

Health Communication Effectiveness: Using Underlying Processes to Understand the Relationship between Health Risk Attitudes and Behavioral Intentions to Follow the Recommendations

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ABSTRACT

Past health literature examining the effectiveness of health communication (e.g., Becker 1974; Kahn and Luce 2006; Rogers 1975, 1983) generally assumed that health-related messages initiate people's assessments of risk and vulnerability and resulting coping strategies, which, in turn, influence intentions to follow message recommendations. Based on these models, consumers usually form risk perception attitudes and behavioral intentions to follow the recommendations in a deliberate way after assessing relevant factors in the communication. Furthermore, attitudes and intentions are generally assumed to be positively correlated. A recent meta-analysis by Keller and Lehmann (2006), however, suggests that the consistency between attitudes and intentions is not always true because some contextual factors (e.g., message framing) could affect attitudes and behavioral intentions in opposite ways. No systematic theories have been suggested to date to explain why changes in attitudes and behavioral intentions are positively correlated in some situations but negatively correlated in others. Understanding these questions has important implications for the effective design of health communication messages.

We propose that the relationship between attitudes and behavioral intentions depends on the functioning of underlying cognitive processes. First, we assume that previous findings showing a positive correlation between changes in attitudes and intentions as a result of health communication messages occurs because both are formed through a relatively deliberate process which imitates System 2 cognitive functioning that is controlled, effortful, and involves forming underlying conceptual representations of the task at hand (Kahneman and Frederick 2002; Stanovich and West 2002). On the other hand, we hypothesize that certain types of health communication messages can activate automatic attitudes by bypassing the deliberate System 2 reasoning and that these changes in automatic System 1 attitudes can thus be negatively correlated from changes in behavioral intentions that are still formed deliberately.

A 2 (information: vivid vs. non-vivid) x 2 (number of enumerated disease exemplars: high vs. low) experiment was designed to test our hypotheses. We propose that when a vivid personal story attracts people's attention (McGill and Anand 1989), they will engage in relatively deliberate integrative processing of both the enumerated disease instances and the vivid information and use them to make the subsequent judgments (Burnstein and Schul 1983; Schul and Burnstein 1985). As a result, people in the high number condition will have higher deliberate attitudes of risk and correspondingly higher intentions to follow recommendations than people in the low number condition. However, when non-vivid information is provided and the enumerated disease instances become the primary input for the subsequent judgments, automatic risk attitudes are activated and the

high number condition will lead to the lower risk attitudes than the low number condition. In this case the high number of enumerated disease exemplars inhibits people's recall of the remaining cases, and the perceived difficulty of recalling specific disease cases decreases people's health risk perception (Alba and Chattopadhyay 1985; Raghurir and Menon 1998). This memory inhibition effect has been shown to be an automatic process that happens quickly, unintentionally, and effortlessly (Menon and Raghurir 2003). Since behavioral intentions are not influenced by information vividness (Keller and Lehmann 2006), they will still be formed deliberately and intentions will remain higher in the high versus low number condition. Thus the pattern of behavioral intention changes will diverge from the pattern of changes in the automatic attitudes. Experimental results confirm our hypotheses.

Using conceptual mapping technology (John et al. 2006; Lord 1994; Stuart 1985) we map the conceptual representations underlying deliberate health attitudes and behavioral intentions, and show that concept maps are more predictive of attitudes when they are formed through a deliberate process than when they are formed through an automatic process. We also identify conceptual associations that are important in influencing consumers' behavioral intentions which can be used in the design of health communication messages.

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