15 Acceptance, Yielding and Impact: Cognitive Processes in Persuasion

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Information is the essence of the persuasion process. Receivers are exposed to a persuasive communication in the hope that they will be influenced by the information it contains. The effectiveness of the message depends in large measure on the nature of this information. It is therefore somewhat disconcerting to find that message content has rarely been the focus of much attention. Construction of an effective message has been left largely to the intuitive devices of the investigator, whereas most communication and persuasion research has been devoted to the discovery of factors that influence the effectiveness of the message as constructed. To be sure, order of presentation, type of appeal (e.g., high versus low fear appeal), and other global features of the message have not escaped scrutiny; but few attempts have been made to take account of the items of information actually contained in the message.

The purpose of the present chapter is to draw attention to the decisive role played by the content of a persuasive communication. In the first section we note that a message can be designed to influence different kinds of target variables, and we propose to distinguish between belief, attitude, intention, and behavior as potential targets of a communication. We discuss the differential determinants of these variables and demonstrate that the choice of a given target sets the stage for the selection of information that must be made part of the message in order to bring about the desired change. The chapter's second section turns to a consideration of the cognitive processes that mediate the effects of a message. The structure of a typical persuasive communication is described, and a distinction is made between acceptance of arguments contained in the message, yielding to those

arguments, and possible impact effects on arguments not mentioned in the message. Acceptance, yielding, and impact are viewed as the critical cognitive processes in any persuasion situation. In the final section, the role of various source, message, and receiver factors is discussed. Our goal, then, is to present a general information-processing theory of persuasion and to try to show how this theory can provide a unifying framework for research on communication and persuasion.

TARGET VARIABLES AND THEIR DETERMINANTS

Persuasive communication is usually viewed as a means of bringing about attitude change, where the term *attitude* is used in a generic sense to refer not only to a person's affective feelings toward some object but also to his or her cognitions (or beliefs) about the object and conations (or behavioral tendencies) with respect to the object. Given this all-inclusive definition of *attitude*, investigators have felt free to select their dependent measures in an arbitrary fashion, so long as the measure appeared to be related to the issue under consideration. The result has been an accumulation of largely contradictory and inconsistent research findings with few (if any) generalizable principles of effective communication.

In marked contrast, we have advocated a clear distinction between belief, attitude, intention, and behavior; and we have tried to show that, although interrelated, these variables have different determinants and are affected in very different ways by the same experimental manipulations (Fishbein & Ajzen, 1972, 1975). Because the effectiveness of a persuasive communication depends on the extent to which it influences the determinants of the target variable selected by the investigator, we must turn our attention to the determinants of the different kinds of target variables.

Influencing Intentions and Behaviors

Consider, first, a message designed to change the receiver's behavior. Over the past 10 years, we have developed and presented evidence in support of a theory for the prediction of behavioral intentions and overt behavior (Ajzen & Fishbein, 1970, 1972, 1973, 1980; Fishbein, 1967, 1972, 1973, 1980; Fishbein & Ajzen, 1972, 1975). A detailed description of this work is beyond the scope of the present chapter; the following is a brief outline of the theory of reasoned action.

According to the theory, an individual's behavior (B) is determined by his or her intention (I) to perform the behavior in question. Assuming that no unforeseen events have produced a change in plans, a measure of the individual's intention should be the best single predictor of behavior. The behavioral intention is viewed as a function of two factors: (1) the individual's attitude toward performing the behavior under consideration (A_B)—that is, his or her positive or negative feeling toward performing the behavior; and (2) the individual's subjective norm with respect to that behavior (SN)—that is, his or her belief that most important others think the individual should or should not perform the behavior. The relative importance or weights (w) of the attitudinal and normative factors may vary from intention to intention and from person to person. These relationships are shown in Equation 1.

$$B \sim I = \mathrm{f}[w_1 A_B + w_2 SN] \tag{1}$$

It can be seen that a person's intention is a function of two factors—one personal in nature (A_B), and the other reflecting social influence (SN). Unlike the traditional tricomponent view of attitudes mentioned in the introduction, attitude toward a behavior is defined in our model strictly in terms of a bipolar evaluative or affective dimension. A person's attitude toward a behavior is simply that person's subjective judgment that performing the behavior is good or bad, desirable or undesirable.

Looking for the determinants of this attitude, we are led to a consideration of beliefs. According to the theory of reasoned action, an individual's attitude toward a behavior is a function of his or her *salient* beliefs about performing the behavior. A belief about any object may be defined as the person's subjective probability that the object has a given attribute. The terms *object* and *attribute* are used in the generic sense, and they can refer to physical objects, people, actions, events, or any other discriminable aspect of the individual's world. In dealing with attitudes toward a behavior, the object of interest is, of course, performance of the behavior. The attributes associated with this object are usually the consequences or outcomes of performing the behavior in question. To illustrate, a person might indicate a 60% chance that her smoking leads to lung cancer. The belief object "my smoking" is linked to the attribute "leads to lung cancer" with a belief strength or subjective probability of .60.

Generally speaking, a person who believes that performing a given behavior will lead to mostly positive outcomes will hold a favorable attitude toward the behavior, whereas a person who believes that performing the behavior will lead to mostly negative outcomes will hold an unfavorable attitude toward it. Specifically, the belief that performing a given behavior will produce a certain outcome is assumed to contribute to the attitude toward the behavior in direct proportion to the subjective probability or strength of the belief (b) and to the degree to which the outcome is positively or negatively evaluated (e). The relation between a set of n beliefs about performing a behavior and attitude toward that behavior is summarized in Equation 2.

$$A_B = \mathrm{f}[\sum_{n} b_i e_i] \tag{2}$$

It can be seen that A_B is determined by the sum of the products of belief strength and attribute evaluation over the set of beliefs that are salient for the individual.

The second factor in our model for the prediction of intention and behavior is the subjective norm (see Equation 1). Subjective norms with respect to a given behavior are defined as people's beliefs (i.e., subjective probabilities) that most people who are important to them think they should or should not perform the behavior in question. According to the theory of reasoned action, these general subjective norms are determined by salient normative beliefs (b) concerning the perceived normative prescriptions of specific referent groups or individuals (e.g., spouse, co-workers) and motivations to comply with each of these referents (m). The relation between a set of n salient normative beliefs and the subjective norm is given in Equation 3. It can be seen that each

$$SN = f[\sum_{n} b_i m_i] \tag{3}$$

belief as to what a specific referent thinks the person should do is multiplied by the person's motivation to comply with the referent, and the resulting products are summed across the n salient normative beliefs.

Our discussion up to this point is summarized in Fig. 15.1. Consider now the implications for any attempt to influence behavioral intentions or overt behavior. It can be seen in Fig. 15.1 that in the final analysis, behavior change is brought about by producing changes in beliefs. By influencing beliefs about the consequences of performing the behavior, we can produce change in the attitude toward the behavior; and by influencing beliefs about the expectations of specific referents, we can affect the subjective norm.[1] A change in the attitudinal or normative component is likely to be reflected in the person's intention and behavior, provided that the component affected carries a significant weight in the prediction of the intention. Two possible strategies suggest themselves with regard to the beliefs that are singled out for change: We can try to influence some of the beliefs that are salient in a subject population or try to introduce novel, previously nonsalient, beliefs.

A concrete example may be instructive. Suppose that a communicator would like to induce receivers of his message to donate blood. He would first assess the salient beliefs held by members of his target populations,[2] obtaining a set of beliefs concerning the perceived consequences of donating blood (e.g., "Donating blood is painful"; "Donating blood helps save lives") and a set of normative beliefs with respect to this behavior (e.g., "My spouse thinks I should not donate

[1]Note that attitudes toward the behavior can also be influenced by changing outcome evaluations and that subjective norms can also be influenced by changing motivations to comply with specific referents. However, in both cases we must ultimately again change beliefs. Because the evaluation of an outcome is nothing but the person's attitude toward that outcome, influencing the evaluation requires changing beliefs about the outcome. Although the determinants of motivation to comply are less well understood, it seems clear that a person's motivation to comply with a given referent is some function of his or her beliefs about that referent and, in particular, beliefs about the referent's power, expertise, trustworthiness, and so forth.

[2]For a description of belief elicitation procedures, see Fishbein and Ajzen (1975).

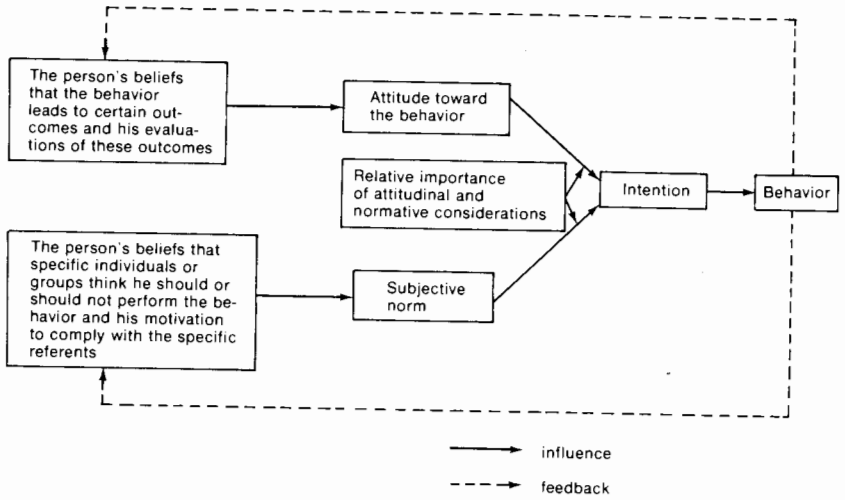

FIG. 15.1. Schematic presentation of conceptual framework for the prediction of intentions and behaviors.

blood"; "My friends think I should donate blood"). In constructing his message, the communicator could attempt to change any one of these salient beliefs in the appropriate direction. Thus, in an attempt to produce more favorable attitudes toward this behavior, he could try to decrease the receivers' subjective probabilities that donating blood is painful. Alternatively, he could try to induce a more favorable subjective norm by increasing the receivers' subjective probabilities that their spouses think they should donate blood.

The second strategy open to the communicator involves the introduction of previously nonsalient beliefs, or of beliefs that were salient for only a minority of the target population. For example, the communicator might induce the receivers to believe that donating blood will assure them of access to the blood bank should they ever need it and that the President of the United States thinks they should donate blood. Assuming that receivers positively evaluate having access to the blood bank, this communication should produce more favorable attitudes toward donating blood. In the same manner, if the receivers are highly motivated to comply with the President, the communication should result in more favorable subjective norms.

It is important to note that the attitude toward a behavior is based on the *total set* of beliefs about performing the behavior and that the subjective norm is similarly determined by the *total set* or normative beliefs. Although a message that is successful in changing one or two beliefs concerning the behavior's consequences may at times influence the person's attitude toward the behavior, it will often have little or no effect, because the changes produced as intended may be offset by unexpected changes in other relevant beliefs. For the same reason, a

message that influences one or two normative beliefs may also have little effect on the subjective norm. Only when the message brings about a shift in the summed products across the total set of underlying beliefs can it be expected to influence attitudes or subjective norms and, hence, intentions and behavior.

Influencing Attitudes Toward Targets

Rather than being directed at an intention or a behavior, the target of a persuasive communication is often an attitude toward some object, person, or event. We have already discussed the determinants of attitude toward a behavior. It should be clear, however, that attitude toward a behavior is but a special case of attitudes in general. We have singled it out for special consideration because of its importance as a determinant of intentions and, indirectly, behaviors. Nevertheless, everything we have said about the determinants of attitude toward a behavior can, with slight modifications, also be applied to attitudes toward any other target.

Consistent with the work of other theorists (Rosenberg, 1956; Zajonc, 1954), Fishbein (1963) has argued that an attitude toward any object is based on beliefs (b) that the object has certain attributes and evaluations (e) of those attributes. The terms *object* and *attribute* are again used in the generic sense to refer to any discriminable aspect of the individual's world. As noted earlier, we use the phrase "attitude toward a *behavior*" when the object refers to an action; attitudes involving other objects will be called "attitudes toward *targets*" (A_t). Our present discussion deals with the determinants of a person's attitude toward a target.

Consider, for example, an individual's attitude toward another person. According to Fishbein's theory, the individual's attitude toward the other person will be favorable if most of his or her salient beliefs link that person to such positively evaluated attributes as "intelligent," "friendly," "reliable," and so forth. Conversely, if the individual associates mostly negative attributes with the other person ("dishonest," "rude," "immature"), his or her attitude toward that person will be negative.

The relation between a set of n salient beliefs about a target and attitude toward that target is shown in Equation 4. This equation is identical to Equation 2 except that the beliefs involve the perceived attributes of

$$A_t = f[\sum_n b_i e_i] \tag{4}$$

some target rather than the perceived outcomes of a behavior. Considerable evidence in support of this theory has been presented elsewhere (e.g., Ajzen, 1974, 1977a; Fishbein, 1963; Fishbein & Ajzen, 1975; Jaccard & Fishbein, 1975).

The implications of this theory for persuasive communication are obvious. If a message is to influence a person's attitude toward a target, it must produce change in the beliefs on which this attitude is based—that is, in the person's

beliefs concerning the target's attributes. Again, a change in one or two beliefs may be insufficient to influence the person's attitude, which is based on the entire set of salient beliefs about the target. As in the case of attitude toward a behavior, the communicator may attempt to influence some of the beliefs that are salient in the receiver population or to introduce new, previously nonsalient beliefs about the target under consideration. Whichever strategy is chosen, the communicator's message must contain information that links the target to various positive or negative attributes if it is to be successful in bringing about change in the receivers' attitudes toward that target.

Influencing Beliefs

In many cases, a persuasive communication is intended to influence a given belief held by the potential receivers of the message. For example, the communicator may attempt to persuade receivers that smoking is dangerous to their health or that TV violence produces antisocial behavior. To understand how changes in beliefs of this kind can be brought about, we have to examine the processes whereby beliefs are formed. Although certain attributes of an object or person (size, texture, color, and the like) can be directly observed, most of our beliefs are the result of some inference process (see Fishbein & Ajzen, 1975). Another person's intelligence or honesty, the likelihood that smoking causes emphysema, the probable stimulation of the economy following a tax rebate—all have to be inferred from other information we have about the person, behavior, or policy under consideration. In other words, inferential beliefs are the *conclusions* we reach on the basis of other relevant beliefs we happen to hold.

Various processes have been proposed whereby inferential beliefs may be formed. Perhaps the best known of these is the logical syllogism where the conclusion follows logically from a major and minor premise. For instance, the beliefs "Communists are atheists" (major premise) and "Albanians are Communists" (minor premise) imply the conclusion "Albanians are atheists." As described in Chapter 13, McGuire (1960c) and, more recently, Wyer and Goldberg (1970) have provided evidence for syllogistic reasoning among receivers of a persuasive communication.

Other formal probability models, including Bayes's theorem, have also been found to provide quite accurate predictions of inferential belief formation (see Fishbein & Ajzen, 1975; Peterson & Beach, 1967; Wyer, 1974). According to all these models, people base their inferences on a consideration of their prior beliefs and the relation of those beliefs to the conclusion. Although people appear capable of using such relatively sophisticated information-processing strategies, recent theory and research suggest that they often employ rather simple cognitive processes that rely more on intuition than on formal logic (Abelson, 1976; Ajzen, 1977b; Kahneman & Tversky, 1974). A review of this work is beyond the scope of the present chapter; suffice it to note that even though the proposed information-processing strategies differ markedly from those implied by the for-

mal probability models, it is again assumed that inferences are based on the prior beliefs held by the individual and on his or her perception of the relations between these beliefs and the conclusion under consideration (for a review, see Slovic, Fischhoff, & Lichtenstein, 1977).

As far as construction of a persuasive communication is concerned, therefore, a message that is intended to change the subjective probability of a conclusion must influence beliefs that are known to be inferentially related to that conclusion. It must again be noted that any given conclusion may be based on a set of many different beliefs held by the individual; change in only one or two of those beliefs may fail to have the desired effect on the conclusion. As before, the communicator may concentrate his or her efforts on changing some of the underlying beliefs that are salient in the receiver population or on attempting to introduce new beliefs known to be inferentially related to the conclusion. For example, the message might be directed at major or minor premises of a syllogism already familiar to the audience, or it might attempt to present new major and minor premises from which the conclusion in question could be inferred.

We have argued that a persuasive communication may be designed to change either a belief (conclusion), an attitude, an intention, or a behavior. Whatever the target of the communication, we have seen that in the final analysis, we have to change the set of beliefs on which it is based. From our point of view, a message can be effective in changing its intended target only if it influences these *primary beliefs*—that is, the beliefs that are functionally related to (or primary determinants of) the target in question.

It is of utmost importance to realize that the primary beliefs determining intentions and behaviors differ greatly from the beliefs that are functionally related to attitude toward a target, and that both types of beliefs may bear little resemblance to the primary beliefs that are inferentially related to a conclusion. Although obviously not the only possible approach, the conceptual framework just discussed specifies appropriate primary beliefs for any given target variable. Thus, to change intentions or behaviors, the primary beliefs that need to be influenced are beliefs about the consequences of the behavior or normative beliefs with respect to the behavior. In the case of attitude toward a target, the appropriate primary beliefs are beliefs linking the target to various positive or negative attributes. Finally, if the target variable is a belief or conclusion, other beliefs that are inferentially related to the conclusion have to be changed.

STRUCTURE AND CONTENT OF A PERSUASIVE COMMUNICATION

From our point of view, the purpose of a persuasive communication is to change the primary beliefs that underlie the target variable of interest—be it a conclusion, an attitude, an intention, or a behavior. The present section deals with the cognitive processes that mediate the message's effects on primary beliefs. Before

turning to this analysis, however, we must take a brief look at the structure of a persuasive communication.

Structure of a Message

As a general rule, a message consists of two parts: a set of *arguments* and factual *evidence* designed to support the arguments. When the ultimate target variable is behavior (or intention), the message usually also includes one or more recommended actions; when the target is a conclusion, the message typically makes explicit reference to that conclusion.

As an illustration, consider the persuasive communications used by Eagly (1974) in a series of experiments dealing with, among other things, the discrepancy of the source's position from that of the receiver.[3] In one study, this message was used in an attempt to change receivers' acceptance of the conclusion that either 6, 4, or 2 hours of sleep were desirable for the average adult for maximum happiness, well-being, and success in life. In a second study, the same message was used to change the conclusion that the *receiver* (rather than the average adult) should get 6 hours or 1 hour of sleep. After stating the general conclusion, the message proceeded with a series of six arguments, each supported by several items of "factual" evidence. The six arguments can be paraphrased as follows:

1. The amount we sleep is culturally determined and arbitrary.
2. How rested a person feels upon waking up depends on how much "rapid eye movement" sleep he or she gets rather than on the total amount of sleep.
3. A person can sleep fewer hours per day if he or she learns to take naps rather than sleep one 8-hour period.
4. Sleeping for long periods is bad for a person physically.
5. People often sleep as a defensive escape from their problems.
6. Many successful people sleep considerably less than 8 hours.

To bolster these arguments, the message provided various factual items of evidence. For example, the argument that the amount we sleep is culturally determined and arbitrary was supported by the following set of statements:

> People believe that 8 hours are necessary because they have been told this is so and have been taught to sleep a lot when they were children. A University of California anthropologist pointed out that in some cultures, the norm is markedly less sleep than 8 hours; while in other cultures, people are expected to sleep even more than in our society. Also anthropologists point out that the amount of sleep people get varies with the season, especially for primitive and peasant peoples who live close

[3]We are grateful to Alice Eagly for providing us with the text of her message.

to the land—they sleep when it is dark, so sleep more in the winter. Northern people—like Lapplanders and Eskimos—sleep, according to one study, 1.8 times more in the winter than in the summer. In industrialized civilizations, we are not so affected by these rhythms of nature—sleep patterns become more purely cultural.

In constructing a message of this kind, two basic assumptions are made: (1) that acceptance of the supportive evidence will result in acceptance of the arguments, and (2) that acceptance of the arguments will lead to a change in the target variable. Unfortunately, these assumptions are rarely, if ever, tested. Although investigators will usually try their best to construct an effective message, they have no clear guidelines to aid in the selection of arguments and appropriate evidence. As a result, they may select arguments and evidence that fail to meet the foregoing assumptions; thus, the message may be ineffective.

Some of the difficulties created by this state of affairs can be illustrated with respect to Eagly's sleep communication already described. The same set of six arguments was used in attempts to change quite different conclusions. However, an argument or set of arguments perceived to be supportive of one conclusion may not be perceived as supportive of some other conclusion. It follows that an argument that, if accepted, leads to a change in the conclusion that "6 hours of sleep are desirable for the average adult for maximum happiness, well-being, and success in life" may have much less effect on the conclusion advocating 2 hours of sleep for the same goals, or on the conclusion that the *receiver* should get 6 hours of sleep. The situation would have been even more problematic if the dependent variable had been attitude toward sleep, intention to sleep less, or actual sleeping behavior. The reason for this is that these variables are increasingly removed from the immediate target of the communication. The belief that a certain amount of sleep is necessary is only one of the beliefs that may determine attitude toward sleeping less, which in turn is only one of the two major determinants of sleeping intention and behavior. By traditional criteria, however, any one of these variables could legitimately be considered a target of the communication in question.

Processing of Message Content

According to our approach, the first step in the construction of a persuasive communication is the selection of an appropriate set of arguments. That is, the arguments selected should either constitute some of the primary beliefs underlying the target variable, or they should be known to determine or influence those primary beliefs.

Suppose, for example, that in an attempt to increase the favorability of attitudes toward a presidential candidate, one of the primary beliefs to be attacked is the belief that the candidate will protect the interests of the average citizen. To increase the receiver's subjective probability associated with this belief, the

statement could simply be used as one of the arguments in the message. Alternatively, it could be viewed as, say, the conclusion of a logical syllogism. McGuire (1960c) and Wyer and Goldberg (1970) have shown that a syllogistic conclusion can be affected indirectly by exposing receivers to a message that produces a change in the minor premise. To return to our example, imagine we know that our receiver population believes, with a high probability, that if the presidential candidate is compassionate, he will protect the interests of the average citizen. By raising the strength of the belief that the presidential candidate is compassionate, we will indirectly bring about the desired change in the primary belief.

One of the problems in research on communication and persuasion is that arguments are usually selected, not on the basis of a systematic and empirically validated theory, but quite arbitrarily on the basis of intuition and often fallacious assumptions. This can be seen clearly in many messages designed to change one or more specific actions. Empirical research has demonstrated that the assumption of a strong relation between a person's attitude toward a target and any given behavior with respect to that target is clearly unwarranted. [See Ajzen & Fishbein (1977) for a review of research on the attitude-behavior relation.] Still, the arguments of a message intended to influence a specific behavior are often belief statements that link the target of the behavior to various positive or negative attributes. Such a message may be quite effective in changing the receiver's attitude toward the target because the arguments it contains constitute the primary beliefs for this variable, but it is unlikely to have the desired effect on behavior.[4]

As we saw in the first section, to produce a change in behavior or behavioral intention, the primary beliefs that have to be attacked are beliefs about the performance of the behavior. It follows that the arguments included in the message must be statements about the likely consequences of the behavior—and not about the attributes of the target of the behavior. The latter arguments are appropriate only when the attitude toward the target serves as the dependent variable. When the dependent variable is a conclusion, the arguments in the message should be statements of belief known to be inferentially related to the conclusion.[5]

Acceptance, Yielding, and Impact Effects

The mere presentation of an argument (without any supportive evidence) may lead to a change in the corresponding belief of the receiver, particularly if it is a novel, previously nonsalient argument. It is important, however, to distinguish

[4]One exception to this rule occurs when the arguments influence not only beliefs about the target but also beliefs about the behavior.

[5]It is not sufficient to simply to *assume* that change in a given belief will produce change in the conclusion. To construct an effective message, it will often be necessary to demonstrate empirically (e.g., in a pilot study) that the argument is in fact related to the conclusion.

between *acceptance* of an argument and *yielding*—that is, change in the corresponding belief.[6] Consider, for example, the argument that "smoking is hazardous to your health." A person may strongly believe (i.e., accept) that smoking is hazardous to one's health without ever having been exposed to the message containing the argument in question. Yielding, on the other hand, refers to the change in acceptance of the belief statement resulting from exposure to the message. Thus, a receiver who shifted his or her subjective probability that smoking is dangerous to one's health from .40 to .70 would exhibit yielding of 30 percentage points on the probability scale.

In addition to acceptance of, and yielding to, a persuasive argument, the presentation of an argument may have indirect effects; that is, it may have *impact effects* on one or more other beliefs that were not explicitly mentioned. For example, suppose that a television commercial contains the statement: "Detergent X is strong." Apart from any possible yielding to this argument, the receiver may also infer that "detergent X is harmful to clothes," and the persuasive effect of the message may be very different from that intended. Clearly, to understand fully the effects of a persuasive communication, it is important to assess not only the receiver's acceptance of, and yielding to, the arguments it contains but also its impact effects on other, unmentioned, primary beliefs.

In other chapters of this book, various cognitive mediating processes are proposed in an attempt to explain the effects of persuasive communication. In fact, the major common theme underlying this book is the premise that the effectiveness of a message is mediated by such cognitive processes. From our perspective, the most essential cognitive processes that mediate persuasion are acceptance, yielding, and impact.

As we have noted, a persuasive communication usually provides a set of arguments as well as factual evidence in support of those arguments. We can now see that the effectiveness of this strategy is contingent on three conditions. First, the receiver must accept and yield to the item of evidence. If the evidence is not accepted as valid, or if it is accepted but involves no change on the receiver's part, it is unlikely to influence acceptance of the arguments it was designed to support. Second, the receiver must view the evidence as related to, or relevant for, the arguments in question. If the evidence is irrelevant to the arguments, the receiver will show little change in beliefs corresponding to those arguments regardless of the extent to which he or she accepts the evidence. In fact, an item of evidence may even have a negative relation to the argument it is intended to support such that yielding to the evidence has a boomerang effect on acceptance of the argument; that is, yielding to the evidence may *reduce* the receiver's subjective probability associated with the argument.

[6]The term *yielding* is used here in a more restricted sense than is usually implied (e.g., McGuire, 1968b). We use it to refer solely to change in the subjective probability associated with a belief corresponding directly to a statement contained in the message.

It is worth noting that yielding to the evidence and a positive relation between evidence and argument do not ensure that exposure to the evidence will increase *yielding* to the argument. The reason for this is that the receiver may accept the argument in question even before being exposed to the supportive evidence, in which case no change in his or her belief corresponding to the argument can be expected.

Finally, presentation of supportive evidence may not only produce yielding to the arguments contained in the message but may also have an impact on other primary beliefs. Because change in the dependent variable is a function of change in the total set of underlying primary beliefs, the possibility of impact effects must also be taken into account.

A major problem in research on persuasive communication is that none of these issues have received much attention. To reiterate our position, we postulate a set of primary beliefs as the determinants of any given target variable—be it a belief, an attitude, an intention, or a behavior. To be effective, a message must influence these primary beliefs. The effects of the message can be direct in that it can produce acceptance of, and yielding to, the arguments it contains. Equally important, the message may have indirect effects by its impact on primary beliefs not explicitly mentioned in the communication. Some of these impact effects may, of course, be intended; but others may not have been foreseen, and they may produce unexpected results.

To illustrate the importance of impact effects, consider Janis and Feshbach's (1953) classic study on fear appeals. In this experiment, high school students were exposed to a lecture on dental hygiene. For the most part, the lecture presented information about the consequences of improper dental care, as well as five specific recommendations concerning appropriate oral hygiene practices. For example, in the high-fear condition the possible outcomes of improper dental care were described, among other things, as pain from toothaches; cancer, paralysis, and blindness; having teeth pulled and cavities drilled; sore, swollen, and inflamed gums; and "decayed" teeth.

Although not explicitly mentioned in the message, it was apparently assumed that the receivers of this communication would draw the inference that performing the five recommended actions (e.g., spending about 3 minutes on each brushing, brushing after breakfast rather than before) will help prevent the negative consequences of improper dental care. From the communicator's point of view, such an impact would have been highly desirable and was probably intended. Unfortunately, the investigators did not measure changes in beliefs concerning the consequences of the recommended toothbrushing practices. It is possible that receivers were unwilling to accept the implied claim that proper ways of brushing one's teeth are sufficient to prevent the frightening consequences mentioned in the high-fear message. If so, the message would not have had the desired impact effect—a possibility that might explain the relatively weak influence the high-fear message was found to have on behavior.

Another possible explanation for the ineffectiveness of the high-fear appeal is its potential for additional unintended and undesirable impact effects. Assuming that the message's main arguments were accepted, a receiver of the high-fear appeal would come to believe that improper dental care leads to having teeth pulled; to cancer, paralysis, and blindness; to sore, swollen, and inflamed gums; and so on.[7] Since it is unlikely that the receiver's own dental hygiene practices have actually resulted in any of these consequences, the individual would probably infer that he or she has been taking proper dental care and thus would see no need to change toothbrushing behavior. Again we can only speculate about these possible impact effects, because no measures of such cognitive responses to the message were obtained.

A study by McArdle (1972; see also Fishbein, 1976) provided more direct evidence for both anticipated and unanticipated impact effects. In this study, receivers were exposed to one of three messages designed to persuade alcoholics to sign up for the Alcoholic Treatment Unit (ATU) in a VA hospital. Each message consisted of 10 arguments. The *fear appeal* linked "continued drinking" with 10 undesirable consequences, such as ruined physical and mental health, a poorer relationship with family and employer, less personal attention from the hospital staff, and less freedom to leave the hospital. The *negative message* linked "not signing up for the ATU" to the same 10 undesirable consequences, where the *positive message* linked "signing up for the ATU" to 10 desirable consequences, which were constructed by reversing the undesirable consequences. For example, signing up for the ATU was said to lead to improved physical and mental health, a better relationship with family and employer, and so forth. The final paragraph in all three messages recommended that in order to avoid the negative consequences (or attain the positive consequences), receivers should sign up for the ATU.

It can be seen that taken together, the three messages contained a total of 30 arguments. Each receiver was exposed to 10 of these arguments but not to the remaining 20. Following exposure to one of the three messages, receivers' acceptance of each of the 30 arguments was assessed and compared to acceptance of the arguments by a control group of respondents who had not been exposed to any communication.

The results showed that the three messages had very different direct and indirect effects. Whereas receivers were found to yield to the arguments in the positive and negative messages, they showed little yielding when they were exposed to the arguments in the fear appeal. These latter receivers were no more

[7]Note that these beliefs about the consequences of improper dental care are primary beliefs determining attitudes toward improper dental care. It follows that if the arguments were indeed accepted, receivers would hold negative attitudes toward improper dental care. Nevertheless, we may find little effect on actual toothbrushing behavior since the primary beliefs of relevance for that behavior would be beliefs about the consequences of the specific recommended practices. As noted, such beliefs could have been affected only through impact effects.

likely to accept the arguments concerning the negative consequences of continued drinking than were the no-message control subjects. More important in the present context, the three messages also produced differential impact effects on the acceptance of arguments not contained in a given receiver's message. Exposure to the positive message not only produced yielding to the arguments contained in that message but also produced changes in beliefs corresponding to the arguments contained in the negative message, and vice versa. For example, receivers who increased their belief (in comparison to the control group) that signing up for the ATU would improve physical and mental health also tended to increase their belief that not signing up for the ATU would ruin physical and mental health. These impact effects thus tended to bolster the direct effects of the positive and negative messages.

In contrast, the fear appeal's impact effects were unexpected, producing changes contrary to those intended in receivers' beliefs about the consequences of signing up and not signing up for the ATU. Receivers exposed to the fear appeal were *less* likely to believe that signing up leads to positive consequences or that not signing up leads to negative consequences than were subjects in the control group. As might be expected, these detrimental impact effects were reflected in behavior. Whereas the positive and negative messages increased the percentage of receivers who signed up for the ATU, the fear appeal actually produced a reduction in that percentage.

It can be seen that it is of the utmost importance to assess both the direct and indirect effects of a message on primary beliefs. Without such data, we will often be at a loss to explain why a persuasive communication has had little effect on our dependent variable (as in the case of Janis & Feshbach's high-fear appeal) or even a boomerang effect (as in the case of McArdle's fear appeal).

We realize, of course, that a message is usually pilot tested before being used in experimental research, and that most messages do show some effect on the dependent target variable in comparison to a no-message control group. However, few attempts have been made to explain why some persuasive communications are found to be effective whereas others constructed for use in experiments are found to be ineffective and have to be discarded (see, for example, Millman, 1968). According to our analysis and, we might add, from a practical point of view, this question is probably more important than any other issue investigated in persuasive communication research.

It is an encouraging sign that the present book is devoted to "cognitive responses in persuasion." Recent years have witnessed an increased awareness of the need to study the receiver's reactions to the content of a persuasive communication, and we welcome this general trend. From our point of view, however, it appears that many of these efforts are somewhat misdirected. Consider, for example, the question of reception (Eagly, 1974; McGuire, 1968b; Millman, 1968). It is assumed that, to be effective, a message has to be attended to and comprehended; that is, accurate reception is considered a necessary,

although not sufficient, condition for change in a dependent variable. In contrast, our analysis suggests that reception may not even be a necessary condition for change. What determines change in a target variable is the extent to which the message influences the primary beliefs relevant to that variable. Receivers may fail to pay much attention to a message; they may misperceive it or misunderstand it and still display change in primary beliefs. For example, all a message may do is stimulate receivers to think about the issue under consideration, and this may be sufficient to bring about change in some of the primary beliefs and, hence, in the dependent variable (see, for example, Tesser & Conlee, 1975). Alternatively, receivers may pay little attention to the factual evidence provided by a communicator (and thus fail a reception test), but they may still yield to that communicator's main arguments. Although a measure of reception can provide some useful information about the persuasion situation, it is clearly not a precondition for persuasion. The failure of empirical research to reveal a strong or consistent relation between reception of message content and amount of change produced by the message (see McGuire, 1968; Table 5.1, Chapter 5) supports this line of reasoning.

In a similar manner, such cognitive responses as counterarguing and derogation of the communicator are also not essential mediators of persuasion. Although it is possible to treat such responses as impact effects, the beliefs affected may not be primary determinants of the dependent variable in question. In fact, counterarguing and derogation may sometimes be correlates or consequences, rather than antecedents, of acceptance and yielding (see Chapter 5 for a discussion of this issue). Although measures of these responses can shed light on various peripheral aspects of the persuasion situation, they often do little to further our basic understanding of the factors determining persuasion. As in the case of reception, subjects can yield to arguments and change their primary beliefs whether or not they engage in counterarguing or derogation of the communicator. More important than these issues are the direct and indirect effects of the message on the primary beliefs that determine the target variable under consideration.

EFFECTS OF INDEPENDENT VARIABLES

Beginning with the work of Hovland and his associates (Hovland, Janis, & Kelley, 1953), most research on persuasive communication has investigated variations in source, message, and audience factors and how they influence the effectiveness of a given message. Much of the work stimulated by the Hovland school has been based on the assumption that experimental manipulations of source, message, or receiver factors can influence change in the dependent target variable to the extent that the manipulations affect either reception of the message

or yielding to what is received (see McGuire, 1968b).[8] At first glance, this approach appears quite reasonable, and it seems to have come as a considerable surprise that the concerted efforts of many able and well-trained investigators have produced few, if any, consistent findings concerning the effects of various independent variable manipulations. (For reviews of this literature, see Eagly & Himmelfarb, 1974; Fishbein & Ajzen, 1972, 1975; McGuire, 1969a.) In the remainder of this chapter we examine the role of source, message, and receiver factors in light of the theory of persuasion we have outlined in the preceding sections.

We have argued that the effectiveness of a persuasive communication depends on its direct and indirect effect on the primary beliefs that serve as the basis for the target variable that is to be changed. It follows that a source, message, or receiver factor will influence the effectiveness of a given message only if it affects the extent to which the message exerts direct or indirect effects on primary beliefs. To be more specific, manipulation of an independent variable can influence the effectiveness of a message in several ways. It can affect acceptance of, and yielding to, the evidence provided in support of the communication's major arguments. Alternatively, it can affect acceptance of, and yielding to, the arguments themselves. Finally, the experimental manipulation can influence the extent to which the message has an impact on primary beliefs not mentioned by the communicator.

To take a concrete example, consider the effect of variation in communicator credibility on the effectiveness of a message designed to change attitudes toward nuclear power plants. Suppose that the main arguments contained in the message deal with various dangerous and otherwise undesirable attributes of nuclear power plants and that each argument is supported by some factual evidence. Because the arguments represent primary beliefs with respect to attitudes toward nuclear power plants, yielding to those arguments should produce more unfavorable attitudes. In addition, attitudes toward nuclear power plants could change if the message had impact effects on primary beliefs not explicitly mentioned.

Attributing this message to sources of varying credibility might very well influence the amount of attitude change produced. Factual evidence presented by an expert (e.g., a nuclear physicist) may be more accepted and yielded to than the same factual evidence provided by a nonexpert (e.g., a street vendor). Assuming that the factual evidence is related to the arguments, greater yielding to the arguments might result. A credible communicator may also be more likely to produce acceptance of, and yielding to, the arguments themselves. Moreover, it is conceivable that in comparison to a message attributed to a communicator of low credibility, a message attributed to a highly credible source will have more

[8]Note that in this context, *yielding* is used in its broadest sense to refer to all processes (other than reception) that mediate change in the dependent variable. For a discussion of the differences between this broad view of the term *yielding* and our more restricted use, see Fishbein and Ajzen (1975).

impact effects on unmentioned primary beliefs. For example, the message might argue that nuclear power plants produce radioactive waste. Whatever the acceptance of this argument, when it is attributed to a credible communicator, it may also lead receivers to infer that nuclear power plants are dangerous, whereas this inference might not be made in the case of a low-credibility source.

Of course, all these possibilities are pure speculation unless measures of changes in primary beliefs (both mentioned and unmentioned) are obtained. It may turn out that, in a particular study, variations in communicator credibility have no effect on the amount of change in primary beliefs that result from exposure to the message. In that case, we would also expect no effect of the credibility manipulation on the amount of change in attitudes toward nuclear power plants.

Efforts to discover variables that influence the effectiveness of a given communication have involved a multitude of source, message, and audience factors. Elsewhere (Fishbein & Ajzen, 1975) we have suggested that factors of this kind may serve to facilitate or inhibit acceptance or arguments contained in the message and that they may be viewed as having a cumulative effect on the overall facilitation present in the situation. We have further proposed that acceptance of a given argument increases with overall facilitation and decreases with the discrepancy between the belief of the source and that of the receiver. One implication of this approach is that such potentially facilitating factors as source credibility or the receiver's self-esteem will influence acceptance of an argument primarily at high levels of discrepancy. Another implication is that the addition of any given facilitating factor may do little to increase acceptance of an argument if the overall facilitation in the situation is very high to begin with.

These considerations may help explain some of the inconsistent and inconclusive research findings on communication and persuasion. However, a much more fundamental difficulty inherent in this research may be responsible for many of the conflicting findings reported in the literature. As we have emphasized repeatedly, investigations of the persuasion process have, with a few notable exceptions (e.g., McGuire, 1960c; Wyer & Goldberg, 1970), tended to neglect the content of the message: the items of factual evidence, their relevance for the major arguments, and the relation of those arguments to the dependent target variable. It is our contention that the effect of varying a source, message, or receiver factor cannot be understood in isolation from the content of the message. An independent variable found to be positively related to the effectiveness of one message may be found to have little influence on, or even be negatively related to, the effectiveness of another message.

Message Factors

The validity of this argument is most readily apparent with regard to manipulations of message factors. Over the years, investigators have examined the relative effectiveness of various types of persuasive appeals. Studies have compared

"rational" to "emotional" messages; high-fear appeals to low-fear appeals; one-sided to two-sided communications; stating the conclusion of a message to leaving it unstated; and one order of presenting the arguments to another. None of these factors has been found to have consistent and replicable effects on the persuasiveness of the message.

It is important to note that, except for order of presentation, all message manipulations directly vary the kind or amount of information to which receivers are exposed. For example, we saw earlier that in their high-fear appeal, Janis and Feshbach (1953) linked improper dental care to pain from toothaches; cancer, paralysis, and blindness; sore, swollen, and inflamed gums; decayed teeth, and so on. In contrast, their low-fear message made reference primarily to decayed teeth and cavities as resulting from improper dental care. The same case can be made for rational versus emotional appeals or one-sided versus two-sided messages. Clearly, such variations in type of appeal are confounded with differences in the content of the communication. It follows that any effect of a message manipulation cannot be unambiguously attributed to the message factor in question; instead, it may be due to differences in the information provided. Thus, if a high-fear appeal is found to produce more change (or less change) than a low-fear appeal, this effect may be due, not to differential fear aroused, but rather to the difference in the content of the high- and low-fear messages. In fact, by carefully selecting the arguments and supportive evidence used in the different types of messages, it is possible to construct a high-fear appeal that will be either more effective or less effective than a low-fear appeal. Our foregoing discussion made it clear that a message will be relatively ineffective if it includes evidence unrelated to the arguments, or arguments unrelated to the primary beliefs underlying the dependent variable. Although an investigator will usually try to select equally effective evidence and arguments for the different messages, he or she may unwittingly include more effective evidence or arguments in either the low-fear appeal or the high-fear appeal. Clearly, then, comparing the relative effectiveness of different types of appeal is rather meaningless. Whether one type of appeal is more or less persuasive than another will depend primarily on the content of the messages employed.

Source Factors

Although perhaps less evident, the content of a communication is equally important in regard to the effects of source and receiver factors. Consider, again, the case of communicator credibility. The effects of attributing a message to sources varying in expertise or trustworthiness have been studied more intensely than any other issue in communication and persuasion, with rather mixed results. Although a source low in credibility has seldom been found to produce more change than a high-credibility source, some studies have reported a positive relation between credibility and amount of change, whereas others have reported no difference between high- and low-credibility sources. From our point of view,

such inconsistent findings are to be expected, because the effects of source credibility on amount of change will depend on the content of the message employed. It stands to reason that a communication that provides cogent and believable evidence in support of rather novel arguments may influence the target variable irrespective of the source of the communication. In contrast, a relatively weak message may well benefit from the facilitating effect of a highly credible communicator.

Some support for this line of reasoning can be found in a study by McCroskey (1970), who attempted to change attitudes toward federal control of education. In one experimental condition, the message provided strong supportive evidence for its main arguments, and in another condition the arguments were stated with minimal supportive evidence. Variations in source credibility had a significant effect on attitude change only when minimal evidence was provided. When the message contained strong supportive evidence, equal amounts of attitude change were observed. It may be argued that in this condition, receivers changed their primary beliefs on the basis of the supportive evidence, irrespective of the source's credibility.

Research concerning the effects of such other source characteristics as attractiveness or power has, if anything, produced even less consistent findings than research on communicator credibility. We would again propose that factors of this kind may influence amount of change produced by some messages but not by others depending on the content of the message employed.

Receiver Factors

The same is true for factors related to the receiver of a persuasive communication. In fact, it is often not clear why a given individual-difference variable should be related in a consistent fashion to the amount of change produced by a message. Consider the case of self-esteem. It might be suggested that receivers high in self-esteem should have more confidence in the validity of their own beliefs than receivers low in self-esteem and hence be swayed less by the arguments contained in the message. On the other hand, it might also be suggested that high-self-esteem individuals would find it easier to admit that they were wrong and accept the communicator's position than would individuals low in self-esteem. The first hypothesis would predict a negative relation between self-esteem and amount of change, whereas the second hypothesis would predict a positive relation. Similarly conflicting hypotheses could be derived for such other audience factors as intelligence, locus of control, authoritarianism, religiosity, or sex of receiver.

To make matters worse, it again appears likely that factors of this kind will interact with message content in their effects on amount of change produced by the communication. From our point of view, there is no reason to expect systematic effects of receiver variables across all messages and content areas. Consider, again, the case of self-esteem. It is conceivable that a receiver with low self-esteem will, in comparison to a high-self-esteem individual, yield more to forcefully stated arguments, whereas the reverse might be true in the case of arguments stated in a qualified manner. For still other arguments we may find little or no difference between high- or low-self-esteem receivers.

SUMMARY AND CONCLUSION

We have seen that the effectiveness of a communication in bringing about change in some target variable depends first and foremost on the content of the persuasive message. The general neglect of the information contained in a message and its relation to the dependent variable is probably the most serious problem in communication and persuasion research. We have argued that to be effective, the statements contained in a message must either directly or indirectly influence the primary beliefs that determine the target variable that is to be changed. Different arguments have to be constructed for changing a belief or conclusion, an attitude, and an intention or behavior. To increase acceptance of, and yielding to, these arguments, we may add relevant supportive evidence.

In order to understand the effects of such a message, we have to assess acceptance of, and yielding to, the statements it contains, as well as its impact effects on primary beliefs not contained in the message. These cognitive processes—rather than reception of message content, counterarguing, or derogation of the communicator—represent the essence of persuasion.

Manipulations of source, message, or receiver factors may influence the effectiveness of a persuasive communication to the extent that they affect the message's direct or indirect effects on primary beliefs. Whether and how they influence amount of change in the target variable will depend on the content of the persuasive communication. It is unfortunate that so much research effort has gone into assessing the effects of source, message, and receiver factors without much attention to the information contained in the message. We are convinced that the persuasiveness of a communication can be increased much more easily and dramatically by paying careful attention to its content (and the relation of that content to the dependent target variable) than by manipulation of credibility, attractiveness, fear, self-esteem, distraction, or any of the other myriad factors that have caught the fancy of investigators in the area of communication and persuasion.