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Complexity of health care delivery, spirituality, and alternative medicines

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**COMPLEXITY OF HEALTH CARE DELIVERY, SPIRITUALITY, AND
ALTERNATIVE MEDICINES**

A Thesis

Presented to

The Faculty of the Department of Sociology

San Jose State University

In Partial Fulfillment

of the Requirements for the Degree

Master of Arts

by

Evelyn Stanford

December 1998

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APPROVED FOR THE DEPARTMENT OF SOCIOLOGY

A handwritten signature in cursive script, appearing to read "Robert Gliner", written over a horizontal line.

Dr. Robert Gliner

A handwritten signature in cursive script, appearing to read "Robert H. Wilson", written over a horizontal line.

Dr. Robert Wilson

A handwritten signature in cursive script, appearing to read "Paul Munroe", written over a horizontal line.

Paul Munroe

APPROVED FOR THE UNIVERSITY

A handwritten signature in cursive script, appearing to read "William Fish", written over a horizontal line.

ABSTRACT

COMPLEXITY OF HEALTH CARE DELIVERY, SPIRITUALITY, AND ALTERNATIVE MEDICINES

by Evelyn Stanford

This study examines the relationship between public perception of complexity of health care delivery and the trend toward use of spirituality and alternative medicines in the United States. The design is a postal survey using a questionnaire mailed to randomly chosen registered voters. No significant relationships are found between perception of complexity of health care delivery and spirituality/use of alternative medicines. The two hypotheses which are presented are not confirmed. Religious affiliation and mistrust of doctors are significant predictors of beliefs that spirituality affects health outcomes. Having had negative side effects from prescription drugs is a significant predictor of use of alternative medicines. Results of the study are discussed in terms of theoretical and societal implications. Avenues for future research are suggested.

Acknowledgements

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The work found within the following pages is dedicated to two spiritual women: Barbara Stanford, who owns a piece of my heart; and Katherine Forstall Helmtoller, who is my heart.

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1. INTRODUCTION

Health care delivery is one of the major social issues of our time. The predominance of scientific rationality, technology, and capitalistic attitude towards medicine have made the system a complex and expensive one. In the United States people who seek Western biomedical care must work their way through an intricate maze of physicians, tests, procedures, and paperwork in order to procure services. The provider is then reimbursed by a "third-party", a large bureaucracy, which is either the government, an insurance company, or an HMO (Health Maintenance Organization), depending upon the individual's coverage. What once was basically a cottage industry consisting of individual physicians and not-for-profit hospitals is now a network of huge corporations which control everything from hospitals and home health services to health spas and retirement homes. The medical care industry has become so formidable that critics have labeled it the "medical-industrial complex" (Vander Zanden, 1993).

The rise of scientific medicine over the last 200 years, and of the medical-industrial complex over the last 50 years, has resulted in many ancient health practices being ignored and suppressed. But in recent years that trend has been reversed, and alternative, "natural" approaches to health have become popular and widespread (Shealy, 1996). Since the 1960s there has been a continually growing interest in alternative medicines in the United States. These are therapies and techniques which are based on a spiritual rather than a scientific premise. For these approaches to work, the participants must have "faith." In very recent years there has been a tremendous amount of not only interest but also actual participation in these kinds of approaches to health care. Studies have repeatedly shown that many people in the United States have used alternative medicines.

During a time of unprecedented scientific knowledge and discovery, people are looking outside the mainstream and into the "fringe" for answers to their problems.

Social scientists and anthropologists have drawn correlations between belief in the supernatural and larger societal trends. One might expect that as society becomes increasingly scientific and rational, interest in supernatural "fringe" beliefs would diminish. However, this is not the case. The seventeenth century marked the beginnings of modern science; at the same time the height of executions for witchcraft took place. In the eighteenth and nineteenth centuries the Industrial Revolution and the Age of Reason were firmly in place; beliefs in the supernatural did not retreat but rather manifested themselves in different, quieter ways (Stevens, 1988). At the close of the twentieth century, incredible and even mind-boggling advances in science and technology have permeated every industrialized society in the world. Concurrently, belief in the supernatural has taken firm root. According to Clark (1998), we live in the most superstitious age ever.

The relationship between beliefs in the supernatural and the complexity of the society is seen upon examination of the history of alternative medicine in the United States. Since its founding, the United States has progressed rapidly and has positioned itself as a leader among the advanced industrialized nations of the world. During this time, popular culture in the United States has shown a steady interest in unorthodox healing practices based on spirituality and faith. Prior to the 1830s orthodox medicine was not firmly entrenched enough for a supernatural approach to be considered "alternative." By the middle of the nineteenth century, however, the orthodox medical profession had established itself, and homeopathy, Thomsonianism, hydropathy, and many dietary regimes (e.g. Grahamism) were popular healing movements. Two new metaphysical systems, Swedenborgianism and mesmerism took hold in the late nineteenth

century and added a new dimension to the physical/spiritual realm: the human psyche. These movements gave birth to New Thought and Christian Science. The mesmeric and metaphysical notion of healing also laid the foundation for two other popular unorthodox therapies in the late nineteenth century: chiropractic and osteopathic. The twentieth century has seen the emergence of a plethora of "holistic healing" techniques including radionics, radiesthesia, aromatherapy, reflexology, nutritional medicine, and many other psychological and manipulative therapies. Most recently, "energy" therapies such as crystal, electrocrystal, and color therapy have become popular alternative medicine approaches. The list increases almost daily as new techniques are developed (Shealy, 1996). Although seemingly diverse, such popular alternative therapies as Ayurvedic medicine, yoga, Shiatsu, rolfing, psychic healing, Therapeutic Touch, and New Age crystal healing all have the underlying principle of "spirit" as one of the causal determinants of health and disease (Fuller, 1989).

Scientific advances, the technological explosion, and the information revolution are larger societal trends in the latter half of the twentieth century. But the more scientific, high-tech, and specialized the information becomes, the less likely people are to understand it. As science has become narrower and more compartmentalized, it has become further and further removed from the experiences of peoples' daily lives. Add to this the high cost and bureaucratic nature of modern health care delivery, and it is no wonder that many people in contemporary society find health care delivery in the United States cold, impersonal, and inadequate.

Interest in "fringe" alternatives as a means of satisfying particular needs of people in society is and has been, for the most part, at odds with the established scientific viewpoint. Beliefs in the supernatural are most often explained as a "consequence of rapid social and technological change, which leads to the dislocation of values,

uncertainty about traditional authorities and roles, alienation, anxiety, deprivation, tension, and anomie" (Galbreath, 1983, p.23). Modern medicine is an example of quantum leaps in scientific and technological advancement, and the social institutions which support it have become increasingly complex. Though there is much conjecture about what is needed in the health care system, there is no concrete study which shows that the complexity of the system frustrates people enough to cause them to turn away from Western medicine and use spirituality and alternative medicines in an attempt to solve their health problems.

Further study is required on the extent to which the structuring of modern health care delivery affects peoples' decision to seek alternative medical therapies. It may not be that people are rejecting Western biomedicine per se, but that the complexity of the structure of Western medicine is causing aversion to its delivery. In order to improve our present health care system we must seek to understand the benefits that people derive by going outside of it to seek help.

The purpose of the current research is to determine the relationships between the perceptions of the complexity of modern health care delivery, beliefs regarding spirituality and health outcomes, and the use of alternative medicines. It is expected that there will be a positive correlation between peoples' perceptions of the complexity of the system and their beliefs in the effects of spirituality on health outcomes, and also that there will be a positive correlation between peoples' perceptions of the complexity of the system and their use of alternative medicines.

Prior Research

Over the last 20 years the use of non-conventional medicine has become increasingly popular. As the trend toward greater reliance on alternative medicine has grown, more published data have become available regarding its use in Western countries. A survey of adults in the Netherlands showed that 6.9% had consulted non-conventional medical practitioners in the previous year, giving a national figure of 6 million consultations (Oijendijk, Mackenback, and Limberger, 1980). Soon afterwards, in response to increasing demand for legal access to alternative medical care, the Commission for Alternative Systems of Medicine reported that 7% of the Dutch population visited a practitioner of alternative medicine every year and that 18% acknowledged visiting such a practitioner at least once (Ministry of Health and Environmental Protection, 1981). A survey conducted in 1980-81 in the United Kingdom (Fulder and Munroe, 1985) suggested a growing use of various types of non-orthodox health care: 2.5% of the population were receiving courses of non-orthodox treatments and there were 13 million visits to practitioners of alternative medicine yearly. There have been reports of the growing use of alternative medicine in Australia (Maddocks, 1985) and New Zealand (Clinical Oncology Group, 1987). The use of alternative medicine has increased greatly in France in recent years (French Foundation to Study Soft Medicine, 1986). Two more recent studies in the United Kingdom show the high proportion of people claiming to have tried various alternative treatments at some time: 27-29% of men and 33% of women (Research Surveys of Great Britain, 1984; Market & Opinion Research International, 1989). A Canadian study reported that 20% of Canadians had used the services of at least one alternative practitioner during the previous six months (Berger, 1990). Another Canadian study, conducted at a gastroenterology clinic in Alberta, found that 27% of its patients had used alternative medicine in the previous two

years (Verhoef, Sutherland, and Brkich, 1990). In the United States, two studies based on samples in limited geographic areas suggest that the use of non-conventional therapies is widespread (Cook and Baisden, 1986; McGuire, 1988). The results of a landmark study conducted in the United States were published in 1993. Survey results found the use of non-conventional therapies to be much higher than previously reported, with one in three respondents (34%) reporting the use of at least one non-conventional therapy in the last year. Extrapolation of these findings to the United States population suggests that in 1990 Americans made an estimated 425 million visits to providers of non-conventional therapies, which exceeds the number of visits to all United States primary care physicians (Eisenberg, Kessler, Foster, Norlock, Calkins, and Delbanco, 1993). More recently, a nationwide telephone survey conducted in 1997 found that 42 % of American adults used some type of alternative care, 44% said they would use an alternative method if traditional medical care was not producing the desired results, and 71% predicted that consumer demand for alternative care would be moderate to strong in the future (Brody, 1998). It appears that use of alternative medicines has been steadily increasing in recent years in the advanced industrialized nations of the world.

Of particular interest to medical sociologists are the reasons why people are turning to the alternative medicine sector in growing numbers. The research in this area has borne out several main themes:

(1) People are most likely to use alternative medicine for chronic conditions and long-term unresolved problems for which Western biomedicine has no cure. Some of these conditions are acute and life-threatening, such as cancer and AIDS (which may become chronic health conditions); others are chronic illnesses found in many prosperous societies that reflect the stress of modern lifestyles, such as high blood pressure,

backaches, insomnia, depression, headaches, anxiety, and digestive problems (Eisenberg et al., 1993). Allergies and arthritis are also frequently cited health problems of users of alternative medicine (Brody, 1998). These disorders are difficult for conventional medicine to treat effectively because they do not fit into the conventional medical model of diagnosing and treating disease (Verhoef et al., 1990). The cures for chronic illnesses brought on by the stress of living in today's world are not found in pharmaceuticals, but in lifestyle changes, for example, altering one's diet, exercise, or smoking behaviors. The underlying causes for such chronic illnesses must be addressed in order for them to be effectively treated. Conventional medical training does not include the study of underlying causes such as lifestyle, but rather is focused on masking the condition by treating the symptoms. Modern medicine may in some ways be able to treat these conditions, but they are not cured by conventional medical approaches, that is, they do not go away (Riessman, 1994). Many of these conditions have a strong psychological component (Consumer Reports, 1994).

(2) People may turn to alternative medicine as a result of bad experiences with conventional medicine and/or disenchantment with it. These people, however, do not necessarily believe that conventional medicine is ineffective (Furnham and Smith, 1988). High cost and inaccessibility may turn people away from conventional medicine (Rosch and Kearney, 1985; Murray and Rubel, 1992). Patients may be negative toward conventional medicine due to perceptions of iatrogenic disorders arising from long-term drug treatment/pharmacological intervention (Rosch and Kearney, 1985; Murray and Shepherd, 1993). The patient or a friend or family member may have had unpleasant or painful side effects from conventional treatment (Murray and Rubel, 1992).

(3) The scientific and technical dominance of modern medicine has resulted in patient care that is often impersonal and dehumanizing. Today's health care delivery revolves around high-tech machinery, sophisticated tests, and pharmaceuticals. Technological advances are occurring so rapidly that, in order to keep abreast of them, physicians are required to spend time studying and have less time to spend with their patients (Rosch and Kearney, 1985). In addition, the doctor-patient relationship in modern medicine has become one of business: the doctor is reimbursed for "doing something" objective which can be quantified, and is no longer paid for subjective services such as listening, counseling, empathy, or caring (Rosch and Kearney, 1985). Patients may feel that doctors just "don't understand" them. The average alternative therapist spends six or eight times longer over a consultation than an average general practitioner (Fulder and Munroe, 1985; Jones, 1987). It would seem that users of alternative medicine want to communicate with their practitioners.

(4) Alternative medicine is attractive to people who perceive health and well being as a part of their lifestyle as a whole, and who want to take personal responsibility for their health. These patients are not interested in having the doctor "fix" their broken down "machine." Some alternative therapies do not involve a practitioner or therapist (e.g. diet, exercise) and fit in with the empowering aspect of the current consumer movement of self-help and self-care (Riessman, 1994). Some commentators refer to the 'wellness revolution' which is oriented toward prevention of rather than treatment of disease (Rosch and Kearney, 1985). Others refer to it as a movement of the Baby Boomers who are looking for ways to face their own mortality (Biema, 1996). People find the 'health-and-nature' movement highly attractive, and take seriously its recommendations to "treat the whole person" and to "take charge of your own health" (Murray and Rubel, 1992).

Users of alternative medicine want to be active participants in their treatments. Studies by Furnham and Bhagrath (1993) and Furnham and Forcy (1994) found in comparison studies of the two groups that people who chose alternative therapies, as opposed to those who chose a general practitioner, were more aware of preventive health measures; they believed their health could be improved; they had more self and ecologically aware lifestyles; and they believed treatment should concentrate on the whole person and on greater knowledge of the physiology of the body. Coward (1989) writes that the interest in alternative medicine signifies a change in values, a reaction against a materialistic age, a desire to return to a more natural lifestyle, and a belief among people that a state of total health is achievable through personal preventive actions.

To summarize in broad terms, research has shown thus far that the use of alternative medicines and spirituality is related to distrust and disillusionment of Western conventional medicine, which relies so heavily on powerful prescription drugs and high-tech machinery. Alternative medicine is frequently used for chronic health conditions for which Western medicine has no "cure." The use of alternative medicines has steadily increased over the past 18 years. In addition, there is general movement towards less harmful and more natural, holistic lifestyles.

Theoretical statement of the problem

Within industrialized nations, the degree of complexity of social structures leads to an increase of faith in the supernatural because of feelings of alienation, mistrust and confusion. For research purposes, *supernatural* will be stipulated to mean healing practices that are not tested using scientific methodology and are based on spirituality and the "faith" of the participant. A graphic representation of the theory and the hypotheses drawn from it are shown in Appendix A.

The hypotheses presented in this study are as follows:

Hypothesis 1: Perceptions of complexity of health care delivery will be positively correlated with the belief that spirituality effects health outcomes.

Hypothesis 2: Perceptions of complexity of health care delivery will be positively correlated with the use of alternative medicines.

2. METHODS

Sampling procedure

The data for this study were collected by means of a mailed questionnaire, which was sent out during the month of April 1998 to potential respondents in the central California area of the West Coast of the United States. In cooperation with the County-Clerk's office, the names and addresses of registered voters (lists of voters from one randomly chosen precinct within one of each of the five supervisor districts) were printed out by computer and purchased by the researcher. Registered voters were chosen as the sampling frame for this research for several reasons. Prior studies have shown that registered voters typically have a better response rate than non-registered persons do. Persons under the age of 18 may have had difficulty understanding, reading, and completing such a questionnaire. The subject matter of the research pertains more directly to adults, and a random sample of adult registered voters has relevance for the larger United States population of adult voters.

The registered voter lists contained thousands of names from which 300 were randomly selected. The sample of potential respondents was then sent, via the U.S. postal service, the questionnaire, a postage-paid return envelope, and a cover letter. The student researcher, requesting the voluntary participation of the potential respondent in an important research project, signed the cover letter. Respondents were asked to complete the questionnaire, which contained 20 Likert scale responses, 29 yes/no

responses, and seven socio-demographic questions. Confidentiality of the research was assured in the cover letter. A copy of the cover letter can be found in Appendix B. The respondents were told the study would contribute to the field of medical sociology. Questionnaires were returned to the Sociology Department at San Jose State University.

The variables

The independent variable used in this study was the respondent's perception of the complexity of health care delivery. A 16-item index was created using Likert scale measures developed by the researcher, and this index operationalizes the independent variable. The index was designed to measure the respondent's difficulty in using the system and the extent to which they understand the system. Each item was measured on a 5 point Likert scale where possible responses and corresponding points were as follows: 4 = Never 3 = Almost never 2 = Sometimes 1 = Almost always 0 = Always. Points were totaled to produce a "Complexity Score" for each respondent. The possible range of scores was from 0 (no perceived complexity) to 64 (perception of extreme complexity). See Appendix C for the items used to operationalize the measurement of perception of complexity.

Two dependent variables are used in this study: belief that spirituality effects health outcomes, and the use of alternative medicines. The respondent's belief that spirituality effects health outcomes was operationalized as an index which combined five Likert scale measures where 4 = Strongly agree 3 = Agree 2 = Neither Agree or Disagree 1 = Disagree 0 = Strongly disagree. Points were again totaled for each respondent, with a higher score indicating a stronger belief that spirituality affects health outcomes. The possible range of scores was from 0 (no belief that spirituality affects

health outcomes) to 16 (very strong belief that spirituality affects health outcomes). The items used for the operationalization of this variable are listed in Appendix D.

The respondent's use of alternative medicines was operationalized using a list of 22 alternative medicine techniques. Respondents were asked to respond either Yes or No regarding their use of each individual technique. Answers were coded 1 = Yes and 0 = No. Respondents were instructed to circle "no" if they were unfamiliar with a technique and go on to the next one. The total number of times the respondent answered "yes" was the measurement of alternative medicine use for each respondent. Thus, the index ranged from 0 to 22 possible alternative medical techniques used. (The higher the score the greater the use of alternative medicines.) The items used for the operationalization of this variable are listed in Appendix E.

The following socio-demographic variables were measured in this study: gender, marital status, age, education, income, race/ethnicity, and religious affiliation. Gender, education, and marital status are socio-demographic variables of general interest. The others, however, may have particular significance to this research and are included for the following reasons: Age - There is speculation regarding the declining confidence in the medical profession. Up until about 20 years ago, doctors were accorded a somewhat "god-like" status in American culture. Science and technology had made tremendous advances at the same time that doctors had secured their occupational status. The combination resulted in doctors having a lot of power and a highly prestigious position in the United States. Younger individuals may have different ideas and perceptions about medicine and health care than an older generation. Race/ethnicity - There may be some immigrants and culturally isolated groups who practice what we may term "alternative medicine" as part of their traditional folk medicines. Religious affiliation - The spiritual aspect of many alternative medicines may be related to religious practices, or may be a

form of religious practice itself for some people. Income - Many alternative medicines are expensive. Most are not covered by health care plans. There may be a relationship between social class and the use of alternative medicines. See Appendix E for the coding of the socio-demographic variables.

Twelve questions were used as potential control variables. Respondents were asked if they would like more control over their own health; if they trusted doctors; if they or anyone close to them had ever had a really bad experience with a doctor or with the health care system; if they believed that the body heals itself; if they felt that doctors listen to them; if they had ever experienced negative side effects from prescription drugs; if they have a chronic, painful, disabling, or life-threatening health condition; and what their primary source of health care is. The first seven were based on previous research and all had been shown to influence use of alternative medicines. These were included to control for alternative explanations for the scores on the dependent variables. For each of these, the respondent was asked to answer either Yes or No. The last five, however, determine the respondent's primary source of health care (HMO, Medicare, etc.) and are included as possible new explanations for the scores on the dependent variables (belief that spirituality affects health outcomes and the use of alternative medicines). Coding of the control variables is found in Appendix F.

Statistical analysis

Data analysis was carried out using the statistical software package SPSS (Statistical Package for the Social Sciences). After all the data had been coded and entered, descriptive and other univariate statistics of interest were produced. Using an alpha level of 0.05, multiple linear regressions were used to explore which factors best-

predicted beliefs that spirituality affects health outcomes and use of alternative medicines. The independent variable (perception of complexity of health care) was included in every regression. In all, 20 factors were regressed onto each of the dependent variables (belief that spirituality affects health outcomes and use of alternative medicines). These factors consisted of the independent variable of interest, twelve control variables, and the seven socio-demographic variables.

3. RESULTS

Response

Of the 300 questionnaires which were mailed out, 104 were returned. However, 19 of those returned were unusable for the following reasons: Nine of the questionnaires were returned because the addressee had moved and had either left no forwarding address, or the forwarding order had expired; one questionnaire was returned because the addressee was deceased; and nine questionnaires were not filled out completely and so were not used in the analysis. Thus, the overall useable response rate was 85 out of 300 possible respondents (28%).

Socio-demographic characteristics of survey population

The characteristics of the sample population used in this study are shown in Table 1. As shown in Table 1, the respondents were split almost evenly regarding gender (54% female, 46% male) and religious affiliation (48% yes, 52% no). On the other hand, the sample was almost entirely white (93%) and the majority were married (73%). 85% of the respondents were between the ages of 36 and 75 years old, and almost half (46%) had obtained education of four years of college and beyond. In fact, 28% of the respondents had graduate or post graduate educations. 80% of the incomes fell between \$15,000 and \$75,000, and 11% of the respondents reported incomes over \$75,000.

Table 1. Characteristics of the respondents

Characteristic	No.	(%)
Gender		
Female	46	(54)
Male	39	(46)
Marital Status		
Married	62	(73)
Single,Widow,Divorced	23	(27)
Age (yr.)		
16-35	7	(8)
36-55	44	(52)
56-75	28	(33)
76-95	6	(7)
Education		
High school	16	(19)
2 yr. college	30	(35)
4 yr. college	15	(18)
Graduate school	14	(17)
Post graduate	10	(12)
Income		
\$0-\$14,999	8	(9)
\$15,000-\$34,999	25	(29)
\$35,000-\$54,999	27	(32)
\$55,000-\$74,999	16	(19)
\$75,000-\$94,999	2	(2)
\$95,000+	7	(8)
Race		
White	79	(93)
Other	6	(7)
Religious Affiliation		
Yes	41	(48)
No	44	(52)

Several other univariate statistics in this study are of note. A full 90% of the respondents reported they had used one or more alternative medicines for health reasons. The mean number of different alternative medicines used was five. The majority of respondents reported wanting more control over their own health (82%); having had a bad experience with the health care system (65%); and believing that the body, with help, heals itself (87%). Interestingly, the majority of respondents also reported that they trust doctors (85%) and feel that doctors listen to them (80%). 79 of the 85 respondents (93%) reported their primary source of health care coverage was provided by an HMO, a private insurance company, or Medicare. The other six respondents (7%) reported having no source of health care coverage.

Regression Results

For each of the dependent variables (belief that spirituality affects health outcomes and use of alternative medicines) regressions were performed which included the independent variable of interest (perception of complexity of health care delivery) and all the other independent variables. This was done in order to examine the predictive value of perception of complexity of health care delivery on the dependent variables while controlling for all other independent variables in the study. Analysis of variance using all of the independent variables was significant when regressing them on belief that spirituality affects health outcomes (Signif F = .0224) but not significant when regressing on use of alternative medicines (Signif F = .3019). From these models, the most significant predictors of the dependent variables (based on results of the T-tests) were

selected to be used in a second set of regressions. These smaller models proved to indeed fit the data much better and thus were used as the basis for the hypothesis testing. Results of these regressions are shown in Table 2 and Table 3.

Table 2. Regression analysis of various predictors on beliefs that spirituality affects health outcomes scores

Independent variable	B	SE B	Beta	T	Sig T
Use of alternative medicines	.093325	.096113	.096749	.971	.3346
Having had or someone close having had a bad experience with a doctor or the health care system	1.607503	.831417	.207521	1.933	.0569
Perception of complexity of health care delivery	-.035244	.043498	-.085821	-.810	.4203
Highest level of education attained	-.501451	.296567	-.173087	-1.691	.0950
Gender of respondent	1.102339	.740223	.148387	1.489	.1406
Having health care coverage which is provided by a private insurance company	1.335657	.801594	.169582	1.666	.0998
Membership in a religious organization	2.571056	.727206	.347056	3.536	.0007**
Not trusting doctors in general	2.272816	1.05544	.220989	2.153	.0345*
constant	7.980771	1.47742		5.402	.0000

*p<.05 **p<.01

R Square = .29062

Analysis of Variance Signif F = .0007

N = 85

Upon examination of Table 2, one sees that the analysis of variance is highly significant (Signif F = .0007). The model accounted for 29% of the variation in beliefs that spirituality affects health outcomes (R Square = .29062). Two of the eight predictors entered into the regression were significant at the .05 alpha level. Not surprisingly, religious affiliation was the strongest predictor of beliefs that spirituality affects health outcomes (Sig T = .00007). Not trusting doctors was also a significant predictor of beliefs that spirituality affects health outcomes (Sig T = .0345). Having had a bad experience with the health care system (or having someone close having had such an experience) was not significant although it may be of note that for that predictor the slope of the prediction line approaches a significant difference from zero (Sig T = .0569). Although not significant at the .05 alpha level, the slope of the prediction line approaches a significant difference from zero at the .10 alpha level for the independent variables of education (Sig T = .0950) and having health care coverage from a private insurance company (Sig T = .0998). Also of interest is that the standardized partial regression coefficients for perception of complexity of health care delivery and education, although not significant, were negative. This relationship could indicate that people with a lower perception of complexity of health care delivery have a greater belief that spirituality affects health outcomes, and lower levels of education are associated with a greater belief that spirituality affects health outcomes. Again, neither of these predictors was significant in the model. The hypothesis that perception of complexity of health care delivery would be positively correlated with beliefs that spirituality affects health outcomes was not confirmed.

Table 3. Regression analysis of various predictors on use of alternative medicines scores

Independent variable	B	SE B	Beta	T	Sig T
Age of respondent	-.642285	.570104	-.123374	-1.127	.2634
Belief that spirituality affects health outcomes	.074495	.109261	.071858	.682	.4974
Perception of complexity of health care delivery	-.081893	.049542	-.192355	-1.653	.1023
Highest level of education attained	.541797	.313580	.180395	1.728	.0880
Having experienced negative side effects from prescription drugs	2.367056	.809140	.308211	2.925	.0045**
Feeling that doctors do not listen to them	1.471516	1.08089	.153379	1.361	.1773
constant	4.285869	2.63029		1.629	.1073

**p<.01

R Square = .17187

Analysis of Variance Signif F = .0197

N = 85

Table 3 displays the results of the regression on use of alternative medicines. Analysis of variance was significant (Signif F = .0197) and the model explains 17% of the variation in use of alternative medicines (R Square = .17187). The only significant predictor of use of alternative medicines was the independent variable pertaining to having experienced negative effects from prescription medications, which was highly significant (Sig T = .0045). Although education was not significant at the alpha level of .05, it may be of note that at the .10 alpha level the slope of the prediction line

approaches a significant difference from zero (Sig T for education = .0880). It is interesting that the standardized regression coefficient for the independent variable of interest (perception of complexity of health care delivery) was negative, which, if it were significant, would suggest that the less complex the perception of health care delivery, the greater the use of alternative medicines. The standardized regression coefficient for the age variable, also not a significant predictor, was negative, suggesting that younger people are more likely to have used alternative medicines in comparison to older people. The hypothesis that perception of complexity of health care delivery is significantly related to use of alternative medicines was not confirmed, but the predictive value of perception of complexity of health care delivery was much stronger on the dependent variable use of alternative medicines than it was for beliefs that spirituality affects health outcomes.

4. DISCUSSION

This study set out to examine the extent to which perceived complexity of health care delivery correlates with beliefs that spirituality affects health outcomes and the use of alternative medicines. The hypotheses that were presented were not confirmed. However, support has been provided for previous findings and new light has been shed on this area of research. The finding that 90% of the respondents had used some type of alternative medicine for health reasons is very interesting. Regardless of the effectiveness, cost, and reasons for selection, it would seem that alternative medicines are extremely popular in the United States. Caution is advised, however, when interpreting the results of this study. The fact that over 200 of the questionnaires were not returned may indicate that the majority of people who received the questionnaire do not use alternative medicines and had no interest in the study. Therefore, it could be that users of alternative medicine completed the majority of the questionnaires that were returned. The finding that 90% of the respondents use alternative medicines may not be representative of the general adult population in the United States, but may be, more accurately, representative of users of alternative medicine. Additionally, the sample population appears to be more educated than the general population.

Mention should be made of the general characteristics and size of the sample population. Although the response rate among registered voters tends to be higher than from the general population and thus such a mailing is attractive for researchers, such a sample is probably better informed and more educated than a more random sample.

Because this study took place only on the Central Coast of the state of California, the use of alternative medicines found in this study may not be representative of the United States population in general. It is generally accepted that the attitudes of the populations on the coasts, particularly the West Coast, are more "progressive" than the attitudes of the population in the interior regions. This may or may not be true of the attitudes of those who live on the Central Coast of California. This sample contained a majority (52%) of respondents who claimed to have no religious affiliations which does not seem to represent the general population. Again, this may be a reflection of the geographical location of the survey. Also, a sample wherein the vast majority of respondents are white does not reflect the racial and ethnic diversity found in this country. The size of the sample in this study ($N = 85$) should also be considered. Although a sample size of 30 or more is considered adequate for a T-test, a sample of 85 is by no means a large sample by survey research standards. On the other hand, the fact that such significant findings were found on a sample of this size, with so many control variables, lends validity to the findings of this study.

It is not surprising to find that there is a significant positive correlation between religious affiliation and beliefs that spirituality affects health outcomes. But what are the sociological implications of this finding? It may indicate that the ancient link between religion and health, which was theoretically much stronger prior to the fusion of industry, science, and technology with medicine, is as strong today as it ever was. Although it may not involve alternative medicine per se, this finding suggests that the supernatural and "health care" (not the "health care system") are bound together in ways that they always

have been. People who are affiliated with a religious organization may very well be receiving "health care" as they have for centuries through God, prayer, and the church.

Prior studies have shown a relationship between not trusting doctors and the use of alternative medicines. The significant relationship found in the present study, between not trusting doctors and the belief that spirituality affects health outcomes, is a logical sequence. The use of alternative medicines and beliefs that spirituality affects health outcomes are both movements of people into the supernatural realm. The fact that the element of mistrust is present in this significant finding ties directly into the theory that people turn to the fringe as a result of feelings of alienation, mistrust, and confusion. If people cannot trust their doctors, who they previously had accorded a "god-like" status, then who can they trust? Where can they turn in search of answers?

People have always sought answers to unanswered questions and explanations for that which is unexplained. For example, the Greeks developed elaborate myths to explain what was going on around them in their everyday lives. The appeal of spirituality and alternative medicine may represent a similar phenomena. Most sociologists agree that at the close of the twentieth century social change is occurring rapidly. As the world becomes more complex and the pace of social change is accelerated a lag develops. The world and social institutions sometimes change faster than people are able to understand those changes. It is at this point that an underlying uncertainty develops in the society and the result is tension, anxiety, and mistrust. Naturally, it is difficult for people to understand a world in which cloning is possible but people are dying from AIDS by the thousands. As Western conventional medicine continues to rapidly find new scientific

ways of creating and sustaining life, it has not brought forth effective solutions to chronic illnesses and health conditions. The amount of time and resources poured into the search for a cure for cancer is another example of this failure of Western medicine. The relationship between mistrust of doctors and the belief in the supernatural is a manifestation of the ongoing tension between the sphere of science and technology and the sphere of the spiritual and supernatural. Scientific medicine has been unable to address the basic human needs of health and well being to the satisfaction of many people in contemporary society. Although the advances made by science and technology have saved many lives and modern medicine has become extremely heroic it clearly does not provide all the answers. The trust in doctors and in scientific progress that was once there so strongly no longer exists. As this powerful bond has weakened, the appeal of the supernatural realm (spirituality and alternative medicines) has strengthened, providing another source of answers, reassurance, and hope.

The significant relationship between having experienced negative side effects from prescription drugs and the use of alternative medicines confirms earlier studies. Obviously, in such cases the pharmaceutical approach offered by science and technology has not worked for these people and they turn away from established, scientific procedures in search of relief. This is not surprising, as in many cases the side effects of drugs may be worse than the physical conditions caused by the disease itself.

The negative relationship between age and use of alternative medicines, although not significant, may suggest that younger people are more likely to use alternative medicines than are older people. Considering the decline in confidence in conventional

medicine which has occurred in recent years, this relationship is not surprising. An interesting consideration regarding this relationship is that as generations change hands, many of the therapies that are considered "alternative" today may become mainstream medicine in the future. Evidence of this trend has already been shown by the fact that some techniques once considered strictly alternative, such as chiropractic and acupuncture, have been incorporated into mainstream medicine. This trend is likely to continue as today's elderly, who lived most of their lives during the days when confidence in Western medicine was high, are replaced by those who are less confident in conventional medicine and are no strangers to alternative medicines. Today, a surge of "Baby Boomers" are moving into the older segment of the population and are finding that the services available through conventional medicine do not provide cures for the health conditions brought on by living in today's world. There is still no "magic bullet" for cancer, AIDS, diabetes, arthritis, allergies, and other serious conditions. Additionally, the health care system has been plagued with many major problems in recent years, and the media and other industries have capitalized on these problems, contributing further to the public's disillusionment with the system. Furthermore, physicians are losing much of their former power due to changes in the conventional system, and are less and less able to keep alternative practitioners out of the health care arena. The combination of these factors may be laying the groundwork for a very different type of health care system in the future, one that incorporates elements of both conventional and alternative approaches.

The negative relationship between perception of complexity of health care delivery and the dependent variables (spirituality and use of alternative medicines) is surprising. If significant, this relationship would indicate that people who find the system the least complex are the people who use the most spirituality and alternative medicines to address health care needs. Such a relationship would suggest that people who perceive they understand the system and can navigate through it successfully have stronger beliefs that spirituality affects health outcomes and they use more alternative medicines. This could be a reflection of higher incomes and thus better health care coverage; higher education and greater understanding of the system in general; or greater awareness in general of what is taking place around them. The fact that these same people turn to spirituality and alternative medicines is suggestive of the idea that it is possible to have positive experiences with conventional health care but realize that like everything else it is limited. Spirituality and alternative medicines may add valuable approaches that can be added to Western medicine. In Britain, for example, the term "complimentary medicine" is commonly used rather than "alternative medicine" which is used more often in the United States. Another possible explanation for the idea that people who do not perceive the system as complex are the same people who use more spirituality and alternative medicines may be a reflection of the changing nature of the doctor-patient relationship. Health care delivery has become a bureaucratic business enterprise, based on rationality and profits. Managed care and insurance companies largely control it. Doctors and patients are in a much more business-like situation than ever before. Patients may expect a streamlined, "fast food" approach and that is what is

delivered. They may not expect to talk with doctors, to understand medical bills, or to establish any type of rapport with the health care system. They understand what is going on and do not find it frustrating or upsetting. Rather than perceiving the system as complex, they perceive it as another consumer situation where they choose to purchase services as well-informed, educated buyers. They buy what works for them from both the conventional system and from the alternative therapies.

This study supports earlier research showing that people move into the "fringe" or the "supernatural" in direct response to personal, individual experiences with the health care system. The fact that the strongest predictors of movement towards spirituality and alternative medicines were having experienced side effects from prescription drugs, having had a bad experience with the system, and not trusting doctors suggest that it is not the complexity of the system which turns people away, but a direct response to the failure of the system to make them healthy. People who feel they have received poor and/or ineffective treatment may look elsewhere for solutions and, perhaps, comfort. It appears that individual reactions to science and technology, when experienced by the patient in a negative way, lead to movement towards the supernatural. It may be a balancing act, as people try to compensate for the shortcomings of modern medicine by turning towards alternative health care. These findings suggest that many people now sense the limits of science.

5. SUGGESTIONS FOR FUTURE RESEARCH

This study could be greatly improved with a larger, more representative sample of the United States population. As carried out, this study was conducted in what would be considered a limited geographic area. Ideally, the questionnaire would be sent out to several thousand persons in regions all over the United States. The sample would then be representative of all adults in the United States, not just registered voters on the Central Coast of California. Such a sample population would also more likely be of greater socio-demographic variety than the present sample population.

One avenue that could shed further light on the subject is that of the mass media and popular culture, which has given considerable attention to spirituality and alternative medicine in recent years. Advertising, too, could have an effect, as more and more "health" oriented companies (vitamins, foods, spas, etc.) promote their products to the general population in the United States. Content analysis could be used to examine the extent to which advertising and the media may be having an affect on the increasing use of spirituality and alternative medicines. In addition to the media coverage of the problems and rapid changes occurring in health care, there is the potential for a lot of money to be made from spiritual and alternative approaches to health care. The quest for profits does not stop with managed care or with pharmaceutical companies. Today, homeopathic remedies, herb teas, and myriads of other products touted as solutions to health care problems can be found in any supermarket or drugstore. The selling of New Agery has become highly commercialized. To what extent does the promotion of these

products through advertising, the media, and/or their availability, contribute to their popularity?

The religious aspect of many alternative medicines could prove a fruitful area of research. While some Americans are returning to fundamental Christian religions, others are turning to Eastern religions. These religions may contain elements considered "spiritual" and "alternative" in the United States, such as meditation, certain diets, and lifestyles. A study designed to explore the relationships between specific religions and the use of spirituality and alternative medicines could shed further light on this subject.

Perhaps perception of complexity of health care delivery could be better measured using a qualitative approach. A mail questionnaire does not permit any probing by the researcher or explaining by the respondent. There is no possibility for elaboration in a survey questionnaire. Researchers may be able to delve more deeply into this variable by using in-depth interviews, which allow respondents to express their feelings and their experiences in greater detail. Such an approach might lead to yet other explanations for the trend towards spirituality and use of alternative medicines.

Beyond the question of why people turn to the supernatural for solutions to their health care problems lies an even more important one: What are the advantages to the incorporation of such an approach into our health care delivery system? Research should be undertaken to examine the benefits derived from spirituality and alternative medicines, both in terms of costs and in terms of healing properties. If alternative medicines can provide relief for the health conditions brought on by life in modern society, they should be seriously considered as solutions. More research should be

undertaken to study the reduction in costs offered by alternative medicines, and the extent to which people find relief for chronic conditions. If alternative medicines offer solutions without the dangerous side effects brought on by the pharmaceuticals offered by modern science, the benefits both in terms of costs and relief of human suffering should be brought to the fore. These new ways of approaching health care must be seriously examined.

The tremendous advances we have made with technology and science in the field of medicine should not be ignored. At the same time, however, the realization that conventional medicine has limits and can be dangerous must be accepted. There are legitimate alternatives to drugs and surgery, and it is clear that the public is seeking them out. It appears that the public is no longer satisfied with health care that is dispensed by special-interest groups that control a system based solely on profits. The information age has produced better informed patients who want to participate more fully in their health care decisions. They deserve to be offered more than that which is offered by the status quo. Health care delivery must continue to move toward a system which incorporates effective treatments drawn from both conventional medicine and alternative medicine.

The movement toward spirituality and alternative medicine may represent the fact that the pendulum has indeed swung too far this time. If social institutions do not meet the needs of the people, then people will find their own ways to forge a new system, a system that restores the balance between those institutions. Social evolution "is a process through which societies develop in predictable ways that generally reflect progress toward 'higher' or more nearly perfect forms of social life" (Johnson, 1995,

p.259). Health care delivery and ideas about the practice of medicine are evolving. However, unlike unilinear evolution, which was proposed by theorists following on the heels of Darwin, the evolution of medicine appears more cyclical. The idea of immanent change (Sorokin, 1937-1941) may be one of the best theoretical explanations for what is taking place in medicine now. Sorokin's theory of immanent change is based on the premise that certain elements in society, for example, cultural values, play an important part in determining the direction of social change. The cultural value of accumulation of material wealth, for example, has led to a priority being placed on industry, trade, and other means of getting wealth in many societies. Sorokin argued that when too much priority is given to one area, certain elements become overdeveloped and lose their usefulness. Extreme conditions develop, and social change is precipitated. (Johnson, 1995). Might not the evolution taking place in medicine at this time, the movement towards alternative medicines (and therefore spirituality) be a reaction against the emphasis on scientific progress and technology that has been the focus of medicine for the past 200 years? The resurgence of interest in spiritual values may be a cyclical social change movement, wherein society is going "back" to spirituality and rejecting the linear, "full speed ahead" approach as is traditionally practiced in the name of science.

Functionalist theory may also be applied to the movement of the pendulum. The basic proposition of functionalist theory is that there will always be reorganization of the parts of the system and a tendency to restore equilibrium. Durkheim's theory of social change may be applied to the balancing act which is taking place between the realms of science and spirituality. Durkheim argued that in times of rapid social change a cultural

lag develops between old and new values. Things are changing so fast that society does not have a clear set of rules and values to guide its behavior. Social institutions haven't caught up with the changes and this is upsetting to people. However, society has self-restoring mechanisms built into it. When one part is thrown out of balance another part will step in to compensate for its shortcomings. Interest in the supernatural may be the system's way of "smoothing out" the inadequacies of conventional medicine. The focus of Comte's work was also the investigation of social stability, and the interdependence of the parts of the social system. Much of his theory was based on the concept of equilibrium, which was borrowed from the biological treatment of homeostasis. The popularity of alternative medicines and spirituality may be a reaction to a health care system badly in need of repair. When one part of the system is in need of repair (medicine) another part of the system comes to the rescue (spirituality). Subsequently, healing occurs and the system is in equilibrium again. Shared values and consensus among individuals on what are the accepted standards of desirability are central concepts of functionalist theory. This general agreement among individuals on what they are committed to is the grounding force maintaining equilibrium in society (Wallace and Wolf, 1995). As people are becoming aware of the limits of science and increasingly disillusioned with conventional medicine, their commitment to it as the acceptable standard of health care delivery is weakening. The agreement among individuals as to what they value when it comes to health care delivery is changing. It may be this change in values that is shifting society's interest away from scientific medicine and into spirituality and alternative medicine. According to functionalist theory, it is inevitable

that at some point the pendulum will settle in the middle and equilibrium will be restored.

The theory that systems work together has been most recently adopted by physicists. The old paradigm, containing the cause-and-effect, mechanistic views of Descartes and Newton have been replaced by a new paradigm. This paradigm embraces the interconnectedness of the universe and of the systems within it, rather than breaking down phenomena into simplified terms. The new paradigm, often referred to as "systems" theory, incorporates possibilities instead of certainties and views the environment and everything in it as holistic. It appears that this paradigm shift is now occurring in medicine. The old medical paradigm was that the body was a machine, which was not connected to the mind. A new medical paradigm, following the lead of the paradigm shift in physics, would focus on the interconnectedness of the human body to the mind, to social factors, to the environment, to emotions, and to spirituality. The interest in alternative medicines may be representative of this new view of the world in general, a world that is made up of interconnected systems who are dependent on one another for survival. "Systems" theory, not unlike classical functionalist theory, provides an excellent theoretical standpoint from which to examine the paradigm shift that is taking place in the practice of medicine today.

Throughout the history of human culture, health has been inextricably entwined with spirit and religion. The solution to the health care dilemma may lie in a balance between the rationality of science and technology, and the human need for something spiritual and transcendent of place and time. This involves a more humane, holistic,

compassionate approach to health care delivery, something that the art of practicing medicine has at its very core. The philosophy of Hippocrates, the most famous physician of all, was based on the premise that nature has an innate power to heal and that diseases are closely linked to the physical environment (Pearsall and Trumble, 1995). The origins of medicine are not based on the idea that the body is a machine, but on the idea that the body is connected to and responds to every system it comes into contact with. In fact, until 50 years ago, patients were treated in their homes. Doctors were able to observe much about a patient's life including details such as their employment, family circumstances, and living arrangements. In this they were following Hippocrates' dictum to "study all these signs and to analyze what they portend" (Poole, 1993, p.55). Such a technique is rarely practiced today. As scientific progress and technology have enveloped medicine over the past 200 years it seems that the philosophy of Hippocrates was swallowed up as well. In today's post industrial "information" society, where there is clearly an interest in spirituality and in systems thinking, the philosophy of Hippocrates may experience a much-needed revival.

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APPENDIX A

Representation of the theory

Given P, where P = industrialized societies

and X and Y, where X = complexity of social structures

 Y = belief in the supernatural

Given P, X $\longrightarrow$ Y, because of T

 where T = feelings of alienation, mistrust and confusion

Hypotheses derived from the theory

Given P, X $\longrightarrow$ Y, because of T

where p = the United States

and x = empirical measurements that will indicate respondents perceptions of the complexity of health care delivery

 y = empirical measurements that will indicate the extent to which respondents believe that spirituality affects health outcomes and,

 y = use of alternative medicines

APPENDIX B

Cover Letter

Dear [potential respondent's first name],

I need your help with a research project I am conducting as a student at San Jose State University. This project will help us to better understand the reasons for the choices people make regarding their individual health care needs. You have been selected at random to participate in this survey – thus your opinions will represent the opinions of thousands of people just like yourself. The information you provide will contribute to an important study in the field of medical sociology. Attached is a brief questionnaire asking about experiences you have had with health care delivery and your use of alternatives. The questionnaire should take about 10 minutes to complete. Will you please help by filling it out and returning it in the enclosed self-addressed envelope?

Please understand that your participation is voluntary and that choosing not to participate in this study, or in any part of this study, will not affect your relations with San Jose State University. Your name will not be revealed or associated with your response. Any other parties who are interested in the results of the study will not be furnished with any information which in any way identifies you as an individual. The results of the study may be published, but any information that could result in your identification will remain strictly confidential. There are no anticipated risks or benefits involved with filling out this questionnaire.

I appreciate your willingness to help with this research effort. If you have questions about this study, please contact Dr. Robert Gliner at 408-924-5337. If you have questions or complaints about research subjects' rights, or in the event of a research-related injury, please contact Serena Stanford, Ph.D., Associate Academic Vice President for Graduate Studies and Research, at 408-924-2480.

Sincerely,

Evelyn Stanford
Graduate student, San Jose State University

APPENDIX C

Measurement of Perception of Complexity of Health Care Delivery

0 = Always

1 = Almost always

2 = Sometimes

3 = Almost never

4 = Never

I am able to speak with my doctor on the telephone.

I understand test results when they are explained to me.

I see the same doctor whenever I need health care.

It is hard for me to get a doctor's appointment when I need one.*

I am put on hold when I call the doctor's office, HMO, hospital, clinic, etc.*

I am able to choose my own doctor.

It is easy for me to get health care coverage.

The answers I receive about my health concerns make sense to me.

I understand my medical bills.

I know why tests and procedures are performed on me.

I understand "what's going on" when I'm in a hospital.

I understand my doctor's instructions.

I know why certain drugs are prescribed for me.

I understand prescription drug interactions and precautions.

I do not know how my health plan works.*

I understand my medical benefits.*

* Indicates reverse scoring of item

APPENDIX D

Measurement of Beliefs that Spirituality affects Health Outcomes

- 0 = Strongly disagree
- 1 = Disagree
- 2 = Neither Agree or Disagree
- 3 = Agree
- 4 = Strongly agree

People who have faith and religion in their lives are healthier than people who do not have such beliefs.

Faith can help some health conditions more effectively than doctors can.

There are forces other than science that can cure people with serious illnesses.

Doctors should put more emphasis on faith and religious beliefs when treating patients.

APPENDIX E

Measurements of use of Alternative Medicines

1 = Yes

0 = No

Acupuncture

Aromatherapy

Ayurvedic medicine

Biofeedback

Chiropractic

Christian Science

Energy healing

Faith healing

Folk medicine

Herbal medicine

Hypnosis

Homeopathy

Imagery

Iridology

Magnetic therapy

Massage

Meditation

Naturopathy

Natural hygiene

Nutrition therapy

Reflexology

Vitamin therapy

APPENDIX F

Control Variables

1 = Yes

0 = No

Would you like more control over your own health?

In general, do you trust doctors?*

Have you, or has anyone close to you, ever had a really bad experience with a doctor or with the health care system?

Do you believe that, with help, the body heals itself?

Do you feel doctors listen to you?*

Have you ever experienced negative side effects from prescription drugs?

Do you have a chronic, painful, disabling, or life-threatening health condition?

(Your primary source of health care is:)

Health Maintenance Organization (HMO)

Private health insurance company

Medicare

Medicaid

None – I have no source of health care

•

* Indicates reverse scoring of item

APPENDIX G

Socio-demographic Variables

Gender

1 = Female

0 = Male

Marital status

1 = Married

0 = Single, Divorced, Widowed

Age

1 = 0-15 yrs.

2 = 16-35 yrs.

3 = 36-55 yrs.

4 = 56-75 yrs.

5 = 76-95 yrs.

6 = 96+ yrs.

Education

1 = less than 8 yrs.

2 = high school

3 = 2 yr. College

4 = 4 yr. College

5 = graduate school

6 = post graduate

Yearly income

1 = \$0-\$14,999

2 = \$15,000-\$34,999

3 = \$35,000-\$54,999

4 = \$55,000-\$74,999

5 = \$75,000-\$94,999

6 = \$95,000+

Race/Ethnicity

1 = Other*

0 = White

Member of a religious organization?

1 = Yes

0 = No

•

* Choices other than "White Caucasian" were: Native American, African American, Chinese American, Japanese American, Korean American, Filipino American, Mexican American, Puerto Rican American, Cuban American, Pacific Islander, and Other. Because so many of the respondents were "White Caucasian" all other categories were collapsed into "Other."

IMAGE EVALUATION TEST TARGET (QA-3)

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