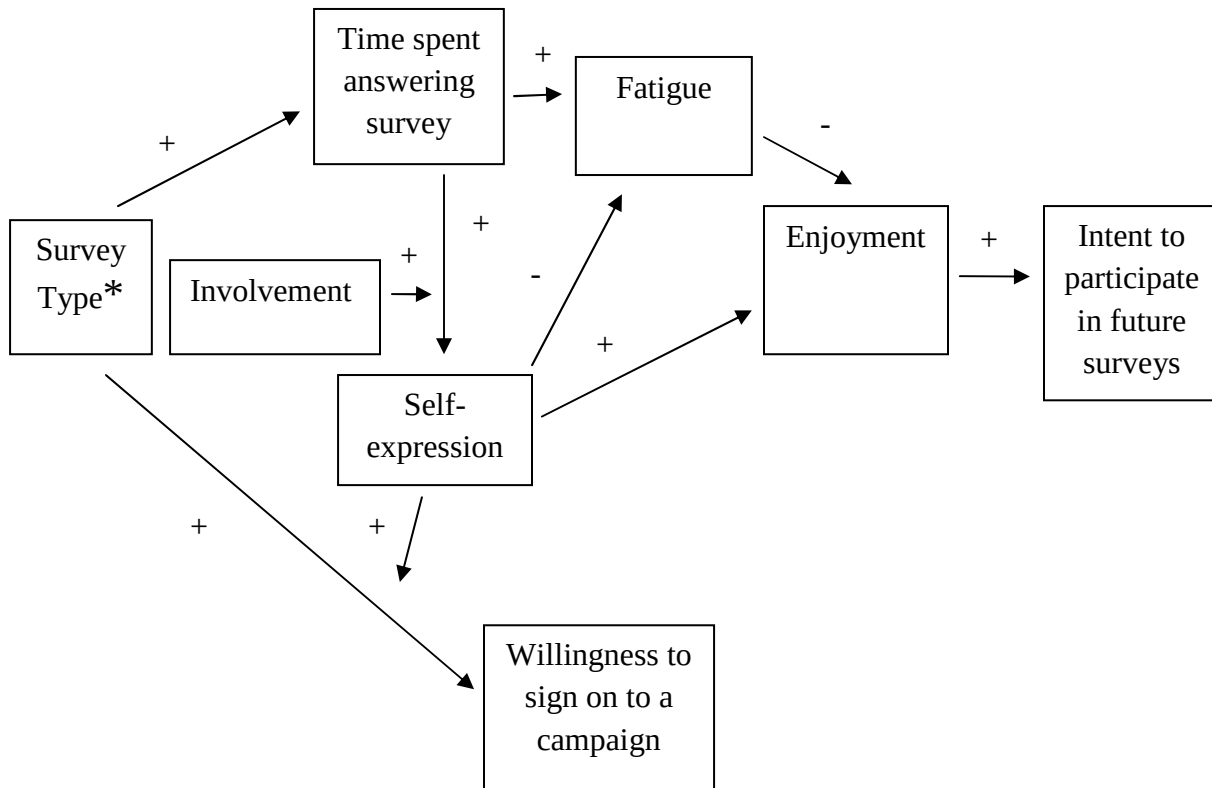
OLS Regression Results for Effect of Enjoyment on Intent to Participate in Future Surveys

Variable	Intent to Participate in Future Surveys		
	<i>b</i>	<i>s.e.</i>	β
Enjoyment	.49***	.05	.47
Controls			
Attitude	.05	.04	.05
Knowledge	.04	.05	.03
Writing Apprehension	.02	.06	.02
Conservativism	.01	.03	.01
Age	.01	.03	.02
Sex (<i>baseline = male</i>)			
Female	.06	.14	.02
Race (<i>baseline = White</i>)			
Black	-.29	.24	-.05
Hispanic	.45	.65	.03
Asian	-.59*	.23	-.11
Pacific Islander	-4.41**	1.30	-.15
Arab	-.40	.65	-.03
Multi-racial	.16	.41	.02
Other race	-.56	.92	-.03
Constant	1.89*	.80	
<i>F</i>	10.00***		
Adj. R^2	.24		
N	400		

* $p < .05$; ** $p < .01$; *** $p < .001$, two-tailed

Figure 1

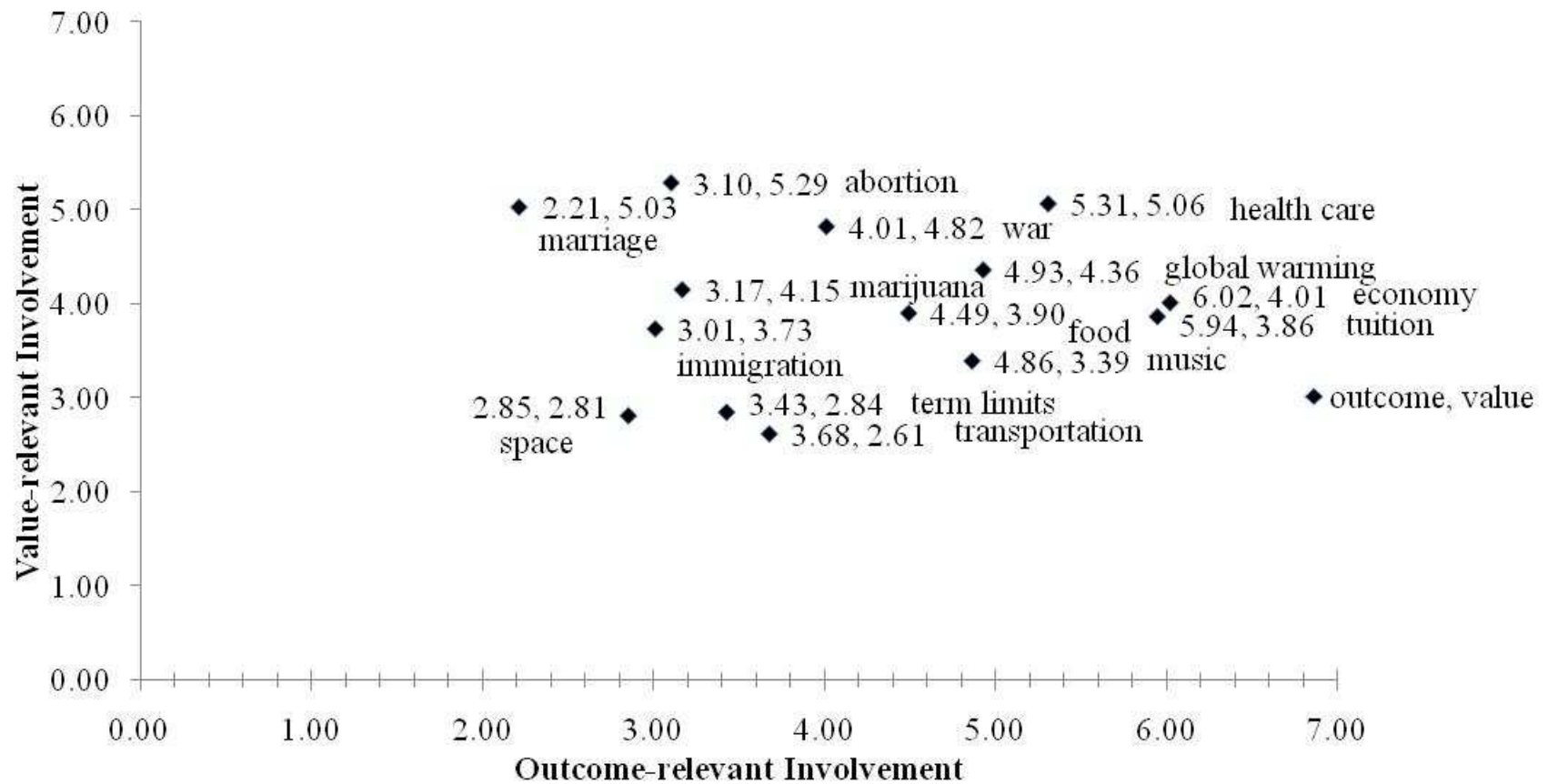
Path Model Predictions for Effects of Question Type on Survey-taking Outcomes



*With open-ended dummy coded as 1 and closed-ended coded as 0.

Figure 2

Mean Scores for Outcome- and Value-relevant Involvement by Pilot Test Topic



APPENDICES

Appendix A

Manipulation Questions for Closed-ended Surveys by Issue

Universal Health Care

First, we'd like you to think about the current health care system in the United States.

For each of the following questions, please select the answer that best represents your views.

1. How well does our current health care system work for most Americans?

- Not at all well
- Not very well
- Just somewhat well
- Fairly well
- Very well
- Don't know

2. How well does our current health care system work for you personally?

- Not at all well
- Not very well
- Just somewhat well
- Fairly well
- Very well
- Don't know

3. What issue should be the most important focus for reform to the U.S. health care system, if any?

- Expanding coverage for uninsured Americans
- Reducing out-of-pocket costs for individuals
- Keeping the U.S. health care system out of the hands of government
- Controlling escalating costs for new drugs and medical technologies
- Maintaining excellent-quality care
- Affording the cost of reforming the U.S. health care system
- Maintaining individual choice of doctors, hospitals and treatments
- I don't think we need any changes/reform to the U.S. health care system.
- Don't know

4. How satisfied or unsatisfied are you with the cost & affordability of health care in the U.S.?

- Extremely unsatisfied
- Unsatisfied
- Somewhat unsatisfied

- Neither unsatisfied nor satisfied
- Somewhat satisfied
- Satisfied
- Extremely satisfied
- Don't know

5. How satisfied or unsatisfied are you with the quality of health care in the U.S.?

- Extremely unsatisfied
- Unsatisfied
- Somewhat unsatisfied
- Neither unsatisfied nor satisfied
- Somewhat satisfied
- Satisfied
- Extremely satisfied
- Don't know

Now, we'd like to ask your thoughts about changes to health care in the United States.

6. Do you think it is the government's responsibility to make sure that everyone in the United States has adequate health care, or don't you think so?

- Yes
- No
- Don't know

7. How would you feel about, "Having a national health plan in which all Americans would get their insurance through an expanded, universal form of Medicare-for-all"?

- Strongly oppose
- Oppose
- Somewhat oppose
- Neither oppose nor support
- Somewhat support
- Support
- Strongly support
- Don't know

8. How would you feel about universal health coverage if it meant longer waits for nonemergency treatment and a limited choice of doctors?

- Strongly oppose
- Oppose
- Somewhat oppose
- Neither oppose nor support
- Somewhat support

- Support
- Strongly support
- Don't know

9. How much would you be willing to pay per year in additional federal taxes to assure every American citizen received health care coverage?

- \$0
- Less than \$100
- \$100-\$199
- \$200-\$299
- \$300-\$399
- \$400-\$499
- \$500-\$599
- \$600-\$699
- \$700-\$799
- \$800-\$899
- \$900-\$999
- \$1,000 or more
- Don't know

10. As you may know, a new health reform bill was signed into law earlier this year. Given what you know about the new health reform law, what is your opinion of it?

- Strongly unfavorable
- Unfavorable
- Somewhat unfavorable
- Neither unfavorable nor favorable
- Somewhat favorable
- Favorable
- Strongly favorable
- Don't know

Same-sex Marriage

First, we'd like you to think about movies, television, and books you see these days.

For each of the following questions, please select the answer that best represents your views.

1. Do you think the entertainment media are including too many gay themes and characters these days, not enough gay themes and characters, or about the right amount?

- Too many
- Not enough
- The right amount

- Don't know

Thinking about homosexuality in general...

2. In your opinion, when a person is homosexual, is it something that people are born with, or is it something that develops because of the way people are brought up, or is it just the way that some people prefer to live?

- Something people are born with
- Something that develops because of the way people are brought up
- Just the way some people prefer to live
- Don't know

3. Do you think a gay or lesbian person's sexual orientation can be changed or cannot be changed? Please explain.

- Can be changed
- Cannot be changed
- Don't know

Now, thinking about homosexuality and your religious beliefs...

4. Do you think it is a sin, or not, to engage in homosexual behavior?

- Yes, it is a sin.
- No, it is not a sin.
- Don't know

Next, please think about homosexuality in the United States.

5. Do you think more acceptance of gays and lesbians would be a good thing or a bad thing for the country – or that it would not make much difference either way?

- Good for country
- Bad for country
- Wouldn't make much difference
- Don't know

6. How would you describe your overall opinion of gay men?

- Very favorable
- Mostly favorable
- Neither favorable nor unfavorable
- Mostly unfavorable
- Very unfavorable
- Don't know

7. How would you describe your overall opinion of lesbian women?

- Very favorable
- Mostly favorable
- Neither favorable nor unfavorable
- Mostly unfavorable
- Very unfavorable
- Don't know

Now, please think about your views on policies regarding same-sex couples.

8. How do you feel about allowing gay and lesbian couples to enter into legal agreements with each other that would give them many of the same rights as married couples?

- Strongly favor
- Favor
- Somewhat favor
- Neither favor nor oppose
- Somewhat oppose
- Oppose
- Strongly oppose
- Don't know

9. How do you feel about allowing gays and lesbians to marry legally?

- Strongly favor
- Favor
- Somewhat favor
- Neither favor nor oppose
- Somewhat oppose
- Oppose
- Strongly oppose
- Don't know

10. How do you feel about allowing same-sex couples to legally adopt a child?

- Strongly favor
- Favor
- Somewhat favor
- Neither favor nor oppose
- Somewhat oppose
- Oppose
- Strongly oppose
- Don't know

Space Exploration

First, we'd like you to think about space exploration in general.

For each of the following questions, please select the answer that best represents your views.

1. To what degree should the U.S. explore space?

- There should not be a space program.
- We should reduce our efforts to explore space.
- We should continue our efforts at current levels.
- We should have a much more comprehensive space program.
- Don't know

2. What is the main reason driving American space exploration?

- It is human nature to explore
- To maintain the United States' status as the international leader in space
- To provide benefits on Earth
- To keep the nation safe
- It inspires people
- It motivates children
- Don't know

3. What, in your opinion, should be the ultimate purpose of the U.S. planetary exploration program?

- Determine the suitability of other planets for human colonization
- Establish permanent robotic outposts on other planets
- Scientific Exploration—learn everything we can about the planets
- Learn lessons about the Earth by studying other planets
- Look for life on other planets
- Search for resources in space for use in space
- Search for resources in space for export to Earth
- Search for any potential danger to Earth from space
- Understand the origins of the Solar System
- Don't know

Now, please think more specifically about future space exploration missions.

4. What is the mission that you think is the most important for space agencies to accomplish in the next decade?

- Mercury Mission
- Venus Mission
- Moon Mission
- Mars Mission

- Phobos Mission
- Comet Mission
- Asteriod Mission
- Jupiter Mission
- Io Mission
- Europa Mission
- Saturn Mission
- Titan Mission
- Uranus Mission
- Neptune Mission
- Pluto/Kuiper Belt Mission
- Don't know

5. There has been much discussion about attempting to land an astronaut on the planet Mars. How would you feel about United States setting aside money for such a project?

- Strongly favor
- Favor
- Somewhat favor
- Neither favor nor oppose
- Somewhat oppose
- Oppose
- Strongly oppose
- Don't know

Now, thinking about the U.S. space program.

6. How would you rate the job being done by NASA – the U.S. space agency?

- Excellent
- Good
- Fair
- Poor
- Don't know

7. It is now 40 years since the United States first landed men on the moon. Do you think the space program has brought enough benefits to this country to justify its costs, or don't you think so?

- The space program has brought enough benefits to justify its costs.
- The space program has not brought enough benefits to justify its costs.
- Don't know

8. Do you think spending on the U.S. space program should be increased, kept at the present level, reduced, or ended altogether?

- Increased
- Kept at the present level
- Reduced
- Ended altogether
- Don't know

9. How should space exploration be funded?

- All funding should come from the private sector.
- Governments should continue to provide the bulk of the funds for space exploration.
- We should have increases in our taxes to fund space exploration.
- We should have decreases in other public spending areas to fund space exploration.
- Don't know

10. If you could advise the next president about the U.S. space program, what would you say?

- Maintain current activities, but do not commit to new projects
- Seek international cooperation for lunar landings
- Seek international cooperation for Mars exploration
- Build a lunar base as a stepping-stone to Mars
- End the space program altogether
- Don't know

Copyrighted Music File-sharing

First, we'd like you to think about your online music downloading habits.

For each of the following questions, please select the answer that best represents your views.

1. How often do you download music from the Internet?

- Never
- Almost never
- Sometimes
- Almost every day
- Every day
- Don't know

2. How much do you care whether the music you download onto your computer is copyrighted?

- Do not care at all
- Slightly care
- Somewhat care
- Moderately care
- Care a great deal
- Don't know

3. How much do you care whether or not the files you allow others to download from your computer are copyrighted?

- Do not care at all
- Slightly care
- Somewhat care
- Moderately care
- Care a great deal
- Don't know

4. In your opinion, is there anything wrong with downloading copyrighted music from the Internet?

- Yes
- No
- Don't know

5. How would you feel about allowing people to legally download music from up-and-coming artists for free?

- Strongly oppose
- Oppose
- Somewhat oppose
- Neither oppose nor support
- Somewhat support
- Support
- Strongly support
- Don't know

6. How would you feel about allowing people to legally download music from established artists for free?

- Strongly oppose
- Oppose
- Somewhat oppose
- Neither oppose nor support
- Somewhat support
- Support
- Strongly support
- Don't know

Now, we'd like to know your thoughts about statements people sometimes make about downloading copyrighted music.

7. To what extent do you agree or disagree with the following statement, "Music downloading and file-sharing is so easy to do, it's unrealistic to expect people not to do it"?

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Agree
- Strongly agree
- Don't know

8. To what extent do you agree or disagree with the following statement, "As long as people are still buying music, it's okay if they download or share some copyrighted music for free"?

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Agree
- Strongly agree
- Don't know

9. To what extent do you agree or disagree with the following statement, "It's never really okay to download or share copyrighted music files online without paying for them"?

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Agree
- Strongly agree
- Don't know

Now, thinking about most people...

10. What do you think prevents most people from downloading copyrighted music?

- Fear of downloading a virus
- Fear of legal trouble
- Spyware
- The person's morals
- Don't know

Appendix B

Outcome-relevant Involvement Scale

Consider the topic of _____ and how it might affect you. Please answer each of the following questions.

1. _____ would affect me personally.
2. _____ would have a big impact on my life.
3. _____ would have important consequences for me.
4. _____ would have little effect on me personally.*

*This item was reverse scored.

Appendix C

Value-relevant Involvement Scale

Please consider the topic of _____ and how it fits with your own values. Then, please answer each of the following questions.

1. My attitude toward _____ is based on my core values.
2. My position on _____ reflects who I am.
3. Arguments for or against _____ are relevant to the core principles that guide my life.
4. Knowing my position on _____ is central to understating the kind of person I am.

Appendix D

Piper Fatigue Scale

To what degree are you now feeling:

1. Strong/Weak
2. Awake/Sleepy
3. Lively/Listless
4. Refreshed/Tired
5. Energetic/Unenergetic
6. Patient/Impatient
7. Relaxed/Tense
8. Exhilarated/Depressed
9. Able to concentrate/Unable to concentrate
10. Able to remember/Unable to remember
11. Able to think clearly/Unable to think clearly

Appendix E

Self-expression Scale

1. How much did you feel like you shared your thoughts?
2. How much do you feel like you communicated your views in a meaningful way?
3. How much do you feel like you accurately expressed your views?

Appendix F

Enjoyment Scale

4. How much did you enjoy completing this survey?
5. How much did you like sharing your thoughts in this study?
6. How much did you dislike participating in the survey?*

*This item was reverse scored, then dropped from the scale due to reduced reliability.

Appendix G

Knowledge Scale

Compared to an expert on the topic, please rate:

1. Your knowledge on _____.
2. How great of an understanding you have about _____.
3. How much data you can recite about _____.

Appendix H

Writing Apprehension Scale

1. I avoid writing.
2. I have no fear of my writing being evaluated.*
3. I look forward to writing down my ideas.*
4. My mind seems to go blank when I start to work on a composition.
5. Expressing ideas through writing seems to be a waste of time.
6. I would enjoy submitting my writing to magazines for evaluation and publication.*
7. I like to write my ideas down.*
8. I feel confident in my ability to clearly express my ideas in writing.*
9. I like to have my friends read what I have written.*
10. I am nervous about writing.
11. People seem to enjoy what I write.*
12. I enjoy writing.*
13. I never seem to be able to clearly write down my ideas.
14. Writing is a lot of fun.*
15. I like seeing my thoughts on paper.*
16. Discussing my writing with others is an enjoyable experience.*
17. It is easy for me to write good compositions.*
18. I don't think I write as well as most other people do.
19. I don't like my compositions to be evaluated.
20. I am no good at writing.

* These items were reverse scored.

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