The Routledge Handbook of Strategic Communication

Derina Holtzhausen, Ansgar Zerfass

Framing as a Strategic Persuasive Message Tactic

How to cite :- Kenneth E. Kim. 20 Nov 2014, Framing as a Strategic Persuasive Message Tactic from: The Routledge Handbook of Strategic Communication Routledge

Accessed on: 26 Sep 2023

https://www.routledgehandbooks.com/doi/10.4324/9780203094440.ch18

Please scroll down for document

Full terms and conditions of use: https://www.routledgehandbooks.com/legal-notices/terms

This Document PDF may be used for research, teaching and private study purposes. Any substantial or systematic reproductions, re-distribution, re-selling, loan or sub-licensing, systematic supply or distribution in any form to anyone is expressly forbidden.

The publisher does not give any warranty express or implied or make any representation that the contents will be complete or accurate or up to date. The publisher shall not be liable for an loss, actions, claims, proceedings, demand or costs or damages whatsoever or howsoever caused arising directly or indirectly in connection with or arising out of the use of this material.
Framing as a Strategic Persuasive Message Tactic

Kenneth E. Kim

It is essential to design effective message tactics for a successful strategic communication campaign. A large body of persuasion literature has documented that one or a combination of communication variables (i.e., message source, message itself, message channel, and message recipient) can lead to cognitive and behavioral changes (see Perloff, 2003; Salovey, Schneider & Apanovitch, 2002; Kahneman & Tversky, 1984). Of these communication elements, the concept of framing as psychological processing of persuasive messages has received a great deal of attention in the areas of strategic communications, including health campaigns (Salovey & Williams-Piehota, 2004; Williams, Clarke, & Borland, 2001; Block & Keller, 1995), marketing campaigns (Shiv, Britton, & Payne, 2004; Grewal, Gotlieb, & Marmorstein, 1994), and political campaigns (Druckman, 2001; Kanner, 2004).

Despite the confusion about its conceptual and operational definitions in a wide range of disciplines (see Scheufele & Tewksbury, 2007; Maule & Villejoubert, 2007; Hallahan, 1999), message framing generally refers to the ways in which a choice problem is strategically phrased in a message, and framing effect is related to how mental representations of the choice problem, partly developed by message framing, influence cognitive or behavioral responses, including judgment and choice (Kahneman, 2003; Tversky & Kahneman, 1981), attitudes (Putrevu, 2010; S. M. Smith & Petty, 1996), and behavioral intentions (Y.-J. Kim, 2006; Jones, Sinclair & Courneya, 2003; Meyerowitz & Chaiken, 1987).

According to prospect theory, a classical approach to framing effect, people are more likely to accept loss-framed (i.e., negative outcome-focused) arguments than corresponding gain-framed (i.e., positive outcome-focused) arguments under risky or uncertain decision contexts (Kahneman & Tversky, 2000). However, scholars have criticized framing literature for failing to reach a consensus that supports the robustness of loss advantage (see Fagley & Miller, 1987; Frisch, 1993; Salovey, Schneider, & Apanovitch, 2002; Levin, Schneider, & Gaeth, 1998). In the past few decades, a substantial body of research has demonstrated that gain framing is more effective than loss framing, or that there is no difference between the two (Marteau, 1989; Levin, 1987; Salovey et al., 2002).

To resolve this confusion, framing scholars have identified potential moderating factors of the framing effect. For instance, the impact of gain–loss message framing may differ based on the order of the framed argument in a persuasive message; that is, whether the framed argument is presented at the beginning or end of the message (Buda, 2003). Decision contexts also moderate the message framing effect. For example, the impact of gain–loss framing differs depending on the level of the temporal proximity of an event, like whether outcome events occur in the near or distant future (McElroy & Mascari, 2007). Also, the message framing impact may be dependent on whether a
decision is made in a real or hypothetical context (Levin, Chapman, & Johnson, 1988; Kühberger, Schulte-Mecklenbeck, & Perner, 2002). Scholars further revealed that the gain–loss framing effect differs based on the type of product category in advertising campaigns, such as established (familiar) products versus new (unfamiliar) products (K. Kim & Park, 2010; Chang, 2007; G. E. Smith, 1996), and the type of required health behaviors in health campaigns, such as detection versus prevention behaviors (see Rothman, Bartels, Wlaschin, & Salovey, 2006; Salovey et al., 2002). Framing effects also vary depending on individual-level variables, such as issue involvement (Maheswaran & Meyers-Levy, 1990), the need for cognition (S. M. Smith & Levin, 1996; Zhang & Buda, 1999), the level of perceived risk or uncertainty (Scott & Curbow, 2006; Broemer, 2002), the type of self-regulatory focus (Dijkstra, Rothman, & Pietersma, 2012; Kees, Burton, & Tangari, 2010), and education level (Smith, 1996).

Recent work directs attention to the difference in the framing manipulations as a possible explanation for the reversed or null effect (Putrevu, 2010; Krishnamurthy, Carter & Blair, 2001; Levin, Gaeth, Schreiber, & Lauriola, 2002). For instance, some research focuses on the characteristics of a choice problem or choice object in a positive or negative sense (e.g., “more than 80% of the users of this vaccine did not experience side effects” versus “less than 20% of the users of this vaccine experienced side effects”), while other framing research deals with different outcomes or goals of a choice problem in a positive (gain) or negative (loss) way (e.g., “taking this vaccine will prevent you from contracting the disease and other infections” versus “without taking this vaccine, you would suffer from the disease and other infections”) as framing manipulations. Each approach implies an equivalent expected value of the choice options, but the difference only exists in the selection of message-framing tactic (whether to focus on attribute or outcome [goal] of a choice problem) and framing valence (positive versus negative). The recent framing literature has reported empirical evidence that gain–loss framing effects are influenced by the attribute–goal framing tactic (Ferguson & Gallagher, 2007; Levin et al., 2002). This conclusion deserves attention because this approach not only provides theoretical implications for developing robust framing hypotheses across different framing types (i.e., attribute framing versus goal framing; individual framing versus societal-level framing), but it also provides important practical implications for developing effective messages in strategic communication campaigns.

**Gain–loss framing and the framing hypothesis**

A frame is defined as “decision makers’ conception of acts, outcomes, and contingencies associated with a particular choice” (Tversky & Kahneman, 1981, p. 453). Prospect theory provides a framework for the gain–loss framing hypothesis under uncertain or risky decision contexts. Prospect theory was first proposed to challenge expected utility theory, the normative perspective that dominated the early risky decision paradigm in which reason-based judgments were believed to control individual decision process (see Tversky & Kahneman, 1986; Dawes, 1998). Under the expected utility paradigm, it was postulated that people’s choices are constant regardless of the way the choice problem is presented because human beliefs and values are hardly affected by situational changes and their choices are always determined by the invariable belief systems (Newell, Lagnado, & Shanks, 2007). Prospect theory rejects the expected utility perspective, suggesting instead that people often make choices that conflict with their underlying beliefs because the relative value of behavioral outcomes (that is, either gain or loss) represented by a situation is more important to the decision process than preexisting values or beliefs. (Tversky & Kahneman, 1986). Hence, prospect theory suggests framing as a key determinant that guides individual judgments and choices (Kahneman & Tversky, 1984; Hogarth, 1987).

The gain–loss framing domain has been the typical framing manipulation under prospect theory. A gain-framed message emphasizes the positive prospects that result from performing the choice
option (e.g., chances of contracting cervical cancer decrease by 80% if you get the human papillomavirus vaccine), while a loss-framed message highlights the negative outcomes as a result of not accepting or performing the required behavior (e.g., the chance of contracting cervical cancer increases by 20% unless you get the human papillomavirus vaccine). These two messages have the exactly same goal, but the only difference is in the domain or valence of outcomes that may guide different choice behaviors. The gain–loss framing hypothesis under prospect theory suggests that loss framing is more effective than gain framing when a choice option involves uncertainty or risk elements (Kahneman & Tversky, 2000).

Although early prospect theory limits the framing effects to actual choice and judgment, Kahneman, one of the pioneers of the theory, documented in his recent article that “framing effects are not restricted to decision making” (Kahneman, 2003, p. 703), suggesting that the psychological principle postulated in the theory can be applied to more diverse social science disciplines. A large body of evidence has demonstrated that gain- and loss-framed messages have diverse effects on human perceptions, cognitive responses, and behavioral outcomes (Yi & Baumgartner, 2009; A. M. O’Connor, Pennie, & Dales, 1996; Apanovitch, McCarthy, & Salovey, 2003; Shah, Kwak, Schmierbach, & Zubric, 2004). For example, Venkatraman, Aloysius, & Davis (2006) found that the decision-framing effects on behavioral intention are mediated by both perceived riskiness and perceived ambiguity. Further, a number of studies in applied health have reported that gain–loss framing have distinct effects on the level of perceived health-related risk, medical decisions (see Ferguson, Leaviss, Townsend, Fleming, & Lowe, 2005), healthcare product purchase intentions (Chang, 2007), attitudes (Sibley, Liu, & Kirkwood, 2006), and health behaviors (see Rothman et al., 2006; Salovey et al., 2002).

Confound framing effects

Despite a large body of evidence that supports the gain–loss framing hypothesis, confounded or null results also have been consistently reported in the framing literature. For instance, D. B. O’Connor, Ferguson, & R. C. O’Connor (2005) tested the gain–loss framing hypothesis in the context of hormonal male contraceptive use, perceived as a risky option for men compared to other methods of contraception. The researchers found no significant difference in intentions to choose the contraceptive pill between gain and loss framing.

A number of scholars suggest several possible accounts for the confounding results. First, the conflicting results may be attributable to different operational definitions of message framing across studies. The original framing manipulation involves using the numeric information with probabilities (see Kahneman & Tversky, 1979). However, a large number of framing studies, particularly in health decisions, defined the gain versus loss distinction in terms of qualitative scenarios (e.g., if you decide to get HIV tested, you may feel the peace of mind that comes with knowing about your health) (see Apanovitch et al., 2003). Williams et al. (2001) distinguish the gain–loss framing manipulation into behavior framing and statistical framing, suggesting that the confounding findings of framing effects may be due to the inconsistent use of framing manipulations. Behavior framing emphasizes either gain or loss outcomes as a function of complying or not complying with the promoted behavior without the statistical (probability) information, whereas statistical framing focuses on the statistical information of different outcomes as a function of either selecting or not selecting the choice option. For instance, out of 100 people who opted for the medical surgery, 25% were diseased but 75% survived. The majority of early framing studies (e.g., Tversky and Kahneman’s (1981) disease framing study) conducted using prospect theory employed the outcome probability information in the frames, whereas the majority of framing research on health behaviors has examined the effects of behavior framing (see Rothman et al., 2006; Williams et al., 2001). Based on this distinction, Williams et al. compared the two formats of framing in the context of public health campaigns that
promoted breast-cancer-related perceptions and behaviors. The researchers found no evidence of the statistical framing effects on breast self-examination (BSE) intention, perceived susceptibility to breast cancer, self-efficacy in performing BSE, perceived early detection risk, and anxiety about the cancer. However, partial support for perceived susceptibility to breast cancer and BSE-related behavioral change was reported in the behavior framing conditions such that participants presented with loss-framed information showed greater perceived susceptibility to breast cancer and performance of BSE than participants receiving gain-framed information.

Further, research on health campaigns suggests that the gain–loss framing effects vary based on the different types of health behavior (Rothman & Salovey, 1997; Salovey et al., 2002). Salovey et al. (2002) suggest that a gain-framed health message has a greater advantage than its loss-framed counterpart when promoting behaviors for disease prevention, such as the promotion of sunscreen use and physical exercise. In contrast, a loss-framed health message is more persuasive than its gain-framed counterpart when promoting disease detection behaviors such as HIV screening and breast self-examination. The rationale for this theorizing is based on the idea that disease detection behaviors are deemed as a risk-taking option because people generally experience uneasiness or fear at the prospect of having a serious disease when engaging in the early disease screening process (Meyerowitz & Chaiken, 1987). Prospect theory suggests that individuals tend to accept a risk-taking option to avoid potential losses (i.e., diseases) and seek safety in the future. Loss framing is likely to facilitate a safety-seeking mindset and thus has more impact when promoting risk-taking health behaviors (Lee & Aaker, 2004).

Chang (2007) provided empirical evidence supporting the prevention-detection perspective in healthcare product advertising. He classifies healthcare product types in terms of prevention versus detection functions and suggests that persuasive effects of message framing vary according to such product distinctions. The study found that gain framing was more persuasive for preventive healthcare products such as mouthwash and dental chewing gum, whereas loss framing was more effective for detection healthcare products such as disclosing gum. However, these results were observed only for the healthcare products already familiar to consumers, and the interactive effect of gain–loss framing and product type was not statistically significant for products unfamiliar to consumers (i.e., new, innovative products).

Recent work in direct-to-consumer (DTC) pharmaceutical advertising suggests that the level of product knowledge moderates the gain–loss framing effects on product attitudes and intentions (K. Kim & Park, 2010). The study found that a loss-framed ad had more persuasive impact than a gain-framed ad for an emergency contraception medicine, which falls in the low product knowledge category, while gain- and loss-framed DTC ads were equivalent in their effectiveness for the category of allergy medicine, which falls in the high product knowledge category. The study findings suggest that product familiarity and subjective product knowledge matter in predicting the impact of message framing in pharmaceutical advertising.

Individual level variables such as involvement have received considerable attention as a moderating factor in the gain–loss framing literature. For instance, Maheswaran and Meyers-Levy (1990) reported that compared with a gain-framed message, a loss-framed message generated more favorable attitudes and intentions regarding the diagnostic blood test under the high involvement condition, whereas the relative benefits of gain framing were observed under the low involvement condition.

Recent theorizing in framing (Dijkstra, et al., 2012; Y.-J. Kim, 2006) suggests that the relative effectiveness of gain- and loss-framed persuasive messages varies as a function of individuals’ self-regulatory orientation. According to self-regulatory focus theory (see Higgins, 2002), people are motivated to organize their thinking and behaviors in the light of their dominant regulatory focus; that is, whether promotion focus or prevention focus is predominant. The theory suggests that, when promotion focus is activated at the moment of processing of external information, individuals are preoccupied with an accomplishment- or ideal-seeking mindset and hence come to give
better attention to the presence or absence of positive outcomes: that is, gains (Yi & Baumgartner, 2009). In contrast, when prevention focus momentarily is salient, a responsibility- or safety-seeking mindset takes over, and people come to give heed to the presence or absence of negative outcomes: that is, losses (Higgins, 1998). This self-regulatory framework suggests the advantage of loss framing is most likely to be found when the audience mindset is preoccupied with a responsibility- or safety-seeking mindset, whereas accomplishment-minded people tend to favor gain-framed messages (K. Kim & Park, 2010; Idson, Liberman, & Higgins, 2004; Lee & Aaker, 2004).

Zhang and Buda (1999) investigated the moderating role of the need for cognition in the message framing, incorporating prospect theory and the elaboration likelihood model. They found a positively framed message more effective than a negatively framed message for all dependent variables, including the attractiveness of the product, perception of product performance, and willingness to purchase the product.

**Attribute–goal framing and the framing hypothesis**

Recent theorizing in framing effects has focused on two distinct types of frames: *attribute* and *goal* (Putrevu, 2010). *Attribute framing* focuses on the attributes of a choice being promoted in either negative or positive terms (Levin, et al., 1998), while goal or outcome framing emphasizes the outcomes of a choice in either negative or positive terms (Nan, 2007). Attribute and goal frames have been shown to have different persuasive effects depending on the valence of frames (Levin, et al., 2002). Oft-cited studies on attribute-framing effects include Levin and Gaeth’s (1988) study on evaluation of ground beef where the message frames of 75% lean meat versus 25% fat meat were applied, and Marteau’s (1989) medical decision study where the message was framed as either an 80% survival rate or a 20% death rate. Attribute-framed persuasive messages encourage people to consider the generic nature of a choice problem by stressing either its positive characteristics or its negative aspects in diverse settings such as health decisions (Wilson, Kaplan, & Schneiderman, 1987) and medical decisions like contraceptive use (Linville, Fischer, & Fischhoff, 1993). Work in attribute framing suggests that a positively framed message is more effective than a negatively framed message (Putrevu, 2010; Krishnamurthy, et al., 2001; Levin & Gaeth, 1988; Marteau, 1989).

Studies on *goal framing* effects abound, especially in health psychology (see Maheswaran & Meyers-levy, 1990; Meyerowitz & Chiken, 1987). Goal framing is similar to behavior framing (Williams et al., 2001), and to gain–loss framing in prospect theory in that goal-framed messages highlight either positive or negative behavior outcomes. As abundantly documented in the framing literature, research on goal framing effects suggests that a message framing negative outcomes (loss-framed persuasive messages) is more effective than a message framing positive outcomes (gain-framed persuasive messages).

Recent empirical studies have confirmed reliable interactive effects of attribute–goal framing tactics and valence framing such that a positively framed persuasive message tends to be more effective than a negatively framed message in the context of attribute framing, whereas negative framing has more persuasive impact than positive framing in the context of goal framing (see Keren, 2007; Ferguson & Gallagher, 2007; Levin et al., 2002). For instance, Ferguson and Gallagher, (2007) investigated the interaction of attribute–goal framing and valence framing in promoting flu vaccination. Their study findings showed the pattern of the interaction such that a negative goal-framed message was more effective than a positive goal-framed message and a positive attribute-framed message had more impact than a negative attribute-framed message when participants perceived the flu vaccination as risky.

Keren (2007) found experimental subjects evaluated a negative attribute-framed message (25% fat meat) as more trustworthy than a positive attribute-framed message (75% lean meat), but positive attribute framing was more effective than negative attribute framing in promoting a meat product.
Despite the general assumption that high credibility perception leads to greater persuasiveness, Keren's study showed an asymmetric relationship between actual choice and message content credibility as a result of message framing.

**Individual–societal framing and the framing hypothesis**

Individual–societal framing relates to whether a persuasive message emphasizes *societal-level situations* or whether it focuses on *individual level situations*. Specifically, a societal frame highlights how important an issue discussed in a message is for a community or society, as in the availability of medical abortion for women in the community. An individual frame focuses on how important the issue is for the individual, as in whether medical abortion is available for you or your friends (see Shah et al., 2004; Nan, 2007). Work in individual- and societal-level framing suggests that each elicits different cognitive responses in message reception. For instance, Shah et al. (2004) found that people in the societal gain framing condition engaged in more in-depth processing of a message than those in the societal loss and individual gain framing conditions, contemplating the message arguments in terms of causes and consequences of the problem and its solutions. Similar patterns were observed for people in the individual loss framing condition. *Social cognition theory* suggests that cognitive responses are an important factor that determines the attitude change in message processing (Fiske & Taylor, 2008). Persuasion scholars have revealed that the persuasiveness of a message is based on the level of elaboration in certain conditions. Specifically, when other cues such as message source or prior knowledge are unavailable, people who are highly motivated and able to think about the arguments of the message are likely to engage in careful thinking and thus form or change attitudes (Petty, Priester, & Brinol, 2002). Although Shah et al. (2004) did not consider judgment and choice as outcome measures—which classic prospect theory posits as relating to the gain–loss framing function—or other persuasion variables (i.e., attitude and intention), their study findings suggest that societal gain and individual loss frames generate more detailed thoughts about the arguments in a persuasive message and thus may facilitate people's judgments or choices.

Nan (2007) further suggests that societal-level framing encourages people to think about the consequences of a problem for socially distant entities, such as other people in your country, rather than for socially proximal entities, such as your close friends or yourself. He found that the persuasive effect of societal-level framing increased significantly when a judgment was made for psychologically distant others. However, there was no significant impact of individual framing when decisions were made either for socially distant or for proximal individuals.

**Explanatory studies**

Message framing is a complex area of study and the many variables that affect framing outcomes can be confusing. The following two studies help explain the application and interpretation of message framing in different contexts.

**Study 1: Attribute–goal framing**

This study investigated the interactive effects of attribute–goal framing and valence framing (positive versus negative term) in the context of direct-to-consumer (DTC) human papilloma virus (HPV) vaccine advertising. Overall, the framing literature suggests that a positive attribute frame is more persuasive than a negative attribute frame, whereas a negative goal frame is more effective than a positive goal frame. The attribute-framed DTC ads focus on absence or presence of a desirable attribute, in this case drug efficacy, of the prescription drug (see Krishnamurthy et al., 2001, for a similar study). The goal-framed DTC ads emphasized a desirable or undesirable health outcome of the drug option.
Framing as Strategic Message Tactic

Design and procedure

Typically, the effects of message frames are tested using experimental design. This study employed a 2 (attribute or goal framing) × 2 (positive or negative framing) between-subjects design. Previous studies suggest that the effectiveness of message framing is likely to be influenced by pre-experimental factors such as knowledge, previous attitudes, product experience, involvement, and demographics (G. E. Smith & Wortzel, 1997; G. E. Smith, 1996). Therefore, despite the fact that study participants were randomly assigned in the sampling procedure, the study performed a series of analysis of covariance (ANCOVA) as a primary statistical method to analyze these interaction effects. This allowed the researcher to control for the effects of product knowledge, personal importance, and perceived risk of side-effects of HPV vaccines.

Participants

This study recruited one of the primary target segments of HPV vaccines. Research sample groups consisted of female college students between the ages of 18 and 25 years, who had never had the HPV vaccine. Subjects who had already had the vaccine were excluded from the study to control the effect of previous experience with the drug. A total of 105 female college students participated, and they were randomly assigned to one of four conditions. The average age of the sample was 21 years and in terms of identification with the ethnic origin classifications presented to study participants, approximately 70% of participants were European American, 18% were African American, 6% were Hispanic American, and 6% were Asian American.

Message frames

Four versions of a DTC print drug advertisement for a fictitious HPV vaccine prescription drug brand were created to manipulate the four message frames. All versions of the advertisement shared the same characteristics in terms of any visual and textural elements except the manipulations. Table 18.1

Table 18.1 Attribute–Goal Framing Manipulations

<table>
<thead>
<tr>
<th>Attribute frame</th>
<th>Goal frame</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive frame</td>
<td>Research shows that the HPV vaccine drugs are effective in protecting against four types of human papilloma virus in 80% of cases. In more than 80% of cases for both women and men HPV vaccine use prevents warts in the genital area.</td>
</tr>
<tr>
<td>Negative frame</td>
<td>Research shows that the HPV vaccine drugs are not effective in protecting against four types of human papilloma virus only in 20% of cases. Less than 20% of HPV vaccine users, women and men, experience warts in the genital area.</td>
</tr>
<tr>
<td></td>
<td>By taking the HPV vaccine drugs you take advantage of the best method of defense against 4 types of human papilloma virus, ensuring your health. If you take the HPV vaccine drugs in time, you can reduce the risk of developing warts in the genital areas by 80%, and women can lower by 50% their chance of getting two types of cervical cancer.</td>
</tr>
<tr>
<td></td>
<td>If you don’t take the HPV vaccine drugs you fail to take advantage of the best method of defense against 4 types of human papilloma virus, which would help safeguard your health. If you don’t take the HPV vaccine drugs in time, you may fail to take advantage of an 80% increased chance of preventing the development of warts in the genital area, lowering by 50% your chance of getting two types of cervical cancer.</td>
</tr>
</tbody>
</table>
shows four different message-framing manipulations for the current study. The combinations of framing tactic and framing valence manipulations were adapted from previous studies (e.g., Krishnamurthy et al., 2001; Ferguson et al., 2005).

In this study, the framing tactic was classified into two dimensions: attribute versus goal. Attribute framing focuses on attributes of a product. For this study, a positive attribute frame stresses the efficacy of the vaccines in preventing HPV, while a negative attribute frame emphasizes the relatively low level of its inefficacy.

Goal framing emphasizes outcomes of the use of a drug product. In the DTC context, the drug product outcomes are associated with health benefits or disease prevention as results of the drug use. Therefore, positive goal versus negative goal framed ad messages can be manipulated by focusing on either the presence of positive health benefits of a drug or the absence of negative health outcomes of the drug use versus absence (presence) of positive health benefits (negative health outcomes) as a result of failing to use the drug (see Salovey et al., 2002). For this study, positive goal framing was manipulated by focusing on the positive health benefits of the drug use and relative absence of negative health outcomes, while negative goal framing was constructed through emphasizing negative health outcomes as the result of not taking the HPV vaccine drugs.

Dependent measures

Two dependent measures were introduced: attitudes toward HPV vaccine drugs and behavioral intentions.

Attitudes toward HPV vaccine drugs. Attitudes toward the HPV vaccine were measured on nine 7-point semantic scales developed by Oliver & Berger (1979): foolish/wise, safe/risky, harmful/beneficial, pleasant/unpleasant, waste of time/wise use of time, good for me/bad for me, useful/useless, worthless/valuable, and ineffective/effective (D = .93).

Behavior intentions. According to Huh, DeLorme, and Reid (2005), DTC ads tend to promote three different types of behavior, which comprise communication with doctors, seeking more information about treatment options, and talking with others. Based on the items to measure these behaviors, different types of DTC-related behavior intentions were developed for this study. First, intention to seek more information about HPV vaccine drugs was measured with a two-item, seven-point scale modified from Huh et al. (2005). On a seven-point scale (1 = very unlikely, 7 = very likely), participants rated the likelihood that they would: (a) participate in a free educational program about HPV vaccines and HPV-related diseases if the University Health Services offered the program; and (b) go to other media sources to get more information about HPV vaccine drugs (α = .76). Second, intention to consult doctors was measured using a single item, seven-point scale adapted from Huh et al. On a seven-point scale (1 = very unlikely, 7 = very likely), participants rated the likelihood that they would consult doctors about HPV vaccine drugs if University Health Services offered a free opportunity. Last, intention to take HPV vaccine drugs was measured with a single item, seven-point scale (1 = very unlikely, 7 = very likely). Participants rated the likelihood that they would take HPV vaccine drugs.

Control variables

Although the study’s experimental group is based on random assignment, pre-experimental factors, such as demographic variables, subjective knowledge level, pre-existing beliefs and other psychological variables, may influence the dependent variables (see Shah et al., 2004). To remove such confounding effects, the study included three control variables as covariates: product knowledge,
Framing as Strategic Message Tactic

personal involvement, and perceived side effects. These measures have been considered to influence on attitude or belief and intention associated with health-related outcomes (Salovey et al., 2002).

**Personal involvement.** Five 7-point semantic differential scale items adapted from Mittal (1995) were used to measure a person’s involvement in a particular issue. These included: “HPV vaccine drugs are important/unimportant; mean a lot to me/mean nothing to me; matter to me/do not matter; significant/insignificant; of no concern/of concern to me” ($\alpha = .90$).

**Subjective knowledge about HPV vaccine drugs.** Two 5-point Likert scale items (1 = Little or no knowledge, 5 = A great deal of knowledge) adapted from Bloch, Ridgway, & Sherrell (1989) were used to measure a person’s self-reported familiarity with a particular issue. These included: “How do you rate your knowledge of HPV vaccine drugs relative to other people?”; and “How do you rate your knowledge of HPV vaccine drugs relative to most of your friends” ($\alpha = .91$).

**Perceived side-effect.** Two 7-point Likert scale items (1 = Strongly disagree, 7 = Strongly agree) were used to measure a person’s self-reported feeling about the side-effects of HPV vaccines. These included: “When I think about the side effects of HPV vaccines, I feel nauseous”; and “the side effects of HPV vaccines could put my life in danger” ($\alpha = .72$).

**Results**

**Effects of message frames on attitudes toward HPV vaccine drugs**

The obtained data indicates a significant interaction effect of attribute–goal framing by valence framing on attitudes at $p < .05$. In addition, analyses of simple effects revealed that a positive attribute frame generated more favorable attitudes toward the HPV drug than a negative attribute frame. In contrast, there was no significant difference in attitudes toward the HPV drug between a positive goal frame and a negative goal frame ($p > .05$).

**Effects of message frames on DTC drugs-related behavioral intentions**

The overall ANCOVA tests, with intention to seek more information, intention to consult doctors, and intention to take the HPV vaccine drugs as the dependent variables, revealed that there were no significant interactions between attribute–goal framing and gain–loss framing.

**ANCOVA contrast analyses**

ANCOVA contrast analyses were conducted to investigate the relative advantages of the framing combinations. Contrast testing revealed that goal–gain framing produced more favorable attitudes than the attribute–gain framing, and the effect of goal–loss framing on attitudes was significantly greater than the attribute–loss framing. The effects of the rest of the framing combinations on attitudes did not approach statistical significance.

The participants in goal–gain framing conditions induced stronger intentions to seek more information about the HPV vaccine drugs than those in the attribute–gain framing condition and, similarly, goal–gain framing produced stronger intentions to seek more information than the attribute–loss framing. However, the effects of the rest of the framing combinations were not significant on intentions to seek more information. For intentions to consult doctors about the HPV vaccine drugs, the effects marginally approached statistical significance between goal–gain framing and the attribute–loss framing. The effects of the rest of the framing combinations were not statistically significant in
Study 2: Individual-societal framing

The purpose of study 2 was to investigate the interactive effects of individual-societal framing and valence framing (a gain versus loss term) in the context of a health advocacy campaign. Overall, the literature on framing effects that observed potential for the interactive effect between individual-societal framing and gain–loss framing in the context of controversial decisions suggests that an individual loss frame is more persuasive than a societal loss frame, whereas a societal gain frame is more persuasive than an individual gain frame. The primary goal of health advocacy campaigns is to persuade people to take action to ensure a healthy life. Because advocacy campaigns often deal with controversial and divisive issues, such as the use of hormonal medicines, medical abortion pills, performance enhancement drugs, or hormone replacement therapy, one of the major challenges for campaign practitioners is to provide strong, persuasive messages supporting their point of view.

Design

The study employed a 2 (individual- or societal-level framing) × 2 (positive or negative framing) between-subjects design. Similar to Study 1, this study also controlled for pre-experimental factors such as knowledge, previous attitudes, product experience, involvement, and demographics (G. E. Smith & Wortzel, 1997; G. E. Smith, 1996). The researchers performed a series of analysis of covariance (ANCOVA) as a primary statistical method to analyze these interaction effects while controlling HPV vaccine drugs product knowledge, the level of personal importance, and perceived risk of side-effects.

A total of 147 college students in a southeastern state university participated in the experimental study, and they were randomly assigned to one of four conditions; females comprised 64%, and the average age of the sample was 21 years. In terms of identification with the ethnic origin classifications presented to study participants, approximately 67% of participants were European American, 12% were African American, 11% were Hispanic American, 7% were Asian American, and 3% were others.

Message framing

Framing of the benefits of medical abortion for young women was manipulated between subjects by exposing them to different versions of information about medical abortion (see Table 18.2). As in the case of previous research, the factual contents and message goal were the same, but each framing condition focused on different behavioral outcomes (see Shah et al, 2002; Nan, 2007).

Dependent Measures

The dependent factors were measured on judgment on medical abortion, attitudes toward medical abortion, and intentions for choosing or recommending medical abortion pills. The item for the judgment measure was modified from Tewksbury, Jones, Peske, Raymond, & Vig, (2000). The item was measured on a 7-point Likert scale: “Women should be allowed to choose the medical abortion option.” Attitudes toward medical abortion and intentions to choose or recommend the medical abortion option also were assessed. Attitudes toward the medical abortion option were measured with a nine-item, seven-point semantic differential scale developed by Oliver and Berger (1979): foolish/wise, safe/risky, harmful/beneficial, pleasant/unpleasant, waste of time/wise use of time, good for me/bad for me, useful/useless, and worthless/valuable ($\alpha = .93$). Intention to seek more information was measured with a three-item, seven-point scale adapted from Huh et al. (2005). On a
seven-point scale (1 = very unlikely, 7 = very likely), participants rated the likelihood that they would: (a) retain useful information about new or other medical abortion in the future; (b) go to other media sources to get information about medical abortion in the future; and (c) learn more about medical abortion in the future (α = .91). Intention to consult health providers was measured using a two-item, seven-point scale (1 = very unlikely, 7 = very likely) adapted from Huh et al. Participants rated the likelihood that they would: (a) talk with a doctor about medical abortion and their medical conditions if they were given a free consultation with the doctor, and (b) ask their doctor intelligent questions about medical abortion and their medical conditions if they were given a free consultation with the doctor (α = .95). Intention to choose the option was measured with a two-item, seven-point scale modified from Huh et al. On a seven-point scale (1 = very unlikely, 7 = very likely), participants rated the likelihood that they would: (a) choose the medical abortion option, and (b) recommend others to choose the medical abortion option (α = .92).

Control Variables

As mentioned, to remove confounding effects, the study included four control variables as covariates: general attitude toward abortion, religious/moral conviction, personal importance (issue involvement) and prior knowledge about the medical abortion pills. According to Spence, Elgen, and Harwell (2003), religious conviction is a principal factor for college women not to consider the use of an emergency contraceptive. Given that the abortion issue encompasses opposing ethical perspectives, such as pro-life versus pro-choice, the pre-existing attitude toward abortion was also included as a covariate. The other two measures, personal importance and individual knowledge, have also been considered to influence on attitude and intention associated with health-related outcomes (see Salovey et al., 2002).

Attitudes toward abortion. Four 7-point semantic differential scale items adapted from Burton and Lichtenstein (1988) were used to measure a person’s attitude toward abortion. These included: “My attitude toward abortion (pro-choice) is favorable/unfavorable; bad/good; harmful/beneficial; attractive/unattractive” (α = .94).
Religious/moral conviction. Three 7-point Likert scale items adapted from McMahon and Byrne (2008) were used to measure a person’s moral/religious obligation regarding a particular issue. These included: “My decision not to use medical abortions is in line with my moral conviction;” “I feel morally obliged not to use medical abortion;” and “My religious conscience calls me to not use medical abortion” (α = .93).

Personal importance (issue involvement). Five 7-point semantic differential scale items adopted from Mittal (1995) were used to measure a person’s involvement in a particular issue. These included: “Medical abortion: is important/unimportant; means a lot to me/means nothing to me; matters to me/does not matter; significant/insignificant; of no concern/of concern to me” (α = .93).

Subjective knowledge about the issue. Two 5-point Likert scale items adopted from Flynn and Goldsmith (1999) were used to measure a person’s self-reported familiarity with a particular issue. These included: “How do you rate your knowledge of medical abortion relative to other people?” and “How do you rate your knowledge of medical abortion relative to most of your friends” (α = .83).

Results

Effects of frames on judgment

The overall ANCOVA contrasts model, with framing combination as the independent variable and judgment as the dependent variable, was statistically significant. The contrasts revealed significant difference between individual–gain framing and individual–loss framing; and societal-loss framing and individual-loss framing. Also, the difference between societal-gain framing and individual-loss framing approached significance. The difference between the societal-gain framing and individual-gain framing was not significant. The difference between the societal-loss framing and societal-gain framing also was not significant, similar to the difference between societal-loss framing and individual-gain framing.

Effects on attitudes

The overall ANCOVA model, with framing combination as the independent variable and attitudes as the dependent variable, did not approach significance. The only statistically significant difference was observed when individual-gain framing was contrasted with societal-gain framing.

Effects on intention to seek more information

The overall ANCOVA test, with intention to seek information as the dependent variable, was not significant. Contrast testing revealed that no frame combination yielded significant difference on participants’ intention to seek more information.

Effects on intention to choose the medical abortion option

Again, the overall ANCOVA test, with intention to choose the option as the dependent variable, was not significant. Contrast testing revealed that no framing combination yielded significant difference on this variable.

Effects on intention to consult health providers

The overall ANCOVA test, with intention to consult with doctors as the dependent variable, was not significant and no frame combination yielded significant difference on this variable.
General Discussion

Implications of the Framing Studies for Message Frames

While judgments and behavior changes in strategic communications emerge through multiple layers of influence, the research initiative in this chapter focused on the relative persuasiveness of distinct message frames in the context of controversial women’s medical decisions: HPV vaccination and medical abortion.

Study 1 attempted to test the attribute–goal framing hypothesis in the context of DTC HPV vaccine advertising. The study predicted that attribute–goal framing effects on persuasion would differ based on valence framing. An attribute-framed drug ad emphasizes the attributes or efficacy of a drug, while a goal-framed drug ad focuses on the health benefits or risks of the drug. The data showed that the positive framing effects on attitudes toward the drug product and DTC drugs-related behavioral intentions were more pervasive than negative framing in attribute-framed advertisements, which is consistent with the results of previous work (see Krishnamurthy et al, 2001; Levin et al, 1998). On the other hand, negative-frame advantages were not observed in this study. Although the results were not statistically significant, the data suggested that positive goal framing (gain framing) was more effective than negative goal framing (loss framing), which is quite inconsistent with the findings of classic gain–loss framing research. Interestingly, positive goal framing had the strongest effects on both attitudes and intentions.

Salovey et al. (2002) provide an insight into the gain-framing advantages in the context of pharmaceutical advertising. Based on empirical findings, they suggest that gain-framed health or medical messages have more persuasive effects than the corresponding loss-framed messages when promoting disease prevention behaviors such as flu vaccination, sunscreen use, and regular physical exercise. HPV vaccination is also an important medical decision for young women to prevent cervical cancer and thus we may conclude that the advantages of gain framing are more prevalent regardless of attribute-focused and goal (outcome)-focused messages.

This study did not support the framing effects on DTC drugs-related behavioral intentions although previous framing studies supported the effect of framing on behavior intentions (Kim & Park, 2010; Salovey & Williams-Piehota, 2004). It might be that other important confounding factors should be considered in the context of medical decisions. For instance, ambivalence regarding the health behavioral option might be a factor that influences dependent variables. According to Broemer (2002), consumers’ ambivalent feelings toward exercise moderated the gain–loss framing effect on intention. Future research on this topic should ensure a well-constructed design that proves the relative advantages of goal–loss framing and attribute–gain framing as documented in the framing literature by considering additional critical confounding factors and considering improved experimental procedures.

The data from Study 2 provided partial support for the prediction that the advantage of loss framing is observed when health advocacy campaigns focus on individual-level health outcomes, whereas gain framing is more likely to benefit from being combined with public (societal)-level health outcomes. Specifically, participants in the individual loss-framing condition demonstrated significantly more favorable judgment to the medical abortion option than those in the other conditions, namely, individual-gain, societal-loss and societal-gain framing. The overall pattern of effects is consistent with the prospect theory’s proposition that judgment under risk is more likely to be influenced by loss than gain outcomes. Moreover, the results support the theorizing that the effectiveness of a loss frame may increase when combined with an individual-level frame because this mix is likely to generate more detailed mental descriptions of the arguments in a message (Shah et al, 2004). Thus, this has important implications for the design of strategic health messages targeting a very narrowly defined audience segment of the population.
However, Study 2 failed to show the predicted pattern for behavioral intentions. To control participants’ pre-existing beliefs and perceptions regarding abortion, Study 2 included four control variables, including attitudes toward abortion, religious conviction, issue knowledge, and personal importance. Given that the relationships did not hold for intentions, other individual characteristics might have influenced health-related behavioral intentions: for example, perceived susceptibility or the perceived risk of the side-effects of the medical abortion pill (see Lalor & Hailey, 1990). The data also suggest that societal-gain framing may yield more positive attitudes toward medical abortion than individual-gain framing. Although the relative advantage of societal-gain framing over societal-loss framing was not observed, the pattern of effects is closely linked to the recent theorizing that a gain-framed persuasive message may have stronger impact when an issue framed at the societal level encourages people to consider its consequences on psychologically distant entities (i.e., public) rather than psychologically proximal entities (i.e., oneself or a close friend) (see Nan, 2007). This has valuable implications for building effective public health strategies in that many public health advocacy campaigns are aimed at generating public-level solutions, such as “policy change rather than individual behavior as a solution to health problems” (Brown & Walsh-Childers, 2002, p. 478). Thus, strategic public health campaigns could benefit from the societal-level gain framing strategy.

**Implications for Strategic Communicators Across Strategic Communication Disciplines**

The findings of the experimental studies in this chapter have a range of implications for the practice of strategic communications. First, the results suggest the relative effectiveness of a specific message frame to other frames based on the nature of a choice problem. First, Study 1 showed positive frames were more effective for a HPV vaccine in both attribute and goal framing conditions. Considering the nature of the drug is preventing a potential disease, this provides valuable insight into how to build effective messages for preventive medications. For instance, when promoting a healthcare product such as vitamins, the results of Study 1 suggests both positive attributed- and positive goal-frames could be more effective than the corresponding negative frames, because one of the key functions of vitamins is preventing disease.

The findings from Study 2 provide a range of insights into the practice of strategic communication campaigns, especially when dealing with controversial public issues. For instance, as the Study 2 findings suggest, a gain frame could be more effective than a loss frame in public health and political campaigns targeting broader audiences because the focus of public campaigns is likely to be on societal level responsibilities, solutions, or consequences. Further, the Study 2 findings suggest that societal-level frames may have greater persuasive impact than individual-level frames in countries where collectivistic values predominate, such as Asian countries, because societal-level frames are likely to facilitate people to consider societal-level consequences and values (i.e., the public interest). On the other hand, individual loss-framed persuasive messages could be more effective when reaching people in highly individualistic cultures, such as Western countries, because losses outweigh the corresponding gains when the consumer mindset is preoccupied with individual responsibility (see Shah, 2004).

Research findings on individual and societal frames also provide political campaign professionals with valuable insights into how to design effective message for election campaigns. For instance, a political ad can be designed to emphasize either societal or individual level consequences of voters’ decisions on the targeted candidate. The impact of these societal frames may differ based on variations in issues or voters. That is, voters may be more sensitive to a societal gain frame than a societal loss or individual loss frame when the issue of the ad focuses on public issues such as wars on terrorism. On the contrary, an individual loss-framed political ad could be more effective than a societal...
loss- or societal gain-framed ad when focusing on issues such as gay marriage, which is considered a matter of individual choice.

Further, findings on the gain–loss framing effects provide insight into strategic message design in negative political advertising, which has received limited attention in the message-framing literature. An important goal of negative political advertising experts is effectively conveying negative information about a targeted candidate and, as a result discouraging voters not to support for the target. Based on the gain–loss framing perspective, a negative ad message framing either positive or negative consequences of voters’ choice can be strategically designed. For instance, K. Kim (2012) reported that a negative political ad containing loss-framed arguments about the targeted candidate had stronger impact on college student voters’ attitudes toward the candidate than a negative ad containing gain-framed arguments when the targeted candidate was from their supporting party. The findings suggest that a Democratic Party candidate in a conservative state, such as Wyoming or Oklahoma, could effectively attack a Republican candidate by incorporating loss-framed arguments in his or her campaigns. Future investigators should take this research initiative further by applying it to a wider range of issues, consumer segments, and media contexts, so that the message-framing literature contributes to specifying a set of solid guidelines on which strategic communication professionals can act.

A potential limitation in most message-framing research is that the experimental stimuli were text-based to allow for effective manipulations of the content elements. It would be meaningful to replicate the findings in this chapter using more realistic versions of strategic communication campaigns. Indeed, channel differences may play a role in the way media advocacy messages are perceived. Future studies may want to consider framing strategies in broadcast settings or online advertising. Another potential limitation is that most framing studies were conducted in laboratory settings. Real strategic campaign settings may produce different framing effects from those observed in hypothetical settings (Kühberger et al., 2002). Hopefully, the findings in this chapter will spur further investigation on the effects of message frames, especially individual—societal and attribute–goal frames, and provide a guideline for developing effective messages by illuminating how strategic communication experts can utilize and adapt message frames across strategic communication disciplines.

Note
1 The manipulation messages were based on the contents of the following website www.abortion.gen.nz/docs and modified for the study manipulations.

References
Kenneth E. Kim


Framing as Strategic Message Tactic


