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Examining the Roles of Fear and Prior Knowledge in Attitude Change Towards

Soft Drink Consumption: An Experimental Study

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## Abstract

Although soft drinks are readily available to children and adolescents at most schools and social functions, studies have found that children whose parents restrict what they drink impact the child's outside-of-the-home choices. Therefore, if we can change the parents' attitudes toward soft drink consumption, perhaps, in turn, we can influence children to make healthier beverage choices. The purpose of the present study is to examine the efficacy of high-fear versus low-fear persuasive messages in changing participants' attitudes towards their children's soft drink consumption. Participants were parents ( $N = 55$ , 90% female) who were actively parenting at least one child below the age of 18. Participants completed an online survey assessing their knowledge and attitudes toward soft drink consumption, read one of two randomly assigned informative articles (high or low fear), and completed the survey a second time. Changes in attitudes were assessed via a 2 (time: pretest, posttest) x 2 (fear: high, low) x 2 (prior-knowledge: high vs. low) mixed model analysis of variance (ANOVA). A three-way interaction among the three predictor variables emerged. The pattern of results was consistent with our predictions. The high-fear article was more effective in changing attitudes among low-knowledge than among high-knowledge participants and the low-fear article was more effective in changing attitudes among high-knowledge than among low-knowledge participants. These findings suggest that, in changing attitudes, both the nature of the message and the characteristics of the recipients of that message must be taken into account.

Examining the Roles of Fear and Prior Knowledge in Attitude Change Towards  
Soft Drink Consumption: An Experimental Study

There are many studies suggesting a link between high consumption of soft drinks and negative outcomes for children and adolescents. These outcomes include obesity, diabetes, changes in bone health, dental caries, hyperactivity, distractibility, disturbed sleep, and even cell damage (Hendel-Paterson, French, & Story, 2004; Lien, Lien, Heyerdahl, Thoresen, & Bjertness, 2006; Wallis, 2007). Some of these outcomes (e.g., restlessness and inattention) have been linked to the high levels of caffeine and sugar found in soft drinks which may increase insulin secretion (Powers, 1975). Sodium benzoate, a preservative, has also been linked to the hyperactivity seen in children and adolescents who consume high levels of soft drinks.

Unfortunately, from 1977 to 2001, soft drink consumption rose by 135% in the United States (Nielsen & Popkin, 2004). Contributing to this phenomenon is the fact that many schools allow students access to soft drink vending machines. “Almost 50% of all elementary schools, 75% of all middle schools and almost all (96%) of high schools” reported renting vending machines in 2004. That figure is expected to continue to rise as “more than one-third of elementary schools, half of middle schools, and almost three-fourths of senior high schools have a contract that gives a company rights to sell soft drinks” (Grimm, Harnack, & Story, 2004; Kaufman, 1999; White, 1999).

Why are school personnel inviting soft drink manufactures into their schools knowing that soft drinks offer little to no nutritional benefit and may, in fact, hinder student learning? Finances appear to play a major role, especially for rural schools (Grimm, Harnack, & Story, 2004; Kaufman, 1999; White, 1999), which may benefit most from the cash incentives (e.g., in

support of a new auditorium or new books) that contracts with big soft drink manufacturers can bring.

To make matters worse, the students' own parents may be contributing to the problem. In a recent study of elementary school students, "two-thirds of the respondents reported that one or both of their parents or other adults in their household drink soft drinks on a regular basis" (Grimm, Harnack, & Story, 2004) If parents are deemed responsible for teaching by example, then our youth have little chance of overcoming the soft drink temptation, especially considering how wide-spread, cheap and available soft drinks are to the general public. "Youth whose parents regularly drank soft drinks were 2.88 times more likely to consume soft drinks five or more times per week compared with those whose parents did not regularly drink soft drinks" (Grimm, Harnack, & Story, 2004), suggesting parents have a powerful influence over their children's drink preferences.

Given that contracts between public school systems and soft drink companies are not likely to decrease anytime soon, what can we do about this problem? According to de Brujin, Kremers, de Vries, van Mechelen, and Brug (2006), parents may play an important role. Specifically, de Brujin et al. (2006) found that parents who restrict what their children drink by limiting their options (e.g.. no soft drinks available at home) impact their children's outside-of-the-homes choices as well. Children who consumed healthier drinks (i.e., milk, fruit juice, water) at home were less likely to select soft drinks as the beverage of choice when parents were not present. Thus, if we can change parents' attitudes toward soft drinks, perhaps, in turn, we can influence children to make healthier beverage choices.

### Changing Attitudes towards Soft Drink Consumption

The literature on attitude change is large. One area that has received a fair amount of attention is the degree to which messages that raise people's fears can produce attitude change (Brehm, Kassin, & Fein, 2002). The effectiveness of fear messages is not straightforward. For example, in a study of attitudes toward cancer prevention behaviors, Nabi, Roskos-Ewoldsen, and Carpentier (2003) found that the likelihood of attitudes being changed by appeals to fear is linked to the amount of knowledge an individual has on these behaviors at the outset. They found that, among high-knowledge participants, low-fear messages were more effective in predicting attitude change than high fear messages. The reason seems to be that high fear messages do not lead to fear arousal among this group (because the message is already familiar) and, instead, lead to defensiveness (because, though knowledgeable, these individuals continue to engage in maladaptive behaviors and, thus, need to reduce their cognitive dissonance between the knowledge and discrepant action). In contrast, for less knowledgeable individuals, high fear messages are more persuasive than low fear messages because they elicit more fear arousal and little reactance.

The purpose of the present study is to extend the work of Nabi et al. (2003) by examining prior knowledge as a variable moderating the effectiveness of fear persuasion in changing participants' attitudes towards their children's soft drink consumption. We predict that parents will have more knowledge about the dangers of soft drinks and hold more negative attitudes toward their children's soft drink consumption after reading an article on the negative effects of soft drink consumption. For more knowledgeable participants, low fear messages will be more persuasive than high fear messages. In contrast, for less knowledgeable participants, high fear messages will be more persuasive than low fear messages.

## Method

### *Participants*

Participants volunteered to complete two online, anonymous surveys. Participants consisted of adult males and females ( $N = 55$ , 90% female, 50 % Bachelor degree or higher) who were actively parenting at least one child below the age of 18 (61% male children). The survey was distributed via the internet. The ages of the participants ranged from 18-55, with the majority of the sample being European-Americans (93%).

Participants completed a pre-survey (see Appendix A), read one of two randomly assigned informative articles (i.e., low fear or high fear), and completed the post-survey (see Appendix B). The first section of both the pre- and post-survey assessed participants' knowledge about soft drinks (e.g., "Soft drinks contain sodium benzoate."). The second section of both surveys assessed participants' attitudes toward soft drink consumption (e.g., "Soft drinks are unhealthy for my child."). Participants responded on four-point likert scales. All items were scored so that high numbers indicate more knowledge or healthier attitudes.

The pre-survey included demographic items (e.g., gender of participant, gender and age of participant's child). The post-survey included an item to check the efficacy of the fear manipulation (i.e., "The article scared me.") To ensure that fear was the primary feature that differed between the two articles, we also included items assessing four possible confounding variables in the post-survey (e.g., "The article was educational."; "The article was well-written."; "The article was boring."; "The conclusions of the article were overstated."). Participants had the opportunity to write comments at the end of the post-survey.

The modified articles were based on two news sources, which we adapted to either fit the low-fear or high-fear condition. One of the original articles was the Time Magazine article

entitled “Hyper Kids? Check Their Diet” by Claudia Wallis which was published on September 13, 2007. The other original article was The Independent News source entitled “Caution: Some Soft Drinks May Seriously Harm Your Health” by Martin Hickman which was published on May 27, 2007.

An excerpt from the low fear informative article is as follows:

“A new health scare erupted over soft drinks last night amid evidence they may cause hyperactivity. Research from a British university suggests a common preservative found in soft drinks causes some people to become more hyperactive and distractible. The findings could have consequences for people who consume fizzy drinks.”

An excerpt from the high fear informative article is as follows:

“A new health scare erupted over soft drinks last night amid evidence they may cause serious cell damage. Research from a British university suggests a common preservative found in soft drinks has the ability to switch off vital parts of DNA. The problem - more usually associated with aging and alcohol abuse - can eventually lead to cirrhosis of the liver and degenerative diseases such as Parkinson's. The findings could have serious consequences for the hundreds of millions of people worldwide who consume fizzy drinks.”

### *Procedure*

All of the participants followed the same procedure. Participants opened a link to the web page that contained our survey. They received the link either from the experimenters or they found the link on Hanover College's Intranet or John Krantz's web page. The first page consisted of the participant consent form, which the participants read and agreed to before clicking the link to the pre-survey (see Appendix C). Upon completion, one of two informative articles varying in the degree of fear (high vs. low) was randomly assigned to the participants (see Appendices D and E). The participants then completed the post-survey. Finally, a debriefing form was

presented, including information about the purpose and expected results of our study, web links to the original articles used in the manipulation, and a link for the results once the data was compiled and analyzed (see Appendix F). Lastly, participants were provided with the experimenters' contact information if they have any questions, comments, and/or suggestions.

## Results

Preliminary analyses revealed that the fear manipulation was successful with participants in the high-fear condition indicating that the article "scared" them ( $M = 1.95$ ,  $SD = 0.90$ ) more than participants in the low-fear condition ( $M = 1.55$ ,  $SD = 0.71$ ),  $t(53) = -1.88$ ,  $p < .067$ . Participants in the two conditions did not differ in how educational, boring, or enjoyable they found the article, all  $ps > .05$ . However, participants in the high-fear condition ( $M = 2.64$ ,  $SD = .73$ ) were more likely than those in the low-fear condition ( $M = 2.06$ ,  $SD = 0.66$ ) to suggest that the conclusions of the article were overstated,  $t(42) = -3.05$ ,  $p < .005$ . No other significant differences in ratings of the articles by condition emerged.

Consistent with our predictions, participants' knowledge about the negative effects of soft drink consumption improved from pre-test to post-test. Specifically, participants answered more questions correctly after reading the articles ( $M = 3.10$ ,  $SD = 0.48$ ) than before ( $M = 2.89$ ,  $SD = 0.48$ ),  $t(54) = 3.54$ ,  $p < .001$ .

Changes in attitudes were assessed via a 2 (time: pretest, posttest) x 2 (fear: high, low) x 2 (prior-knowledge: high vs. low) mixed model analysis of variance (ANOVA). There was no overall change in participants' attitudes toward soft drink consumption from pre-test to post-test,  $p > .05$ . Instead, and consistent with predictions, a marginally significant interaction emerged among time, prior knowledge, and condition in predicting attitude change,  $F(1,49) = 3.66$ ,  $p < .10$ . As shown in Figure 1, the pattern of results was in the predicted direction.

Among low knowledge participants, the high fear article resulted in greater attitude change than the low fear article. Among high fear participants, the low fear article resulted in more attitude change than the high fear article. These findings should be interpreted cautiously, however, given that none of the simple main effects analyses yielded significant results (all  $ps > .05$ ), perhaps due to small sample sizes.

## Discussion

### *Implications*

Participants became more knowledgeable about soft drinks after reading the articles. For example, they better understood that sodium benzoate is a preservative found in soft drinks and that soft drink consumption has been linked to hyperactivity. This change in knowledge was not accompanied, however, by an overall change in beliefs; that is, participants were no more likely to report that soft drinks were unhealthy for their child after reading the articles than before. Instead, we found that prior knowledge interacted with the level of fear in predicting attitudes toward soft drink consumption. The pattern of results indicated that the high fear message was more effective in changing the attitudes of participants with lower prior knowledge and the low fear messages were more effective in changing the attitudes of participants with higher prior knowledge. These results, although not statistically significant, are consistent with those of Nabi et al. (2003). Together these studies contribute to a still small, but growing literature, linking prior knowledge and fear arousal in predicting attitude change. At an applied level, these results suggest that those interested in promoting attitude change should be aware of the amount of prior knowledge individuals have on the topic and cater their manipulation of persuasive fear to this prior knowledge.

*Limitations*

The participants in this study were limited to those with internet access. This narrowed our possible pool of participants and excluded those who did not have internet available or those who did not check the internet on a regular basis. Given that advanced technology (i.e., computers, internet access) would be more accessible to participants with a higher socio-economic status (SES), this may limit the generalizability of our results to this group. This group may be more likely than the general population to already be aware that soft drinks may negatively impact their child's health. For example, individuals with internet access may surf the web and come across educational articles on many health issues, such that they may have already been exposed to a similar article prior to participating in our study. Perhaps a less knowledgeable sample would have shown greater attitude change.

Although a small, preliminary pilot test was run, additional pilot testing would need to be done in future research to ensure that articles differed only on fear arousal. In our results, we found that the two articles did differ in fear arousal, such that participants in the high fear condition were more "scared" by the article than participants in the low fear condition, however the two articles also differed in how overstated their conclusions seemed to be. Participants in the high fear condition thought that the article was more highly overrated than those in the low fear condition.

*Future Directions*

To address our limitations, we suggest recruiting a more diverse sample size with more minority groups and a wider educational range. We suggest that in order to do this, future researchers should not solely provide access to the study via internet, but also include a hard

copy form to include those participants without internet access, hopefully also extending the data collection across a wider SES spectrum.

In our study, participants were asked to answer all questions with one child in mind. In future research, it would be beneficial to look at the duration the participant has been parenting and how many children the participant has because presumably new parents will be more attentive and cautious with their children in comparison to parents who have had multiple children or whose children are older. Therefore, new parents may respond to the fear persuasion to a greater degree than parents with older children, which may result in a greater degree of attitude change for the newer parents. Perhaps this is because older children participate in more activities, resulting in limited time to cook and eat healthy. Therefore, the busier schedules that children and parents have, the more likely they may be to consume unhealthy foods (such as soft drinks).

Our current study only tested two group levels: low fear inducing and high fear inducing. In future research, it would also be helpful to include a control group so that researchers could compare the results across the three groups and control for confounding variables. Further, it might be helpful to see what types of fear inducing messages are most effective. For example, if participants were presented with a video of the negative health effects of soft drinks, would they then be more likely to implement a behavior change and reduce the amount of soft drinks available to their children? Perhaps by seeing visuals of the negative health effects soft drinks have on the human body, parents would be more easily affected and persuaded to change their behavior. This would be important in determining the most effective persuasive method that could then be extrapolated to many other educational areas (e.g., hospitals encouraging people to wash their hands frequently).

It might also be important to look more closely at the experience and attitudes participants have toward soft drinks prior to the study. Through a meta-analysis, Glasman and Albarracín (2006) found that attitudes correlated with future behavior most strongly when participants had a direct experience with the attitude object and experiences were frequent. Therefore, participants who have a stronger experience with soft drink consumption prior to the study may be more likely to change their attitudes as compared to those who are less partial toward soft drinks.

Lastly, seeing as we were only able to measure the intentions participants had in changing their soft drink consumption and/or the amount of soft drinks they would allow their children to drink, it would be helpful to see how many participants actually implemented the changes and the duration of those changes. If participants simply want to change their behavior but don't, then the written persuasive message is not effective. We would like to know if participants applied the knowledge that they gained from the study into their real lives. Schmidt, Kolodinsky, Carsten, Schmidt, Larson, and MacLachlan (2007) looked at the application of attitude change and behavior in the case of batterers. They found that the attitudes and actions of batterers changed considerably after an informative twenty-seven session program. Not only did the batterers experience a positive change in their attitudes regarding their own abusive behavior and their beliefs they had about women, but their actions also showed a motivation to change these behaviors. Thus, by educating the batterers about the negative effects of what they were doing, their attitudes and actions changed significantly. Relating this back to our study, just by educating parents about the negative effects of soft drink consumption, then they, like the batterers in the Schmidt et al. (2007) study, may change not only their attitudes towards soft drinks, but also their behaviors.

We hope that by participating in our study, parents gained valuable information regarding soft drink consumption and applied the information gained to their own lives.

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*Appendix A*

## Pre-Survey

Please indicate if you believe the following statements to be definitely true, probably true, probably false, or definitely false.

- Soft drink consumption has been linked to lasting cell damage.
- Soft drink consumption has been linked to cancer.
- Soft drink consumption has been linked to hyperactivity.
- Soft drinks contain a preservative known as sodium benzoate.

Please indicate the degree to which you agree with the following statements using the scale ranging from Strongly Disagree to Strongly Agree. Please answer the questions with one child in mind.

- My soft drink consumption affects my child's soft drink consumption.
- I am comfortable with soft drink vending machines being accessible within public school systems.
- I would like to reduce the amount of soft drinks my child consumes.
- Soft drinks are unhealthy for my child.

Please answer the following questions by typing in your answer in the box provided. Please answer the following questions with one child in mind.

- How many soft drinks do you consume in a typical week? \_\_\_\_\_
- How many soft drinks does your child consume in a typical week? \_\_\_\_\_
- What is your gender? \_\_\_\_\_
- What is the gender of your child? \_\_\_\_\_
- What age is your child? \_\_\_\_\_
- In what country do you live? \_\_\_\_\_
- What is the highest level of education you have completed? \_\_\_\_\_
- What is your ethnicity? \_\_\_\_\_
- What is the ethnicity of your child? \_\_\_\_\_

*Appendix B*

Post-Survey

Please indicate if you believe the following statements to be definitely true, probably true, probably false, or definitely false.

- Soft drink consumption has been linked to lasting cell damage.
- Soft drink consumption has been linked to cancer.
- Soft drink consumption has been linked to hyperactivity.
- Soft drinks contain a preservative known as sodium benzoate.

Please indicate the degree to which you agree with the following statements using the scale ranging from Strongly Disagree to Strongly Agree. Please answer the following questions with one child in mind.

- My soft drink consumption affects my child's soft drink consumption.
- I am comfortable with soft drink vending machines being accessible within public school systems.
- I would like to reduce the amount of soft drinks my child consumes.
- Soft drinks are unhealthy for my child.
- The article was educational.
- The article gave me new information.
- The article was well-written.
- The article was boring.
- The article scared me.
- The article made me nervous about my own health.
- The article made me nervous about my child's health.
- The article's conclusions were overstated.
- More research needs to be done before I will take the findings described in the study seriously.
- I enjoyed reading the article.

If you have any comments please leave them in the space below:

Please check your answers. When you are done, push the button below. Thank You!

*Appendix C*

Informed Consent Form

This research is being conducted by Charla Chailland and Brianna Raatz, students at Hanover College taking Dr. Ellen Altermatt's PSY 462 course Research Seminar. The survey which you are being asked to complete is designed to examine parent and child drink preferences. You will be taking two short surveys and reading an article. In the two short surveys, you will be asked several questions about your child's drink preferences as well as information regarding overall health. You will also be asked a few demographic questions. After you have finished answering all the questions, you will be debriefed.

The survey will not take more than ten minutes. There are no known risks involved in being in this study, beyond those of everyday life. The information you provide during the survey is completely anonymous; at no time will your name be associated with the responses you give. If you have questions after the survey, please contact Charla Chailland at [chaillandc@hanover.edu](mailto:chaillandc@hanover.edu) and/or Brianna Raatz at [raatzb@hanover.edu](mailto:raatzb@hanover.edu). You may also contact our advisor of this research project, Dr. Ellen Altermatt at [altermattel@hanover.edu](mailto:altermattel@hanover.edu).

I acknowledge that I am participating in this study of my own free will. I understand that I may refuse to participate or stop participating at any time. By clicking on the agree button below, I understand that I will be asked a series of personal questions but that at no time will my identity be associated with the answers.

*Appendix D*

Manipulated Low-Fear Informative Article

CAUTION: SOFT DRINKS MAY CAUSE HYPERACTIVITY

A new health scare erupted over soft drinks last night amid evidence they may cause hyperactivity.

Research from a British university suggests a common preservative found in soft drinks causes some people to become more hyperactive and distractible. The findings could have consequences for people who consume fizzy drinks.

Concerns center on the safety of E211, known as sodium benzoate, a preservative used for decades by the global carbonated drinks industry. Sodium benzoate derives from benzoic acid. It occurs naturally in berries, but is used in large quantities to prevent mold in soft drinks such as Sprite and Dr Pepper.

Jim Stevenson, a professor of psychology at England's University of Southampton, found that children are more hyperactive when drinking beverages that contain high levels of dyes and sodium benzoate. But some children responded strongly and others not at all. Stevenson's team is looking at how genetic differences may explain the range of sensitivity. One of his colleagues believes that the additives may trigger a release of histamines in sensitive kids. In general, the effects of the chemicals are not so great as to cause full-blown attention-deficit/hyperactivity disorder (ADHD). Still, the paper warns that "these adverse effects could affect the child's ability to benefit from the experience of school."

The Food Standards Agency (FSA) backs the use of sodium benzoate in the UK and it has been approved by the European Union; but, last night, authorities called for further investigation. A review of sodium benzoate by the World Health Organization in 2000 concluded that it was safe, but it noted that the available science supporting its safety was "limited".

*Appendix E*

## Manipulated High-Fear Informative Article

**CAUTION: SOFT DRINKS MAY SERIOUSLY HARM YOUR HEALTH**

A new health scare erupted over soft drinks last night amid evidence they may cause serious cell damage. Research from a British university suggests a common preservative found in soft drinks has the ability to switch off vital parts of DNA. The problem - more usually associated with aging and alcohol abuse - can eventually lead to cirrhosis of the liver and degenerative diseases such as Parkinson's. The findings could have serious consequences for the hundreds of millions of people worldwide who consume fizzy drinks.

Concerns center on the safety of E211, known as sodium benzoate, a preservative used for decades by the global carbonated drinks industry. Sodium benzoate derives from benzoic acid. It occurs naturally in berries, but is used in large quantities to prevent mold in soft drinks such as Sprite and Dr Pepper. Sodium benzoate has already been the subject of concern about cancer because when mixed with the additive vitamin C in soft drinks, it causes benzene, a carcinogenic substance.

Now, Peter Piper, a professor of molecular biology and biotechnology at Sheffield University, has decided to speak out about another danger. Professor Piper tested the impact of sodium benzoate on living yeast cells in his laboratory. What he found alarmed him: the benzoate was damaging an important area of DNA in the "power station" of cells known as the mitochondria. He told *The Independent* on Sunday: "These chemicals have the ability to cause severe damage to DNA in the mitochondria to the point that they totally inactivate it: they knock it out altogether. The mitochondria consumes the oxygen to give you energy and if you damage it - as

happens in a number of diseased states - then the cell starts to malfunction very seriously. And there is a whole array of diseases that are now being tied to damage to this DNA - Parkinson's and quite a lot of neuro-degenerative diseases."

The Food Standards Agency (FSA) backs the use of sodium benzoate in the UK and it has been approved by the European Union but last night, authorities called for urgent investigation. A review of sodium benzoate by the World Health Organization in 2000 concluded that it was safe, but it noted that the available science supporting its safety was "limited".

*Appendix F*

## Debriefing Form

The study in which you just participated was designed to measure the effectiveness of fear arousal (e.g., high vs. low) on attitudes toward soft drink consumption. Participants were given one of two informative articles varying in the degree of fear (e.g. high vs. low). We predict that participants who already had previous knowledge about soft drinks would most effectively change their attitudes toward soft drink consumption with the low fear informative article. Alternatively, we predict that individuals who had less knowledge about soft drinks would most effectively change their attitudes toward soft drink consumption with the high fear informative article.

The low-fear informative article selected was a modified and shortened version of the Time Magazine article entitled “Hyper Kids? Check Their Diet” by Claudia Wallis which was published on September 13, 2007. Participants can find the complete, unmodified article at the following website: <http://www.time.com/time/magazine/article/0,9171,1661703,00.html>. The high fear informative article selected was a modified and shortened version of The Independent News source entitled “Caution: Some Soft Drinks May Seriously Harm Your Health” by Martin Hickman which was published on May 27, 2007. Participants can find the complete, unmodified article at <http://news.independent.co.uk/health/article2586652.ece>. It is important to note that although the low fear article was a predominantly modified version of the Times Magazine article entitled “Hyper Kids? Check Their Diet” and the high fear article was a predominantly modified version of The Independent News source entitled, “Caution: Some Soft Drinks May Seriously Harm Your Health”, there may have been ideas taken from both articles in both the low and high fear informative articles you were asked to read.

If you have questions about this study, please contact Charla Chailland at [chailandc@hanover.edu](mailto:chailandc@hanover.edu) and/or Brianna Raatz at [raatzb@hanover.edu](mailto:raatzb@hanover.edu). You may also contact our adviser of this research project, Dr. Ellen Altermatt at [altermattel@hanover.edu](mailto:altermattel@hanover.edu).

Finally, if you would like more information about fear arousal and attitude change, we recommend the following peer reviewed article:

Nabi, R., Roskos-Ewoldsen, D., and Carpentier, F. (2003, May). Prior knowledge as a moderator of fear appeal effects. Conference Paper/Unpublished Manuscript (Peer Reviewed). Retrieved 13 November 2007 from [http://www.allacademic.com/meta/p111360\\_index.html](http://www.allacademic.com/meta/p111360_index.html).

Thank you for participating in our study!

Figure Caption

Figure 1. Interaction of time, prior knowledge, and condition (low fear versus high fear) in predicting attitude change.

