Historical Foundations of the Cognitive Response Approach to Attitudes and Persuasion


Richard E. Petty
University of Missouri-Columbia

Thomas M. Ostrom
Timothy C. Brock
Ohio State University

INTRODUCTION

How do you feel about sentencing criminals to the electric chair? Is the death penalty a positive weapon against crime? A necessary evil? A disgusting anachronism? How would you describe your attitude? What would make you change your mind? This book explores the cognitive processes involved in attitude change. Let’s say that you and three friends have been asked how you feel about capital punishment by a national opinion-polling organization. Each of your friends indicates on an attitude scale (the one shown in Table 1.1 is typical of those used in attitude research) that he or she feels “somewhat unfavorable.” What does this tell you about their attitudes? Should you assume that each person has the same attitude? What roles do their attitudes play in their lives? How could you persuade them to change their attitudes?

Even though the attitudes of your friends came out the same on the scale, their attitudes are probably not identical. You’d find this out if you asked them to talk

<table>
<thead>
<tr>
<th>Strongly Unfavorable</th>
<th>Somewhat Unfavorable</th>
<th>Mildly Unfavorable</th>
<th>Neutral</th>
<th>Mildly Favorable</th>
<th>Somewhat Favorable</th>
<th>Strongly Favorable</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TABLE 1.1 Sample Attitude Scale Response to the Issue: Capital Punishment

5
about their attitudes toward the electric chair. During the conversation you could
probably list several thoughts they would express. Table 1.2 presents some
thoughts from three different persons. Person A appears to be unfavorable be-
cause she opposes the death penalty in general and can give reasoned arguments
to support that position. Person C, on the other hand, feels that the electric chair
is not severe enough. Person B has mixed feelings, but his emotional responses
against the death penalty carry the greatest weight.

Although each person’s response is identical on the attitude scale, the
thoughts behind the ratings are different. Some responses are emotional; others
are rational. Some attack persons who support capital punishment; others attack
arguments that might be used to support the concept. Some responses seem
consistent with each other; others appear contradictory. Some are elaborations of
previous thoughts; others are specifications. Some relate the attitude to other
attitudes; others relate it to friendships and social relationships. Some are almost
identical to the attitude scale statement; others are zany, illogical, or unrelated to
the attitude scale statement.

The particular focus of this text is on the thoughts behind attitudes. We
emphasize thought mechanisms to explain the process of persuasion, or how

TABLE 1.2
Cognitive Responses to the Issue: Capital Punishment

**PERSON A**

1. Studies have shown that capital punishment is not an effective crime deterrent, since states with
capital punishment have identical crime rates as those without.
2. There is always the possibility that the wrong person will be executed.
3. I just read the other day that the state of Utah mistakenly executed an innocent man in 1954.
4. It is generally the poor who end up being executed, since they don’t have the resources to hire
   a good attorney.
5. If society condones the death penalty, it decreases the value of human life.
6. Other civilized societies, like Great Britain, have eliminated the death penalty without any harm-
   ful consequences.

**PERSON B**

1. The thought of killing another person makes me sick.
2. How is capital punishment different from abortion, which is disgusting?
3. The electric chair is the most economical way to deal with repeat criminals, though.
4. Only racists and Republicans favor capital punishment.

**PERSON C**

1. I am somewhat unfavorable toward capital punishment.
2. I’ve written to the governor that the electric chair is too good for most criminals.
3. The Bible says, “an eye for an eye and a tooth for a tooth.”
4. We should bring back public hanging, firing squads, and the guillotine!
5. All my friends agree that anyone who commits a bloody crime deserves an equally bloody
death.
6. Whoever likes capital punishment is really stupid.
7. I can’t help but wonder if capital punishment is always given in capital cities.
8. I wasn’t punished much as a child.
people change other people’s minds. An understanding of the effectiveness of persuasive communications depends on an understanding of the cognitive responses that arise in the persuasion context. By a cognitive response to a communication, we mean to include all of the thoughts that pass through a person’s mind while he or she anticipates a communication, listens to a communication, or reflects on a communication. If we presented each of your three friends with a Supreme Court opinion arguing in favor of the death penalty, we would want to know his or her thoughts during and following examination of the court opinion, each individual’s cognitive reactions. Merely manipulating experimentally features of the persuasion setting (for example, the trustworthiness of the source) or measuring responses on rating scales is not an adequate research technique to assess the dynamics of how an attitude is changed. Yet this is the primary strategy researchers have used during the past 30 years to test theories of attitude change. The validity of the theory being tested, even theories about the thoughts people have in response to communications, was determined primarily by whether or not the theory could accurately predict how the attitude scales would be affected. The thoughts that accompanied the attitude were typically not measured. In this chapter we review research on cognitive responses to persuasion from World War II to the mid-1960s. The following chapters bring us to the present. But first, let us turn to a history of the concept of attitude. The term has not always meant what we think of today.

A BRIEF HISTORY OF THE ATTITUDE CONCEPT

The word attitude first came into English about 1710 from the French attitude, which came from the Italian attitudine, which in turn came from the Latin aptus, meaning “fitness” or “adaptedness.” In the 18th century the term was used primarily to refer to the posture or bodily position of a statue or figure in a painting. The word today, of course, still refers to a general orientation toward something (like your orientation toward, or view of, the death penalty).

Although the sociologist Herbert Spencer employed the term as a mental concept (e.g., having the “right” attitude) in his First Principles in 1862, a more influential usage occurred in Charles Darwin’s Expressions of the Emotions in Man and Animals in 1872. Darwin used attitude as a motor concept—the physical expression of an emotion (e.g., a scowling face signifying a “hostile attitude”). To Darwin, an attitude was a biological mobilization to respond. In 1888 the experimental psychologist L. Lange discovered in a reaction-time experiment that subjects who were consciously prepared to press a telegraph key to

\[1\] We are indebted to Allport’s (1935) and Fleming’s (1967) histories of the attitude concept in preparing this section.
a signal reacted more quickly than subjects whose primary attention was focused on the incoming signal rather than the response. He called this reaction a “task-attitude” or *aufgabe*. To Lange, the task-attitude was a musculature preparation to respond (e.g., an “alert attitude”). The English neurophysiologist, Charles Sherrington referred (1906) to attitude, not as the occasional manifestation of a strong emotion or a certain task set, but as one’s normal pose or posture (e.g., an “upright attitude”). Although Darwin, Lange, and Sherrington viewed attitudes as motor states, the mental (or cognitive) view was destined to take prominence.

The first indication of this came from the German Würzburg school of psychology, whose mentors included Külpe, Wünert, Titchener, Watt, and Ach. The aim of this school was to study the phenomenon of thought—a traditional theme handed down from the ancient Greeks. The Würzburg school regarded an attitude as a task set, as did Lange; but instead of focusing on the motor aspect, they focused on the mental, or abstract, and logical aspects. As a result of the Würzburg work, most psychologists came to accept “attitude” as an indispensable concept, though not all believed attitudes to be reducible to purely mental events.

Margaret Washburn (1916), Titchener’s first doctoral student, tried to combine both the mental and motor conceptions of attitude. In *Movement and Mental Imagery*, she proposed that all intellectual processes were accompanied by motor impulses, however slight (i.e., mental work was physical). Washburn’s book strengthened the association of attitude with mental activities without diminishing the motor aspect. At about the same time, John B. Watson (1919), the founder of the behaviorist school of psychology, was arguing that all thinking could in principle be correlated with movements of the larynx (and emotions with tremors of the genitals). Chapter 4 in this book presents some current thinking about the relations among physiological activity, mental processes, and attitudes.

The mental view of attitudes was given a large boost in 1918 with the publishing of a landmark in social research, *The Polish Peasant in Europe and America*, a study of the problems Polish immigrants faced in coming to the United States. A key concept in this work (1927 edition) by sociologist William I. Thomas and poet-philosopher Florian Znaniecki was *attitude*, which they defined as “a process of individual consciousness which determines real or possible activity of the individual in the social world [p. 22].” For Thomas and Znaniecki, an attitude was always a feeling directed toward some object. Thus “love of children,” “hatred of criminals,” and “respect for science” were possible attitudes. This view of attitude was important historically not only because attitudes had acquired an “object” but also because Thomas and Znaniecki had stripped attitude of its physiological content. This non-physiological, more cognitive view of attitude became acceptable to psychologists in large part because the influential psychologists of the 1930s (e.g., Hull, Tolman, Skinner) were neo-behaviorists who postulated nothing about physiology. Also, during the mid-thirties and in
the years beyond, researchers began to explore the similarities between attitude and psychophysical judgments—the earliest area of mental investigation in experimental psychology (e.g., Sherif, 1935; Sherif & Cantril 1945, 1946; Tresselt & Volkmann, 1942).

At the same time, however, by making attitudes less physiological and more cognitive, Thomas and Znaniecki removed the part that made attitudes observable. The concept of attitude would surely decline in empirical science if it were not measurable. Fortunately, theory and techniques for the measurement of attitudes were soon developed by L. L. Thurstone (1928), a University of Chicago psychologist whose primary interest had been in psychophysics, and by Rensis Likert (1932), a statistician with the U. S. Department of Agriculture. Both Thurstone and Likert introduced direct methods of measuring the pro-con or evaluative property of attitudes. These techniques were soon followed by others, including Moreno’s sociometric choices in 1934, Guttman’s cumulative scaling method in 1941, Coombs’ unfolding technique in 1952, and Osgood, Suci, and Tannenbaum’s semantic differential in 1957. The popular techniques for measuring attitudes are presented in the next chapter.

The first notable effort to achieve a significant sampling of public attitudes on a variety of topics appeared in 1929 in Robert and Helen Lynd’s Middletown, an in-depth discussion of life in Muncie, Indiana, which became the first sociological best-seller. Public awareness of attitude surveys increased in 1936, when the now defunct Literary Digest attempted to predict, through a nationwide postcard poll, the winner of the presidential election (they failed miserably, however, because their sample of affluent respondents contained a much higher percentage of Republicans than appeared in the electorate). By World War II, the cognitive conception of attitude was well entrenched in American scientific and lay vocabularies.

TRADITIONAL APPROACHES TO THE STUDY OF PERSUASION

Once the concept of attitude was firmly established, attention turned to the interesting question of attitude change. Although the first known set of principles governing the art of persuasion was recorded in the fourth century B.C. by Aristotle in his Rhetoric, it was not until the present century that attitude change was investigated experimentally (cf. Chen, 1935; Knower, 1935, 1936; Lund, 1925). The first large-scale, systematic, experimental investigations of attitude change were conducted by Carl Hovland and his colleagues during World War II. Hovland interested a number of psychologists in attitude research during the war while experimenting on the persuasive impact of various U. S. Army morale and training films (Hovland, Lumsdaine, & Sheffield, 1949). After the war, Hovland
established the Attitude Change and Communication Research Project at Yale, which helped to make the study of attitudes and persuasion one of the most important topics in psychology. Four general theoretical approaches can be identified in the work on persuasion since World War II (McGuire, 1969a, 1972; Smith, 1968). They are the learning approach, perceptual approach, functional approach, and consistency approach. After a brief discussion of each, we discuss the cognitive response approach to persuasion.

Learning Theory Approach to Persuasion

The learning theory approach assumes that learning processes are responsible for attitude change. One of the first investigators in persuasion to take the learning approach was Doob (1947), who suggested that attitudes were nonobservable responses that were learned and changed through the application of rewards and punishments, just like all other responses.

The notion that attitudes could be changed through the application of reinforcers suggested that the principles of classical and instrumental conditioning could be applied to attitude change. For example, in an experiment employing the classical conditioning approach, Zanna, Kiesler, and Pilkonis (1970) demonstrated that a word that signaled the onset of an electric shock over a series of trials was rated less favorably on an attitude scale than a word associated with the cessation of the shocks. In classical conditioning terms, the electric shock was an unconditioned stimulus that produced the unconditioned response of discomfort and pain. By pairing the originally neutral word (or conditioned stimulus) with the electric shock over a series of trials, eventually the negative affect, which was previously associated only with the electric shock was elicited by the word. Thus, the previously neutral attitude toward the word had become a negative one through classical conditioning (see Staats, 1967, for more information on the classical conditioning of attitudes).

In classical conditioning, the response to be learned is initially elicited by the unconditioned stimulus. In instrumental conditioning, the person initially emits a variety of different responses, one of which is rewarded. For example, Insko (1965), interviewed students over the telephone about initiating a campus festival. Half of the students were rewarded with a comment like “good” whenever they made statements favorable to the festival, and half were rewarded whenever they made unfavorable statements. When their opinions on creating the festival were measured 1 week later, the results indicated that the telephone verbal reinforcement had a significant effect on the students’ attitudes. (See Lott & Lott, 1968, for more on instrumental conditioning of attitudes.)

The major concern with conditioning procedures is the question of whether subjects are aware of the stimulus–response connection that the experimenter is trying to establish (Page, 1969). If the subject is aware of the connection, then
the effects may be best explained by a more cognitive theory. In Chapter 14, Insko presents a cognitive interpretation of attitudinal verbal reinforcement effects.

Some of the most influential attitude researchers employing the learning approach were those working in Hovland's Communication Research Program at Yale, from which several important volumes of research resulted. The most thorough presentation of their conceptual approach is *Communication and Persuasion* (Hovland, Janis, & Kelley, 1953). Because of their learning orientation, which emphasized stimulus–response connections, Hovland and his co-workers focused on stimulus variables in the persuasion situation that would determine the responses of attending, comprehending, and yielding to the message facts and arguments. Aspects of the source of the message, the content of the message, the mode of message presentation, and characteristics of the audience assumed particular importance. These variables are given considerable attention in Part II of this volume.

In general, learning theorists propose that it is learning to associate positive or negative attributes with the attitude object that is crucial in achieving persuasion. This approach includes learning message facts and arguments, as well as acquiring affective emotional responses through conditioning.

**Perceptual Theory Approach to Persuasion**

The perceptual approach emphasizes the meaning that the persuasive communication has for the subject. Thus, if we want to predict what effect a certain communication will have on attitude, we need to know how the person perceives it. For example, Asch (1948) suggests that the actual meaning of a statement is determined by who says it. Take the statement, "I hold it that a little rebellion now and then is a good thing, and as necessary in the political world as storms are in the physical." Asch (1948) argues that the meaning of this statement can be different depending on whether it is attributed to Thomas Jefferson (the actual author) or Vladimir Lenin. The statement may be more persuasive when it is attributed to Jefferson, because when he is the author, subjects interpret the statement to mean that people should be independent; they should not be afraid to stand up for what they feel is right. When Lenin is the author, however, the statement is interpreted to mean that people should engage in revolution and overthrow the government.

Sherif and Cantril (1945, 1946), in describing the effect of perception on attitude change, have noted two general classes of effects—selectivity of perception and frame of reference. Selectivity of perception concerns investigating the portion of the objective world to which the individual is actually paying attention. Frame of reference concerns contextual factors thought to influence judgments, such as the distribution of stimuli that have previously been encountered
in the judgment setting. The most popular perceptual theory is undoubtedly Sherif and Hovland’s (1961) social judgment theory, which is discussed briefly in Chapter 8 of this volume.

Functional Theory Approach to Persuasion

The functional approach emphasizes the relationship of the position advocated in the persuasive communication to the person’s underlying motivational and personality needs. If the communication addresses a different need from the one on which the relevant attitude is based, then persuasion may not occur. For example, let us assume that an Anglo-American dislikes a Chicano because this allows him to feel superior. Functional theorists would argue that this attitude can only be changed if the person is shown the connections between his attitude and underlying ego-defensive motives. A communication designed merely to provide factual information about Chicanos would not be effective, as our hypothetical person’s attitude serves an “ego-defensive” function rather than a “knowledge” function. This ego-defensive attitude protects the person from acknowledging basic truths about himself or realities in the external world (Katz, 1960). An attitude serving a “knowledge” function is based upon an individual’s need for meaningful cognitive organization, consistency, and clarity. An attitude can also serve a “utilitarian” function, in which the aim is to maximize external rewards and minimize punishments; or a “value expression” function, in which the attitude is aimed at maintaining self-identity or enhancing favorable self-image. Although other functions have been suggested, functionalists are united in the belief that attitude change depends on the extent to which the persuasive communication is relevant to a personal or social need. Investigators who have worked within the functional framework include Adorno, Frenkel-Brunswik, Levinson, and Sanford (1950), Katz and Stotland (1959), Kelman (1961), Sar- noff (1960), and Smith, Bruner, and White (1956).

Consistency Theory Approach to Persuasion

Consistency theorists hold that a person may adjust a personal attitude in order to maintain internal harmony in the belief system. Attitudes change when some fact, behavior, or event produces inconsistency within the system. For example, when a smoker hears a message that says it is harmful to one’s health to smoke, this idea is inconsistent with the already held belief that “I like to smoke” or with the behavior of smoking. This message may cause the smoker’s attitude toward smoking to change to make it more consistent with the new information. The smoker, of course, may maintain consistency in other ways. She might reject the message as untrue, or she might adopt the new belief that “one’s health isn’t very important.” In any case, the person is thought to be motivated to maintain consistency. The three most popular consistency theories are Heider’s (1946)
balance theory, Festinger’s (1957) dissonance theory (both discussed in Chapter 14), and Osgood and Tannenbaum’s (1955) congruity theory (discussed in Chapter 7).

THE COGNITIVE RESPONSE APPROACH TO PERSUASION

Each of these approaches to persuasion—learning, perceptual, functional, and consistency—has its advantages and adherents. In this volume we focus on another approach that emphasizes the importance of cognitive responses in persuasion. Most current research on persuasion employs such “cold” attitude measures as the simple evaluative ticks on a scale (illustrated in Table 1.1) and thereby neglects “hot” cognitions (as illustrated in Table 1.2) (Abelson, 1963). The cognitive response approach (as originally outlined by Greenwald, 1968a) postulates that when people receive persuasive communications, they will attempt to relate the new information to their existing knowledge about the topic. In doing this, the person may consider much cognitive material that is not in the communication itself. These additional self-generated cognitions may agree with the proposals of the source, disagree, or be entirely irrelevant to the communication. To the extent that the communication evokes cognitive responses that are supportive, the subject will tend to agree with the source. To the extent that the communication evokes antagonistic cognitive responses, because the self-generated cognitions either refute the arguments of the source or support a position other than the one advocated, the subject will disagree. It is also possible that the subject’s own antagonistic cognitive responses may be so much more persuasive than the message’s arguments that the subject may come away with an attitude opposite to that advocated (referred to as boomerang).

The notion that a person’s cognitive responses are an important mediator of persuasion and thus should be studied is not new. In 1949, Hovland, Lumsdaine, and Sheffield suggested that an audience may protect itself against persuasion by going over its own arguments against the position while hearing a presentation. Hovland later (1951) emphasized that the best way to study the internal process of attitude change was to have subjects “verbalize as completely as possible their thoughts as they responded to the communication [p. 430].” Other researchers continued to stress that an audience is not passive but counterargues, constructs positions opposing what it is hearing, anticipates what will come, and carries on its own concurrent discourse (Brock, 1967; Festinger & Maccoby, 1964; Freedman & Sears, 1965; Kelman, 1953).

By 1968, the call for research on the implicit cognitive responses that accompany attitude change had become a chorus. McGuire (1968b) emphasized the need to allow the subject “complete freedom” in formulating and expressing the propositions that make up his or her belief system. “A study of these subject-
generated propositions might suggest the rules of inference which he is following [p. 155]." Both Greenwald (1968a) and Weiss (1968) also stressed that an understanding of the attitudinal impact of a message must take into account the self-generated arguments of subjects in hearing the message; the impact of the message may well be reduced if subjects counterattack it with their own arguments.

Although many have recognized the importance of cognitive responses in understanding attitude formation and change, theoretical and empirical work on cognitive response is only now gaining prominence. Theoretical treatments have appeared in scattered sources and have usually not dealt with recipient thoughts. A primary objective of this volume is to survey past theoretical and empirical work as well as current research that employs thought-listing measures. We aim to promote a better understanding of what is known and to highlight directions for future research.

Relation of the Cognitive Response Approach to Other Approaches

The learning, perceptual, functional, and consistency approaches have often been viewed as separate (and competing) theoretical orientations. To the extent that one was correct, the others were viewed as wrong. The cognitive response approach is not offered as a fifth competing approach but as complementary to the others. In fact, it has its roots in the other approaches. Each of the four traditional approaches can be discussed in cognitive response terms, although the focus of each is different. For example, a learning theorist would propose that a persuasive communication is effective to the extent that the recipients adopt the message’s arguments as their own cognitive responses. Perceptual theorists would be interested in how a person’s preexisting repertoire of cognitions influences the meaning given to a message. Functional theorists would expect people to have different cognitive responses to the same communication depending on how the communication relates to underlying needs. Consistency theorists would focus on the consistency or inconsistency between the responses elicited by the message and already existing cognitions. In large part, the cognitive response approach can be viewed as an attempt to bring the four traditional approaches together by examining the thoughts elicited when a person anticipates, receives, or reflects on a communication.

Although each of the four traditional approaches to persuasion suggests ways in which cognitive responses can mediate attitude change, researchers have paid little attention to the actual cognitive responses produced in the persuasion setting. The cognitive response approach emphasizes such questions as: What variables facilitate and inhibit the generation of cognitive responses? What variables associated with a persuasive appeal are likely to produce favorable cognitive
responses? What variables are likely to produce negative responses? What kinds of cognitive responses are mediators of persuasion, and what kinds are irrelevant? To repeat: The cognitive response approach holds that an understanding of the contents of the thoughts produced in the persuasion context is essential if the process of attitude change is to be understood fully.

Early Attempts at Measuring Cognitive Responses

Before cognitive responses could be analyzed in detail, however, an effective means for measuring thoughts had to be developed. The introspectionist school (of which Würzburg school was part) was the first to report success. The school's founder, Wilhelm Wundt, established the first laboratory dedicated to experimental psychology in 1879 in Leipzig, Germany. He studied mental events by training subjects to report the elements of their conscious experience. Another important influence on the measurement of cognitive responses was Sigmund Freud's (1900/1939) method of free association used in the interpretation of dreams. In free association, a person is encouraged to say everything that enters the mind without censoring it.

Attitude researchers have employed various methods to assess cognitive responses. Hovland, Lumsdaine, and Sheffield (1949) used a technique previously employed in radio research (Hallonquist & Suchman, 1944) and currently used in audience tests of new television programs. Subjects were provided with a pair of push buttons during the showing of a movie and were instructed to press one button during portions of the film that they liked and the other during portions they did not like. Oral reports have also been tried. In one experiment, subjects gave their impressions of a persuasive communication vocally while they were reading it. The results indicated that a "low-threat" communication on smoking and cancer elicited fewer verbal criticisms and more attitude change than did a "high-threat" communication that strongly emphasized the seriousness of lung cancer (Janis & Terwilliger, 1962).

Perhaps the most elaborate study of attitudes, which also probed cognitive responses, was conducted by Smith, Bruner, and White (1956). These investigators wanted to analyze in detail the interrelationship of attitude and personality, believing that if one "looks far enough into the origins of any opinion, one will find not just an opinion, but a sample of how the holder of that opinion copes with the world [p. 40]." Their study, aimed at investigating attitudes about Russia, involved 10 men who were put through 28 procedures requiring 15 weekly 2-hour sessions. The subjects responded to open-ended interviews about the Soviet Union (in which respondents were encouraged to tell as much as they could about their feelings toward Russia), information apperception tests (in which subjects gave the meaning of 10 "loaded" statements, such as: "In 1939, more books were published in Russia than in any other country—including many
translations of such writers as Shakespeare”), stress interviews (in which interviewers alternated attacking and defending the subjects’ views and recorded their cognitive reactions), and other projective and free-response procedures.

But most early attempts to measure cognitive responses were not as extensive as those of Smith, Bruner, and White (1956). Generally, the research employed open-ended questions instead of, or in addition to, fixed-response attitude scales. In their influential social psychology text, Krech and Crutchfield (1948) advocated the use of open-ended questions over fixed-response items because they allow “the utmost opportunity for the individual to express his opinions in his own terms and from his own point of view [p. 282].” Thus, although some early attitude researchers did measure cognitive responses, a full understanding of the role of such responses awaited the advances in techniques of measurement and conceptualization that are discussed in the next chapter. Let us look at how cognitive response measures were used in each of the traditional approaches to persuasion we have discussed.

Learning Approach. A measure of particular importance to learning theorists is a measure of free recall. According to the learning view, the amount of persuasion should be related to the amount of material retained from the persuasive communication. Insko (1964) had subjects listen to the prosecution and defense arguments from a supposedly real bigamy trial. One communication was presented either immediately, 2 days, 1 week, or 2 weeks after the other. Measures of opinion and free recall of arguments were taken either immediately, 2 days, or 1 week after the second communication. When the measures were taken immediately after the second communication, the longer the time interval between the two communications, the greater the persuasive impact of the second communication and the more numerous the arguments that could be recalled from the second communication (a recency effect). Other results generally indicated that the pattern of recall paralleled the pattern of opinion. However, the fact that the average within-cell correlation between recall and opinion was low ($r = .10$) and nonsignificant (indicating that for any given experimental group, attitude could not be predicted by knowing how many message arguments a person recalled) led Insko to conclude that message retention did not appear to mediate the effect of time upon opinion. Insko proposed that time independently affected both opinion and retention. Similar results were obtained by Miller and Campbell (1959) and by Watts and McGuire (1964).

Studies of person perception have produced similar results. Anderson and Hubert (1963) found that an impression formed on the basis of trait adjectives provided by an experimenter did not depend on the ability to recall those adjectives. These experiments suggest that persistence of attitude change does not depend on the ability to recall specific message features. More recent data suggest that persistence may depend instead on the ability to recall the cognitive
responses that were initially elicited by the persuasive communication (Greenwald, 1968a; Petty, 1977a).

**Perceptual Approach.** Perceptual theorists focus on the meaning of stimuli. In one experiment, subjects were asked to read statements attributed to various authors and then to write down what they thought the authors’ motives were (Horowitz & Pastore, 1955). The greater the esteem for the author, the more subjects agreed with the statement and the more their thoughts reflected an attribution of good motives to the author. In another experiment, Horowitz (1963) gave subjects one of three motives for an American prisoner of war in Korea to have accepted anti-United States propaganda. Some subjects were told that the “betrayal” had occurred under torture, others that it occurred to make life more comfortable, and others that it occurred impulsively. After being given this information, subjects were asked to respond to three open-ended questions designed to assess feelings about the soldier, his act, and its consequences. An analysis of the responses showed that different cognitive themes emerged with the different motives. Horowitz concluded that the motive provided for the treasonous act contributed to the meaning of that act, which in turn influenced subjects’ subsequent evaluations of the soldier involved. In addition, Horowitz reported that subjects tried to interpret the acts to match their preexisting cognitions.

**Functional Approach.** A functional theorist would contend that the only new responses a person would add to an existing cognitive structure are ones that would serve some function for the person. Jones and Aneshansel (1956) asked students who were in favor of and opposed to segregation to learn 11 brief antisegregation statements and then tested them for free recall. Generally, those opposed to segregation were able to recall the statements more accurately than those in favor. However, when the prosegregationists were told that in a subsequent second task they would be required to counterargue a prosegregationist position, they recalled the antisegregation statements more accurately than the antisegregationists. Presumably, the prosegregationists had a utilitarian motive to put some antisegregation material “on file,” whereas the antisegregationists felt less need to do this. Jones and Kohler (1958) also demonstrated a motivational basis for incorporating responses into one’s cognitive structure by showing that subjects who were asked to learn plausible statements learned proattitudinal statements better than counterattitudinal ones. But when subjects were asked to learn implausible statements, they learned counterattitudinal statements better than proattitudinal ones.

**Consistency Approach.** As we have seen, consistency theorists hold that a person is motivated to maintain consistency among feelings, beliefs, and behaviors. If a person engages in counterattitudinal behavior, that individual may
be motivated to change his or her attitude in order to restore consistency with that behavior. Early research demonstrated that feelings of inconsistency (or dissonance) were more likely to occur when persons felt they had freely chosen to engage in a discrepant action than when they felt coerced (cf. Brehm & Cohen, 1962). For example, Brock (1962) asked non-Catholic college freshmen to write an essay on “Why I would like to become a Catholic.” Some subjects were told they had no choice but to write the essay, whereas others were led to believe they had a high amount of choice. In accord with a consistency theory prediction, Brock found that the greater the perception of choice in writing the counterattitudinal essay, the greater the attitude change in favor of becoming a Catholic. Brock also asked subjects to write their responses to the phrase, “For me, becoming a Catholic would mean . . . ,” both before and after the counterattitudinal essays were written. Subjects were further asked to categorize their cognitions into naturally occurring groups. To indicate the bonds or relationships among the thoughts, subjects were asked to indicate which cognitions would have to be changed, modified, or excluded if any one response was changed, modified, or excluded. These response measures were taken in an attempt to determine what changes in the structure of cognitive responses accompanied attitude change. Brock reports that attitude change (i.e., a restoration of consistency) tended to correlate with an increase in the interrelatedness (i.e., bonds) among cognitions and with a decrease in the number of groupings.

THEMES IN EARLY RESEARCH ON COGNITIVE RESPONSES

Having looked at some techniques for measuring cognitive responses employed by early researchers using different approaches, let us turn to the development of the cognitive response approach itself. The early attitude research relevant to the cognitive response approach can be divided into three broad areas. First, and perhaps most important, is work that concerns the links between an attitude and the thoughts relevant to the attitude (affective–cognitive links). Another area of research concerns the organizational structure of cognitive responses. A final area concerns individual differences in cognitive style, which may be important because individuals with different cognitive styles may produce different kinds of cognitive responses. Each of these broad areas is discussed briefly.

Affective–Cognitive Links

The notion that a person’s own cognitive responses might be important in producing persuasion received support from three kinds of early experiments. In the research on active versus passive participation (which concerned whether the recipient of a persuasive communication was a passive listener or an active
participant in the persuasion setting) and inoculation theory (which concerned ways of resisting the persuasive impact of a communication), no attempts were made to measure implicit cognitive responses; however, the pattern of data in these studies clearly suggested that a person’s own responses were important in mediating persuasion. In a third kind of study, persons’ beliefs and/or values were measured in an attempt to predict affective and evaluative reactions. We discuss each of these areas of research in turn.

Active Versus Passive Participation. Some researchers investigated whether it was generally more effective for a person to participate actively in the persuasion process or to be a passive recipient of information. Active participation can take several forms. In a classic study in social psychology, Lewin (1947) performed experiments to compare group discussion with individual instruction. The objective of one experiment was to increase the consumption of beef hearts, kidneys, and other unusual meats during World War II. Groups of housewives participated for 45 minutes. They either listened to a persuasive lecture or participated in a group discussion. Both groups had access to the same information. A follow-up survey showed that only 3% of the women in the lecture group served one of the meats, whereas 32% of the women in the group discussion served them. Although there are several ways to explain these results, one possibility is that women in the group discussion produced their own arguments that were more persuasive than the arguments contained in the lecture.

In a more controlled experiment, Janis and King (1954) found that subjects who were instructed to give an informal talk on one of three counterattitudinal topics changed their attitudes more in the direction they advocated than did other subjects who passively listened to the talks. The experimenter’s observations and subsequent interviews with the subjects revealed that on the two topics for which the greatest attitude change was produced, subjects improvised more in their talks; whereas for the topic producing the least change, subjects stayed close to the prepared outline available for each topic. Janis and King (1954) hypothesized that improvisation might be a critical factor, “perhaps because the communicatee is stimulated to think of the kinds of arguments, illustrations, and motivating appeals that he regards as most convincing [p. 215].” However, subjects also reported being more satisfied with their talks on the two high-change topics. This satisfaction might also account for the data.

King and Janis (1956) had subjects in another experiment either read a persuasive communication into a tape recorder, read and then give their own improvised version of the communication, or simply read the communication to themselves. Subjects in the improvisation condition changed their attitudes on the topic significantly more than subjects in either the oral or silent reading conditions. Subjects in the oral reading condition felt the most satisfied with their performance, however. This result further supports the view that one’s own cognitive responses on a topic are the most compelling (see Harvey & Beverly,
1961; Scott, 1957; for similar results). More recently, Greenwald and Albert (1968) showed that subjects tend to accept and to recall their own improvised arguments more than comparable arguments improvised by others, and that personally improvised arguments are viewed as more original than those of others. In other words, people seem to have a higher regard for their own self-generated thoughts than for those originating externally.

*Inoculation Theory.* Some research has focused on procedures for creating resistance to persuasion. McGuire (1964) used a biological analogy to suggest two basic ways to make someone resistant to counterattitudinal propaganda. One can either bolster the health of the original attitude by providing supportive information and arguments, or one can "inoculate" the attitude by presenting the individual with weak counterarguments to his or her own view, accompanied by refutations. McGuire argues that the presentation of refuted weak counterarguments will produce resistance to subsequent stronger attacks because the inoculation poses a threat that motivates the individual to develop bolstering arguments for the somewhat weakened belief. This practice in generating supportive cognitive responses and refuting attacks enables the person to resist subsequent propaganda more effectively than can nonpracticed (or noninoculated) persons.

In the first study to test the effectiveness of inoculation on resistance to persuasion, McGuire and Papageorgis (1961) collected a set of cultural truisms: It's a good idea to brush your teeth after every meal if at all possible; the effects of penicillin have been, almost without exception, of great benefit to mankind; mental illness is not contagious. Truisms should be highly susceptible to persuasion because most people have little practice in defending these beliefs. Subjects were given two defenses with which to resist potential attacks. For one truism, they were given a supportive defense that consisted of paragraphs containing elaborations of separate arguments in favor of the truism. For a second truism, the same subjects received a refutational defense that consisted of paragraphs presenting and refuting arguments against the truism. The refutational defense was, of course, the inoculation treatment. Two days after the defenses were provided, the subjects heard three counterattitudinal messages. One attacked the truism that received the supportive defense, another attacked the truism that received the refutational defense, and another attacked a truism that had received no defense. After the counterattitudinal attacks, subjects rated their attitudes on all three truisms and on a truism for which neither a defense nor a subsequent attack was provided. The results (Fig. 1.1) showed that both defenses were helpful in resisting the effects of the counterattitudinal message, but the refutational defense (inoculation treatment) was significantly more effective. To test the notion that refutational defenses motivated subjects to bolster their attitudes, subjects were asked to list thoughts in favor of their initial positions 1 week after being exposed to the defenses. More supportive thoughts were listed by subjects
who had been exposed to the refutational than to the supportive defense ($p < .10$, one-tailed).

In the study just mentioned, the arguments used in the counterattitudinal attack were those previously refuted in the refutational defense (a refutational-same defense). According to inoculation theory, however, the inoculation effect should not be confined to such cases. Papageorgis and McGuire (1961) found that inoculation defenses in which arguments other than those used in the subsequent counterattitudinal attack are refuted (a refutational-different defense) were equally effective in producing resistance, and both were superior to a supportive defense in conferring resistance.

Inoculation theory also predicts the persistence of induced resistance to persuasion over time. Supportive defenses provide arguments to support one's initial viewpoint. As these arguments are forgotten, the effectiveness of the supportive defense should diminish. Refutational-different defenses show persons how to refute arguments other than those used in later counterattitudinal propaganda. This defense works presumably because the person, in learning that his or her belief is vulnerable, is motivated to assimilate belief-bolstering material as well as to seek new information. Thus, resistance should initially increase as the person seeks new bolstering responses but should then decrease as time passes and motivation to generate supporting cognitive responses diminishes.

Refutational-same defenses enable the person to refute the very attack he or she will later receive. For this defense, persistence of resistance depends on the ability to recall the specific refuting arguments as well as the increased motivation to generate supporting cognitive responses. Combining these processes leads to the prediction that resistance should decline more in later intervals than in earlier ones. McGuire (1962) tested these predictions. The highly supportive data he obtained are graphed in Fig. 1.2. The mean belief for the supportive defenses dropped off significantly over time, as did the mean belief for the refutational-
same defenses. As predicted, the refutational-different defenses exhibited a non-monotonic trend (the rise in mean belief from immediate to 2 days is significant). Again, the refutational (inoculation) defenses produced more resistance than the supportive defenses.

McGuire also addressed the question of whether active or passive participation is more effective when one is preparing to defend one’s beliefs. Under active defense conditions, persons are assigned the task of writing a defense (supportive or refutational) either from an outline or without any assistance. Under passive defense conditions, persons simply read a defense that was previously prepared by the investigator. Because individuals have so little experience in defending their beliefs on the cultural truisms, McGuire argues that they will be poorly prepared to generate cognitive defenses in the active conditions, and that passive defenses will produce more resistance to an immediate attack. However, because individuals perform so poorly in the active conditions, they become more motivated to defend their beliefs. McGuire (1964) reports that an experimental investigation revealed that although passive defenses tended to be superior when the counterattitudinal attack was immediate, active defenses (supportive, refutational-same, and refutational-different) increased in resistance conferral when the attack occurred 1 week later; whereas passive defenses (particularly supportive and refutational-same) showed a drop in resistance 1 week later. A passive refutational-different defense led to a slight increase in resistance 1 week later because presumably, like the active defenses, it posed a threat that motivated the generation of bolstering cognitive responses.
Early experiments on active versus passive participation and inoculation theory thus clearly suggested that a person’s individual cognitive responses play a crucial role in mediating attitudinal changes.

**Relation of Attitudes to Underlying Beliefs and Values.** Many early experiments focused on determining if any relationship existed between attitude changes and changes in underlying individual beliefs and values. Persuasive communications typically consist of arguments, examples, or illustrations designed to change a person’s beliefs about an attitude object (like the death penalty). Thus, early attitude theorists postulated that attitude change was primarily due to changes in beliefs about attitude objects (Cartwright & Harary, 1956; Smith, Bruner, & White, 1956). Numerous empirical studies have related the affective disposition toward an object (attitude) to a person’s beliefs about the object itself, or its value-attaining powers.

Cartwright (1949), for example, reported that during the Seventh War Loan Campaign (in World War II), which was designed to get Americans to buy U.S. savings bonds, people who could give more reasons (favorable cognitive responses) for buying bonds in an interview were more likely to have actually bought bonds. In a similar linking of beliefs with affect, Smith (1949) reported that the extent of positive or negative feeling toward the Soviet Union could be predicted from the person’s pattern of values and his or her beliefs about how these values are influenced by the Soviet Union (see also Woodruff, 1942; Woodruff & DiVesta, 1948).

Kelman (1953) presented seventh graders with a counterattitudinal communication that argued against Superman comic books and in favor of Tarzan comic books. He then asked the students to write an essay in favor of the Tarzan books and promised them either a certain reward, a low probability of a reward, or no reward. The greatest attitude change toward the Tarzan books was produced in the group that had a low probability of receiving a reward. In analyzing the quality of the essays, Kelman found that students writing under the low-probability-of-reward conditions wrote the best essays (presumably because under the low-probability conditions, the quality of the essay would enhance the probability of a reward). In Kelman’s terms, the students who produced the most supporting and least interfering responses in their essays evidenced the most attitude change in the direction of their essays.

In an ambitious early investigation of the relationship between attitudes and cognitive responses, Peak and Morrison (1958) had college students read and think about either pro- or antisegregation arguments after measuring their initial attitudes. A control group worked on an irrelevant task. Three weeks later, attitudes were again measured, and subjects were classified as either pro- or antisegregation depending on how they rated themselves on this second attitude measure. Subjects were also asked to list all the good and bad consequences that might result from desegregation and to underline the consequences that they
personally accepted. Only the antisegregation arguments were found to produce attitude change. In addition, antisegregation subjects who had earlier been exposed to the antisegregation arguments generated more good consequences of desegregation that they personally accepted than did anti-segregation controls who had not been previously exposed to the antisegregation arguments. Furthermore, prosegregation subjects exposed to the antisegregation arguments generated fewer bad consequences of desegregation than did prosegregation controls. These data suggest that the antisegregation arguments were effective in producing attitude change because they modified subjects’ personal beliefs about the consequences of desegregation.

Some researchers have prepared messages specifically designed to change underlying beliefs and values in order to show that attitude change would follow changes in relevant cognitions. Carlson (1956) found that by making moderately prejudiced college students aware of how desegregation would lead to the attainment of four important goals (e.g., greater American prestige in other countries), more favorable attitudes toward integration could be produced. In an experiment by Stotland, Katz, and Patchen (1959), college coeds read a communication designed to give insight into the psychodynamics of racial prejudice and, in addition, were subjected to various manipulations aimed at facilitating the internal restructuring of beliefs (e.g., ordering statements about prejudice into cause-and-effect sequences). There was no reduction in prejudice immediately after the inductions, but a significant reduction was shown in a measure taken 3 to 4 weeks later, suggesting that restructuring of responses takes some time to occur. The Stotland et. al. and Carlson experiments are particularly interesting, because the investigators were apparently able to produce a change in affect, not through the use of persuasive messages attacking racial prejudice directly, but by attacking the cognitive foundations of the prejudice.

Before concluding this section on affective–cognitive links, we should mention the mathematical models developed to describe the affective–cognitive linkages. The most frequently cited are those of Rosenberg (1956), Anderson (1959), and Fishbein (1963). Rosenberg (1956) proposed that an attitude toward a particular object is a function of (1) the probability that the object leads to good or bad consequences and (2) the degree of satisfaction or dissatisfaction expected from these consequences. An “index of affective loading” can be derived from the sum of the products for each goal of (1) a number corresponding to the satisfaction value of the goal (or consequence) and (2) a number corresponding to the instrumental probability that the attitude object leads to the goal. If, for example, a subject rated the goal of reducing property values as −10 and saw integration as having a 0.9 probability of reducing property values, the contribution of that goal item to the affective loading index for the concept integration would be −9.0. This would be added to the contributions for all other goal items. Rosenberg (1956) found a high positive correlation between his affective loading index and a measure of attitudes. Consistent with the cognitive response ap-
proach, Rosenberg also reported that an index based on goals generated by the individual subjects to a verbal probe showed a stronger relation to attitude than indices based on a standard set of experimenter-provided goals.

Whereas most early researchers focused on the question of whether belief and value changes would produce subsequent attitudinal changes, Rosenberg (1960b) sought to determine if attitudinal changes would produce subsequent belief changes as measured by his affective loading index. In one experiment, Rosenberg (1960b) hypnotized susceptible subjects and told them that they would feel bad whenever they thought or heard about giving aid to foreign countries. This posthypnotic suggestion was designed to change directly the subjects’ attitudes about foreign aid. Measures of attitude and affective loading were administered to the experimental group and to an unhypnotized control group immediately after and 2, 4, and 7 days after the experimental subjects were given the posthypnotic suggestion. At each of the latter three testing periods, the experimental group changed more than the control group both in attitude and on the index of affective loading. Changing affect then seems to result in a persistent change in related cognitions. Incidentally, Rosenberg reports that after the removal of the posthypnotic suggestion, most subjects regained their former attitudes, although there was some tendency for a few subjects to retain the induced attitudes in a weakened form.

The mathematical models proposed by Fishbein and Anderson agree with Rosenberg in that there are two parameters necessary to map the cognitive foundation of an attitude. One parameter generally corresponds to an evaluative component (how positive or negative one feels about some goal or attribute), whereas the other parameter generally corresponds to an importance or strength component (e.g., the likelihood that an object possesses some attribute). The models of Fishbein and Anderson are presented in detail in Chapters 15 and 16 of this volume.

Organizational Structure of Cognitive Responses

_Cognitive structure_ refers to the extent to which a person’s cognitions concerning some attitude object are organized and interrelated. Various measures of cognitive structure have been proposed (cf. French, 1947; Scott, 1963; Zajonc, 1960), and some of these are discussed in the next chapter. In this section we consider briefly some of the early work focusing on how cognitions are structured.

Peak (1958) proposed a theory of motivation in which relations among cognitions play a key role in determining behavior. She discusses cognitive structure in terms of the position of the cognitions, the psychological distance among them, and those points that receive activation from some other source. In contrast to Peak’s focus on individual cognitions, Rokeach (1960) has sought to characterize an entire cognitive structure or belief-disbelief system as “open” or “closed.”
Persons with open systems can process information unencumbered by irrelevant factors such as "unrelated habits, beliefs, irrational ego motives, power needs... [p. 57]." Persons with closed systems would presumably have less accurate perceptions of incoming stimulus information. In addition to his work on open and closed cognitive systems, Rokeach (1963) has discussed how deeply rooted in the structure some beliefs are and has reported that under hypnosis, the amount of change that could be produced was inversely proportional to the "centrality" of the belief (the extent to which the belief was connected to other beliefs).

Numerous researchers have analyzed the effects of consistent (the person's beliefs follow from one another) versus inconsistent (some beliefs are contradictory) structures on attitude change. Scott (1959) asked subjects to take a position opposite to their own in a debate. After the debate, Scott found that cognitively inconsistent subjects [as measured by how well the direction and strength of their predebate attitude could be predicted from Rosenberg's (1956) affective loading index] changed their attitudes more (both toward and away from the advocated position) than cognitively consistent subjects, who tended to resist any changes. Hardyck (1963) also found that cognitively consistent subjects were more resistant to persuasion than inconsistent subjects. This was especially true when the subjects were led to believe that the separate opinions they held were relevant to the key persuasion issue.

Gollin (1954) was interested in how an individual's cognitive responses to contradictory information would be organized. Gollin showed male undergraduates a movie in which a young woman behaved in a promiscuous manner in some scenes and in other scenes behaved in a manner suggesting that she was exceedingly kind. After viewing the movie, subjects reported their impressions of the young woman on a rating scale and, in addition, were asked to write detailed impressions of her personality. Gollin was able to sort the written impressions into three organizational structures. Of the 79 subjects tested, 23% attempted to assimilate the conflicting information into an integrated characterization (related impressions); 29% mentioned but did not reconcile the conflicting behaviors (aggregated impressions); and 48% wrote simplified impressions in which either only positive or only negative behaviors were mentioned. Subjects who wrote simplified impressions judged the woman in the film more extremely on the rating scale measure (both favorably and unfavorably) than subjects who wrote aggregate or related impressions. Gollin's research indicates that the formation of an attitude is a function not only of the objective information provided but also of the underlying cognitive organizing process of the observer.

Finally, Abelson and Rosenberg (1958), Abelson (1959), and McGuire (1960c) have discussed how the interrelationship among cognitive responses can produce new responses. Influenced by Heider's (1946) abstract system for representing cognition-sentiment relations (discussed further in Chapter 14), Abelson and Rosenberg (1958) proposed the rules of psycho-logic. These rules, which
differ from the rules of formal logic, are presumed to operate whenever someone is motivated to think about the cognitive elements in his or her belief system. The rules allow an individual to discover new cognitive responses by combining two old responses with a common element. For example, according to the rules of psycho-logic, the two cognitions, "Al likes Bill" and "Bill likes Chuck," imply a third cognition: "Al likes Chuck." Application of the rules of psycho-logic has been used to predict successfully the resolution of experimentally induced cognitive inconsistency (e.g., Rosenberg & Abelson, 1960). In addition to the rules of psycho-logic, Abelson (1959) proposed several other modes of resolving cognitive inconsistency. For example, a person may engage in denial, which involves the alteration of one or more cognitive relations. Or the individual may develop additional consistent relations with one or the other of the inconsistent cognitive units (bolstering). Bolstering does not really resolve the inconsistency but simply drowns it out. McGuire (1960c) has shown that merely asking people to express their opinions on logically related issues (i.e., making their cognitive responses on a given topic salient) sets off a tendency to bring these beliefs into greater logical consistency with one another. This Socratic effect is discussed in more detail in Chapter 13.

Cognitive Styles

A cognitive style refers to a consistent difference among individuals in the ways in which they process the information available to them. Various styles have been identified.

Cohen (1957) refers to a need for cognition variable (based on a measure of how much information is sought in understanding hypothetical situations). Cohen divided a sample of students into those with high and low needs for cognition and then attempted to arouse experimentally a need for cognition either before or after delivering a persuasive message. The experimental need-arousal induction was in fact a fear-arousing oral communication that cited problems with the grading system at Yale. The persuasive message, delivered either before or after the need-arousal induction, advocated "grading on a curve" and presented this method of grading as an excellent way to resolve some of the difficulties of the current system. In general, the message was designed to satisfy specifically the needs aroused by the experimental induction. The results indicated that subjects with a high need for cognitive clarity changed their attitudes toward accepting the solution of grading on a curve to the same extent whether the solution was offered before or after the need-arousal induction. For subjects with low needs for cognitive clarity, the order of presentation made a difference. More change in the direction of the communication occurred when the need-arousal induction came first. Perhaps subjects with weak cognitive needs have to be motivated to process the incoming information, whereas subjects with strong cognitive needs are generally self-motivated to process.
Kelman and Cohler (1959) have distinguished between levelers and sharpeners. Sharpeners are people who emphasize unique distinguishing details, whereas levelers characteristically ignore such details and seek to simplify their environment. These researchers found that in a persuasion situation, sharpeners showed greater acceptance of the recommendations of a communication than did levelers, and this difference was greatest for those with a high need for cognitive clarity. In explaining these results, Cohen (1964) argued that sharpeners with a high need for cognitive clarity should be especially active in processing all information in a communication, whereas levelers with a high need for cognitive clarity should be especially unobservant in order to avoid ambiguity. Thus, the differences in message processing between levelers and sharpeners should be maximal when they have strong needs for cognitive clarity.

A good deal of research has been done on a style referred to as cognitive complexity (Bieri, 1955; Scott, 1962) or conceptual differentiation (Gardner & Schoen, 1962). Scott (1968) refers to cognitive complexity as the “elaboration of the cognitive component of an attitude—the richness of the ideational content, or the number of ideas the person has about the object [p. 207].” Complexity has been positively correlated with cognitive flexibility (the ability to change concepts or categories) (Scott, 1962) and negatively correlated with an index of cognitive balance or consistency (Scott, 1963). Berkowitz and Lundy (1957) have reported that persons with more complexity of constructs showed more change in response to an influence attempt than did simple subjects. These authors hypothesized that complex subjects find more “meaning” in the persuasive communication. It is interesting to speculate that those who find the most “meaning” in a communication (e.g., sharpeners, high complexity) might show the least attitude change if the communication contained simplistic, flawed arguments rather than sound, reasoned ones. In any case, an examination of the cognitive responses generated by persons varying in cognitive style would be helpful in gaining a more precise understanding of how persons differing in style might differ in their manner of processing persuasive communications.

CHAPTER SUMMARY

Even though the expressed attitudes of two persons may appear to be identical, the cognitive foundations of those attitudes may be quite different. In order to understand the effectiveness of persuasive communications, it is necessary to understand the nature of the thoughts that pass through a person’s mind as he or she anticipates, receives, or reflects on a communication.

The word attitude has always referred to a general orientation toward something, but its origins are as a physical or physiological, rather than as a cognitive, concept. The current view of attitude as a purely mental concept gained acceptance in part from the successful development of new measurement techniques.
In the 50 years in which experimental investigations of persuasion have been conducted, four approaches have emerged. The approaches differ primarily in the aspect of the persuasion situation that is targeted for emphasis. Learning approaches focus on the importance of learning message facts and arguments, or learning to associate various positive (pleasure) or negative (pain) stimuli with the attitude object. Perceptual approaches focus on how a message recipient interprets, understands, and/or distorts the information that is provided. Functional approaches focus on persuasion as a matter of changing a person’s underlying motivational or personality needs rather than the amount of objective information or the person’s perceptions of that information. Consistency approaches focus on how a person adjusts personal beliefs, attitudes, and behavior in order to keep a maximum degree of internal harmony within the cognitive system.

The cognitive response approach is one that is compatible with each of the traditional approaches, although its focus is somewhat different. The approach postulates that attitude change processes can best be understood by taking into account the thoughts that arise in the persuasion situation. To the extent that the persuasion situation elicits thoughts that are favorable, attitude change in the direction advocated should be facilitated; but if negative thoughts are elicited, attitude change should be inhibited. Methods of measuring a person’s thoughts about an attitude issue have ranged from a simple button-pushing technique to an elaborate, multisession interview procedure. Researchers favoring each of the traditional approaches to persuasion have found it useful to employ open-ended assessments of recipients’ message-relevant cognitions.

The early research relevant to the cognitive response approach was divided into three subgroupings. The first area concerned links between attitudes and underlying cognitions (beliefs and values). Within this first area, the research on active versus passive participation demonstrated that active involvement in the persuasion process (generating one’s own arguments) was more effective than passive exposure to external arguments in producing persuasion. Similarly, the research on inoculation theory indicated that the generation of one’s own counterarguments was an important technique for resisting persuasion. Additional early support for affective–cognitive linkages was provided by numerous experiments demonstrating that a person’s affective response to an attitude issue could be predicted from that individual’s beliefs on that issue. A second area of research focused on the organizational structure of cognitive responses and indicated that attitudes depended not only on the number and type of attitude-relevant thoughts a person possessed but also on how those cognitions were organized and interrelated. A third area of research stressed the need for examining consistent individual differences in the method of processing incoming information (cognitive styles) in order to understand the persuasion process fully.