The Application of Persuasion Theory to the Development Of Effective Proenvironmental Public Service Announcements

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The goal of this article is to provide specific guidelines to help create effective proenvironmental public service announcements (PSAs). Campaign designers are encouraged to initially identify and investigate the optimal target audience and then draft and test reactions by samples of that audience using pilot messages. Designers are also advised to consider research on attitude persistence, memory, and social norms and apply this research to the message content and presentation style. The article concludes with an application of research from social psychology to a series of overall guidelines for effective PSAs. If environmental campaign developers follow these specifications, the chance of PSA success should be enhanced.

Public service announcements (PSAs) are designed to inform or induce certain behaviors in specific audiences, generally for noncommercial profit using mass media-approaches (adapted from Rogers & Storey, 1987, by Rice & Atkin, 1989). The advantage of using PSAs to promote prosocial behavior is due in part to their ability to efficiently and repeatedly penetrate a large target population, with the possibility of relying on highly respected sources as spokespersons (Hornik, 1989). One of the best-known environmental PSAs was presented in the 1970s.

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The Iron Eyes Cody messages featured a heavily littered environment and a Native American with a tear in his eye and the slogan, "People start pollution; people can stop it." Since its original airing in 1971, the PSA has been seen by an estimated 50 million Americans (Dwyer, 1999). In 1997, it was named one of the top 50 commercials of all time by *Entertainment Weekly* (Dwyer, 1999). Although this message certainly elicits emotional reactions from viewers, this article will point out a possible flaw in the message, along with suggestions for creating an even stronger PSA.

Although there is a great deal of persuasion research that addresses attitude change and corresponding behavior change, PSAs are typically designed without taking advantage of this information. Proenvironmental campaigns face a special problem, because the messages attempt to direct a behavior that does not occur until a later time. The goal of this article is to provide specific guidelines to help create effective proenvironmental PSAs.

When developers of proenvironmental PSAs neglect to consider basic principles derived from mass-media communications research, their efforts to bring about behavioral change are likely to be unsuccessful. A great deal of research has examined the importance of identifying a target audience, learning about their attitudes and behaviors related to the target issue, and then pilot testing responses to preliminary versions of the message. Based on previous research, Mendelsohn (1973) found that public information campaigns have a relatively high probability of success if (1) campaign developers assume that most audiences are likely to be only mildly interested in the message, (2) middle-range goals are set (e.g., developers feel confident that simple message exposure will lead to the desired information gain or change in behavior), and (3) the target audience is thoroughly investigated in terms of demographics, lifestyles, values, and mass-media habits. Mendelsohn described three information campaigns that were highly successful because each of their designs reflected close collaboration between social scientists and communications specialists.

Atkin and Freimuth (1989) provide a step-by-step guide to formative evaluation research in campaign designs. They contend that evaluation research should first answer questions about audience attitudes and behaviors prior to the campaign design, then evaluate the design's execution and effectiveness during and after a campaign (Flay & Best, 1982; Flay & Cook, 1989). This evaluation research process includes two major steps, the preproduction stage and the pretesting stage, each of which has numerous substeps. In the preproduction stage of the research, the strategist attempts to discover as much as possible about the target audience before specifying objectives, drafting strategies, and matching the message to the audience. Then the pretesting stage involves the process of methodically collecting reactions from the intended audience based on preliminary versions of messages before they are finalized (Bertrand, 1978; U.S. Department of Health and Human Services, 1984). Since the current process of producing PSAs (based mainly on

creative inspiration) has achieved only limited success, this proposal for step-by-step research certainly merits consideration by managerial and creative personnel.

McGuire (1989) also provided useful guidelines for creating effective public communication campaigns. He described how fundamental theories about a person's structure and motivation affect that person's response to a persuasive message. An input-output matrix was formulated to better understand the communication variables (input) and the response steps (output). Along the input axis are important aspects of the message such as the source (age, gender, socioeconomic status, ethnicity, credibility, and attractiveness), message factors (delivery style, length, repetition, speed of speech, and vividness), channel factors (television, radio, newspaper, or magazine, as well as specifics within these), receiver factors (age, education, gender, lifestyle), and finally target behaviors at which the communication is aimed—these are called the destination factors (immediate versus long-term change, trying to encourage a new behavior or stop a current habit). Most of these input options are under the control of the campaign developers, and thus they can be manipulated to achieve the most effective response.

The output factors include 12 consecutive response substeps that are all considered necessary if the communication is to be practical. For example, the public must have contact with the message and, having been exposed to it, must pay attention to it, like it, understand and learn from its content, agree with it, store the information and be able to retrieve it later, and make decisions based on it. The final steps include acting from that decision, getting reinforced for such actions, and taking on postcompliance activities (such as convincing others or restructuring one's self-concept) that fortify the new attitude inspired by the message.

McGuire's matrix enables producers of proenvironmental PSAs to consider design alternatives such as whether the spokesperson should be male or female and whether to use a soundtrack or just show the source's face speaking, as a function of how each option may be responded to on the output matrix. Although Atkin and Freimuth (1989) also focused on the importance of design evaluation, they emphasized only a few responses such as liking or recall. McGuire realized that it is important to complete a thorough evaluation of potential PSAs that goes beyond simply picking the one that is better liked. The current "Got Milk?" advertising campaign is under scrutiny because the highly popular and expensive celebrity advertisements promoting milk consumption have correlated with decreased sales (Leonhardt, 1998). Although this is only correlational data, it does indicate that liking a message does not necessarily lead to the desired behavior change. McGuire warned that making a decision to use a message with only limited feedback from a target audience may mean choosing a PSA that will not be responded to on the final steps, such as behaving in accord with the message.

McGuire's 12 stages provide a practical checklist for creating and evaluating the effectiveness of proenvironmental PSAs. This checklist could be incorporated

along with Atkin and Freimuth's (1989) step-by-step plan to produce a comprehensive evaluation of potential proenvironmental communications. For instance, researchers working on antilittering PSAs could use surveys and focus groups along the lines of Atkin and Freimuth's preproduction stage to measure the effectiveness of McGuire's "receiver" factors and determine potential "message" types and "channel" possibilities. Then campaign designers could turn to the pretesting phase and collect reactions to preliminary antilittering messages using McGuire's output axis for the dependent measures. Those communications that are favorably responded to at the later steps (e.g., antilittering behavior) should be most effective when the message is presented publicly. This process of closely examining the audience and their reaction to preliminary messages is consistent with the advice of McKenzie-Mohr in this issue. He found that social marketing strategies were much more effective if the developers thoroughly considered the target audience and any potential barriers they might have to accepting the message. Once these barriers are recognized, campaign developers can take a more informed approach to designing a successful campaign.

Attitude Persistence Induced by Systematic Processing

Researchers have consistently found that once an individual is exposed to a message, it is how the individual processes the information that determines if persuasion will be enduring. Cook and Flay (1978) found that participants who thoughtfully considered message content demonstrated more enduring attitude change; in contrast, when participants had little motivation and/or ability to think about the message presented, the effects were typically short lived. Petty and Cacioppo (1981) developed the elaboration likelihood model of persuasion and argued that the course of persuasion is based on how much mental processing or elaboration the target undergoes. This elaboration likelihood model includes both a peripheral route to persuasion and a central route to persuasion, depending on the target's motivation and ability to process the message.

The peripheral route is used whenever the target's motivation or ability to think about an issue is low. In this case, persuasive influences are more tangential to the issue at hand. The message recipient tends to focus on source characteristics or potential rewards for abiding by the message rather than on the message content. For example, an individual who has not considered using public transportation may notice only the appearance of the actors or the catchy jingle in a public transportation PSA. Any resulting persuasion would not be due to actively considering the issue but instead would be a result of peripheral "persuasion cues" (e.g., source attractiveness). The use of peripheral persuasion cues is rarely successful in producing change when the target audience has prior knowledge of or interest in the issue. This means that a target audience that has been considering the use of public transportation is unlikely to be persuaded in this direction simply by the use of an

attractive spokesperson. Moreover, attitude change that does come about through the peripheral route is rarely permanent.

The peripheral route is risky for any type of public communication campaign. The first problem is that most proenvironmental behaviors advocated by PSAs are likely to be thought-provoking, and the peripheral route depends on heuristics. It is more successful at getting people to choose brand A over brand B than at getting them to change their lifestyle. Although peripherally processed behavior change is usually short-term, there are means by which it could produce a more enduring result. For instance, if the target audience is motivated to take public transportation because they see a popular spokesperson advocating this behavior, the targets might begin to consider the advantages of public transportation, and in such a case the final result of peripheral processing could be long-term behavior change. This possibility is consistent with Bem's (1972) self-perception theory, in which people observe their behavior and then infer internal reasons for it.

Central processing usually occurs when the audience for a persuasive message is motivated and able to take the time to consider its content. Central processing is more likely when the issue at hand is personally relevant to the audience. For the central route to be successful, the arguments must be attended to, understood, and integrated into established belief structures. If the communicator is concerned about the target's ability to pay attention to or understand the message, certain tactics can be used to increase the probability that the target will do both of these things, such as repeating the message or providing a written version. When the message's arguments are strong, this active processing can generate positive evaluations and result in the most enduring attitude change. This is said to occur via the following sequence (Petty & Cacioppo, 1981):

Attention → Comprehension → Elaboration → Integration → Enduring Attitude Change

To create a proenvironmental PSA that leads to enduring attitude/behavior change, the central route is probably the best option, as it strives to meet each of the output points on McGuire's matrix. This is certainly easier said than done.

One of the first factors a communication designer should consider is the background attitudes and behaviors of the target audience. This can be done with surveys or focus groups, in accord with Atkin and Freimuth's (1989) preproduction stage. Researchers should gain insight into how meaningful the issue is to the target audience. If the issue is gauged to be important, then central processing is likely to occur. In this case the message should be effective to the degree that the audience favorably responds to it along McGuire's output axis. Of course, simply attending to a PSA is not enough; the target audience must also remember it later, and thus the issue of human memory will now be explored in regard to PSA designs.

Memory

Like advertisements and other types of PSAs, proenvironmental PSAs are not presented at the specific point in time when the target should respond to the message; instead, they are presented with the idea that the target will respond later with an appropriate behavior change. To determine guidelines that will enhance the effects of these PSAs, it is important to understand how the human memory system works. There are a number of topics within the study of memory that have an impact on these specifications. Message designers must be aware that PSAs will be presented in a message-dense environment, so they should consider methods to overcome distraction. The next section of this article investigates how humans store information in memory. If campaign developers are aware of how people organize information and how vivid information stands out in memory, then proenvironmental PSAs can be designed and presented so their message content is easily accessible. From here retrieval becomes an important issue. Including an encoding cue in a message is one way to increase the likelihood that the message content will be recalled at the appropriate time and place in the future. Because PSAs are presented amid numerous other communications, the first feature of memory to be discussed is distraction.

Distraction

Petty and Cacioppo's elaboration-likelihood model predicts that personally involving messages increase thoughtful consideration of the message and strengthen resulting attitude change. In fact Petty, Cacioppo, Haugtvedt, and Heesacker (1986; reported in Petty & Cacioppo, 1986) found that involving messages resulted in more-durable attitude change. But what happens to involvement and persistence when the target's ability to dedicate full attention to the message is taxed?

Pratkanis and Greenwald (1993) investigated how to overcome the obstacle of persuading people in an atmosphere that is cluttered with competing messages. Such an environment hampers message recipients' ability to devote their attention to an issue and results in a great deal of associative interference and forgetting (Baumgardner, Leippe, Ronis, & Greenwald, 1983; Webb & Ray, 1979). Previous research has indicated that consumers in such an environment tend to overlook most product claims and respond only to the key elements in certain personally involving messages (Baumgardner et al., 1983; Chaffee & McLeod, 1973). Pratkanis and Greenwald developed a message utility hypothesis to address this issue. In their consumer marketing approach, participants spent more time considering messages that made positive evaluations of products that were relevant to their purchasing task. It was these useful messages that had the most persistent effects on the participants.

Pratkanis and Greenwald concluded with two suggestions. First, they warned that in a message-dense environment, persuasive appeals that represent uninvolving issues have very limited impact. To counteract this problem the authors recommended using a highly credible source and relying on a single, well-placed, very positive message.

Not surprisingly, many researchers have found highly credible sources to be more persuasive than those with less credibility (Hovland & Weiss, 1951; Kelman & Hovland, 1953). For instance, a PSA that promotes public transportation will probably be more effective if the spokesperson or sponsoring foundation is considered to be either an expert on taking a train or bus, perhaps a regular commuter, or if the target audience finds this individual or organization trustworthy. In this latter case developers probably would want to avoid using employees of the transportation company as spokespersons, since these individuals have a financial interest in promoting buses or trains. Campaign designers should rely on Atkin and Freimuth's (1989) preproduction guidelines to determine which potential sources are considered to be the most credible by the target audience.

Pratkanis and Greenwald's (1993) second suggestion emphasized the elaboration-likelihood model. In an environment swamped with competing communications, it is the involvement of the target that enhances his or her attention to and elaboration of the persuasive appeal. Involvement will be based on whether the message comes across as personally useful to the target. Messages that help resolve specific goals will have the most persistent effects. Pratkanis and Greenwald's research counsels developers of public transportation PSAs that a communication should not just tell members of the public that they should take the train or the bus, but rather it should explain specifically how to use this means of transportation and describe the many ways this behavior will be beneficial.

Storage

Although simply getting the audience's attention is a difficult task, an equally challenging process is providing the message content of a PSA in such a way that audiences will readily store it in memory. Keller (1987) noted that because consumers probably do not make decisions during exposure to an adverstisement, consumer memory for advertising is important. As noted previously, proenvironmental PSAs are like advertisements in that they typically encourage a new behavior that will probably not be relevant until a later point in time. Therefore it is important that message creators understand the process of long-term memory storage.

Wood's (1982) research on memory found that retrieval of our past experiences and behaviors is a more important contributor to our current opinions than is retrieval of abstract cognitions. Wood, Kallgren, and Preisler (1985) found that participants with access to background attitudes and behaviors in memory changed their opinion on several target issues to the extent that the messages included

high-quality arguments. They considered their results to support the elaboration-likelihood model; high-retrieval participants based their opinion change on the message's content, whereas low-retrieval participants employed more heuristic strategies (Chaiken, 1980). This suggests that campaign designers should survey the target audience to learn about their attitudes and experiences with the persuasive topic. If a common theme becomes apparent, then this "personal" experience should be included in the message. For instance, suppose campaign designers working on a home energy conservation PSA learn that many people in the target audience want to conserve energy but do not know which household appliances and heating and cooling systems use the most energy. If this is a common experience, then a discussion of this issue should be present in the message. The communication should of course continue with a description of simple ways to reduce energy consumption, perhaps by explaining the savings associated with reducing the temperature on the hot water heater or running the dishwasher only when it is full. When the target audience sees this comparison of household appliances in the message, it should make the issue of energy conservation more personally relevant, and the central route to persuasion should be more likely to become activated.

Communicators have relied on concrete, vivid messages to be more personally meaningful, more emotionally arousing, and as a result more influential. Nisbett and Ross (1980) defined vivid information as likely to draw and hold our attention and to stimulate the imagination to the extent that it meets three criteria: (1) it grabs us emotionally, (2) it is specific and triggers our imagination, and (3) it is immediate in a sensory, temporal, or spatial way.

Rhoads (1994) investigated this issue to determine what type of vivid message is most persuasive. He predicted that an effective message should vividly portray its thesis but avoid adding vivid, irrelevant details. Rhoads found that a message that emphasized the main point with vivid details, without vivifying extraneous details, was rated more positively than messages that vivified irrelevant details in terms of liking, interest, and agreement. He speculated that adding extraneous details might undermine the persuasiveness of messages by distracting the participants from the main point of the communication. Based on this research, an effective PSA should demonstrate the main argument of the message with a vivid description while avoiding vivid surrounding details that may distract from the message. For instance, an antilittering PSA that demonstrates social disapproval of littering should not present attention-drawing versions of a park environment (the beach, the swimmers, or the attractive landscape), but rather it should vividly demonstrate how people socially disapprove of a litterer.

Retrieval Cues

Recall of a message is crucial if the target is going to respond to it at the appropriate time in the desired manner. One group of researchers studied more than 200

energy conservation programs of California utility companies and found that the recall rates for these messages were often as low as 7% (Condelli et al., 1984). Considerable research has investigated this issue from an advertising perspective. Keller (1987) noted that because consumer decisions do not usually take place during exposure to an advertisement, memory is an important aspect of successful advertising. Advertising encoding cues are pieces of verbal or visual information that are initially included in an advertisement that establish a connection between the brand and the advertisement's message. Keller's research on memory factors in advertising opens with an industry example of encoding/retrieval cues that he states helped motivate his research. In the 1970s, Quaker Oats had a highly popular advertising campaign for Life cereal with its classic "Mikey" commercial. To profit from this well-liked message, Quaker included a small, still photo from the commercial on the front of the Life cereal package. Researchers have since found that effective recall is enhanced by strong similarity between the stimulus in the message and a matching (retrieval) cue in the natural environment (Craik, 1981; Tulving, 1979). Retrieval cues in the behavioral setting enhance recall of brand claims and lead to more positive brand reactions (Keller, 1987).

Because of the time lag between exposure to a proenvironmental PSA and the desired action of the target audience, retrieval cues can be a great aid. Tulving and Osler (1968) tested recall of word pairs and found that recall increased dramatically for participants whose memory task included a matching encoding cue and retrieval cue compared to those whose cues did not match. Fisher and Craik (1977) found that this recall is even more impressive when the encoding cue requires effortful processing. Bator (1997) applied these findings to a test of the effectiveness of various amateur antilittering PSAs. The least amount of littering occurred among participants who saw a PSA that emphasized social disapproval of littering during a close-up of a piece of litter. These findings suggest that campaign developers should consider what visual cues are likely to be in the natural environment at the time the target audience is going to act on the message. Such a cue should be emphasized in the message by focusing on it while the most persuasive statements are made. When the target sees this cue at the time of a behavioral decision, it should spark recall of the message's main point.

After deciding on an encoding cue, the next question is what main point should be stated during a focus of this cue. Cialdini, Kallgren, and Reno (1991) executed a research program that is highly applicable to this article. They opened their report of this work by describing the antilittering PSA from the 1970s known as the "Iron Eyes Cody spot." In this message a Native American paddles a canoe up a litter polluted river and then tearfully watches as a bag of trash is thrown on the side of a littered highway from a passing car window. Cialdini and his colleagues explained that although the message certainly emphasized that littering is wrong, at the same time it carried a subtext implying that littering is commonplace. Descriptive norms provide information about what most people do, and the Iron Eyes Cody message

inadvertently emphasized the descriptive norm that many people litter. Injunctive norms provide information about social approval and disapproval, and the Iron Eyes Cody spot gets most of its persuasive appeal through the strong emphasis on social disapproval of littering. Cialdini and his colleagues tested descriptive versus injunctive norms in field settings to determine which one is a more powerful motivator of antilittering behavior. They found that injunctive social norms were the most widely applicable in their ability to encourage specific behaviors across a variety of situations and target populations.

Based on this norm research, developers of proenvironmental PSAs are reminded to use injunctive norms by showing social approval for the desired behavior and/or social disapproval for failing to follow this desired behavior. PSA developers are also advised to avoid the common practice of showing many people engaging in the behavior that is being discouraged. For instance, a recycling PSA could portray everyone in an office recycling papers and strongly disapproving of the one person who throws paper into the trash. This kind of message could also incorporate a retrieval cue by emphasizing the disapproval during a close-up of a wadded up piece of paper. The message may also want to explain the ease and benefits of recycling but should avoid pointing out any information about problems with recycling or the low number of people who recycle, as these latter points inadvertently stress an antirecycling descriptive norm. A recycling PSA that emphasizes prorecycling descriptive and injunctive norms and includes an encoding cue should boost recall of the message at a later point when the desired behavior becomes relevant and increase the persuasive power of the campaign.

Commitment and Consistency

Researchers have found that when individuals feel committed to a certain behavior, they will often adopt an identity that is consistent with that behavior, the result of which frequently is long-lasting attitude and behavior change. Several theories in social psychology depend on our desire to be and be seen as consistent. Festinger's cognitive dissonance theory (1957) explains how we will change our attitudes in an effort to reduce the discomfort associated with experiencing an inconsistency. Heider's balance theory (1946) describes how we prefer to experience balance among our relationships and will change our attitudes about those in our social circle to maintain balance. As Cialdini (1993) explains, "Once we make a choice or take a stand, we will encounter personal and interpersonal pressures to behave consistently with that commitment" (p. 51).

Pallak, Cook, and Sullivan (1980) examined how commitment affects a person's ability to be persuaded toward a change in energy consumption. They provided a sample of Iowa homeowners with conservation tips, asked them to reduce consumption, and also created commitment in the following way: They informed these people that the names of conservers would be published in the newspaper.

Within a month this experimental group distinguished themselves from control groups (who were not promised publicity or who were not contacted) by saving significantly more gas (an average of 433 cubic feet of natural gas apiece). The experimental group was then told that the publication of names would not be possible and that the experiment had concluded. Although there was never any publicity, the experimental group maintained their energy conservation throughout the following winter months. It seems that the prospect of having their names published in the newspaper was the impetus behind the participants' initial behavior change, but when the publicity did not occur, the new behavior served a committing function, and energy conservation continued.

Katzev and Johnson (1984) have confirmed these results in a similar study. In their experiment, homeowners who signed a written commitment to try to reduce their energy usage conserved significantly more energy than both a control group and homeowners who were offered money for conservation. Commitment is considered to be the catalyst that drives individuals to experience an internal conviction for both a new identity and the corresponding behavior. Once an individual internalizes this conviction, the identity and behavior can continue even beyond the duration of the commitment.

Although it may initially seem that PSAs are poor mechanisms for generating commitments, PSAs can take certain steps to increase the audience's commitment to the issue. One possibility is to encourage the audience to contact the sponsoring organization for a bumper sticker, refrigerator magnet, or t-shirt that declares support for the campaign. Not only does this get the target audience more involved in the issue by phoning or writing for these products, but wearing a t-shirt or displaying a magnet or bumper sticker provides a public display of association and at the same time commitment to the issue. From here, these individuals could be seen as interpersonal communicators who are definitely likely to internalize their support for the issue. It is also likely that the bumper sticker, magnet, or t-shirt could be a conversation piece, in which case the target's friends or neighbors might learn more about the issue or at least gain normative information about how others feel about the issue. In this way providing access to such paraphernalia should enhance the targets' involvement in and commitment to the issue, while at the same time spreading the information along an interpersonal route.

In this issue McKenzie-Mohr provides an example of the use of a decal to increase Canadian residents' composting. Those who were already composting at the time of the study were phoned and asked to place a decal indicating their support of composting on the side of their garbage container. Over 80% of those contacted agreed to this request. It's likely that the visibility of these decals increased the residents' commitment to composting and also informed neighbors of the prevalence of this behavior.

Overall Guidelines for Proenvironmental PSAs

This article provides numerous suggestions for improving proenvironmental PSAs. Several researchers have already developed models that can be readily applied to this goal, and three seem especially suitable for our purposes: McGuire's (1989) input/output matrix, Petty and Cacioppo's (1981) elaboration-likelihood model, and the checklist constructed by Atkin and Freimuth (1989).

During the preproduction stage of the campaign design, developers should focus on the target population. They should first identify the target audience by examining who is most at risk for performing the undesirable behavior and who is most open to media persuasion. The designers should also determine which behaviors are most amenable to change via PSAs. Once a target audience has been identified, members of that audience should be surveyed to learn what experiences they have that are relevant to the issue. The most important criterion for the spokesperson chosen to present the message is that he or she be credible.

During the concept development phase, the campaign designers should begin the first stage of pretesting. Atkin and Freimuth (1989) recommended using focus group interviews or theater testing to present a sample audience with partially formulated ideas. The audience should be asked to respond to such questions as: Did you find the wording appropriate? Did the message explain how to resolve a specific problem? Did you find it personally useful? How involved did you get in the message? Did the message relate to your personal life? Was it well-organized? Were the main arguments vivid? Was background information vivid? and Did you get a sense of norms regarding the issue? In addition the audience should respond to McGuire's output matrix: Did you attend to the message? Did you like it? Were you interested in it? Did you understand it or learn what it was encouraging? Did you learn how to react? Did your attitude change? and Did you agree with it? A posttest would be an effective way to gain information further down the matrix and learn if the audience remembered the message; if they could retrieve the information from memory; whether they had behaved in accord with the message; whether they were reinforced for this; and whether there had been any postbehavioral consolidation of audience members' self-concepts.

During the pretesting at message execution phase, completed messages are presented to a sample audience in preliminary form. Many of the questions presented during the concept development phase will be repeated here. The developers will attempt to learn if the message had strong attentional value; whether the audience comprehended it and found it relevant; what the strengths and weaknesses of the message were; whether it demonstrated how to resolve a specific goal; whether it was useful; whether the audience got involved in the message content; whether it related to the audience's personal life; whether it was vivid; whether it demonstrated norms; and whether the audience felt a sense of commitment to the issue.

In addition to this three-step guideline, there are some general suggestions for campaign designers. The message content should be very specific. As Pratkanis and Greenwald (1993) found, messages that describe how to solve specific problems are more likely to be attended to, as they have been found to break through the message-dense environment. The message should explain precisely how a behavior change should occur, and this explanation should be vivid and involving without having vivid and distracting additional information. The message should include an encoding cue (Keller, 1987) that will definitely be present in the upcoming behavioral setting. This cue should be tied to the main point of the message so that motivation is activated perhaps by providing a descriptive and/or an injunctive norm (Cialdini, Reno, & Kallgren, 1990). This cue will increase the likelihood that the audience will recall the message and act in accord with it at the appropriate point in time.

Atkin and Freimuth provide an excellent checklist for evaluating an initial campaign plan, and combined with McGuire's input/output axis the two provide a thorough guideline for proenvironmental communication developers. If the campaign developer tests the message using these checklists and finds that the message is effective at each stage of the checklists, then not only will the central route to persuasion be incorporated, but the message is much more likely to be effective, which is the most desirable quality of a proenvironmental (or any other) PSA.

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